EXPLORING THE PEDAGOGICAL CONTENT KNOWLEDGE OF ECONOMIC AND MANAGEMENT SCIENCES EDUCATORS IN TEACHING FINANCIAL LITERACY IN SECONDARY SCHOOLS OF EKURHULENI NORTH DISTRICT

by

AARON PHILLIP NKABINDE

submitted in accordance with the requirements for

the degree of

DOCTOR OF PHILOSOPHY IN EDUCATION

in the subject

CURRICULUM STUDIES AND INSTRUCTION

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROFESSOR M.W. LUMADI

FEBRUARY 2021

DECLARATION

Name: AARON PHILLIP NKABINDE

Student number: 64034305

Degree: Doctor of Philosophy in Education (Curriculum Studies and Instruction)

Title of the thesis

EXPLORING THE PEDAGOGICAL CONTENT KNOWLEDGE OF ECONOMIC AND MANAGEMENT SCIENCES EDUCATORS IN TEACHING FINANCIAL LITERACY IN SECONDARY SCHOOLS OF EKURHULENI NORTH DISTRICT

I declare that the above thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the thesis to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.

_____   _____

SIGNATURE   **DATE**

A.P. NKABINDE (64034305)

DEDICATION

This research project is dedicated to the following individuals for their encouragement, support, tolerance and understanding while I was completing this study:

- My dearest partner Manyeleti, and two daughters, Tsegofatso and Sphesihle.
- My mother – Dina Nkabinde, my brothers, and sisters.

I thank you all for taking this journey with me.

ACKNOWLEDGEMENTS

ABSTRACT

The purpose of this study was to explore the Pedagogical Content Knowledge (PCK) of Economic and Management Sciences (EMS) educators in teaching Financial Literacy (FL) in Grades 8 and 9. Literature revealed that PCK is used internationally by scholars as a suitable theoretical framework to investigate the knowledge base of educators; hence, it was adopted for this study. Its components were used to develop a conceptual framework which was used in exploring the knowledge base of EMS educators in teaching FL in the grades mentioned. FL is a subject discipline embedded within EMS – it consists of accounting concepts. The study is informed by the interpretivism paradigm; thus, a qualitative methodology and phenomenological design were adopted for data collection. The descriptive and narrative data needed for the study were collected from 16 EMS educators from eight public ordinary secondary schools in Ekurhuleni North District situated in Ekurhuleni Metropolitan through lesson observations, semi-structured individual interviews, and the analysis of educators' and learners' records. Purposeful sampling was used to select these educators. A thematic method was used to analyse data. The findings of the study reveal that the PCK of EMS educators in teaching FL is not comprehensive. Educators are not conversant with various types of knowledge dimensions and the framework within which to teach them. The study revealed that educators who do not have an accounting background will have challenges in teaching FL effectively. The teaching of FL learning content is not driven by lesson objectives. This meant that the teaching of knowledge, skills, and values is not aligned to any lesson objectives. Teaching and learning do not occur with the lesson objectives in learners' mind. Some limitations were noted regarding the application of formative assessment. FL is a practical subject – its teaching requires the promotion of meaningful learner involvement. However, the social interactive methods of teaching were not applied as required by the Curriculum Assessment and Policy Statement which promotes teamwork. PCK was found to be a useful framework to investigate the knowledge base of educators in teaching a subject discipline.

Key terms: Pedagogical Content Knowledge; Economic and Management Sciences; Financial Literacy; Learning Content; Assessment; Curriculum; Teaching and Learning Activities; Curriculum Assessment and Policy Statement

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF KEY ACRONYMS

APEC	Asia-Pacific Economic Cooperation
CAPS	Curriculum and Assessment Policy Statement
CPJ	Cash Payments Journal
CRJ	Cash Receipts Journal
DBE	Department of Basic Education
DDD	Data Driven Districts
EMS	Economic and Management Sciences
FCAC	Financial Consumer Agency of Canada
FL	Financial Literacy
FSB	Financial Services Board
GAAP	Generally Accepted Accounting Principles
GDE	Gauteng Department of Education
GET	General Education and Training
INFE	International Network on Financial Education
NPA	National Protocol for Assessment
NPC	National Planning Commission
OBE	Outcomes-Based Education
OECD	Organization for Economic Co-operation and Development
PCK	Pedagogical Content Knowledge
SDT	School Development Teams
SMT	School Management Team

CHAPTER 1:

ORIENTATION OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND OF THE STUDY

The purpose of the current study was to explore the Pedagogical Content Knowledge (PCK) of Economic and Management Sciences (EMS) educators in teaching Financial Literacy (FL) in Grades 8 and 9. EMS is a subject that was introduced post-1994 when drastic changes were made to the old system of education in South Africa that led to the introduction of Outcomes-Based Education (OBE) called Curriculum 2005. The new curriculum was introduced in 1997 and was implemented in 1998. The introduction of OBE came with its own challenges, which led to the review of the curriculum in 2000 which eventually resulted in the development of the Revised National Curriculum Statement Grades R - 9, Government Gazette No. 23406 of 31 May 2002 and National Curriculum Statement Grades 10 - 12 Government Gazettes, No. 25545 of 6 October 2003 and No. 27594 of 17 May 2005.

The implementation of these policy statements presented its own challenges prompting the Department of Education to engage in another review until a decision was taken to introduce Curriculum and Assessment Policy Statements (CAPS) for all approved subjects (Department of Basic Education, 2011a:3). In 2019, several concerns were raised by teachers, subject specialists, parents, and other education stakeholders about some challenges experienced with the implementation of CAPS not only in EMS but in several subjects (Department of Basic Education, 2019:3). As a result, a decision was taken again by the National Department of Basic Education (DBE) to review CAPS, which led to the birth of an abridged version of Section 4 of CAPS (DBE, 2019:3). According to the DBE, this was done to ease the restrictions in the system and ensure effective implementation of the national curriculum.

CAPS provides clearer specifications in the teaching and assessment of the EMS curriculum on a termly basis. FL is a subject discipline embedded within EMS which consists of two other disciplines, namely Entrepreneurship and Economy. The FL component in Grades 8 and 9 is basically made up of Accounting concepts. Before the new democratic elected government in South Africa in 1994, the subjects Accounting and Business Studies were offered as stand-alone disciplines in Grades 8

and 9. However, the introduction of the new curriculum statements post-1994 came with major changes which included, amongst others, the introduction of new subjects across the education sector, new terminology for certain subjects, new approach to teaching, and notional times. Prior to the introduction of OBE post-1994, learners in Grades 8 and 9 had a choice between three streams, namely commercial subjects, general subjects, and science subjects.

The previous curriculum offered Grades 8 and 9 learners the option to choose their subjects. However, the current education system exposes learners to the following subjects: Technology, Natural Sciences, Creative Arts, Economic and Management Sciences, Social Sciences, Mathematics, Life Orientation, Home Language and First Additional Language. These subjects are compulsory to all learners in Grades 8 and 9. As previously mentioned, FL content in the South African curriculum is basically made up on Accounting concepts which existed before the new curriculum was introduced after 1994. Moreover, it was mentioned earlier that prior to the introduction of EMS, Accounting was offered as a stand-alone subject from grade 8 to grade 12. It was taught by a specialist in the field, however, with the introduction of EMS in grade 7, 8 and 9, the three disciplines were integrated into one discipline called EMS.

This subject is generally allocated to one educator who in most cases is not a specialist in the three disciplines, namely Accounting, Entrepreneurship and Economy. What has been observed is that educators who have specialized in one or two commercial subject such as Economics, Business Studies and Accounting are allocated EMS in Grades 8 and 9. Some of these educators, particularly those that qualified before the introduction of the new education system, have majored in one commercial subject and another general subject such as IsiZulu, History, Geography, English, to name a few. It remains unclear how such educators cope in teaching FL without any background in Accounting.

In 2008, the International Network on Financial Education (INFE) was established within the Organisation for Economic Co-operation and Development (OECD) with the aim of raising global awareness regarding the importance of countries introducing strategies to promote FL in the school curriculum (Tomášková, Mohelská & Němcová, 2011:265). The OECD and INFE saw it necessary for countries including South Africa to empower citizens with FL skills, hence the subject EMS which includes FL was

introduced as a compulsory subject for learners in Grades 7, 8 and 9. The main aim is to empower future generations with FL. Norman (2010:200) opines that people who are financially literate are able to make informed and effective decisions because of their thorough understanding of financial concepts and how to apply them effectively in their personal finances.

In compliance with the OECD and IFNE which advocated for the introduction of FL in schools, the Financial Services Board (FSB) seized the opportunity during the development of the new National Curriculum in 2003 by working in tandem with other stakeholders in the financial sector in coming up with a programme that will promote FL in South African schools (OECD/INFE, 2013:35). The FSB working in collaboration with other stakeholders made recommendations to the national DBE to include financial education in the new curriculum (OECD/IFNE, 2013:35). As a result, a new subject called EMS was introduced in the intermediate and Senior Phase (OECD/IFNE, 2013:35), although it is currently no longer offered in the Intermediate Phase, that is, Grades 4 to 6.

As indicated earlier, EMS consists of three disciplines therefore it remains shrouded in mystery whether EMS educators have the necessary PCK to teach FL in Grades 8 and 9. According to Shulman (1986:9), educators need to possess adequate PCK for them to make the subject content and its concepts understandable to learners. According to the National Planning Commission (NPC) of the National Development Plan (2011:261), the education sector is a critical component to South Africa's long-term development hence educators are viewed to be major role players in the achievement of this objective. It is for this reason that the NPC (2011:265) strongly maintains that educators need to have good knowledge of the learning content that they teach. The same sentiments are echoed by the OECD and INFE (2013:120), that view educators as delivery channels for promoting quality education in schools. Concurring with the NPC, OECD and INFE is Otter (2010:4) who believes that for the objectives of any curriculum policy to be achieved depends entirely on educators in the classroom. For this objective to be realized require educators who have adequate knowledge of the learning content as well as the methods and strategies to teach it. According to Ngwenya (2014:175), educators who do not have proper grounding of the learning content are not fully equipped to "explain and represent topics in ways that make sense to learners".

Ngwenya argues further that such educators are unsure of how the subject discipline is structured, as a result, they tend to teach it as a scattering of isolated facts because they are not subject specialists. This confirms the conclusion made on the study conducted by Mokotedi (2013:90) on teachers' perspectives on the role of subject specialisation and the implications to those who did not specialise in the subject (those who state that teachers cannot efficiently teach all subject across the school curriculum). Concurring with Mokotedi is Mizzi (2013:2) who reveals that the ability for educators to teach a subject varies from subject to subject and it depends on the complexity of the subject learning content. For example, Mizzi argues that teaching Biology is different from teaching Chemistry. The same could be said about FL since its teaching involves theory and a lot of practical activities (Vendruscolo & Behar, 2016:93). The purpose of FL is to develop Accounting skills and knowledge to Grades 8 and 9 learners (DBE, 2011a:10), therefore this practical subject discipline requires in-depth knowledge of Accounting as it consists of a specialised language used to communicate financial information (Ballantine & Larres (2007) in Ngwenya, 2014:172).

The role of an educator in teaching a subject is pivotal since an educator needs to first understand the structure of the learning content and nature, then learn new content knowledge (Mizzi, 2013:1). Second, for an educator to display adequate knowledge of the learning content, such an educator needs to transform the learning content into proper choice of teaching and learning activities that learners will be engaged in and ensure that learners' learning needs are promoted through the application of different teaching methods. It remains unclear at this stage as to how non-Accounting specialists manage to teach FL sections as teaching a particular discipline requires an educator who understand how the subject is structured and how it should be presented to learners (Shulman in Mizzi, 2013:2).

The introduction of EMS in the South African school curriculum has almost promoted a generalist approach in the teaching of the subject which Mokotedi (2013:90) views as "an obvious barrier to achieving basic education excellence". According to Mokotedi, a subject specialist will thoroughly display expertise in a profound manner that reveals adequate knowledge and proper understanding of the learning content. Furthermore, the researcher believes that subject specialisation makes an educator "more relevant, efficient and effective" in teaching a particular subject. The generalist

approach, according to Mokotedi, has adverse effect on attention to the specifics of the subject and efficiency with which it is taught (Mokotedi, 2013:90).

According to CAPS documents for EMS, the introduction of FL in the Senior Phase is aimed at equipping learners with financial management; provide them with Accounting concepts as a tool for the management of a business, and for financial record keeping purposes (DBE, 2011a:9). Achieving this objective requires a labour force that is well-equipped with adequate knowledge and skills for the task ahead. This thesis is, therefore, aimed at exploring the PCK of EMS teachers in teaching FL with the view to examine teachers' knowledge, practises, and confidence in teaching FL in Grades 8 and 9.

1.2 THE RATIONALE FOR THE STUDY

The reasons for undertaking the current study were informed by the researcher's general observations conducted during visits to school. The researcher is employed as a Whole-School Evaluation Supervisor by the Quality Assurance Directorate: Sub-Directorate Whole-School Evaluation in the Department of Education in the Gauteng Province. The Sub-Directorate is responsible for evaluating the overall effectiveness of schools across the province based on the nine areas for evaluation which include amongst others, the evaluation of the quality of teaching and learning, and the levels at which learners are achieving in various subjects. The evaluation of schools by the Directorate involves observing educators in practise to assess the delivery of teaching and learning in schools. To achieve this, educators are observed by the external evaluation team from the Quality Assurance Directorate in accordance with Collective Agreement Number 8 of 2003, Protocol B (Education Labour Relations Council, 2003:8-10). The researcher usually observes EMS and Economics during visits to schools. The evaluation involves, inter alia, lesson observations, scrutiny of learners' books, educators' planning (i.e., lesson plans), lesson preparation and the annual teaching plan (ATP). The researcher noted some limitations in the teaching of Financial Literacy – a subject discipline embedded within EMS which consists of accounting concepts. Some of the limitations observed were lack of meaningful learner involvement during teaching and the lack of the formulation of the lesson objectives that informs teaching and learning activities. In several schools, educators avoid teaching FL topics and there are generally very few FL activities in the learners' books.

In most instances, learners are not provided with constructive feedback – the marking of FL activities is not constructive and does not guide learners on how to improve or earn marks; instead, a global style of marking is generally used by EMS educators. The marking of activities leaves much to be desired in EMS educators' PCK. In some schools, there is evidence that FL is taught but scrutiny of the learners' books revealed that learners are not doing well in this section of the subject content. It remains shrouded in mystery as to why there are limitations in the assessment practices relating to FL concepts and why learners are not doing well in the subject. These reasons prompted the researcher to focus specifically on FL since more challenges were observed in this subject discipline. By conducting the current study, the researcher is optimistic that the findings and recommendations emanating from the study will make a valuable contribution to the under-explored subject discipline of Financial Literacy. Desktop research conducted by the researcher reveals that there is limited research conducted in EMS, particularly FL. It is therefore believed that the results coupled with the recommendations of this study will:

- Unearth the challenges faced by educators teaching FL and provide solutions thereof.
- Add value to the literature on the under-explored subjects with the view to improve teaching and learning practises in FL in Grades 8 and 9.
- Provide rich data and insight regarding the PCK of educators teaching FL in Grades 8 and 9.
- Assist the EMS subject facilitators in developing programmes aimed at improving teaching and learning of FL concepts in secondary schools of Ekurhuleni North District.
- Assist the district subject facilitators in ensuring that accounting concepts are appropriately taught and assessed in Grades 8 and 9.
- Stimulate learners' interest in taking Accounting in Grade 10 and to pursue careers in the field of Accounting.

1.3 PROBLEM STATEMENT

In a study entitled *'The Role of Economic and Management Sciences (EMS) in Preparing Learners for Accounting in Grade 10'*, Schreuder (2009:16) found that, "Learners entering Grade 10 in Accounting have not achieved the required Accounting

competencies". According to Schreuder, these learners enter Grade 10 with little or no exposure to the Accounting subject. The researcher conducted a dashboard research from the Department of Basic Education (2019) Data Driven Districts (DDD) Dashboard Software Programme accessed on 2019/02/21 with the view to ascertain the performance of Grade 10 learners in Accounting during term 4 for the past three years (2016, 2017 and 2018) for Ekurhuleni North schools where the study was conducted. Such an analysis could not be conducted for FL as it is not a standalone subject therefore analysis in this regard was not feasible. For this reason, Accounting in Grade 10 was deemed suitable to analyse because the performance depicts the performance of learners who had done EMS in Grades 8 and 9 since this subject is compulsory in these Grades. The analysis concurs with the findings by Schreuder (2009) because they reveal that the performance of learners in the subject is poor in most schools in Ekurhuleni North. It was noted, however, that the performance in most of the ex-model C schools is much better as compared to township schools. This analysis is disturbing given the assessment made by Mkhize (2017:2) which reveals that there is a shortage of black Accountants in South Africa.

To worsen matters, the analysis conducted by the researcher on the Data Driven Dashboard for the district also reveals that there are very few learners taking Accounting in grade 10, compared to the other commercial subjects such as Business Studies and Economics. Notwithstanding the fact that in most schools Accounting is grouped with pure Mathematics, the decline in the number of learners taking Accounting in Grade 10 remains a serious concern. The main question remains unanswered at this stage as to whether EMS educators have adequate PCK to teach FL (Accounting) in Grades 8 and 9 and make it more appealing to learners. Are these learners provided with proper grounding of the subject?

The general observations made by the researcher about the teaching and assessment practices of FL during his visits to schools, poor learner performance as discovered by Schreuder (2009), and the Department of Basic Education Data Driven Districts (DDD) Dashboard Software Programme accessed on 2019/02/21 analysis which revealed that very few learners enrolled for Accounting in Grade 10, prompted the researcher to explore the PCK of EMS educators in teaching FL (Accounting) in Grades 8 and 9. It is against this background that the following research study questions and objectives were formulated with the aim of addressing the research problem.

1.4 RESEARCH QUESTIONS AND OBJECTIVES

1.4.1 Main question of the research study

The study's main research question is stated as follows:

- What Pedagogical Content Knowledge do Economic and Management Sciences educators have to teach Financial Literacy in Grades 8 and 9?

1.4.1.1 Sub-questions of the research

To respond to the main question of the research, the following list of research sub-questions were formulated:

- What types of knowledge base do EMS educators possess to teach Financial Literacy?
- What are the views of EMS educators regarding the challenges faced by educators who teach Financial Literacy but do not have an Accounting background?
- What curriculum knowledge do EMS educators have in the teaching of Financial Literacy?
- To what extent are EMS educators knowledgeable in administering Financial Literacy assessments?
- What teaching and learning activities do EMS educators employ to promote effective teaching and learning in Financial Literacy?
- What are learners' learning difficulties in Financial Literacy according to EMS educators?

1.4.1.2 The objectives of the research study

To achieve the objectives, the study was directed to:

- Establish the types of knowledge base that EMS educators possess to teach Financial Literacy.
- Explore the views of EMS educators regarding the challenges faced by Financial Literacy educators who do not have an Accounting background.
- Determine the curriculum knowledge of EMS educators in the teaching of Financial Literacy.

- Examine EMS educators' knowledge in administering assessment in Financial Literacy.
- Explore and identify the teaching and learning activities employed by educators in the teaching of Financial Literacy.
- Ascertain the views of EMS educators regarding learners' learning difficulties in Financial Literacy.

1.5 THEORETICAL AND CONCEPTUAL FRAMEWORK FOR THE STUDY

The theoretical and conceptual frameworks were employed to "give life" to the research study (Imenda, 2014 in Adom, Hussein & Agyem, 2018:438). These constructs are described as the first and second blueprint where the former refers to an elevation drawing depicting the exterior of the house while the latter refers to the floor plan showing the interior of a house (Grant & Osanloo, 2014:15). In this study, PCK as the theoretical framework represents the outlook of the house while the floor plan shows the layout of the inner structure of the house and the connectedness of the rooms represents the conceptual framework. This means that the study's conceptual framework has been developed from the PCK theory. This is supported by Adom et al. (2018:439) who state that, it is common for researchers to develop their own conceptual framework from the theory that underpins their research. The two constructs are briefly described below and are amplified in Chapter 3 of the study.

1.5.1 Theoretical Framework

According to Imenda (2014:189), a theoretical framework is a theory chosen by a researcher to guide a research study. Grant and Osanloo (2014:13) described it as a "blueprint" for the entire research study as it guides and provides a rock-hard foundation on which to build and support the study. Furthermore, Grant and Osanloo state that theory defines how the researcher will approach the research study philosophical, epistemological, methodological, and axiological. PCK was chosen as a theoretical framework for the study. The PCK provided the researcher with a tried and tested theory in the investigation of the knowledge base of educators (Grant & Osanloo, 2014:16; Yamauchi, Ponte, Ratliffe & Traynor, 2017:11).

The absence of an acceptable international framework to investigate the kinds of knowledge needed by educators to teach effectively in the classroom prompted

Shulman (1986) to introduce the PCK concept to use in exploring the competency of educators in teaching a subject learning content. PCK as a theory assisted the researcher in identifying the characteristics of the knowledge base required by educators in ensuring effective teaching and learning (Shulman, 1987:8). Moreover, PCK provided the researcher with a clear guide in determining the knowledge to be examined pertaining to the knowledge base of EMS educators in teaching FL (Grant & Osanloo, 2014:18).

1.5.2 Conceptual Framework

This concept is described by Grant and Osanloo (2014:16-17) as an arrangement of related concepts and expectations that support and guide a researcher's plan on how to approach the study. Hennink, Hutter and Bailey (2011:42) also agree by stating that, it is a framework that provides an outline of related concepts used by researchers in conducting a research study. A conceptual framework as a concept mapping tool was used to clearly define the components of PCK and visualise how concepts were applied to create new knowledge through literature review and by conducting an empirical study (Grant & Osanloo, 2014:20) on the PCK of EMS educators in teaching FL. The PCK sub-components provided the researcher with a list of concepts and a clear structure to explain the theory and relatedness of concepts (Yamauchi et al., 2017:26) and how information emerges throughout the study (Grant & Osanloo, 2014:14).

1.6 CLARIFICATION OF KEY CONCEPTS

Pedagogical Content Knowledge (PCK) is described by Shulman (1986:9) and McNeill, Gonzalez-Howard, Katsh-Singer and Loper (2016:263) as a range of knowledge base needed by educators to teach effectively. Echoing the same sentiments in describing the term PCK are Blankman, Schoonenboom, van der Schee, Boogaard and Volman (2016:427) who describe it as a combination of knowledge required to be an effective educator. This means that educators need to have knowledge of the learning content and how it should be taught. Therefore, the knowledge of the learning content alone or pedagogical knowledge is not enough for teaching, instead educators need to master both. PCK therefore describes the types of teaching and the knowledge of the learning content needed by educators to teach a particular subject.

Economic and Management Sciences (EMS) is the subject that is taught in the Senior Phase that is, Grades 7, 8 and 9 in the General Education and Training (GET) band in the South African curriculum. It consists of three disciplines, namely Economy, Entrepreneurship and Financial Literacy. This subject is aimed at equipping South African learners with entrepreneurial skills, economic issues, and financial management.

Financial Literacy (FL) is defined by Samkin, Low and Taylor (2012:7) as a practical subject that provides financial knowledge that assists individuals in making sound decisions about managing their businesses and personal finances. Rosacker and Rosacker (2016:2) describe the concept as one's ability to make informed financial management decisions that affect the current and future utilisation of money. From the definitions provided by Samkin et al. (2012) and Rosacker and Rosacker (2016), it can be deduced that FL is a subject aimed at empowering learners with financial knowledge so that they can easily make responsible and well-informed personal and business decisions that involve money. In the South African perspective and curriculum, FL is a subject discipline embedded within EMS that is aimed at providing learners with Accounting concepts, skills, and knowledge (DBE, 2011a:10).

Teaching is a skill possessed by educators in helping and guiding learners to learn (Rahman, Khalil, Jumani, Ajmal, Malik & Sharif, 2011:84). This refers to the educators' ability to transfer knowledge and skills to learners. Fernandez (2014:80) described it as a professional activity in which educators set actions inside the classroom to teach concepts. Dorgu (2015:78) describes teaching as the transmission of knowledge to learners in the classroom which is done through various teaching methods and strategies. From the definition provided by Fernandez, Dorgu as well as Rahman et al., teaching takes place with the purpose of seeing change taking place in learners' knowledge, skills, behaviour, and attitudes. Based on the definitions provided, it can be concluded that teaching is a process of helping learners acquire new knowledge, skills and to change their behaviour and attitude.

1.7 THE OVERVIEW OF THE RESEARCH METHODOLOGY AND DESIGN

This study adopted the qualitative research methodology. According to Gringeri, Barusch, and Cambron (2013:762), a qualitative research study needs to be presented such that it is easy to identify the connections that exist between the research

paradigm, research methodology, design, and instruments used to collect data for the study. The next section focuses on the research paradigm used in the study. More detailed description and justification of the choice of these strategies is provided in Chapter 4 of the current study.

1.7.1 Research paradigm

As noted, in sections 1.4.1 and 1.4.2, the research questions and objectives have been formulated therefore, what needs to follow is the selection of a research paradigm (Alghamdi, 2015:78). According to Alghamdi, the selection of a research paradigm is to ensure that researcher's assumptions are compatible with the research methodology chosen for the study. The research paradigm according to Antwi and Hamza (2015:222), refers to the researcher's worldview or assumption about the world on what constitutes knowledge and how knowledge is produced. The worldview in this regard refers to the perspective of a researcher or researcher's own thinking of the nature of reality (Kivunja & Kuyini, 2017:26). Alghamdi (2015:78) and Gringeri et al. (2013:762) view a research paradigm as a mindset that provide guidance for the researcher in developing the research study, while Hennink, Hutter and Bailey (2011:11) simply describe it as "ways of looking at reality".

According to Gringeri et al. (2013:762), any research study needs to be guided by an underlying paradigm. Antwi and Hamza (2015:217-218) argue that the selection of a research methodology is informed by the paradigm that is guiding the research inquiry. The literature revealed that interpretivists prefer to work with qualitative data (Wahyuni, 2012:71), thus, consistent with the characteristics of interpretivism. Congruent with the research paradigm employed in this study, qualitative research methodology was deemed suitable for the current.

1.7.2 Research Methodology

Long (2014:428), Creswell (2014:32) and Williams (2007:65) agree that there are three research methodologies, namely quantitative, mixed-methods and qualitative. Williams (2007:65) argues that it is common practice that researchers anticipate the nature of data that is desirable to respond to the questions of the research. The research questions of the current study required a narrative, descriptive and textual type of data hence a qualitative research methodology was deemed appropriate for

the current study (de Villiers & Fouché, 2015:132). Consistent with the interpretivists' research paradigm chosen for the current study which requires the researcher to be part of what is being investigated, the researcher collected data from schools by scrutinising learners' books, analysing educators' planning and lesson preparation, lesson observation, and interacting face-to-face with EMS educators at their schools (Creswell, 2014:234). This methodology was deemed appropriate for the study as interpretivist scholars prefer to work with qualitative data (Wahyuni, 2012:70-71). The qualitative research methodology was therefore used to generate new knowledge on the PCK of EMS educators in teaching FL. It permitted the researcher to provide a flow of new knowledge on the research problem in a logical manner (Kivunja & Kuyini, 2017:28). The following section describes the research design chosen in line with the research methodology adopted in this study.

1.7.3 Research Design

Research design is viewed by Bhattacherjee (2012:35) as a strategy for the researcher to collect data in an empirical research study with the view to answer research questions. Williams (2007:67), Creswell (2014:41) and Shah and Al-Bargi (2013:258) identified approaches that can be applied in qualitative research designs, namely case study, ethnography study, phenomenological study, grounded theory study, and content analysis. From the mentioned approaches, Williams (2007) has identified a case study and phenomenology as qualitative research methods suitable to study individuals. The research design chosen for the present study is phenomenology which is described by Eskola (2011:15) as the study of things from the participants' and researcher's perspective. Phenomenology according to Eskola (2011:14), is intended to answer research questions from the subjective perspective, views, and experiences of participants involved in the research study because it focuses on the way people perceive, experience, and understand the phenomenon under investigation. The researcher intended to explore the PCK of EMS educators in teaching FL in Grades 8 and 9, hence phenomenology was deemed suitable for the study.

Phenomenology was selected to study EMS educators in their schools; thus, this design permitted the researcher to explore the understanding and experiences of EMS educators by relying on first-hand information that was obtained through lesson

observations, individual interviews with EMS educators, and scrutiny of educators' and learners' records (Gentles, Charles, Ploeg & McKibbon, 2015:1773). This section provided a summary of the study's research design. The next section focuses on the population and the sampling procedures followed in this study.

1.8 POPULATION AND SAMPLING

1.8.1 Population

Van Rijnsoever (2017:3) describes population as the total set of information sources relevant to answering the study's research questions. Johnson and Christensen (2014:269) argue that qualitative researchers need to first decide "whom or what they want to study" so that they can clarify the population and the phenomenon to investigate. In this regard, the researcher identified FL, a subject discipline embedded within the main subject commonly known as EMS, as well as the educators teaching this subject in Grades 8 and 9 as suitable participants for the study – hence, they were sampled from units of interest which are public ordinary secondary schools (Van Rijnsoever, 2017:4; Hanlon & Larget, 2011:7).

Educators and schools from Ekurhuleni North District were regarded as a population or a total group of people that the researcher selected to learn about in providing meaning about the PCK of EMS educators in teaching FL (Johnson & Christensen, 2014:250; Etikan, 2016:1; McMillan, 1996:85). These educators were viewed as suitable sets of information sources to answer the research questions (Van Rijnsoever, 2017:3; Alvi, 2016:10; Edwards & Holland, 2013:6). There are 48 public ordinary secondary schools in Ekurhuleni North District, however, data was only collected from eight (8) schools due to the saturation point reached during data collection (cf. 1.8.3 below). The research sampled one educator from each grade, thus, Grades 8 and 9 educators were invited to participate in the study. However, it should be mentioned that in some schools, more than two educators could take part in the study because they showed an interest in the study's topic.

1.8.2 Sampling of educators and schools

McMillan (1996:86) views a sample as a group of individuals or units from which data are obtained. These individuals or units are selected from a population identified to investigate (Alvi, 2016:11). EMS educators were identified as the sample needed to

provide data required to produce answers to the research questions (Edwards & Holland, 2013:6) since FL is embedded within this subject discipline. Purposive sampling was therefore adopted since EMS educators were regarded as information rich cases (Guetterman, 2015:4) because they provided relevant and credible data for the study (Turner, 2010:757). These educators were regarded as the most informative individuals that possess characteristics relevant to the study (Anderson, 2010:4). Educators who are not teaching EMS could not participate in the study due to the criterion set by the researcher (Alvi, 2016:13). The sampled schools were selected based on their proximity to save time and costs.

1.8.3 Sample size and data collection procedures

According to Gentles et al. (2015:1782), smaller samples are used in qualitative research and there is consensus that in qualitative study, it is impossible to stipulate in advance how many participants are going to be involved in the study. However, Cohen et al. (2000) and Glaser (1998) in Gentles et al. (2015:1782) maintain that for the application of funding, researchers provide the sample size. In the context of the current study, the sample size was provided to request consent from the Gauteng Department of Education at head office to collect data from public ordinary secondary schools in the district. The list of schools earmarked to participate in the study was a requirement in the application process. The same prerequisite was also applicable in seeking permission from Ekurhuleni North District. It is for these reasons that the stipulation was made in advance regarding the number of schools to be involved for data collection.

Hennink, Kaiser and Weber (2019:2) argue that the saturation point cannot be determined in advance instead it requires the review of study data collected in the process. In this regard, the researcher implemented the guidance provided by Butina (2015:192) who advised that the initial analysis of data needs to take place after the first interview or observations. A more intensive analysis of data was conducted upon completion of data collection – the initial analysis began after collecting data from the first school with the aim of identifying statements depicting a similar pattern regarding the perceptions, experiences, and views of EMS educators. This was done to continuously track data and be able to detect when there is no new information emerging from participants in the field.

According to Fusch and Ness (2015:1409), data saturation must not be about numbers, but more emphasis should be place on the deepness and richness of the data. The researcher decided to sample more schools because it was not possible to predict when the saturation point would be reached during data collection. Therefore, to make provision, the researcher targeted 24 of the 48 public ordinary secondary schools in Ekurhuleni North. This indicated that selecting an appropriate sample size for qualitative research remains a challenge (Hennink, Kaiser & Weber, 2019:1). Echoing the same sentiments is Butina (2015:192) who also confirmed that the sample size is not straightforward in qualitative research as there are no set of rules to be followed in determining the sample size in qualitative research studies.

According to Gentles et al. (2015:1783) it remains a fact that, "A large sample size does not guarantee one will reach data saturation, nor does a small sample size", instead "It is what constitutes the sample size" that matters (Burmeister & Aitken, 2012 in Gentles et al., 2015:1783). In this regard, Malterud et al. (2015) cited in Vasileiou, Barnett, Thorpe and Young (2018:2) assert that the more information power the sample provides, the smaller the sample size needs to be, and vice versa. In obtaining quality and reliable data for the current study, purposeful sampling was used. Participants in this type of sample are described as information-rich cases (Gentles et al., 2015:1778) and provide "richly-textured information" (Vasileiou et al., 2018:2), which means that participants selected for the study provided information power to the study as they were deemed knowledgeable informants about the phenomenon under investigation.

Reverting to Fusch and Ness (2015:1409) who argued that data saturation is not about numbers but about the depth of the data, the researcher noted an assertion by Kindsiko and Poltimäe (2019:20) who emphasise that qualitative researchers need to build on the ability to go in-depth into the research study and provide highly fresh and original insights about the research topic. The current study was not only interview-based, it also comprised of lesson observations and scrutiny of learners' and educators' records which means that various methods of data collection were employed to achieve the objective of going in-depth in investigating the phenomenon. Therefore, the researcher spent the whole day in each school to ensure that these three methods of data collection are optimally used to go in-depth regarding the teaching of FL.

According to Fusch and Ness (2015:1409), interviews are one method by which one's study results reach data saturation; therefore, interview questions should be structured to facilitate asking multiple participants the same questions, otherwise one would not be able to reach data saturation. Semi-structured individual interviews were conducted using the interview schedule to ensure that identical questions are asked in all the interview sessions. Data was analysed after each interview session to continuously track the data received from participants. This enabled the researcher to establish that some of the issues were being repeated from interview number 10. This suggested that the data collection was becoming redundant (Hennink, Kaiser & Weber, 2019:1).

The researcher continued with data collection with the hope that new information would emerge, however, this was not the case – the additional interview sessions did not bring anything new to the study (Gentles et al., 2015:1781). This indicated to the researcher that the saturation point had been reached hence data collection was abandoned at interview 16. This confirmed Fusch and Ness' (2015:1409) assessment that if a researcher has reached the point where there is no new data forthcoming from participants this means that data saturation has been reached.

1.9 DATA COLLECTION

The narrative and descriptive data which consists of people's own spoken words, as well as their behaviour, was collected through multiple sources of data collection, namely individual interviews, analysis of educators' and learners' records, as well as lesson observations (Zohrabi, 2013:254). In this regard, EMS educators were observed in practise from their respective schools, field notes were taken in the process to capture the events taking place during instruction, post-lesson observations where the researcher interacted with participants through interviews, learners' exercise books were scrutinised, and the subject materials available in the classroom walls were analysed (Brooke, 2013:431). The use of such multiple sources of data collection complemented each other in that these techniques enhanced the validity and dependability of information collected (Zohrabi, 2013:254). These instruments were used to gather textual data by exploring the experiences, perceptions, and behaviours of EMS educators (Tavallaei & Abu Talib, 2010:571) in their natural settings. Thereafter, data collected were carefully reviewed and organised into

categories (Creswell, 2014:234). More details in this regard are discussed in Chapter 4.

1.10 DATA ANALYSIS AND INTERPRETATION

According to Gay, Mills and Airasian (2011:466), data analysis involves summarising what is in the data, whereas data interpretation involves making sense of and finding meaning in those data. The data analysis and interpretation concepts are discussed further in Chapter 4 of the current study. Data collected through lesson observations, individual interviews with EMS educators and the analysis of educators' and learners' records were organised, read through, coded, and prepared for analysis (Cohen, Manion & Morrison, 2007:461). The written field notes were typed in word format for analysis and interpretation. The raw data was coded to create families by identifying words and actions that appeared to be similar (Creswell, 2012:241).

1.11 CREDIBILITY AND TRUSTWORTHINESS

Reliability and validity in qualitative research studies concerning the truth and confidence in the data collected is substituted by trustworthiness (Bashir, Afzal & Azeem, 2008:39). Bashir et al., state that the trustworthiness of the qualitative data is critical in warranting the reliability of the qualitative research study. This was ensured through the application of the following four strategies mentioned by Gunawan (2015:4) and Lincoln and Guba (1985) in de Villiers and Fouché (2015:136): credibility, transferability, dependability, and conformability. Each of these strategies are discussed in greater detail in Chapter 4 of this study.

1.12 RESEARCH ETHICS

According to Tomal (2010:34), researchers should always be concerned with protecting their subjects and avoiding legal problems. It is for these reasons that Creswell (2012:23) argues that researchers need to strictly adhere to ethical practices throughout the research processes. In this regard, the ethical considerations were observed in accordance with the aspects presented by Creswell (2014:132), which stipulate the ethical considerations to be adhered to before the commencement of the study, during data collection processes, and analysis thereof – as well as in reporting the findings, sharing them with readers, and storing data for future scrutiny. A detailed discussion in this regard is presented in Chapter 4 of this study.

1.13 DELIMITATION OF THE STUDY

The study focused on the field of curriculum studies and instruction. The emphasis of the study is on EMS which consists of three disciplines, namely Economy, Entrepreneurship and Financial Literacy, therefore, the study only focused on the FL component in Grades 8 and 9. The reasons for focusing on FL only are provided in section 3.1 above. The study was conducted in public ordinary secondary schools of the Gauteng Deprtament of Education (GDE). The GDE is divided into three clusters, namely Johannesburg cluster, Ekudubeng cluster and Tshwaga cluster. The Johannesburg cluster consists of Johannesburg Central, Johannesburg South, Johannesburg North, Johannesburg West, Johannesburg East, and Gauteng West. Ekudubeng cluster consists of Gauteng East, Ekurhuleni South, Ekurhuleni North, Sedibeng East, and Sedibeng West. Tshwaga cluster consists of Tshwane West, Tshwane South, Tshwane North, and Gauteng North. The study was limited to one district i.e., Ekurhuleni North District from the Ekudubeng cluster. The district in question is situated in Ekurhuleni Metropolitan, as depicted in Figure 1.1 below.
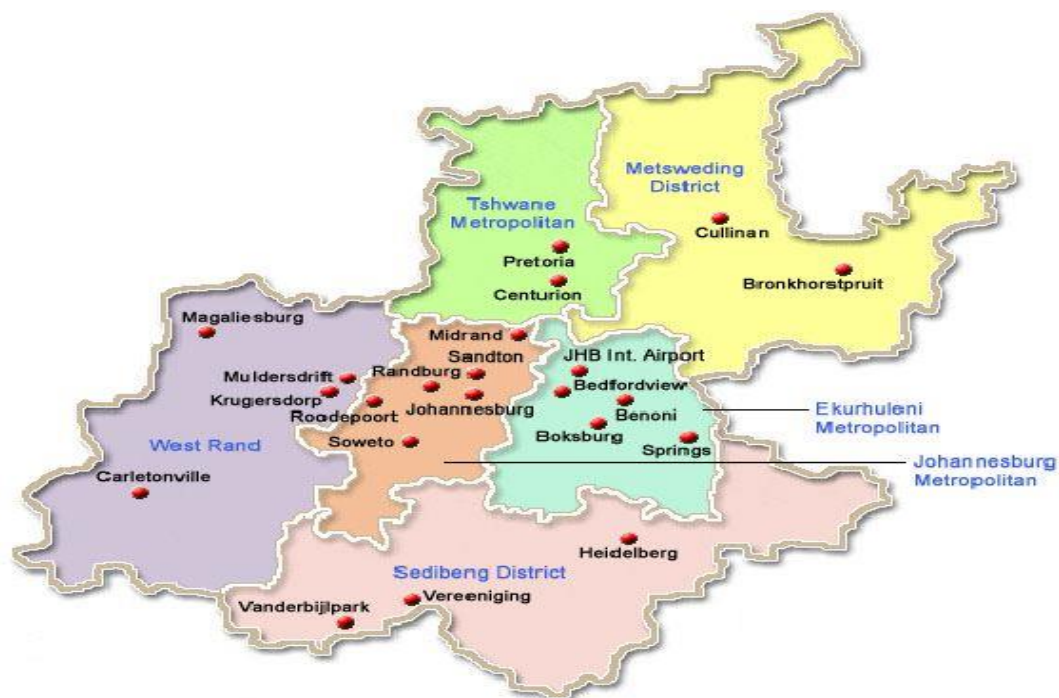
Figure 1.1: Geographical location of the study

(adapted from Map of Gauteng Province)

Gauteng Province is made up of three metropolitan municipalities, namely Johannesburg, Ekurhuleni, and Tshwane (Gauteng Provincial Government, 1994-2014:24). In addition to these municipalities, there are two districts, namely Sedibeng and West Rand which also consist of smaller municipalities. The head office of the GDE is situated in the Johannesburg metropolitan and consists of 15 District offices which are located in different metropolitans and the two municipalities. The study was conducted in Ekurhuleni North District which is located in Ekurhuleni Metropolitan (it consists of Ekurhuleni North, Ekurhuleni South and Gauteng East Education District offices). The district wherein the study was conducted consists of the following towns: Kempton Park, Benoni, Bedfordview, Germiston, and Edenvale as well as the following townships: Daveyton, Tembisa and Wattville.

1.14 THE COMPOSITION OF CHAPTERS

This study consists of six chapters, as briefly discussed below:

Chapter 1 presents the overview of the study which includes the following focus areas: problem statement, research questions and objectives, research methodology and design, research methodology, clarification of concepts and ethical considerations. The limitations and the demarcation of the study are also discussed in this chapter.

Chapter 2 provides a discussion of the literature explored in this study.

Chapter 3 articulates the theoretical and conceptual framework adopted to provide the roadmap for the study.

Chapter 4 provides a detailed description of the research methodology, paradigm, design, and methods used to conduct the study. The instruments used for data collection and analysis, as well as the ethical considerations, are also presented in this chapter.

Chapter 5 presents the analysis of data, interpretation, and discussion of the empirical findings in relation to the research questions, literature review, theoretical and conceptual framework. The research questions are restated to provide a framework for the data analysis, interpretation, and discussion. These questions were also restated to remind readers about the phenomenon under study. This chapter provides the biographical information of participants. A summary of data analysis and

interpretation processes is also provided in this chapter. The main and sub-themes that were developed are presented in a table.

Chapter 6 provides a summary of the literature review and the empirical study. The chapter provides the conclusions and recommendations in relation to the objectives of the study. This chapter points out the limitations of the study and makes suggestions for further research studies on the phenomenon under investigation. Contributions of the current study are also highlighted in this chapter.

1.15 CHAPTER SUMMARY

This chapter provided an introduction and detailed background of the study. The problem statement which prompted the researcher to conduct the study was also outlined, followed by the research questions, and objectives which were formulated to address the research problem. The chapter presented a brief description of the theoretical and conceptual framework on which the current study is grounded, as well as the rationalisation thereof. The research methodology and design, including ethical considerations were also briefly discussed. The next chapter presents the literature review for the current study.

CHAPTER 2:

LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of Chapter 1 was to provide the introduction and detailed background of the study, which includes the problem statement, research questions and objectives. Furthermore, the first chapter briefly articulated the study's research methodology and design. The theoretical and conceptual frameworks were also briefly discussed including the ethical considerations. The current chapter presents the literature review by focusing on the introduction of FL in the South African curriculum, the nature of FL, international experiences that have prompted the introduction of FL schools, and the dimensions to teach and assess FL. Furthermore, this chapter also focused on the role of subject specialisation in teaching the learning content.

2.2 THE INTRODUCTION OF FINANCIAL LITERACY IN SOUTH AFRICA

FL has been introduced for various reasons across the world. In other countries, the global financial crisis that took place in 2008 prompted governments to introduce FL with the view to capacitate citizens with financial skills and knowledge. The OECD and INFE (2013:3) argue that the younger present and future generations are faced with ever increasing financial risks and sophisticated financial products – they are also exposed to a plethora of financial services at a very young age. These new challenges and changes are not matched by an equivalent provision of financial skills and knowledge, hence the OECD/INFE saw a need to promote the advancement of FL in the school curriculum (OECD/INFE, 2013:3). Doing so will ensure that the future generation are well-prepared for the challenges that lie ahead.

In responding to the call made by the OECD and INFE, the South African government made drastic changes to its curriculum post-1994 when the South African education system was overhauled. This led to the introduction of a new curriculum statement in 2003 called National Curriculum Statement 2005. In the new curriculum, EMS was introduced to accommodate FL in the South African curriculum. The literature reveals that FL is introduced as a subject on its own in some countries while it is incorporated in other content subjects in other countries including South Africa. The FSB is responsible for the governing of non-banking financial services sectors and this

organization was given the mandate to promote a formal programme that will enable South African citizens to manage personal, family and business finances soundly (OECD/INFE, 2013:35). The OECD/INFE (2013:3) and Samkin, Low and Taylor (2012:8) advocate for the need to empower citizens with financial skills as early as possible in their lives. In achieving this objective, the FSB identified the education sector as a key driver for the promotion of FL skills in schools. It is for this reason that EMS was introduced as a compulsory subject for all learners in the Senior Phase curriculum in South African schools. Changes in the curriculum presented its own challenges hence this study explored the experiences of faced by other countries during the introduction of FL in their curriculum.

2.3 THE INTERNATIONAL EXPERIENCE ON EDUCATOR KNOWLEDGE IN TEACHING FINANCIAL LITERACY

This section presents studies conducted internationally regarding educators' knowledge in teaching FL. The main purpose was to explore the challenges and accomplishment encountered in incorporating or introducing FL curriculum in secondary schools in the international community. The following countries were considered: New Zealand, Canada, Australia, Botswana, China, Taiwan, and Estonia.

2.3.1 New Zealand

In the year 2008, a National Strategy for FL was introduced with the aim of setting a strategy direction for improving FL for citizens in New Zealand (Samkin et al., 2012:9; OECD/IFNE, 2013:34). This country seems to have followed in the footsteps of the South African curriculum by echoing the sentiments of the FSB (OECD/INFE, 2013:35) that saw the need to incorporate Accounting into EMS and call it FL (Samkin et al., 2012:5). New Zealand also viewed Accounting as the subject wherein FL skills could be promoted. The study conducted by Samkin et al. (2012) entitled '*Incorporating Financial Literacy into the Secondary School Accounting Curriculum: A New Zealand Perspective*' reveals that the introduction of FL in New Zealand came with its own challenges. The first challenge was the curriculum content; the second challenge was educators' lack of subject content knowledge, which were viewed to be having serious implications for effective delivery of the curriculum (Samkin et al., 2012:14). The educators' lack of learning content knowledge could promote misguided perceptions of Accounting as a subject, career pathways, as well as the Accounting profession

itself. Motivating learners to develop an interest in the subject and pursue Accounting careers requires an educator who is conversant with the content of the subject (Samkin et al., 2012:14-15), which does not seem to be the case in New Zealand.

2.3.2 Canada

In this country, the introduction of FL had some challenges – the national government does not play a role in determining the education system; instead, this responsibility is delegated to provinces. Each province is given carte blanche in setting up its own curriculum requirements and guidelines for the provision of resources. A study conducted by Asia-Pacific Economic Cooperation (APEC) (2014:101) reveals that many jurisdictions prescribed the FL curriculum to be taught in schools even though the subject remained optional. In advocating for the formal introduction of the programme in FL, the Financial Consumer Agency of Canada (FCAC) engaged teachers in different provinces with the view to ensuring that subject content is appropriate in meeting the prescribed learning outcomes and to get buy-in from teachers (APEC, 2014:103). Walking in the footsteps of the FSB, the FCAC also acknowledged the education sector as the key driver for effective delivery of FL. For this program to come to fruition in schools required a knowledgeable labour force however, few educators in this country had formal training in the subject, which means that many of them do not have adequate PCK in teaching FL. The FCAC therefore advocated for training and development of educators to ensure that the initiative flourish in providing citizens with financial skills and knowledge.

2.3.3 Australia

Blue, Grootenboer and Brimble (2014:2) acknowledge that FL education in this country was not a priority subject; in fact, it was neither taught nor assessed. In cases where it was taught, this was an optional and informal part of the curriculum. It was not formally taught but incorporated into different subjects. With the introduction of FL in Australia, the capacity and confidence of educators in delivering FL education to learners remained a major concern (Blue et al., 2014). In their study, Blue et al., highlighted that there is limited educator training that is provided to empower educators with the required skills and knowledge to teach FL (Blue et al., 2014:4). According to Blue et al., it can be concluded that teachers in Australia do not have adequate PCK in teaching FL. Harter and Harter (2009) in Blue et al. (2014:8) found

that learners who are taught by educators that have been trained to teach FL demonstrated good performance in the subject than those who were taught by educators who have not received any training on the subject. Echoing similar sentiments, Chamber and Hill (2013), also in Blue et al. (2014:8), found that learners perform well when their educator is trained in the subject. Blue et al's. (2014:16) study further revealed that FL is taught by non-financial education specialists. These educators have articulated a serious concern regarding limited knowledge and confidence in teaching FL.

2.3.4 Botswana

FL is not offered in this country; however, in the year 2018, Solomon, Nhete and Sithole (2018) conducted a study wherein they indicated that FL is a vital life skill that all 21st Century learners should have. Thus, they are advocating for the introduction of FL in the Botswana National School Curriculum (Solomon, Nhete & Sithole, 2018:1).

2.3.5 China

As mentioned earlier in this study that the introduction of FL came with its own challenges. The study conducted by the APEC (2014:120) acknowledges that an educator is of importance in the delivery of quality financial education, however, this organisation discovered that educators in China do not have adequate PCK to teaching FL. Therefore, according to the APEC (2014), the provision of the quality of FL in China cannot be guaranteed.

2.3.6 Taiwan

The study conducted by Deng, Chi, Teng, Tang and Chen (2013) revealed that educators who do not possess adequate knowledge of FL would constrain their teaching abilities in the subject. In their findings, Deng et al. (2013:69) echo the same sentiments shared by Harter and Harter (2009) in Blue et al. (2014:8) by highlighting that, educators who have basic education in FL have a better understanding of the subject content. Their study further revealed that educators in Taiwan possess medium-high levels of FL; therefore, it can be concluded that educators in Taiwan seem to have acceptable knowledge to teach FL.

2.3.7 Estonia

Rabtšinski (2015:31) conducted a study to improve FL in Estonia. It was discovered that there were no teachers who were confident enough to teach FL, this was identified as a major obstacle in the introduction of financial education in Estonian schools. According to Rabtšinski, the lack of competent educators in the subject retards progress on effective implementation of financial education in schools. It is without a doubt that Estonian educators know the importance of empowering citizens with financial skills, however, many of them do not have the competency to teach it. Way and Holden (2009) in Rabtšinski (2015:31) assert that possessing adequate subject content knowledge in FL from college, university or through attending subject content training sessions is a noteworthy indicator of educators' knowledge and competence to teach FL topics. The author argues that to boost the educators' knowledge of the subject content, educators need to be provided with adequate training prior to the implementation of a new subject. The Estonian case reveals that educators in this country do not have adequate PCK to teach FL.

With the exception for Taiwan, the literature review reveals that FL educators in the other six countries are not well-equipped with the necessary skills and knowledge to undertake their essential task of ensuring that there is effective teaching and learning of FL in the classroom. According to Deng et al. (2013:72), the educators' lack of financial skills and knowledge would constrain their effective teaching of FL concepts. Rosacker and Rosacker (2016:3) believe that well-trained educators following a structured and mandated curriculum in teaching FL may yield positive results in terms of empowering learners with appropriate financial knowledge and skills. Therefore, educators need to possess appropriate PCK to promote effective teaching and learning of Accounting concepts in the classroom. This shows that there is a strong need for countries to invest in the development and training of educators in FL to ensure effective teaching and learning of FL concepts in schools.

2.4 THE NATURE OF FINANCIAL LITERACY CURRICULUM IN SOUTH AFRICA

FL is not a standalone subject, it is embedded within EMS, and it is offered in Grades 7, 8 and 9 in the South African curriculum. In the CAPS document for EMS 2011, the FL component within EMS carried subject content weighting of 40%, while 30% was for the study of the economy, and the other 30% was allocated for the study on

entrepreneurship (DBE, 2011a:8-9). In 2019, the CAPS document for EMS was reviewed; therefore, the FL component now carries the weighting of 50%, while 30% is allocated for the study of the economy, and the remaining 20% is allocated for the study on entrepreneurship (DBE, 2019:31-32)

FL in the South African curriculum comprises of pure Accounting concepts; hence, the general overview of the content in the FL section entails financial management, Accounting (as a tool for management of a business), and record keeping (DBE, 2011a:9; 2019:32). The 50% for the FL curriculum, as outlined in the abridged version of Section 4 of the CAPS is as follows (DBE, 2019:31):

- Savings
- Budgets
- Income and expenditure
- Accounting concepts
- Accounting cycle
- Source documents
- Financial management and keeping of records.

The EMS subject is allocated two hours per week, one-hour is allocated for FL (DBE, 2019:33). The specific FL curriculum for Grades 8 and 9 is detailed in Chapter 3 of the study. The next section focuses on the role and impact of FL knowledge in everyday lives of citizens in a country.

2.5 THE ROLE OF FINANCIAL LITERACY

According to the research study conducted by Rosacker and Rosacker (2016:2), individuals with acceptable financial knowledge can make sound financial decisions as compared to individuals with lower levels of financial knowledge. The individuals who are financially literate are more likely to behave in a more careful and responsible manner in future financial planning, hence Ibrahim and Alqaydi (2013:126) argue that a person's ability to manage and control personal finance has become an important issue in today's world.

FL plays a major role in various ways. Deng et al. (2013:69) opine that it helps individuals to manage and control their financial affairs; hence Klapper, Lusardi and

van Oudheusden (2015:4) believe that people who are financially literate can make informed financial choices regarding "saving, investing, borrowing, and more". Such people, according to Bhushan and Medury (2013:155), can navigate through difficult financial times because of accrued savings, rewards, and insurance policies purchased and diversified investments. In addition, the behaviour of financially literate people is generally perceived to be good since that they tend to not default in paying their bills and loan accounts. Bhushan and Medury (2013:155) are of the view that financial literate people are equipped on how to handle personal financial affairs and to always act responsibly financially – such people use their credit card facilities judiciously because they are aware of how interest rates operate.

Mahdzan and Tabiani (2013:43) argue that people who are financially literate would (a) know how to manage their money (b) understand how financial institutions work and (c) possess a range of analytical skills. It is for this reason that Samkin et al. (2012:8) believe that if FL is introduced at an early stage, citizens would be empowered with financial skills and knowledge, which will enable them to make sound financial decision-making. Bhushan and Medury (2013:155) strongly believe that FL is directly linked to the well-being of individuals and businesses because according to Taft, Hosein, Mehrizi and Roshan (2013:64), increased financial knowledge has a positive impact on people's personal and business life. It is a life skill which provides people with basic knowledge of financial concepts so that people can make sound financial choices from an informed point of view (Skagerlund, Lind, Strömbäck, Tinghög & Västfjäll, 2018:18; Taylor & Wagland, 2013:70). It helps to improve the level of understanding of financial matters, in turn aiding individuals to process financial information with full knowledge.

The lack of FL skills and knowledge makes it difficult for people to confidently make sound financial decisions, as a result they often make mistakes in decision-making (Bhushan & Medury, 2013:155). It is for this reason that Taylor and Wagland (2013:71) argue that the promotion of FL awareness is pivotal to reduce the risk of poor financial decision-making. Klapper et al. (2015:4) believe that without proper understanding of basic financial concepts, people are not well-equipped to make decisions related to sound financial management. Consistent with the DBE (2011a:4), the OECD and INFE (2013:9) assert that the teaching of FL should include, amongst other things, the following domains, "knowledge, understanding, skills, behaviours, attitudes and

values", which will enable learners to make sound financial decisions in their daily life and when they become adults. This prompted the researcher to explore the teaching of knowledge, skills, and values in FL as promoted in the CAPS document for EMS (DBE, 2011a:4). In defining the teaching concept, Jadama (2014:20) added attitude, hence the researcher included the role of attitudes in exploring the teaching and learning of FL. These domains are discussed in the next section below.

2.6 THE DOMAINS TO TEACH AND ASSESS IN FINANCIAL LITERACY

The DBE (2011a:4) is of the view that equipping learners with "knowledge, skills, and values", as well as attitudes is essential for self-realization and for learners to be active participants in decision-making; hence, it regards these dimensions worth learning in the South African school curriculum. It has also been noted in the CAPS document for EMS that educators need to consider these three dimensions in their assessment (DBE, 2011a:24). This suggests that the teaching and assessment of the national curriculum statement needs to address the aspects mentioned by Jadama (2014:20), OECD and INFE (2013:9) and the DBE (2011a:4). According to Yildirim and Yazici (2017:113), an educator cannot be declared competent if these aspects namely, knowledge, skills, and values are not promoted in the teaching and learning of FL; hence, Abid, Hussain, Ch, Saeed and Shoaib (2017: 246) regard these domains as important features of educators' competence. In this study, the three dimensions, including attitudes were considered in exploring the PCK of EMS educators in teaching and assessment of FL in Grades 8 and 9. The next section below focuses on knowledge to teach and assess in the teaching and learning of FL.

2.6.1 Exploring the Knowledge to Teach and Assess in Financial Literacy

According to Van Wyk and Reis (2016:184), knowledge is what the learner should be able to know, to do and understand by the time the lesson or topic is completed. In achieving this objective, educators need to be clear about the kind of knowledge they want to impart to learners and assess at the end of a lesson or topic. In this regard, the researcher explored the framework presented by Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths and Wittrock (2001:27), Krathwohl (2002:214) and Pickard (2007:48-49), which identifies four dimensions of knowledge that educators need to teach and assess in a subject: factual knowledge, conceptual knowledge, procedural knowledge, and metacognitive knowledge. This framework was viewed to

be crucial as it outlines a balance in terms of the types of knowledge to be taught and assessed in a subject. According to Wasiu and Abiola (2019:67), if educators know and possess the right type of knowledge dimension, the interventions of such educators in the classroom lead to greater learner achievement; however, if educators lack the right knowledge dimension, learner achievement suffers. It is for this reason that the framework by Anderson et al., was deemed appropriate to explore the knowledge dimensions that EMS educators need to possess to teach FL. The first type of knowledge that the study looked at is factual knowledge.

2.6.6.1 Factual knowledge

Factual knowledge is also described as "declarative or descriptive" knowledge by Shakhman and Barak (2019:3). According to Anderson et al. (2001:27; Krathwohl, 2002:214), this concept refers to the basic elements that learners need to know for them to be conversant with a subject discipline and be able to solve problems in it. Anderson et al. (2001:45) and Ilhan (2019:46) differentiate between two subtypes of factual knowledge, namely knowledge of terminology and knowledge of specific details and elements. In the context of FL, knowledge of terminology includes specific terms, symbols, and signs used as the language of communicating financial information in the subject discipline (Anderson et al., 2001:45; Shakhman & Barak, 2019:3).

With respect to knowledge of specific terms, learners are expected to define and understand the basic concepts and their relatedness (Ilhan, 2019:46). Anderson et al. (2001) as well as Shakhman and Barak (2019) concur with the general aims of CAPS, which envisages a learner that can use symbols, visuals, and acronyms as a language to communicate information (DBE, 2011a:5). Anderson et al. (2001) as well as Shakhman and Barak (2019) argue that learners need to be acquainted with the terms, labels, signs, and symbols, and learn how to use them in conveying information (Anderson et al., 2001:47). For learners to solve problems in FL, they will need to remember and identify facts, terms, symbols, signs, acronyms, and labels by retrieving appropriate knowledge from their long-term memory (Shakhman & Barak, 2019:3).

This suggests that learners need to be familiar with the following FL (Accounting) terms: capital, types of capital, assets, types of assets, drawings, debtors, creditors, credit, debit, journal, ledger account, owner's equity, income, expenses, profit, current and non-current liabilities, Trial Balance, cash receipt and cash payment (Barnard,

Voges & de Nobrega, 2013:3-5). There are several symbols and signs that are used in communicating financial information; therefore, learners need to be familiar with the meaning of symbols and acronyms used in the subject. For example, in interpreting the Accounting equation, the following equation is used: A=OE+L which means assets are equal to owner's equity plus liabilities. Thus, it is important for learners to know what A=OE+L stands for. The following signs are used to indicate the word they refer to, for example: debit (Dr), credit (Cr), balance brought down (b/d), balance carried forward (b/f), increase (+), decrease (-), cash payment journal (CPJ), and cash receipt journal (CRJ).

According to Anderson et al. (2001:47), knowledge of specific details and elements refers to knowledge of events, locations, people, dates, and sources of information. In the context of FL, learners need to know sources of documents, sources of cash likely to be received by the business, specific date when the transactions took place, name of the business or persons (name of payee or payer), and knowledge of the types of transactions taking place in the business (Anderson et al., 2001:47).

In FL, learners need to know the source documents (source of information) needed in completing transactions on the cash receipt journal (CRJ) or cash payment journal (CPJ), as well as other Accounting subsidiary journals. For example, in completing the journals, learners need to know on which day the transaction took place, they need to fill in the correct source document used to complete the transaction, for example, information of the cheque counterfoil; they need to know why the details of persons or company are very important, including why the date is not completed in full at the top of the CRJ or CPJ and in each transaction completed on these subsidiary books. Additionally, to specific details, for example, in completing the General Ledger, learners need to be taught facts and reasons why certain transactions are recorded on the credit side and others on the debit side. They need to know why balance is recorded as balance brought down and balance carried down on the General Ledger Accounts. They should also be given specific details about why certain transactions are recorded in the sundry accounts' column in both the CPJ and CRJ.

Shakhman and Barak (2019:3) argue that even though factual knowledge may seem as surface-level type of knowledge, this type of knowledge serves as grounding upon which to build different types of knowledge that leaners need to acquire. Shakhman

and Barak argue that educators need help learners use factual knowledge to develop conceptual and procedural knowledge. This means that learners need factual knowledge, which is remembering and understanding before they can develop higher order learning which empowers learners with skills to apply, analyse, evaluate, and create (Agarwal, 2018:1).

The foundation of factual knowledge plays a major role in helping learners develop conceptual and procedural knowledge (Shakhman & Barak, 2019:3); thus, to enhance the former and the latter, educators need to ensure that factual knowledge is taught thoroughly. This clearly indicates the need for educators to reinforce basic knowledge, which in turn leads to higher order learning. According to Flores (2015:3), knowledge is regarded as the lowest level of thinking where learners are expected to remember basic FL concepts. For example, learners could be expected to remember the definitions of concepts such as assets, owner's equity, liabilities, cash payment journal, cash receipt journals, debtors, creditors and so on. Flores maintains that such basic knowledge is critical in providing learners with foundational knowledge before they can be expected to relate and apply these concepts.

The focus was to observe how factual knowledge is taught and assessed in FL.

2.6.6.2 Procedural knowledge

According to Anderson et al. (2001:52) and Shakhman and Barak (2019:3), procedural knowledge refers to the "knowledge of how" to do something or the procedure followed in carrying out or completing an activity. VanScoy (2019:169) describes procedural knowledge as a "step-by-step" instruction or knowledge of steps required in completing a task. Egodawatte and Stoilescu (2015:291) describe this type of knowledge as a rule-oriented approach to problem-solving. This means that certain rules need to be adhered to in recording transactions in subsidiary journals. In the context of FL, this refers to the sequential or logical steps and the criteria to be followed in recording transactions (Shakhman & Barak, 2019:3; Egodawatte & Stoilescu, 2015:291). This is an indication that learners need to be able to apply and follow a sequence of steps in solving problems, analysing, and recording transactions in FL (Schneider & Rittle-Johnson, 2011:1525; Anderson et al., 2001:52). Learners' need to understand how to apply the terminology learnt (Surif, Ibrahim & Mokhtar, 2012:418). For learners to solve problems in the subject discipline, they will need to use their procedural knowledge to

execute a task (Shakhman & Barak, 2019:3), which requires their factual and conceptual knowledge.

According to Flores (2015:3), once learners can comprehend the concepts, they need to be able to apply them in different sections of the learning content. In the context of FL, in opening T-Accounts in the General Ledger, learners can be expected to relate concepts according to assets, owner's equity, and liabilities. For example, bank, debtors' control, and trading inventory are assets to the business. Sales, income, and cost of sales are owner's equity. Creditors' control, bank overdraft, short-term and long-term loans are liabilities. At the application level, learners are expected to be able to apply concepts in different situations. This will indicate their comprehension of concepts.

According to Anderson et al. (2001:53), procedural knowledge consists of the knowledge of skills specific to a subject and its rules, knowledge of specific techniques and methods used in a subject, and knowledge of criteria for determining when to use appropriate procedures. With respect to knowledge of subject specific skills and set of rules, Anderson et al. (2001:53) argue that procedural knowledge involves an order or sequence of steps to be followed in doing something. In the context of FL, this refers to a skill of analysing, interpreting, and recording transactions in subsidiary journals which means learners can carry out procedures to perform a particular task in FL (Al-Mutawah, Thomas, Eid, Mahmoud and Fateel, 2019:260-261). Learners need to be conversant about the components of each subsidiary journal and be provided with the analysis of columns. For transactions that are not provided with columns, learners need to know the procedure to follow in ensuring that all transactions are recorded in an appropriate journal and that details and amounts are clearly shown.

This will ensure that learners are provided with adequate knowledge of procedures so that they can apply a set of rules correctly in solving a problem (Al-Mutawah et al., 2019:259-260). The set of rules will enable learners to follow a correct procedure in completing a task (Growth, 2014:53). Learners portray procedural knowledge in a subject discipline when they can apply correct procedures in solving problems (Al-Mutawah et al., 2019:259). It is for these reasons that Anderson et al. (2001:52), Krathwohl (2002:214) and Shakhman and Barak (2019:3) assert that procedural knowledge refers to the knowledge of subject-specific techniques, methods,

procedures, and a set of rules to be applied in doing something and knowing how and when to apply these strategies.

Anderson et al. maintain that the steps can be followed in a fixed order and at times a decision must be made about which step to perform first. In FL, the Accounting cycle dictates how recording needs to be executed. For example, the first step in the Accounting cycle is a transaction, followed by source documents, recording of transactions in journals, posting to ledger, Trial Balance, income statement, and the development of a balance sheet. The answers or solutions in FL are objective in nature, suggesting that the end results are fixed because there is only one single answer therefore the answers are simply factual. Thus, the result of using procedural knowledge leads to factual knowledge or conceptual knowledge. Anderson et al. (2001:53) maintain that the emphasis in procedural knowledge is on the learners' knowledge of the procedure rather than on learners' ability to use it. However, Suri et al. (2012:418) do not agree with Anderson et al. They state that learners need to know the procedure and the ability to apply it in solving problems.

With respect to knowledge of subject specific techniques and methods, Anderson et al. (2001:54) argue that procedural knowledge covers the knowledge of teaching methods and techniques used in seeking solutions to problems. Concurring with Anderson et al., Ilhan (2019:46) believes that procedural knowledge covers the criteria for how to solve any problem and how to use teaching methods, skills, set of rules, and techniques in this process.

With respect to knowledge of criteria for determining when to use appropriate procedures, Anderson et al. (2001:54) maintain that learners need to know subject-specific procedures and when to use them. This according to Anderson et al., involves knowing the ways procedures have been used in the past. The teaching of FL is informed by the general accepted accounting principles (GAAP), which outlines the rules and principles to be followed and applied in recording transactions in the subject. Hence Anderson et al. (2001:54) describe this type of knowledge as historical or encyclopaedic. Therefore, learners are required to know the methods and techniques that have been used in similar inquiries. VanScoy (2019:168) argues that procedural knowledge is knowledge of specific strategies and actions that are used to accomplish tasks and solve problems. For this objective to be realised, Anderson et al. (2001:54-

55) argue that it is expected for educators to know when and where to apply their knowledge and strategies. These authors maintain that a set criterion needs to be followed in deciding about when and where to use different types of subject-specific procedural knowledge.

In the context of FL, it means knowing Accounting rules and principles to be followed in recording transactions in subsidiary journals, knowledge of the Accounting cycle in following the correct procedures in recording and using the Accounting equation in classifying accounts according to assets, owner's equity, and liabilities. In FL, there are set of rules to follow in completing financial transactions, for example, in calculating mark-up price and cost of sales, completing a transaction on CPJ, CRJ, performing transactions on the Accounting equation, posting from CPJ or CRJ to General Ledger Account using T-Account, procedures to apply in double entry systems in preparation for a Trial Balance. The specific nature of the subject set of rules, methods and procedures, and their knowledge reflects specific subject knowledge and ways of thinking that is different from the application of general strategies in solving a particular problem in any discipline (Anderson et al., 2001:53).

Learners should be able to justify why certain transactions are recorded on CRJ and others on CPJ. They should be able to explain why certain transactions are recorded on the debit side while others are completed on the credit side on the balance sheet section and the nominal section in the Trial Balance. Learners should be able to see the connections between concepts so that they do not treat them in isolation. For example, learners may be required to analyse certain transactions and use certain information given to show how receipts and payments are completed in the CPJ or CRJ and how posting is done to these subsidiary books.

2.6.6.3 Conceptual knowledge

According to Shakhman and Barak (2019:3) and Schneider and Rittle-Johnson (2011:1525), conceptual knowledge refers to the understanding of concepts and their relatedness. Khashan (2014:182) also agrees with Shakhman and Barak (2019) and Schneider and Rittle-Johnson (2011) that conceptual knowledge is rich with relations in that it refers to the basic subject constructs and relations between the ideas that illustrate subject procedures. According to Al-Mutawah et al. (2019:259), competency in a subject depends on learners' conceptual development and finding connection of

concepts and procedures. If learners lack conceptual understanding, they tend to perform poorly in solving problems in a subject discipline (Al-Mutawah et al., 2019:259). According to Flores (2015:3), once learners have acquired foundational knowledge, they need to move to the next level which is comprehension. This means that learners need to demonstrate that they understand the concepts presented to them. Understanding, according to Flores, means learners can explain their understanding of concepts using their own words. In addition, they can see the connections and relationship that exists between concepts.

According to Anderson et al. (2001:49), conceptual knowledge includes three subtypes of knowledge, namely knowledge of classifications and categories, knowledge of principles and generalisations, and knowledge of theories, models, and structures. The knowledge of classifications and categories deals with connecting links between and among specific elements (Anderson et al., 2001:49). Ilhan (2019:46) argues that it is the level at which relations between concepts are established. Conceptual knowledge and understanding means learners understand concepts, how they are used and their relatedness (Al-Mutawah et al., 2019:260).

According to Growth (2014:53), conceptual knowledge is characterised most clearly as knowledge that is rich in relationships. Concurring with Growth is VanScoy (2019:169) who also agree that conceptual knowledge consists of the core concepts for a domain and their interrelations. Yurniwati and Yarmi (2020:188) are of the view that an educator with adequate conceptual knowledge can explain the concepts and understands the relationship between them. Learners are expected to display the ability to interpret and explain the different representations (Shakhman & Barak, 2019:3). For example, in FL, the Accounting cycle shows the transactions taking place at various stages of the cycle in real-life and the relationship between the concepts used in the cycle.

In the context of FL, the focus was on the classification of subsidiary books, namely CPJ and CRJ, Accounting equation, General Ledger, Trial Balance, as well as its components. The application of the Accounting cycle and its principles in the recording of transactions in subsidiary journals. The researcher also looked at the application of the Accounting equation in classifying transactions according to assets, owner's equity, and liabilities. The use of the T-Account structures in the recording of

transactions in the General Ledger accounts. In classifying and putting transactions into categories in FL, educators need to empower learners to classify transactions according to assets, owner's equity, and liabilities. Learners need to know that all payment transactions are recorded in the CPJ while transactions on monies received by the business are recorded in CRJ.

Learners need to know the components of both the CPJ and CRJ so that it can be easy for them to classify transactions into appropriate columns in subsidiary books. For example, the CRJ may consist of the following columns: document number, day, details, analysis of receipts, bank, sales, cost of sales, and sundry accounts (Barnard & Voges, 2015:9). The CPJ may consist of the following columns: document number, day, details of payee, bank, columns (for trading stock, wages, stationery), and sundry accounts (Barnard & Voges, 2015:12). Proper classification of transactions of information by learners will serve as an indicator that learning and development of concepts is taking place because learners will be able to classify transactions according to payments and receipts.

Learners may be required to analyse certain transactions and use the information given to complete the CPJ or CRJ; therefore, to show understanding of concepts and their relatedness, learners will have to display their understanding of the components of each subsidiary book for them to be able to classify information. For example, in the CRJ, learners will indicate the following information: Analysis of receipts, bank, sales, cost of sales, current income and sundry accounts (Barnard et al., 2013:37) while for the CPJ, bank, trading stock, material cost, wages, stationery and sundry accounts (Barnard et al., 2013:37). Learners should be able to analyse transactions and determine where transactions are recorded if the business is paying for something or if the business is receiving income. They also need to know the order of recording transactions in the subsidiary books.

With respect to knowledge of principles and generalisations, VanScoy (2019:168) states that conceptual knowledge is an understanding of the definitions, rules, and principles in an area of knowledge. FL, like Chemistry, is a subject that contains rules and principles to be followed in solving a problem (Surif et al., 2012:419). FL is a very practical subject, and it is governed by the general accepted Accounting principles

(GAAP). Transactions in this subject need to be conducted in line with these principles that require learners to follow certain steps in completing transactions.

Mills (2019:18) argues that for educators to teach concepts effectively, they need to have conceptual understanding themselves. This clearly shows that educators need to understand FL concepts to promote an understanding of these concepts to learners. According to Mills (2019:17), once learners gain conceptual knowledge, they will be able to use such knowledge to reconstruct a procedure. Supporting this view are Hutkemri and Zamri (2016) in Yurniwati and Yarmi (2020:188) who believe that conceptual knowledge positively influences learning achievement and conceptual considerations to obtain procedural knowledge. This means that it will be easy to master procedural knowledge if conceptual knowledge is adequately developed. Flores (2015:3) argues that once learners establish the foundation of knowledge and move to comprehension level, they should demonstrate that they understand the concepts by applying the information. For example, learners' ability to successfully classify transactions into payments and receipts in CRJ and CPJ will demonstrate that they have acquired new information and that they are able to apply it in recording transactions on the subsidiary journals.

The knowledge of theories, models, and structures means learners can use and comment on the relationship between them in different conditions that relates to a subject (Ilhan, 2019:46). In the context of FL, the study looked at learners' understanding and usage of models and structures in the subject discipline, which included models such as the Accounting cycle and Accounting equation, and structures of CPJ, CRJ, General Ledger, and Trial Balance. According to Surif et al. (2012:419), if learners lack conceptual understanding, they may use inappropriate concepts in solving problems. Supporting this assertion is Charlesworth (2012) in Al-Mutawah et al. (2019:262) who argue that conceptual development plays a major role in learners' acquisition of knowledge. Appropriate knowledge and grasp of concepts are important in aiding learners to understand problems and develop appropriate strategies to solve them (Egodawatte & Stoilescu, 2015:290). For example, the completion of a Trial Balance will require learners to follow double entry principle, otherwise it will be difficult to get correct answers. Knowing the basic facts that all payments are recorded in the CPJ, and receipts are recorded in the CRJ will make it easy for learners to analyse transactions to complete the journals appropriately. In

assessment, educators need to ascertain whether these principles are strictly adhered to by learners.

Conceptual knowledge is reflected through learners' ability to provide relevant examples to show their understanding and application of concepts (Khashan, 2014:216). Supporting this assertion are Al-Mutawah et al. (2019:259) who argue that the learners' ability to provide examples related to concepts presented in class demonstrates their understanding of concepts. It is for this reason that Egodawatte and Stoilescu (2015:291) argue that conceptual knowledge must be learnt meaningfully because conceptual knowledge is acquired through meaningful learning (VanScoy, 2019:169). In the context of FL, in classifying the grouping of accounts in the Accounting equation, learners can be required to provide examples of the types of assets, owner's equity and liabilities.

2.6.6.4 Metacognitive knowledge

Peklaj (2015:189) describes metacognitive knowledge as learners' awareness of new information acquired, concepts that they already know, as well as their awareness of what is unknown to them. It refers to knowledge about oneself and the factors that might impact performance and knowledge about strategies that might improve it, and knowledge about when and why to use those strategies (Lai, 2011:2). Stillman and Mevarech (2010:145) and the National Research Council (2001) as pointed out by Seraphin, Philippoff, Kaupp and Vallin (2012:368) define metacognition as the processes that guides individual's own thinking. Concurring with this view are Zepeda, Hlutkowsky, Partika and Nokes-Malach (2018:5) and Graham and Phelps (2003:5) who also believe that the concept refers to knowledge concerning one's own cognitive processes.

There are various definitions of metacognition, however, what is common is that the emphasis is on the "knowledge of one's thoughts", which includes the monitoring and control of an individual's cognitive processes (du Toit & Kotze, 2009:58). This standpoint is shared by Lusk (2016:142) who also argues that while there are some differences in how metacognition gets defined, all definitions focus on the control of the cognitive processes, where a learner monitors, reflects and evaluates their own thinking in the learning process.

In simplifying the concept, the researcher explored the explanation provided by Lusk (2016:142) where cognition and metacognition are clearly explained. This author asserts that cognition is what is needed to perform a task, while metacognition is what is necessary to understand how a task should be carried out. This requires the monitoring and controlling of one's thoughts to achieve the objectives (Zepeda et al., 2018:5; Papaleontiou-Louca, 2003:12; Graham & Phelps, 2003:5; du Toit & Kotze, 2009:58). This is unlikely to take place if learning objectives are not clearly articulated to learners, thus, for learners to monitor, reflect and evaluate their own learning progress. Learners need to be made aware of the learning objectives, which clearly indicate the action verb that stipulates the knowledge to be acquired, skills that they need to display during and at the end of the lesson/topic, as well as the values that they need observe when doing their work. For metacognition to be realised, the teaching and learning activities informed by the cognitive verb in the lesson objective statement need to determine how learners should be able to perform a particular task.

According to Eskola (2011:64), self-controlled learning is not applicable in the old-style of learning where an educator prescribes the teaching and learning activities, and the learner is expected to perform the activities prescribed. In self-controlled learning, educators need to encourage learners to control their own learning process and for this to happen, learners need to be provided with techniques that they can use to achieve learning objectives. Learners need to set objectives to master the learning content (Eskola, 2011:65) and these objectives should be consistent with the lesson objectives formulated and communicated by an educator. In the absence of lesson objectives indicating the level at which knowledge, skills and values should be attained, it is not possible for learners to set learning objectives consistent with those of an educator. This clearly indicates that educators need to level the playing field by formulating and communicating lesson objectives to learners so that they can strategize, develop, and implement learning strategies aimed at achieving lesson objectives.

Ambrose, Bridges, DiPietro, Lovett and Norman (2010:193) provide a framework on how educators can promote metacognitive knowledge since Lusk (2016:142) views metacognition as a critical component of the learning cycle. The author argues that the learning cycle starts with collecting information and then reflecting, creating, and testing what has been learnt. The learning cycle depicted in Figure 2.1 below clearly

indicates that metacognition processes take place during all the phases of the learning cycle (Lusk, 2016:142). Peklaj (2015:186) concurs with Lusk (2016) by asserting that learners in the classroom work with their metacognitive processes: they process information and solve problems, they try to remember the learning content, and develop concepts by classifying, comparing, and contrasting different aspects of objects and processes. They also regulate their own learning by planning, monitoring, evaluating and correcting learning tasks and processes.

Figure 2.1 below depicts how the cycle of self-directed learning takes place and a process that learners need to explore to develop metacognitive skills. Rahman, Jumani, Satti and Malik (2010:219) argue that if educators are aware of their metacognition they will teach with metacognition for metacognition. In achieving this objective, the researcher explored the learning cycle provided by Ambrose et al. (2010:193) to provide the steps to follow in promoting metacognition knowledge.
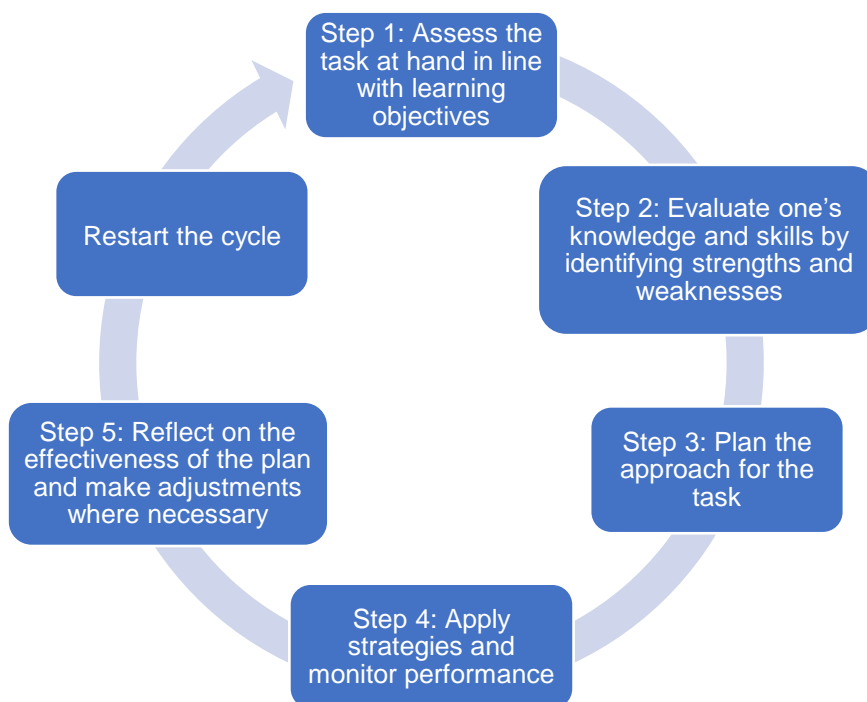
Figure 2.1: Cycle of learner self-directed learning

(Adapted from Ambrose et al., 2010:193)

- **Step 1: Assessing the task at hand in relation to the learning objectives**

Learners need to know the goal or purpose of the task given to determine exactly what needs to be done (Portilho & Medina, 2016:2). This means that educators need to clearly articulate what learners need to do to meet the objectives of the assignment (Ambrose et al., 2010:204). According to Papaleontiou-Louca (2003:19) and du Toit and Kotze (2009:58), educators need to make learners aware of strategies, rules, and instructions to be followed in completing a task. In assessing the task, learners need to read the instructions carefully and ensure that they understand them, this should be part of their planning (Ambrose et al., 2010:194). Learners need to be aware of the motives behind the topic to be presented, the demands of the task that lies ahead and their intellectual capabilities needed for them to take control over teaching and learning strategies employed during teaching (Graham & Phelps, 2003:5). According to Ambrose et al. (2010:205), the role of an educator is to check learners' understanding of the task to make sure that they accurately assess the task at hand. Ambrose et al., suggest that this can be done by asking learners what they think they need to do to complete a particular task or how they plan to go about doing the task, then give them feedback, including suggestions or alternatives in an event their strategies do not map onto the requirements of the task (Ambrose et al., 2010:205).

- **Step 2: Evaluating one's knowledge and skills through identification of strengths and weaknesses**

According to Ambrose et al. (2010:195), in this phase, learners need to evaluate their strengths and limitations of their knowledge in the subject even though learners tend to be "poor judges of their own knowledge and skills". Learners with weaker knowledge and skills are less able to assess their capabilities than learners with stronger skills (Ambrose et al., 2010:195). du Toit and Kotze (2009:58) argue that during the learning activity, educators can encourage learners to share their progress, cognitive procedures, and views of their conduct. This will enable an educator to identify problem areas in the learners' thinking at an early stage and guide them properly.

Ambrose et al. (2010:196) argue that to inaccurately assess one's knowledge and skills relative to achieving a particular goal is particularly disconcerting because it has serious restrictions for one's ability to achieve the set goal. These authors are of the opinion that learners need to evaluate their abilities more realistically so that they can

engage appropriate strategies that would help them obtain better outcomes. In helping learners to evaluate their strengths and limitations in the subject, Ambrose et al. (2010:206) advocate for the sufficient administration of formative assessments to help learners detect knowledge gaps at an early stage. This can be implemented by using a teaching method which involves constant and effective use of a questioning technique. The administration of sufficient formative assessment will provide learners with ample practise on different activities and timely constructive feedback which will help them develop a more accurate assessment of their strengths and weaknesses (Ambrose et al., 2010:206; Papaleontiou-Louca, 2003:18).

The feedback in terms of marking activities in FL need to show how learners earned marks in the recording of transactions. This, according to Ambrose et al. (2010:206), should be done early in the first term so that learners learn how feedback is provided in FL and adjust the way they complete transactions where necessary. Educators need to provide opportunities for learner self-assessment where learners are exposed to the kinds of questions that they will see in real examination (Hollingworth & McLoughlin, 2001:55-56). During learners' exposure to different types of questions, they need to be provided with clear and timeous feedback so that they can check their own work and rectify mistakes (Ambrose et al., 2010:206).

- **Step 3: Planning an appropriate approach for the task**

According to Rahman et al. (2010:219), if learners are aware of their metacognition, they will be able to plan and monitor their learning progress in a way that impacts positively on their performance because they become strategic in their approach and eventually perform better. According to Zepeda et al. (2018:5-6) and Vula, Avdyli, Berisha, Saqipi and Elezi (2017:51), planning occurs at the beginning of a task where learners identify the goal and allocate resources and strategies to reach that goal. In their research study, Ambrose et al. (2010:197) noted that in the planning approach, learners tend to spend too little or no time planning for the task ahead. These authors noted that intelligent learners spend more time planning the approach to perform a particular task and as a result they complete it more quickly and accurately unlike weak learners who spent little time or no time at all planning for the task. This lack of planning, according to Ambrose et al. (2010:197), leads the novices to waste much of their time because they made false starts and take steps that ultimately do not lead to

a correct solution. Such learners end up not performing well in a task due to poor or lack of planning.

- **Step 4: Applying strategies and monitoring performance**

According to Zepeda et al. (2018:6), monitoring occurs during the implementation of a task where learners assess their understanding and monitor their progress towards the achievement of their goal. This can only take place if learning objectives are communicated to learners because they need to know what knowledge and skills, they need to be able to perform. Ambrose et al. (2010:197) and Vula et al. (2017:51) argue that once learners have a plan in place and begin to apply strategies to implement it, they need to continuously monitor their performance. As they implement the strategy, they need to ask themselves, "Is this strategy working, or would another one be more productive?" (Ambrose et al., 2010:197-198; Papaleontiou-Louca, 2003:18). This would empower learners to consciously monitor their own cognitive strategies towards achieving specific goals (du Toit & Kotze, 2009:58).

Without effectively monitoring their own progress, learners may continue to apply an ineffective strategy and consequently waste time and achieve poor outcomes (Ambrose et al., 2010:198). To circumvent this, Zepeda et al. (2018:5) advise learners need to have a strategy on how to achieve their goals. This involves knowing the steps to be taken, procedures to follow, and enablers needed to solve a particular problem. Knowing the steps and procedures to follow makes monitoring easier because the type of results expected are known at each stage of the process. One can also be able to trace back and detect where mistakes happened. According to Ambrose et al. (2010:198), a research conducted on the "effects of students' self-monitoring activities" proves that learners who monitor their own progress and try to explain to themselves what they are learning along the way generally show greater learning gains as compared to students who engage less often in self-monitoring and self-explanation activities (Ambrose et al., 2010:198).

In monitoring performance, Ambrose et al. (2010) suggest several strategies that can be used. First, Ambrose et al. (2010:198) and du Toit and Kotze (2009:59) suggest that learners should be encouraged to continually stop themselves as they perform a particular and ask whether they understand the concepts because self-monitoring one's performance would improve learning. They should explain to themselves what

they are learning at different stages of the learning process (Ambrose et al., 2010:198; Hollingworth & McLoughlin, 2001:58). Second, Ambrose et al. (2010:208) suggest that educators need to provide simple problem-solving strategies for learners' self-correction. This can be done by teaching learners to learn or discover things for themselves so that they can be able to assess their own work and identify any errors. Learners must be provided with a set of rules intended to solve a particular problem. For example, learners should be encouraged to ask themselves questions such as "Is this a reasonable answer, given the problem?" If the answer is unreasonable the learner would know that he did something wrong and can reconsider his reasoning and re-do the work (Ambrose et al., 2010:208), this would ultimately be followed by good results.

Third, learners should also be encouraged to do guided self-assessments, which require them to assess their own task or work against a set of criteria provided by an educator. Such exercises, according to Ambrose et al. (2010:209), can raise learners' awareness of task requirements, hone their ability to recognise the qualities of good and poor work, and teach them how to monitor their own progress towards achieving learning goals.

Fourth, according to du Toit and Kotze (2009:60), educators need to encourage learners to reflect on and interpret their own work by asking them to explain the steps followed in completing a particular task. They will have to explain what they did and why and describe how they responded to various challenges in the process of completing a particular task (Ambrose et al., 2010:209; Papaleontiou-Louca, 2003:17).

Fifth, in monitoring their performance, Ambrose et al. (2010:209); Papaleontiou-Louca (2003:23), Hollingworth and McLoughlin (2011:58) and du Toit and Kotze (2009:61) urge educators to explore peer review where learners analyse their classmates' work and provide feedback. This process will help skilled learners to evaluate and monitor their own work more effectively and then revise it accordingly. Learners could be involved meaningfully during instruction by identifying errors committed by their peers and clarify them, in so doing cooperative learning would be enhanced (Ambrose et al., 2010:209). For example, a learner may ask a fellow learner to assess whether transactions on the CPJ or CRJ have been recorded accurately or not (Ambrose et

al., 2010:210). If not, an explanation should be given, this encourages learners to engage in a productive and building educational dialogue.

- **Step 5: Reflecting on and adjusting one's approach**

Ambrose et al. (2010:199) argue that when learners engage in the process of monitoring their performance and identifying failures or shortcomings in their approach, there is no guarantee that they will adjust or try more effective alternatives. Educators need to provide learners with alternative strategies in solving a particular problem as this will motivate them to change and adjust to a new strategy if the other strategy is not working in helping to provide a solution to a problem (Ambrose et al., 2010:199). For example, educators need to be aware of the strategies used by learners to complete transactions in FL and ascertain whether these strategies are helping in solving problems, if not, learners need to be guided properly.

In reflecting on and adjusting one's approach, Ambrose et al. (2010) suggest several strategies that can be used. First, design learner activities that require them to reflect on their performances because self-reflection can give them a valuable opportunity to stop and reflect on their strongpoints and limitations, and in the process, build their metacognitive skills (Ambrose et al., 2010:210). This is consistent with the definition of the concept metacognition provided by Peklaj (2015:189) that states that if learners are aware of new information and concepts acquired that they already know, they become aware of what they do not know. For example, if learners can detect and correct errors while analysing the effects on the Accounting equation, that shows that they are now aware of new knowledge acquired (Zepeda et al., 2018:5). In the process of reflecting, learners could ask themselves the following questions, "What am I doing, how I am doing, am I doing it right?" (Rahman et al., 2010:219).

Secondly, according to Rahman et al. (2010:219), metacognitive awareness enables individual learners to plan and monitor their own learning which in turn improves performance. If a learner is not aware of his/her weaknesses in the subject, such a learner cannot seek help because of being unaware of any learning gaps (Lusk, 2016:142). Hence Lusk advocates for self-reflection which allows a learner to evaluate and monitor his/her own progress in the learning process. In this way, learners will be aware of what is known and that which is not known (Papaleontiou-Louca, 2003:18).

Therefore, reflection, according to Lusk (2016:143) will help learners to recall information, in turn helping them realise their limitations in knowledge and seek help.

Lastly, Ambrose et al. (2010:211) and Hollingworth and McLoughlin (2001:60) urge educators to present multiple strategies that can be used to conceptualise, represent, and solve a task. In other cases, learners might be asked to solve problems in multiple ways and then discuss the advantages and disadvantages of the different methods. This will expose learners to different approaches and the merits of their analysis can highlight the value of critical exploration (Ambrose et al., 2010:211). In concluding this section, the main question remains whether educators are aware of their metacognition, are educators teaching with metacognition and for metacognition. Portilho and Medina (2016:3) and Papaleontiou-Louca (2003:17) argue that educators need to be aware of strategies that are effective in developing learners' metacognitive abilities so that such strategies are incorporated in the teaching methods of their choice. It is for this reason that Rahman et al. (2010:219) assert that educators need to think about the following aspects when planning their lessons:

- Lesson aims and objectives
- Various teaching methods and strategies
- Teaching and learning materials to be used during instruction
- Learners' characteristics and their needs
- Curriculum related issues
- The learning content to be taught and assessed during and at the end of the lesson or topic (Rahman et al., 2010:219).

This is critical since metacognition enables educators to regulate their teaching activities according to learners' goals and the objectives of the lessons as well as the context in which learning occurs (Rahman et al., 2010:219-220). Metacognition helps them to plan their lessons, monitor and evaluate their thinking processes. It equips educators with knowledge and skills about when, why, and how to use their teaching knowledge and skills strategically. In their quest to develop metacognition and teach for metacognition as suggested by Rahman et al. (2010:219), educators need to think about how teaching will activate and develop learners' metacognition.

2.6.2 Exploring the Skills to be Developed and Assessed in Financial Literacy

Skill is the ability to do something. In the teaching context, Van Wyk and Reis (2016:184) view this concept as what learners should be able to do by the time the lesson or topic is completed. It has been mentioned earlier in this study that FL which deals mainly with Accounting concepts is embedded within EMS therefore the skills to be instilled in learners as outlined in the CAPS document for EMS are general to all the three disciplines within the subject. The skills to be acquired by learners are not clearly stipulated since the overview of the EMS, with regards to FL, as outlined in the CAPS document refers to "financial management, Accounting as a tool for management of a business, and record keeping" (DBE, 2011a:9). This does not clearly stipulate the subject skills that learners need to acquire. It is for this reason that the researcher borrowed the skills to be acquired by learners from the CAPS document for Accounting Grades 10-12. The skills outlined in the CAPS document for Accounting Grades 10-12 were deemed appropriate for the study since they directly address skills to be acquired by learners in Accounting. According to the DBE (2011b:9), the CAPS document for Accounting envisages to produce learners that can:

- Record, analyse and interpret financial and other relevant data to make informed decisions.
- Present and/or communicate financial information effectively by using generally accepted accounting practices in line with current developments and legislation.
- Develop and demonstrate an understanding of fundamental Accounting concepts.
- Relate skills, knowledge, and values to real-world situations to ensure the balance between theory and practise, to enter the world of work and/or to move to higher education, and to encourage self-development; manage business or own finances in a responsible manner.
- Apply principles to solve problems in a judicious and systematic manner in familiar and unfamiliar situations, thus developing the ability to identify and solve problems in the context of the various fields of Accounting.

- Develop the following skills: critical thinking, logical reasoning, and the ability to analyse and be able to apply appropriate skills to current and new situations (DBE, 2011b:9).

According to the National Protocol for Assessment Grade R-12, educators need to be explicit about the skills that they intend assessing (DBE, 2012:3). Therefore, the skills mentioned above were found useful in providing educators with the framework to instil FL skills.

2.6.3 Exploring the Values to be Promoted in Financial Literacy

According to Van Wyk and Reis (2016:184), values are those principles which guide one's life. According to the CAPS document for Accounting Grades 10-12, learners are expected to be guided by the following values, "ethical behaviour, transparency and accountability", in turn making learners develop "sound judgement, thoroughness, orderliness, accuracy and neatness" (DBE, 2011b:8-9). This gives educators a clear framework of what values should be instilled in learners. It is worth mentioning that the values are not a standalone subject but are principles and rules that determine how individuals behave in the conduct of their activities. Todorović (2018:140) believes that the promotion of ethical behaviour eliminates the space for activities that are not in line with moral standards. The general aims as stated in the EMS CAPS document express the importance of imparting "knowledge, skills, and values" to learners in schools (DBE, 2011a:4).

It has been noted with great satisfaction that the Accounting CAPS document is clear on the skills and values that learners need to acquire and display throughout the Further Education and Training (FET) phase. However, the EMS CAPS document wherein FL is embedded indicates that the National Curriculum Statement Grades R-12 also gives expression to values; however, this policy document is silent on the types of values to be instilled in learners (DBE, 2011a:4). It is for this reason that the values stipulated in the Accounting CAPS document for Grades 10-12 were borrowed in observing and assessing how values are instilled in FL, which also deals with Accounting concepts. Ethical behaviour, transparency, and accountability are discussed below.

Ethical behaviour, according to Krč (2015:2), looks at "what is right and what is wrong, what is good and what is evil". Therefore, according Todorović (2018:140), Accounting learners should have the ability identify "what is good and what is bad" as they perform business transactions given. This clearly shows that ethics examine moral decisions taken by people and how they justify those decisions. Mabil (2019:178) argues that ethics in the field of Accounting refer to "moral principles and judgement" applicable in the subject discipline. In the context of FL (Accounting), ethical behaviour refers to performing the Accounting duties in accordance with Generally Accepted Accounting Principles (GAAP), which emphasises amongst other things reliability, accuracy, and objectivity (Karaibrahimoğlu, Erdener & Var, 2009:540). This means that the recording of financial information needs to be processed and recorded without errors and bias (Lepădatu & Pîrnău, 2009:102). There should be faithful representation of financial information and recording. There should be impartiality when making professional and business judgements (Todorović, 2018:140; Al-Taweel, 2015: 9).

According to Lepădatu and Pîrnău (2009:102), transparency refers to the principle of creating an environment where information on existing conditions, decision and actions are made accessible, visible, and understandable to all market participants. In the context of FL, there should be transparency about the existing condition of assets and debts of a business or company (Lepădatu & Pîrnău, 2009:106). This clearly indicates that the information recorded in the financial records need to be accurate and reliable. Accountability refers to the justification of actions taken while implementing the policies of an institution and accepting responsibility for decisions taken and the results thereof (Lepădatu & Pîrnău, 2009:102).

2.6.4 Exploring the Attitudes to be Promoted and Assessed in Financial Literacy

According to Majid (2014) in Natalia, Asib and Kristina (2018:50), to assess the attitudes of learners, an educator needs to observe the behaviour of learners in self-assessment and peer-assessment. The educator can also observe the behaviour and commitment of learners in completing tasks given to them by educators in class or as homework. In this study, learners' books were scrutinised to observe the marking of activities by peers or self-assessment. The purpose was also to check the attitudes of learners in the completion of activities given to them.

According to Xiong, Zhou and Ogilby (2014:2), attitudes are viewed as beliefs that influence individuals' choices, behaviours, and actions. They determine to what extent a learner recognises a need to learn. Gal and Ginsburg (1994) in Xiong et al. (2014:2) find that negative attitude hampers learning. There are various reasons leading towards learners developing an attitude in a subject. Davadas and Lay (2020:489) conducted a study on the "contributing factors of secondary students' attitude towards mathematics", in their study, they found that learners tend to hate a subject due teaching styles used by educators in presenting the learning content. Additionally, the difficulty in understanding the subject content and the learners' ability in applying the strategies in solving problems in it were also cited. This shows that the way the subject is presented has a bearing towards learners' attitude in it (Davadas & Lay, 2020:490).

Tapia (1996b) in Davadas and Lay (2020:490) describes four components of attitude, namely "value, motivation, confidence, and enjoyment". The negative attitudes towards a subject are influenced by the value that learners see in doing it, how motivated learners are during the teaching of the learning content, how confident they are with the understanding and knowledge of concepts, and whether they enjoy the subject or not. According to Berková, Krejčová and Novák (2020:9), learners' motivation plays a major role in learner performance. Berková et al. (2020:10) assert that learners' enjoyment and perceptions about a subject influences their attitude about it.

The home environment, together with parental involvement, has been identified by Davadas and Lay (2020:490) as having an influence on learners' attitudes towards a subject. In their analysis, Davadas and Lay argue that low literacy levels of parents in a subject impact negatively on their involvement in their children's learning, in turn affecting the children's attitudes on the subject. Davadas and Lay maintain that if parents have a passion for the subject and are helping their children to understand it, this might have a positive impact on learners' attitude towards it and it might encourage a learner to even pursue a career in that subject. According to Berková et al. (2020:11), learners may be motivated to study a subject if they see its importance in their future education and career paths.

According to Maison, Haryanto, Ernawati, Ningsih, Jannah, Puspitasari and Putra (2020:55), the feelings of liking in learning affect learners' attitudes towards a subject.

Attitude is one of the influential factors in the success of learning a subject because it affects learners' emotions, thoughts and behaviours in the learning and teaching processes (Türkarslan & Akdemir, 2019:151). Türkarslan and Akdemir argues that attitudes can be strengthened, minimized, and reformed. For this to happen, educators need to know learners and know how they feel about the subject and respond appropriately to the information acquired to improve the learning process in the classroom. If an individual's attitude is known, it is easy to predict that person's behaviour towards a subject (Türkarslan & Akdemir, 2019:152).

Maison et al. (2020:55) assert that educators need to make a subject more fun to learners. Maison et al., state further that, if learners find the subject enjoyable, they are likely to add more learning time to such a subject and want to know more about it. The pleasure created by an educator in a subject makes learners love and feel happy about it. Maison et al. (2020:55) further add that learners will develop a love for the subject if educators add variety in its teaching by presenting learning material that stimulates their interest in the subject. If the teaching methods used are boring, learners are likely to develop a negative attitude towards a subject. Therefore, Ülgen (1997) in Türkarslan and Akdemir (2019:152) urges educators to use teaching approaches and strategies that encourage learners to develop a positive attitude to a subject. Attitudes affect individual learners' decisions (Türkarslan & Akdemir, 2019:152), which suggests that if they feel that a subject is difficult to understand, they are likely to decide not to pursue the subject any further when choosing subjects in higher grades.

This part of the study focused on the types of knowledge dimensions, subject specific skills, values, and attitudes to be promoted in the teaching of FL. The researcher believes that these dimensions need to be taught and assessed in line with the lesson objectives hence the section below explores the relationship between lesson objectives, learning content to be taught and assessed, as well as how learners learn and how are they assessed in a subject discipline.

2.7 THE RELATIONSHIP BETWEEN LESSON OBJECTIVES, CONTENT AND ASSESSMENT

This topic is discussed in line with the framework provided by Anderson (2007:472), which looks at the relationship between lesson objectives, and the subject content to be taught and assessed.
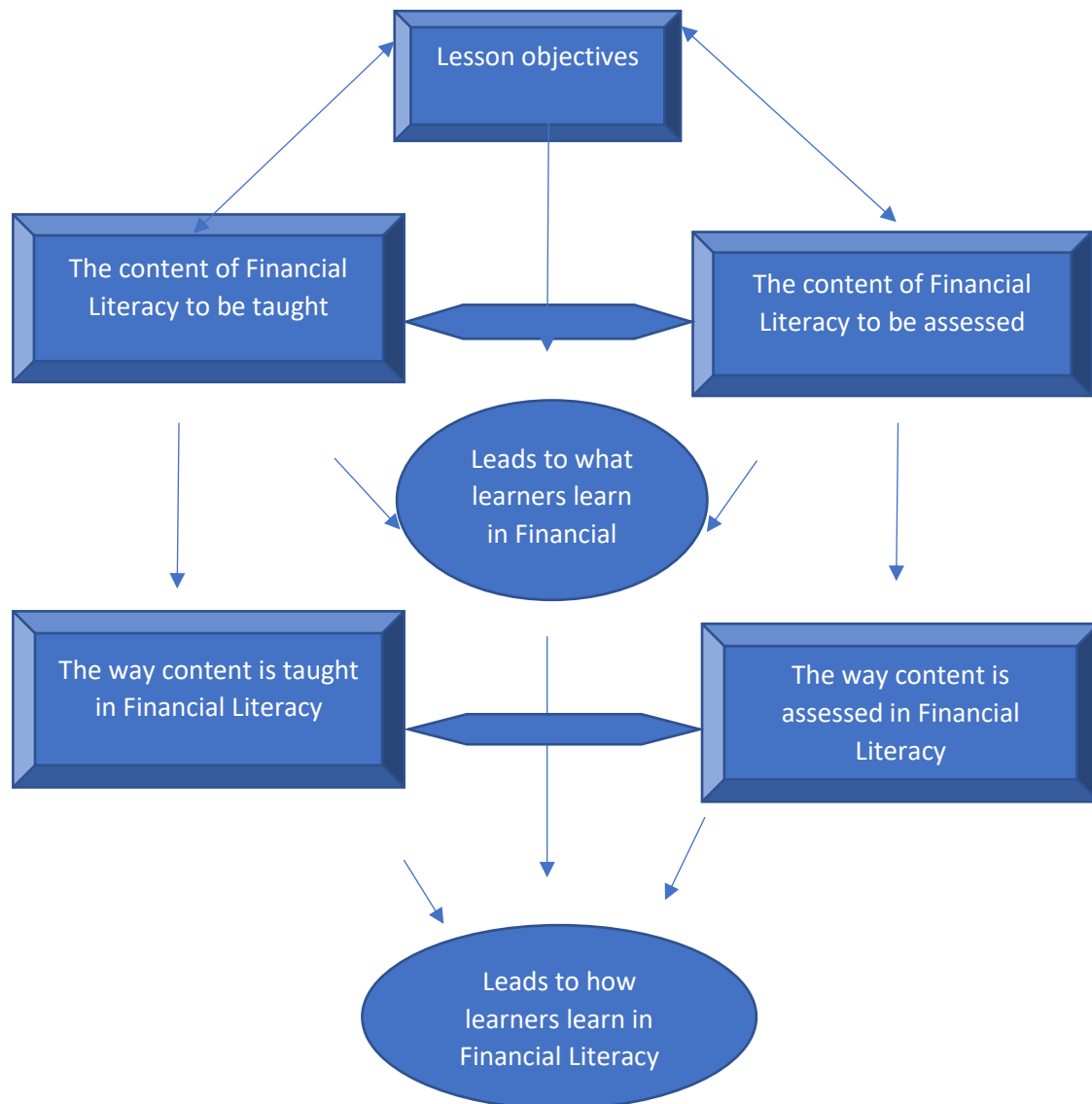
Figure 2.2: Relationship between objectives, learning content and assessment

(Adapted from Anderson, 2007:472)

According to Ambrose et al. (2010:244), Biggs (1999:64), Popenici and Millar (2015:3), van Wyk and Reis (2016:184), Mathumbu, Rauscher and Braun (2014:2), Denton,

Armstrong and Savage (2001:11), Fielder (2014:19), Haley-Speca (2016:22) and Acito (2002:1), the learning or lesson objectives are guiding statements of what learners need to "know, do and understand and be able to demonstrate" during or at the end of the lesson. The verb generally describes the intended cognitive process while the noun describes the knowledge that learners are expected to acquire. Therefore, lesson objectives need to clearly articulate what educators expect from learners. Reed (2012:16) and Gagné, Briggs and Wager (1992:1) maintain that educators need to inform learners at the beginning of the lesson of the knowledge and skills that they want them to achieve at the end of the lesson. The same sentiments are shared by Fives, Barnes, Dacey, and Gillis (2016:71) who also concur that educators need to formulate and communicate the lesson objectives to learners. In this way, learners become aware of educators' expectation regarding the learning content that is to be presented to them during instruction (Gagné et al., 1992:1).

In crafting lesson objectives, Reed (2012:16) posits that, educators need to describe the expectation by phrasing it in behavioural and measurable terms hence Anderson et al. (2001:4-5) and Biggs (1999:64) argue that a statement of an objective needs to contain a verb and a noun. For example, it needs to state clearly what learners need to be able to do at the end of the lesson or topic. This should be indicated by a verb which describes how the content should be taught and assessed (Zhang & Patrick, 2012:167). A specific measurable indicator is important otherwise it will be impossible for educators to determine the success and quality of the lesson (Reed, 2012:17). The same sentiment is echoed by Gagné et al. (1992:3) who also argue that learner performance should be measured in line with predetermined objectives – this simply mean that such objectives help educators to measure how well learners have learnt a particular topic.

For example, if an educator intends to assess factual knowledge on a particular concept in FL, then in this category learners are expected to recall or remember – recalling or remembering becomes a verb since learners should be able to perform an action. Bloom's taxonomy is regarded as helpful instrument in formulating lesson objectives since it provides the level at which the learning content needs to be taught which are cognitive (knowledge), affective (values and attitudes), and psychomotor (skills) (Acito, 2002:2; Judd & Keith, 2011:35; Zhang & Patrick, 2012:167), which must be attained by learners. The formulation of lesson objectives will help educators to

measure the effectiveness of the events implemented during instruction (Gagné et al., 1992:3). This will ensure that a balance is maintained in teaching a topic or lesson.

This clearly indicates that lesson objectives enable educators to communicate their intentions to learners so that they can "direct their learning efforts and monitor their own learning progress" (Ambrose et al., 2010:244). It is for this reason that Acito (2002:1) argues that learning objectives need to be formulated prior to the presentation of a lesson to provide a clear framework of how the learning content should be presented and to describe what action learners should be able to perform at the end of the topic/lesson. Educators need to reflect on the lesson objectives and be able to properly guide learners who stray from the right path; however, this will be unattainable if an educator does not reflect on the lesson objectives from time to time.

According to Ambrose et al. (2010:244) and Popenici and Millar (2015:2), the learning objectives provide educators with a framework – they bring "clarity, precision, and transparency to curriculum design, teaching practice and assessment practises to be conducted". They bring clarity of expectations for learner performance since they indicate the learning content and how it should be taught thereby allowing educators and learners to focus attention and energy accordingly (Acito, 2002:1). According to Acito, formulating learning objectives is essential in preparing a lesson because the objectives need to clearly articulate the actions that learners need to perform during instruction even post lesson presentation. In Table 2.1 below, Acito differentiates between clear and less clear objectives (2002:1).

Table 2.1: Clear and less clear objectives

CLEAR OBJECTIVES	**LESS CLEAR OBJECTIVES**
To define……	To understand….
To identify……	To know…….
To solve……	To appreciate……

(Adapted from Acito, 2002:1)

The verb contained for clear objectives is specific about the skills that learners need to be able to perform. The action word in less clear objectives is shallow. It is not

consistent with the kind of learner envisaged by CAPS. A learner that can analyse by identifying and solving problems. If educators do not formulate lesson objectives, they might implement the less clear objectives in teaching the learning content. To circumvent this challenge, Fielder (2014:19) advocates for the formulation of lesson objectives citing that it helps educators to organise their thoughts regarding each lesson/topic. Noddings (2007:12) asserts that educators need to the aims of teaching a topic and formulate the lesson objectives in relation to the aims of the lesson. This means that what educators intend to teach should address the change they would like to see at the end of the lesson. In achieving this objective, Noddings (2007) maintains that educators need to analyse the assessment task to ascertain whether the task given to learners addresses the skills needed to achieve lesson objectives because educators need to teach what they will assess at the end of the topic. In this regard, Reed (2012:22) argues that educators need to ensure that there is a link between the activities and lesson objectives as this will guide learners in doing their work, in turn enhancing their learning. The same sentiments are echoed by Acito (2002:1) who articulates that assessment activities, whether formative or summative, should also be formulated directly from learning objectives to ensure that these activities are directly addressing what learners are meant to benefit from instruction (Acito, 2002:1).

According to Reed (2012:16), the purpose of setting the objective is twofold. First, educators need to know the goal of the learning content to be presented to learners so that lessons can be purposefully crafted and planned to help educators achieve the objectives set. Second, the fact that lesson objectives explicitly state what learners should or need to be able to do at the end of the lesson serves as a performance indicator of an output or expected change at outcomes level. Clearly stated lesson objectives are regarded as an essential ingredient and "component of a well-planned lesson" (Mathumbu et al., 2014:1) because they help the educator know which knowledge and skills to teach and how knowledge and skills will be assessed at the end of the lesson or topic (Middle States Commission on Higher Education, 2007:10). It is for this reason that Reed (2012:17) asserts that the lesson objectives need to answer the question: "*How does the educator ascertain whether learners have met the required standards and that they understand the concepts presented to them*?"

In this study, educators were observed to ascertain how lesson objectives are communicated and shared with learners. Lesson plans were scrutinised to ascertain

whether lesson aims, and objectives are clearly formulated and followed in the presentation of lessons. Lesson plans were also scrutinised to ascertain what knowledge, skills, and attitudes educators aim to achieve. The next section focuses on educators' knowledge of assessment in FL.

- **What content to teach and assess?**

After lesson objectives have been formulated, the next step is to focus on the learning content to be taught and assessed in a subject; therefore, the double-headed arrows in Figure 2.2 above show the relationship between the lesson objectives and the learning content to be taught and assessed (Anderson, 2007:472). Concurring with Anderson (2007) is Biggs (1996) in Biggs (1999:64) who argues that educators need to be clear about what learning content they want learners to learn so that they can "teach and assess" in an "aligned system of instruction". This, according to Biggs (1999), is a "fully criterion-referenced system", where the lesson objectives prescribe the learning content to be taught; the level at which it should be taught; and the indicator to use in assessing the knowledge and skills acquired in the learning process.

Haley-Speca (2016:22) raised the following question: *How will learners show they can do it*? Judd and Keith (2011:34) argue that to make a judgement about whether learners have achieved lesson objectives should be based on evidence. In this regard, the evidence suggesting that learning took place involves change in knowledge, beliefs, behaviours, or attitudes, therefore educators can only conclude that learning occurred by observing or assessing the intended output from learning based on the learning objectives (Ambrose et al., 2010:3).

The best way to find out if learners have achieved the assessment outcomes can only be discovered through assessing the success of the lesson using formative and summative assessment strategies (Anderson, 2007:471). Judd and Keith (2011:34) argue that there should be meaningful levels of performance, justifying learner progress. Hence, these authors maintain that Bloom's (1956) taxonomy that includes cognitive, affective, and psychomotor domains has proven to be a powerful tool in assisting and guiding educators in formulating lesson objectives that incorporate a specified level of performance in the subject topics. The top pentagon line depicted in Figure 2.2 indicates that the learning content to be taught should be in line with the learning content that will be assessed at the end of the topic, it will ultimately lead to

what learners will learn in the subject (Anderson, 2007:472). This clearly indicates that assessment influences learning.

- **How content is taught and assessed?**

The single-headed solid arrows depicted in Figure 2.2 indicate that the learning content to be taught and assessed should determine how the learning content is taught and assessed, in turn determining how learners should be taught. The bottom pentagon line indicates that the subject topic needs to be taught in accordance with how the topic will be assessed. This will determine how learners learn (Anderson, 2007:472). The formulation of lesson objectives needs to indicate how concepts should be taught. For example, an educator can teach learners how to record transactions on the CPJ and CRJ, which means learners need to be assessed on how transactions are recorded in these subsidiary journals.

The teaching method and strategies to be utilised will depend, to a large extent, on the subject matter to be taught (Ezenwafor & Akpobome, 2017:37), as well as the lesson objectives (Dorgu, 2015:77). Hence De Araujo and Slomski (2013:23) and Dorgu (2015:86) argue that the teaching method chosen by an educator needs to match the intended lesson objectives. Concurring with De Araujo and Slomski as well as Dorgu are Fives et al. (2016:71) who state that assessment needs to be aligned to lesson objectives. Fives et al., believe in the alignment of lesson objectives, the activities applied during instruction including assessment practices. According to Acito (2002:1) and Popenici and Millar (2015:3), the classroom assessment activities, including tests, examinations, projects, assignments, and other forms of assessment should be developed directly from learning objectives to ensure that these activities are properly focused on what learners are meant to take away from the learning process. This will ensure correlation between the learning content taught, the way it is taught and assessed.

2.8 THE ROLE OF SUBJECT SPECIALISATION IN TEACHING

One of the objectives of this study is to explore the views of EMS educators regarding the challenges that might be faced by educators who teach Financial Literacy but do not have any learning content background in Accounting subject. Therefore, this section focuses on the role of subject specialization in teaching a learning content

effectively. According to Jadama (2014:27), educators' knowledge and understanding of the subject content means that an educator can teach the main points of the learning content. Yildirim and Yazici (2017:113) are of the view that such an educator has good knowledge and in-depth understanding of concepts and can convey them to learners in the classroom. On the contrary, educators' deficiencies in the knowledge of the learning content will result in weak learning – some of the important topics might be ignored because of lack of competency in teaching them (Yildirim & Yazici, 2017:115). It is for this reason that Karami (2016:243) believes that insufficient knowledge of the learning content can have deleterious effects on the teaching and learners. An educators' low conception of the learning content may fail to change learners' behaviour and educators might develop inappropriate tasks for learners (Karami, 2016:243).

Jadama (2014:26) argues that dedicated learners may at times challenge an educator to simplify certain challenging concepts for them. The extent to which an educator can perform such a task depends on educators' in-depth understanding of the learning content. An educator might find it extremely difficult to answer varied questions from learners about the learning content if an educator has little knowledge about it (Jadama, 2014:25). It is for this reason that Jadama (2014:23) argues that an educators' knowledge of the learning content has a direct bearing on the educators' ability to respond accurately to learners' questions.

Ezeudu and Utazi (2014:79) believe that subject specialisation empowers educators to handle learners' questions and to adequately promote divergent questions during instruction, which displays their knowledge and understanding of concepts. The provision of diverse and alternative answers to questions probed by learners is determined by the educators' in-depth knowledge of the learning content (Jadama, 2014:26). Subject specialisation plays a major role in equipping educators to address divergent and higher order questions (Ezeudu & Utazi, 2014:79; Mizzi, 2013:2), in turn demonstrating an educators' conceptual and systematic comprehension of the learning content (Ezeudu & Utazi, 2014:79).

Jadama (2014:27) asserts that the feedback provided to learners has a direct bearing on learning; therefore, subject specialisation plays a crucial role in assessment since educators need to have adequate knowledge in assessing learners' work. Jadama

argues further that a specific criterion is used in the marking of activities; therefore, learners draw lessons from the feedback provided by an educator – provided that such feedback is constructive, guiding, and developmental. Feedback needs to guide learners about their errors in completing an activity, it should direct learners on how to avoid making the same mistakes in the future class or homework activities.

It is common knowledge that formative assessment improves teaching, therefore, the feedback obtained from learners need to equip educators in devising alternative teaching methods and strategies that will make learners understand the learning content. This clearly indicates that proper implementation of a curriculum depends largely on the competence of educators as there is "no education can rise above the quality of its educators" (Ezeudu & Utazi, 2014:78). These authors believe that "An educator is the most important of all inputs that go into educational provision".

Educators with a strong knowledge of the learning content tend to apply different teaching methods and strategies (Mizzi, 2013:3), which allow for meaningful interaction in the classroom. Similar sentiments are shared by Ezeudu and Utazi (2014:79) and Jadama (2014:26-27) who believe that the educators' knowledge of the learning content allows them to apply various teaching methodologies, which help learners to learn the subject. Mizzi (2013:3) believes that educators who have in-depth knowledge of the learning content are likely to offer learners with different approaches and explanations to help learners understand complex concepts within a subject.

Ardzejewska, McMaugh and Coutts (2010: 204) also believe that a specialist in the field of inquiry brings numerous dimensions to the teaching of a subject. Therefore, a competent educator needs to have in-depth knowledge of the learning content (Ghazi, Shahzada, Shah & Shauib, 2013: 453-454). Abid et al. (2017:246) believe that effective and quality level of education can be realised through knowledgeable educators. Additionally, Abid et al., argue that educators are known to be informative, skilled, and insightful people in the learning domain, therefore, they need to have appropriate knowledge of the learning content and the ability to teach it.

This command over subject content will enable educators to provide learners with additional information pertaining to the learning content (Ghazi et al., 2013:453-454). Sharing the same sentiments with Ghazi et al. (2013) is Mizzi (2013:3) who argues that possessing in-depth knowledge of the learning content empowers educators to

provide learners with alternative explanations in promoting the understanding of concepts (Mizzi, 2013:3). This clearly shows that subject specialisation has a great effect on the approaches used by educators during instruction (Mizzi, 2013:3).

As FL is a practical subject, effective teaching relies on the educators' understanding of the nature of the learning content and the ability to pass it on to learners. The lack of such knowledge will lead to poor implementation of the curriculum, regardless of how proficient the curriculum is designed and put together (Emmanue & Ambe, 2014:157). Supporting this argument is Mudavanhu (2015:98) who states that educators who are not specialists in a subject will not understand the basic concepts because educators' understanding of learning content affects their capacity to simplify it to aid learners to comprehend concepts (Jadama, 2014:23).

When teachers have limited knowledge or possess inaccurate information, they will present and pass on these ideas to learners. Ngwenya (2014:175) also believes that teachers who are lacking in learning content knowledge are ill-equipped to be able to explain and present topics in a logical and coherent manner that would make learners grasp the concepts easily. Educators that have inadequate knowledge on learning content tend to teach concepts in isolation and find it difficult to find the connection among the concepts (Ngwenya, 2014:175). Jadama (2014:23) also reiterates that educators' understanding of the learning content has an impact on their capacity to explain and simplify the learning content with the aim of helping learners to understand concepts.

According to Shulman (1986:9-10), when learners come to class, they bring with them conceptions and preconceptions and if these are misconceptions, educators need to use their knowledge of the learning content and teaching strategies to help reorganise learners' understanding of the learning content (Shulman, 1986:9-10). This assertion is also affirmed by Jadama (2014:25) – misconceptions and any doubts in the learners' minds should be clarified by an educator – this will depend on the educators' understanding of the learning content. If an educator is not competent in teaching the subject, it will be impossible to achieve this objective because such an educator will convey inaccurate information and ideas to learners causing more harm than good (Jadama, 2014:25).

Mizzi (2013:2) believes that educators with good knowledge of the learning content tend to make modifications to their teaching approach. They adjust and modify learner activities, and some even develop their own class and homework activities, they ask convergent and divergent questions with the aim of promoting deep learning, they also identify learners' misconceptions, and deal efficiently with learners' learning difficulties. On the other hand, non-specialists tend to rely heavily on the textbook and the activities in it; they ask convergent type of questions and are unable to identify learners' misconceptions and their learning difficulties (Mizzi, 2013:2).

According to Ingersoll (1998:774), an educator who teaches a subject outside the area of specialisation will face a challenge that might be detrimental to the educational process. FL is a crucial subject in preparing learners for Accounting in grade 10, therefore, if it is not properly taught this will have a negative impact on learner subject choice in grade 10. Thus, it needs to be introduced and taught well in lower grades to ensure that it does not negatively impact the subject, attitudes of learners and their performance, and the Accounting-related careers because learners do not have interest in pursuing further studies the subject.

Jadama (2014:20) argues that teaching encompasses the imparting of various knowledge dimensions, skills, values, and attitudes to learners. For this to be realised, an educator needs to be knowledgeable about the learning content and the teaching techniques necessary to make teaching interesting and effective (Emmanue & Ambe, 2014:157). This clearly indicates that a solid background in the learning content is an important indicator that suggests an educator can teach a subject effectively; hence, Emmanue and Ambe (2014:158) argue that subject specialisation remains an essential requirement for every educator in the teaching fraternity. This shows that an educators' knowledge of the learning content has a direct positive or negative influence on learners' understanding of the learning content (Jadama, 2014:21).

Emmanue and Ambe (2014:157) argue that an educator who is not empowered cannot empower others, which means that if an educator does not have knowledge of the learning content such as educator cannot impart adequate knowledge of the learning content to learners. Jadama (2014:22) believes in a philosophical argument that an educators' knowledge of the learning content has a direct bearing on learners' learning. Jadama further cautions that an educator who has shallow, inaccurate

information, and limited understanding of the learning content is likely to transfer the very same limited information and poor understanding of concepts to learners.

The role of subject specialisation is viewed by Mizzi (2013:3) as providential to educators who are not specialists in the field because such educators can seek help and guidance from specialists within the school. Mizzi advocates for a school-based mentoring system. Mizzi (2013:3-4) views such support base as the most efficient and popular strategy to help educators deal with their weaknesses in the subject discipline. In the same vein, Mokotedi (2013:91) also views the establishment of a mentoring system to be helpful since professional relationships are enhanced with the aim of assisting fellow educators in developing adequate PCK.

2.9 CHAPTER SUMMARY

This chapter presented the literature review for the study and highlighted the significance for the introduction of FL, by reflecting on when, how and why FL was introduced in South Africa. The introduction of FL in the international community and experiences on educators' knowledge regarding the subject were also explored. The chapter also focused on the nature of FL curriculum, its role, and the domains to be taught in the subject. The next chapter discusses the study's theoretical and conceptual frameworks.

CHAPTER 3:

THEORETICAL AND CONCEPTUAL FRAMEWORK FOR THE STUDY

3.1 INTRODUCTION

This chapter focuses on the theoretical and conceptual framework used to explore the PCK of EMS educators in teaching FL. PCK was adopted as the theoretical framework to provide the roadmap for the study. Therefore, PCK underpins the type of knowledge to be explored in this study. This construct was viewed to be a well-developed and accepted framework suitable to investigate the capacity of EMS educators in teaching FL. It provided the researcher with a clear guide to stay focused on the topic. This chapter therefore starts by outlining the role of theory in research followed by the brief description of the theoretical framework. The chapter also discusses the origin of PCK and the rationale for adopting it as a framework.

As mentioned in chapter one (*cf.* section 1.5) that, it is common for researchers to develop their own conceptual framework from the theory that underpins their research (Adom et al., 2018:439). PCK as mentioned above, was adopted as the theoretical framework to guide the study. The components of PCK were therefore used to develop the conceptual framework which is also discussed in this chapter.

3.2 THE ROLE OF THEORY IN RESEARCH

According to Bailey (2018:51) and Grant and Osanloo (2014:14), theory is an important part of the research study as it provides a logical and guiding structure for the researcher to explore the study in a coherent and logical manner, including data collection and analysis processes. Bailey argues that it is virtually impossible to start a research study without the concept or ideas and the theory or strategy that provides direction for it. Bailey maintains that without a theory, a researcher runs the risk of scooping up everything during data collection and toss it all into the final paper – something that might be impressive in terms of the volume but worthless in value. The researcher is of the view that a research study that is not guided by theory might result in the collection of lots of information that is not useful in addressing the research problem and questions. Theories, according to Tracy (2013:49), are systems of principles and rules used by researchers to explain something or make sense of a certain phenomenon.

According to Tavallaei and Abu Talib (2010:572), a research study begins by a process of hypothesising where a researcher analytically formulates and organise thoughts to understand a research problem and how it could be addressed. During this process, the researcher looks at the nature of reality (ontology) and how new knowledge (epistemology) can be developed and accepted. Through a process of hypothesising, a set of interrelated concepts and ideas emerge with a view to structure how a research problem could be investigated (Tavallaei & Abu Talib, 2010:572).

Tavallaei and Abu Talib (2010:573-574) argue that it is common practise for researchers to "approach the world with a set of ideas, a framework that specifies a set of questions" as this reveals a clear link between theories and methodologies. Approaching the world with a set of ideas is viewed by Wahyuni (2012:70) as a process of hypothesising how one perceives reality which Fazlıoğulları (2012:49) views as the theory of what exists, while Alghamdi (2015:78) perceives it as the assumptions made by the researcher about how things are and the choice of research approach to it. Grant and Osanloo (2014:13) therefore believe that a theory provides a firm basis for a researcher to explore research topic, and the plan to go about researching it. Additionally, it provides the researcher with an approach and relevant concepts to consider in responding to the research problem and answering research questions (Lederman & Lederman, 2015:594).

According to Tavallaei and Abu Talib (2010:572), theories are abstract, however, they help researchers to understand the how things are and provide them with a roadmap in generating new knowledge. Theories, therefore, serve as an informing concept that helps direct attention to meaningful data collection and analysis methods (methodology), hence (Tracy, 2013:50) states that theories help the researcher to determine what to observe, what type of information to record, and what type of questions to ask during the process of conducting a research study. Therefore, theories provide guidance and framework to use in a research study (Tracy, 2013:50).

According to McMillan (2010:4), Bailey (2018:52), Hennink, Hutter and Bailey (2011:36-37), locating a study within existing theory allows the researcher to "set the scene for the study, formulate research questions to justify the focus of and techniques used to conduct the study, and to organise, analyse, interpret and provide a context for the data that is collected". In addition, a theory provides a useful framework for

organising the data for representation and making findings about the study. In this study, PCK was regarded as a generally acceptable theory to use in investigating the knowledge base of educators (Grant & Osanloo, 2014:16).

3.3 THEORETICAL FRAMEWORK FOR THE STUDY

The theoretical framework is derived from existing theory that has already been tested and validated by others and is considered a generally acceptable theory in the scholarly literature (Grant & Osanloo, 2014:16; Yamauchi, Ponte, Ratliffe & Traynor, 2017:11). As stated in the introduction above, PCK was chosen as a theoretical framework as literature review reveals that this theory is used internationally in the investigation of the knowledge base of educators. According to Adom, Hussein and Agyem (2018:438), a researcher needs to tactfully select an appropriate theory that supports or rather underpins the "knowledge base" of the case to be explored and investigated. The study seeks to explore the teaching of Financial Literacy in Grades 8 and 9 therefore PCK was deemed appropriate to guide the processes. PCK as the framework gave life to the research study. PCK was borrowed from Shulman 1986 to provide a clear guide in data collection and analysis. It guided the researcher to remain within the boundaries of the tried and tested theory (Adom et al., 2018:438).

According to Grossman (1990:9), PCK and its components remains a useful framework for investigating the knowledge base of educators. PCK is a union of the kinds of knowledge needed for an educator to be declared an effective educator (Blankman et al., 2016:427). Concurring with Blankman et al., are Ramnarain and Fortus (2013:2) who emphasize that educators use various instructional strategies to transform their knowledge of the learning content into a form that can be easily understood by learners. Educators use their knowledge to interpret the learning content into meaningful learning experiences for the benefit of learners.

The transformation of the learning content by using multiple teaching strategies has a positive influence on teaching practice (Gess-Newsome & Lederman, 1999:4). Echoing the same sentiments are Al-Jaro, Asmawi and Hasim (2017:265) who also agree that PCK is the most important component of educators' knowledge that is fundamental to successful teaching. The PCK provided the researcher with "a structured set of lenses" to explore and understand the experiences, behaviours, and perceptions of EMS educators in teaching FL (Research Council of Norway, 2011:4).

The next section therefore focuses on the origin of the concept of PCK used in this study.

3.4 THE ORIGIN OF PEDAGOGICAL CONTENT KNOWLEDGE

PCK was first introduced by Shulman in 1986 where he described the knowledge base needed by educators to teach. Shulman (1986:8) noted with great concern from a literature review in teaching that there are important questions which are not asked regarding the knowledge base of educators. The questions include, amongst others, the following: classroom management by educators, how activities are organised, how teaching time is allocated, how educators structure assignments, what informs the formulation of questions by educators, what informs lesson planning, and how educators determine and judge learners' understanding of the subject. Shulman (1986:8) was also concerned about "where do educators' explanations of the learning content come from, how do educators decide what learning content to teach and how to teach it, what type of questions to ask learners and how to handle learners' misconceptions?"

The lack of focus on what learning content to teach and how it should be taught has been described by Shulman (1986:7) as a "missing spot or a missing paradigm". This necessitated the need to probe the difficulties of educator understanding and transmission of learning content knowledge by developing a structured and coherent theoretical framework to investigate the knowledge base of educators. According to Shulman (1986:9), a framework was needed to articulate the domains representing the types of knowledge needed by educators to teach successfully, hence the introduction of PCK. Since then, as mentioned earlier, PCK remained a popular framework used by research scholars in investigating the knowledge base of educators in teaching learning content. The review of PCK framework developed by Shulman (1987:8) consists of the following seven components:

- Content knowledge
- General pedagogical knowledge
- Curriculum knowledge
- Pedagogical Content Knowledge
- Knowledge of learners and their characteristics

- Knowledge of educational contexts
- Knowledge of educational ends, purpose and values and their philosophical and historical grounds (Shulman, 1987:8).

Among these seven categories, PCK is described by Shulman (1987:8) as an amalgam of educators' knowledge of the learning content and the methods on how to teach it. This means that knowing the learning content only is not enough, but educators need special skills to translate it into meaningful lessons therefore they need to have knowledge of how to transfer the knowledge to learners (Shulman, 1986:9). Therefore, in teaching a subject, Shulman (1986:9) maintains that there is no single strategy in teaching topics hence educators need to have proper teaching resources at their disposal, they need to use different teaching methods and strategies to make the learning content understandable to learners. It is for these reasons that PCK was introduced to provide a framework to unleash the learning content in educators' minds for the benefit of learners. This framework was considered suitable to explore the PCK of EMS educators in teaching FL in Grades 8 and 9. The next section provides more detailed enlightenment for selecting PCK as a framework for the current study.

3.5 RATIONALE FOR SELECTING PCK AS A THEORETICAL FRAMEWORK FOR THE STUDY

Literature analysis revealed that PCK is widely used internationally by research scholars to investigate the knowledge of educators even though the components used by various research scholars are not the same. This stems from the fact that there is still no consensus on the PCK components suitable to investigate the knowledge base of educators in teaching a particular subject, hence research scholars differ on what constitutes PCK (Blankman et al., 2016:426). According to Blankman et al., PCK remains a dynamic concept that is continuously being defined in various ways by research scholars in the education fraternity.

To date, researchers are still on a mission to find common ground on what constitutes acceptable components of PCK (Jing-Jing, 2014:411). The use of different components to define the knowledge base needed to teach clearly signifies that the definition and categorisation of educator knowledge is subjective and there is no single method for typifying the organisation of educators' knowledge (Rahman et al.,

2010:85). It is for this reason that different scholars have modified Shulman's (1986; 1987) PCK model by adding or removing some of the knowledge domains. For example, Grossman's (1990:5) PCK model consists of the following four main domains of knowledge base needed for teaching: Pedagogical Content Knowledge, Subject Matter Knowledge, General Pedagogical Knowledge and Knowledge of Context. Notably, knowledge of assessment as a critical component in teaching and learning is not articulated in Grossman's model.

It was mentioned earlier in the current study that the researcher is involved in the evaluation of schools in the Gauteng Department of Education, which includes observing educators in practise. Having learnt from personal experience during lesson observations that assessment always formed an essential part of teaching, it could not be left out in the current study. It is for this reason that a model that includes assessment was considered for the study, hence the researcher explored the model developed in 1999 by Magnusson, Krajcik and Borko who went on to build on Grossman's (1990) work in developing a PCK model to investigate the knowledge base of educators. In their PCK model, Magnusson et al. (1999:97) have included the following components:

> Orientations toward science teaching, knowledge about subject curriculum, knowledge about students' understanding of specific subject topics, knowledge about assessment in the subject, and knowledge about instructional strategies for teaching. This model includes knowledge of assessment.

Additionally, the researcher noted with satisfaction that the PCK developed by Magnusson et al. (1999) depicts specific aspects that outlines each PCK component. The uniqueness of this model has impelled the researcher to adopt it in exploring the kind of knowledge base needed by EMS educators in teaching FL. The specific description of each component was deemed necessary since it provided the researcher with a structured framework of the type of data to be collected and analysed. However, it was concerning to note with great concern that this model does not incorporate knowledge of the learning content which is also a fundamental component as seen in Shulman's (1986; 1987) definition of the PCK concept which gives expression to knowledge of content and how it is taught. Therefore, it was not

possible to use this model alone in this study hence the PCK model developed by Abell, Rogers, Hanuscin, Lee and Gagnon (2008:80) was considered with the aim of exploring the possibility of combining the components of the three models in developing the model for the current study.

The model developed by Abell et al. (2008) articulates the following components: subject matter knowledge, PCK, knowledge of curriculum, instructional strategies for teaching methods, knowledge of assessment and knowledge of educators' understanding of a subject and its teaching. However, unlike Magnusson et al's. (1999) model, the model developed by Abell et al., does not provide a clear description of the aspects to explore within each knowledge domain. For this reason, this model was also viewed unsuitable and could not be used alone, hence the researcher decided to combine the models presented by Magnusson et al. (1999), Abell et al. (2008) and Grossman (1990) to develop the PCK framework for the current study.

The analysis of the three models presented thus far confirms the assessment made by Blankman et al. (2016) and Rahman et al. (2010) that there is still no consensus on what constitutes PCK. Hence, Jing-Jing (2014:411) argues that researchers need to distinctly define and justify the components that they deem appropriate to use in investigating the knowledge base needed by educators to promote effective teaching and learning. It remains a fact that research scholars agree on the use of PCK as a theoretical framework to investigate educators' knowledge base even though the components used differ. For example, in English PCK was used by Grossman (1990); in Sciences it was used by Magnusson, Krajcik and Borko (1999), Kind and Wallace (2008), Abell et al. (2008); in Mathematics it was used by Aksu and Kul (2016), Danisman and Tanisli (2017), Krauss, Brunner, Kunter, Baumert, Blum, Jordan and Neubrand (2008), Simsek and Boz (2015), Zhang (2015); in Biology it was used by Schmelzing, Van Driel, Jüttner, Brandenbusch, Sandmann, and Neuhaus (2012); in Technology it was used by Williams and Gumbo (2012); in Geography it was used by Blankman et al. (2016) to name a few. The literature review confirms that PCK is used widely to investigate the knowledge base of educators. It remains a fact that the PCK models used differ, but nonetheless, the concept is used to investigate educators' knowledge base to teach a subject.

PCK is the transformer of other domains of knowledge base which means that for teaching and learning to occur, educators need to use their knowledge of the learning content and applicable teaching methods for learners to learn and acquire new knowledge (Shulman, 1987:16). For this to happen, Shulman (1987) believes that the following processes need to unfold: (a) lesson plan/preparation (b) presentation of the lesson using images, similarities, examples, metaphors, etc. (c) the selection of applicable teaching methods and strategies (d) interpretation and translation of the learning content to the level of learners and (e) modification and application of differentiation to accommodate all learning abilities (Shulman, 1987:16).

First, Shulman (1987:16) argues that in planning and preparing for a lesson an educator should be able to scrutinise the required learning and teaching material based on the educators' expertise and knowledge of the learning content to be taught. Educators should be able to select appropriate learning and teaching material to prepare for a lesson to be presented in a manner that will make it easy for learners to understand new concepts.

Second, Shulman asserts that representation of ideas involves the educators' knowledge of key topics and principles of the learning content and the ability to choose the teaching method and strategies to present the ideas, principles, and concepts to learners. Educators need to be conversant with the similarities, appropriate subject charts and posters to use in clarifying concepts, demonstration to use in simplifying the learning content, appropriate examples to relate the content into real-life situations, simulation to use in clarifying concepts, as well as explanations that can be used to build a bridge between the educators' grasp of the learning content and the learning needs of learners (Shulman, 1987:16). The need for the application of different forms of representation is therefore desirable for effective teaching.

Third, in selecting an appropriate instructional method, Shulman (1987:16) maintains that an educator need not redevelop the learning content through representations, but it should be represented in such a way that learners are able to see how it relates into their daily life experiences. Thus, Shulman advocates for the application of various teaching methods that will promote meaningful and active participation in lesson presentation. It is for this reason that the following teaching and learning activities are encouraged instead of the traditional methods and strategies of teaching: discussion,

cooperative learning, discovery/inquiry learning, project methods and individualised learning (Shulman, 1987:16-17).

Fourth, Shulman (1987:17) proposes that educators need to adapt the learning material to complement the characteristics of the learners. This includes "relevant aspects of learners' abilities, motivations, prior to knowledge and skills that will affect their responses to different representation and presentation". Preparation and the selection of appropriate instructional material need to relate to "learners' conceptions, misconceptions, expectations, motives, difficulties or strategies that might influence the way in which they approach, interpret, understand, and misunderstand the material" (Shulman, 1987:17).

Fifth, according to Rahman et al. (2010:83), learners are and always have been different from one another in a variety of ways. Therefore, teaching and learning material needs to be tailored such that it complements learners' needs and their diverse learning abilities (Shulman, 1987:17).

The aspects presented by Shulman (1987) signifies that knowing a learning content is a necessity but not adequate condition for teaching (Abell et al., 2008:79; Ben-Peretz, 2011:4). Instead, what is needed is specialised body of knowledge domains defined by Shulman (1986; 1987) as PCK supported by Ben-Peretz (2011:4) who stated that PCK consists of other domains of knowledge needed by educators in teaching a subject.

3.6 THE CONCEPTUAL FRAMEWORK FOR THE STUDY

The researcher adopted the components of PCK as the conceptual framework to collect and analyse data. The framework provided the researcher with a concept mapping tool to visually display the relatedness of the components of PCK that guided the researcher on the type of information to pursue in investigating the knowledge base of EMS educators (Grant & Osanloo, 2014:20). It also displayed how the components are aligned with the theoretical framework and how the researcher approached the investigation within it (Grant & Osanloo, 2014:20). In this way, the framework provided the researcher with a coherent and clear direction to approach an empirical study on the PCK of EMS educators in teaching FL (Yamauchi et al., 2017:11).

Furthermore, the conceptual framework provided the researcher with (a) focus and structure to the study (b) clarity to the concepts that are being investigated in the study (c) a way to further refine the research questions (d) theoretical assumptions and concepts adopted in the study and lastly (e) expected relationships between the concepts that were explored (Hennink et al., 2011:40-42). The conceptual framework depicted in Figure 3.1 on the next page was therefore deemed appropriate for assessing the knowledge base of EMS educators in teaching FL in Grades 8 and 9. The use of both the theoretical and conceptual frameworks provided a guide in the formulation specific research questions and objectives that led to a directed review of literature, the selection of an appropriate research methodology and methods, the analysis of data as well as the interpretation of results (Imenda, 2014:189-190).
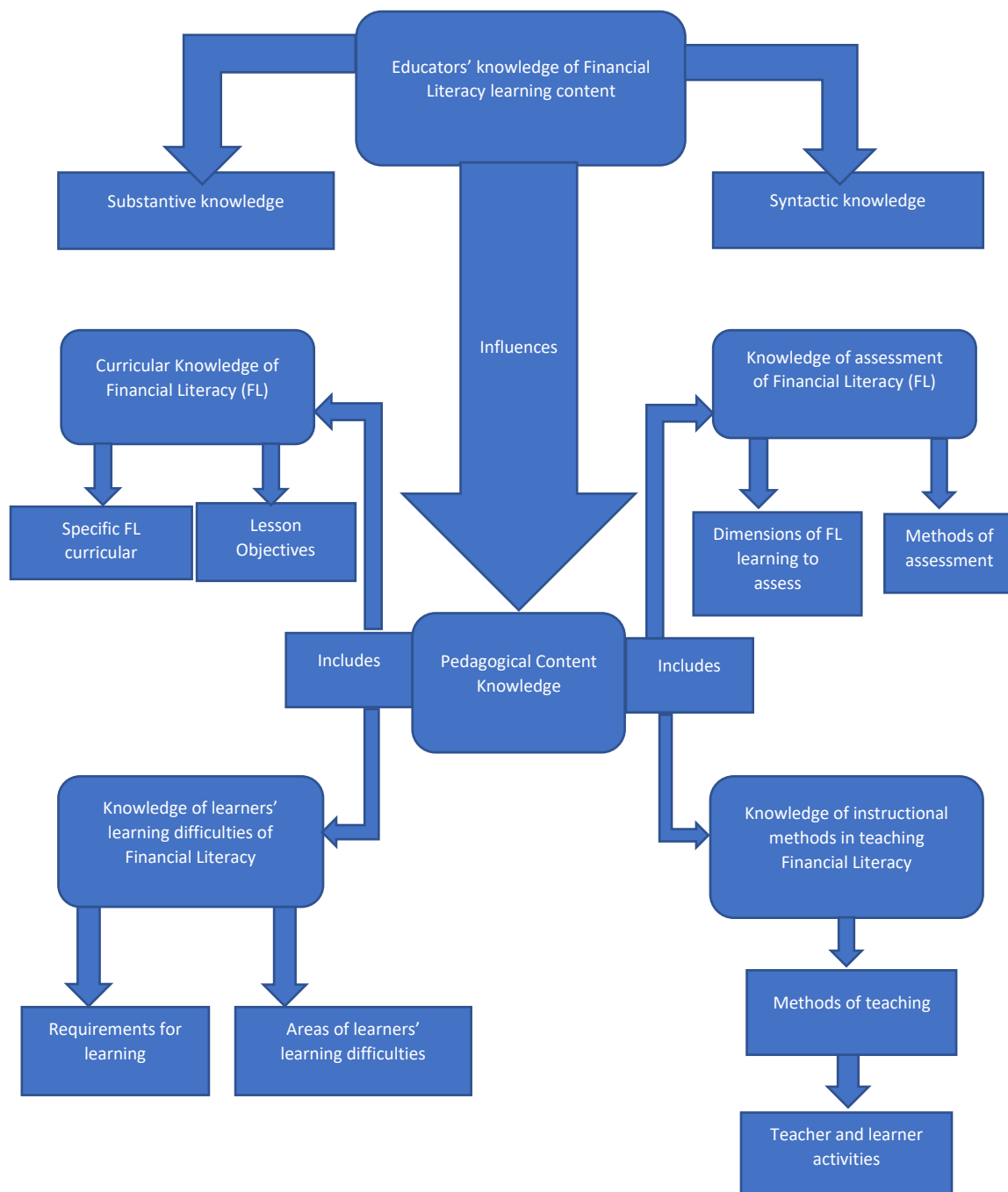
Figure 3.1: Conceptual framework

(Adapted from Grossman, 1990:5; Magnusson et al., 1999:99; Abell et al., 2008:80)

3.6.1 Educators' Knowledge of the Learning Content

According to Kleickmann, Richter, Kunter, Elsner, Besser, Krauss, and Baumert (2013:91), PCK refers to the knowledge required to make the learning content available in the educators' mind accessible learners. To achieve this objective, educators need to possess and implement various components of PCK. In other

words, PCK is needed to transform the learning content knowledge to make it understandable to learners. Figure 3.1 depicts that the educators' knowledge of the learning content consists of substantive and syntactic knowledge which influences PCK.

Ding, He and Leung (2014: 51) state that pedagogy without knowledge of the learning content is empty while knowledge of the learning content without pedagogy (teaching methods) is blind. Therefore, in clarifying substantive and syntactic knowledge, the researcher explored the explanation provided by Blankman et al. (2016:427) who point out that the former relates to the knowledge and skills to be taught while the latter denotes the teaching skills used by educators to make the learning content comprehensible to learners. The educators' knowledge of the learning content is therefore explored in terms of substantive and syntactic knowledge (Scheiner, 2016:3249).

According to Ding et al. (2014: 52), PCK is defined in terms of its different components. Figure 3.1 therefore depicts the following components of PCK used in the current study: educators' knowledge of the learning content, curriculum, assessment, instructional methods, and educators' knowledge of learners' learning difficulties.

The educator's knowledge of the learning content refers to knowledge and the way it is organised in the mind of an educator (Shulman, 1986:9). The assumption is that during teacher preparation at college or university, the courses offered to prospective educators prepare them on learning content and pedagogical knowledge (Slekar & Haefner, 2010:10) as this is where student educators obtain their teaching method and content knowledge about a subject (Windschitl, 2004:15). It is therefore assumed that during educator training, educators are exposed to the subject learning content that they are going to teach and methods on how to teach. Hence Shulman (1986, 1987) argue that the training should not only prepare educators for general pedagogical knowledge but also for teaching the learning content. With the introduction of new curriculum in South Africa post-1994 where there were new subjects that were introduced in the GET Senior Phase, that is grade 7-9, it remains a concern whether EMS educators have adequate substantive and syntactic knowledge necessary to teach FL.

According to Khwaja (2006:7), when a national curriculum is introduced, educators need to develop themselves in the subject learning content for them to teach concepts effectively and with confidence. This view is supported by Grossman (1990:7) who states that educators' knowledge of the content to be taught influences what and how they teach, therefore, without adequate knowledge of the structures of a subject discipline, Grossman maintains that educators may misrepresent both the content and the nature of the discipline itself which may lead to misconceptions about it. Therefore, the focus of this section of the study is to explore the EMS educators' substantive and syntactic knowledge in the teaching of FL in Grades 8 and 9.

3.6.1.1 Substantive knowledge of educators

As pointed out by Blankman et al. (2016:427), substantive knowledge relates to knowledge and skills to be taught in a subject discipline. Therefore, the researcher explored the definition of substantive knowledge as explained by Scheiner (2016:3249), Rowland (2013:16), Ramnarain and Fortus (2013:4), and Grossman (1990:6) who state that it refers to knowledge of the learning content regarding its "facts, procedures, rules, concepts, principles and explanatory frameworks" that an educator needs to possess to teach a subject. Based on this definition, the researcher investigated educator's substantive knowledge by focusing on the types of knowledge discussed by Anderson et al. (2001:27), Krathwohl (2002:214) and Pickard (2007:48-49), which includes factual knowledge, conceptual knowledge, procedural knowledge, and metacognitive knowledge (*cf*. 2.6.1 in Chapter 2).

3.6.1.2 Syntactic knowledge of educators

Syntactic knowledge refers to educators' knowledge and understanding about the nature of the subject and the "educators' knowledge of its principles and methods on how new knowledge is introduced and mediated to learners and how it is received and accepted in the subject discipline" (Rowland, 2013:16; Rollnick, 2016:835; Shakoor & Azeem, 2011:155; Blankman et al., 2016:427; Ramnarain & Fortus, 2013:2; Windschitl, 2004:5). For this objective to be achieved, EMS educators need to know the set of rules and basic principles underlying the teaching of FL. They need to know what is lawful to say to learners when teaching concepts, facts, and procedures in the subject and what is against the rules and principles in doing so (Shulman, 1986:9).

This means that they need to know the appropriate subject information to communicate and share with learners.

In teaching a subject, Shulman (1986:9) argues strongly that educators must not only be proficient in defining and explaining the accepted truths and knowledge in a subject discipline, but they need to be able to explain to learners how things are and why they are like that. Educators need to explain to learners why certain topics are important and why some may be slightly less significant. According to Shulman (1986:9), an educator with adequate PCK is likely to understand and know what makes learners find certain topics easy or difficult to understand, hence educators need to adopt teaching and learning activities that make the understanding of concepts easy to learners. Hence, Scheiner (2016:3249-3250) argues that syntactic knowledge "provides the procedures and mechanisms for the acquisition of knowledge". Blankman et al. (2016:427) simply describe syntactic knowledge as the teaching of skills used by educators to help learners learn and understand factual, conceptual, procedural knowledge, rules, and principles of a subject and its framework as well as skills and values. Rollnick (2017:835) and Rowland (2013:16) also view syntactic knowledge as methods and processes of creating new knowledge in the subject discipline.

In exploring the methods and processes used by EMS educators in creating new knowledge in FL, the researcher explored the teaching and learning activities employed by EMS educators, which are discussed in section 3.6.5.1 below. This can only be achieved during instruction where educators and learners are engaged in teaching and learning activities. It is for this reason that syntactic knowledge is discussed in the section that deals with teaching and learning activities (as the researcher can observe the kind of information and knowledge shared with learners and ascertain its legitimacy). Akintade, Ogbonnaya and Mogari (2013:471) argue that an educator plays a major role in helping learners to understand the learning content, hence they believe that for learners to perform well in a subject, educators need to have good knowledge of both substantive and syntactic structures of the subject for them to present the learning content to learners in the manner that enables them to "construct their own understanding". This section focused on educators' knowledge of the learning content of EMS educators by exploring their substantive and syntactic knowledge in FL. The next section focuses on educators' knowledge of the curriculum.

3.6.2 Knowledge of the Curriculum

Curriculum knowledge as depicted in the conceptual framework is discussed by focusing on FL curriculum and lesson objectives. Curriculum knowledge is defined by Khwaja (2006:15) as educators' knowledge of the curriculum guidelines, national requirements, and the relevant curriculum materials available for a particular subject. Vingsle (2014:17) described it as knowledge about teaching materials available, as well as topics and ways that they are ordinarily addressed during previous, current, and subsequent years. According to Dorgu (2015:79), educators' knowledge of curriculum encompasses the understanding and knowledge of the learning content, teaching methods to deliver curriculum in the classroom, and the knowledge of assessment methods.

The definitions provided by Khwaja (2006), Vingsle (2014) and Dorgu (2015) are consistent with the CAPS document for EMS as it provides the annual teaching plans depicting topics to be taught that shows progression in different grades, the national requirements regarding the knowledge to be taught and skills to be instilled in learners as well as the values to be promoted during teaching. Furthermore, the document also gives expression to the teaching materials to use in teaching FL. It also provides national requirements regarding the assessment guidelines for the subject.

The role of an educator is to use knowledge of the curriculum to mediate the learning content to learners (Jadhav & Patankar, 2013:3). This should be conducted by articulating mandated goals and objectives, specific curricular programmes, and the appropriate learning materials (Basturk & Donmez, 2011:744; Magnusson et al., 1999:99). Ariav (1991:184) describes the following three levels of teachers' knowledge of the curriculum, namely independent end-user, consumer-developer, and autonomous developer. At level 1, an educator is seen as an independent end-user who can wisely use ready-made curriculum materials. According to Ariav (1991:185), learners spend so much time with curriculum materials and educators rely heavily on these materials, hence the researcher argues that educators must become independent consumers because as specialists in the field they are expected to be conversant with the learning and teaching material necessary to promote an understanding of concepts in the classroom.

The curriculum in terms of the topics and the content to be presented to learners in the subjects listed in the National Curriculum Statement for Grade R-12 is predetermined and outlined in the CAPS documents for each subject. For example, the FL curriculum is outlined in the CAPS document for EMS (DBE, 2011a:11). The role of the educators is to assess FL materials needed to promote effective teaching and learning of the subject. The educator needs to make a deliberate and justified selection among them and adapt the materials to instructional environment and teaching circumstances (Ariav, 1991:184).

At level 2, an educator is seen as a consumer-developer who can develop materials of limited scope to supplement and enrich ready-made materials (Ariav, 1991:184). FL is a practical subject with Accounting concepts that learners must learn by being actively involved in the learning process. The FL curriculum in terms of content and topics is predetermined and prescribed in the form of an annual teaching plan (ATP) stipulated in the CAPS document for EMS. The ATP is standardised in the sense that there are clear phases of the implementation process according to terms and weeks. The role of the educator is to develop materials of limited scope to supplement and enrich the available ready-made materials. At level 3, an educator is an autonomous developer who can plan, design, and develop the entire learning content, often in areas with no existing curriculum materials (Ariav, 1991:184). This level is not applicable to the South African context since it is not within the purview of educators to develop the entire subject curriculum.

With respect to relevant curriculum learning materials available for a particular subject, Hill and Charalambous (2012:444) and Shulman (1986:10) refers to items such as "learner textbooks, educator guides, and lesson plans. This includes visual materials used to communicate ideas and practices that shapes classroom activities" during teaching (Shabiralyani, Hasan, Hamad, Iqbal, 2015:228).

In terms of the CAPS document for EMS, the following materials are required for FL in Grades 8 and 9: textbook, calculator, Cash Journal exercise book, one General Ledger exercise book and a normal exercise book. Teachers need to have a teacher guide (DBE, 2011a:10). According to Grossman (1990:8), educators' knowledge of curriculum means that they can draw upon their knowledge in selecting appropriate textbooks, exercise books, and topics are typically addressed in a particular grade. In

addition to the knowledge of alternative curriculum materials for a given subject or topic within a grade, there are two additional aspects of curricular knowledge, namely the horizontal and vertical curriculum knowledge.

In horizontal curriculum knowledge, Shulman (1986:10) and Grossman (1990:8) argue that educators need to be conversant with the curriculum learning material in other grades. Educators need to be able to relate the learning content in other grades as well. The National Curriculum Statement in the South African curriculum is structured in the sense that it clearly outlines the FL topics to be taught in different grades as set out in the CAPS for Grade 7-9. With respect to vertical curriculum knowledge, Shulman (1986:10) argues that educators need to know the topics and issues that have been taught in previous years, and those that will be taught in the same subject area during the current year or in years to come, including the materials that represent them.

Jadhav and Patankar (2013:3) argue that it is critical for educators to have appropriate knowledge of the curriculum as an educator is the mediator between the curriculum offered and learners. Shulman (1986:10) therefore believes that educators need to have knowledge and understanding about the full range and alternative curriculum material available for teaching and learning. Educators need to have knowledge of different textbooks, teaching aids, and visual materials of the subject. They are expected to draw teaching tools from a list of learning and teaching material that demonstrate a particular subject content in a way that assists learners to achieve their learning goals.

According to Shabiralyani et al. (2015:227), the main objective of teaching is for learners to acquire knowledge about the topic presented to them during instruction. This means that educators need to be conversant about various strategies to use in ensuring that this objective is realised. Hence, Shulman (1986:10) argues that educators need to have a list of teaching materials from which they draw teaching aids to help them promote an understanding of concepts to learners. It is therefore expected that educators will utilise their content knowledge of the subject in exploring alternative resource material to enhance their teaching. Shabiralyani et al. (2015:228) maintain that good subject posters could improve language barrier where possible since such learning resources provide accurate visual images that are likely to make

learning easier for learners. They enable learners to relate the learning content with learning material which makes it easy for learners to understand concepts.

3.6.2.1 Specific Financial Literacy curriculum

The curriculum defines clearly what learners will learn in the subject (Jadhav & Patankar, 2013:5). According to these authors, without the guidance of a curriculum, educators cannot be certain that they have supplied the necessary knowledge or the opportunity for learner success at the next level (Jadhav & Patankar, 2013:5). Table 3.1 below provides specific FL curriculum in Grades 8 and 9.

Table 3.1: Overview of subject content for financial literacy

Module	Grade 8	Grade 9
Financial Literacy	Accounting concepts	Cash Receipts Journal of a sole trader
	Accounting cycle	Cash Payment Journal of a sole trader
	Source documents	Posting Cash Journals (CRJ & CPJ) to the General Ledger
	Cash Receipts Journal of a service business	Preparing a Trial Balance
	Cash Payments Journal of a service business	Recording transactions in the Debtors Journal
	Effects of cash transactions on the Accounting equation	Recording transactions in the Creditors Journal
	General Ledger	Posting to the Debtors Ledger and General Ledger
	Trial Balance	Posting to the Creditors Ledger and General Ledger

Source: (Department of Basic Education, 2011a:11)

The subject overview as depicted in the table above clearly indicates that FL in Grades 8 and 9 is pure Accounting. According to the CAPS document for EMS, FL content needs to be taught every week during the one-hour allocated for this subject discipline

(DBE, 2011a:10). The document provides clear guidance on the topics to focus on in FL.

3.6.2.2 The aims of the financial literacy curriculum

It has been mentioned earlier in the study that FL is not a stand-alone subject, it is embedded within the EMS subject. The aims outlined in the CAPS document for the subject are therefore generic to all the three subject disciplines. According to the DBE (2011a:5), in line with the overview of the learning content for FL, the aims of the National Curriculum Statement are to produce learners that can do the following:

- Identify and solve problems and make decisions using critical and creative thinking,
- Work effectively as individuals and with others as members of a team,
- Organise and manage themselves and their activities responsibly and effectively,
- Collect, analyse, organise, and critically evaluate information,
- Communicate effectively using visual, symbolic and/or language skills in various modes,
- Use science and technology effectively and critically showing responsibility towards the environment and the health of others; and
- Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation (DBE, 2011a:5).

The focus of this section of the study was to observe how teaching methods and strategies are used by educators in ensuring that the aims of the national curriculum statement are realised.

3.6.3 Educators' Knowledge of Assessment

According to Windschitl (2004:5), educators' knowledge of assessment refers to understanding and knowing subject specific assessment strategies. This implies that educators are expected to have knowledge of the application of assessment practices (Thomas, 2012:103). Based on Windschitl (2004) and Thomas (2012) insight regarding the knowledge of assessment, the researcher used the conceptual framework developed by Logaw (2017:4) depicted in Figure 3.2 below to explore the EMS educators' knowledge of assessment and its application in FL. The framework focuses on the following aspects that are discussed in greater detail below: outcomes competency-based instruction, dimensions of assessment, types of assessment, and quality education. The focus was to investigate how assessment is used to improve learning.
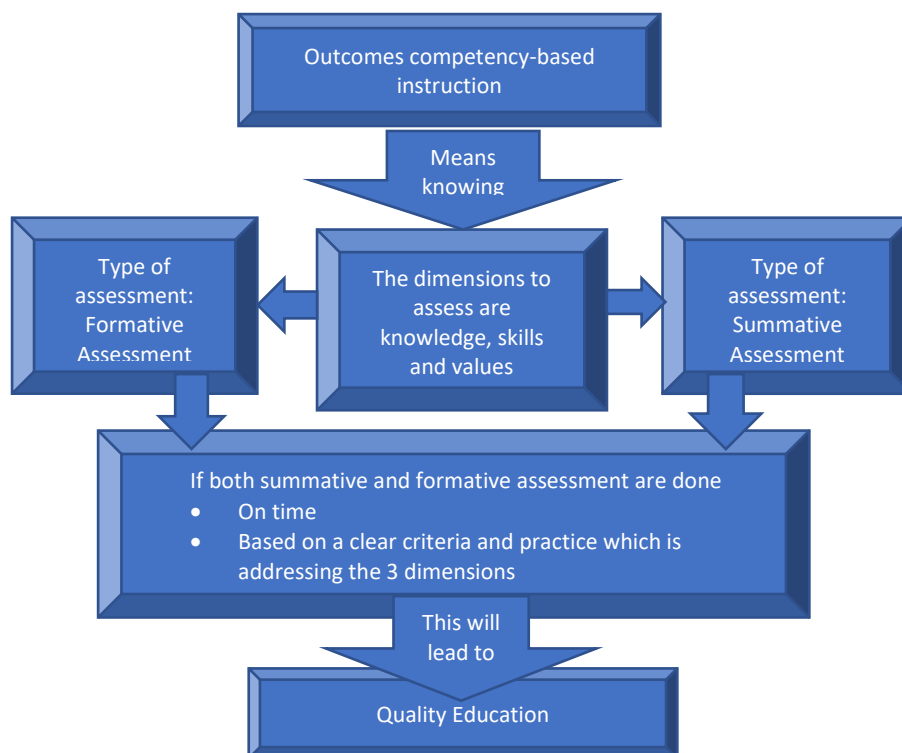
Figure 3.2: The framework for educator's knowledge of assessment

(Adapted from Logaw, 2017:5)

3.6.3.1 Outcome competency-based instruction

Mikre (2010:108) advocates for three things that must take place if learners are to benefit from classroom assessments. First, learners need to develop a concept of their learning goals and internalise it. Second, learners need to monitor their own learning progress and compare it against desired performance. Lastly, they need to set own learning goals. According to Nasab (2015:166), assessment deals with "what is taught and learnt". Therefore, according to Ozan and Kincal (2017:87), when a new topic is introduced, it is crucial for educators to share lesson objectives with learners to get good results. Sharing the lesson objectives with learners will enable them to know and understand the content that is to be taught, how it will be taught and assessed – this should be done to ensure that learners are able to become active participants instead of being passive onlookers in the teaching and learning process. Sharing lesson objectives with learners will make them listen attentively and with an objective that at the end of the lesson or topic they will be expected to show their understanding. There ought to be a balance between assessment and learning outcomes (Nasab, 2015:168).

3.6.3.2 The dimensions of assessment in Financial Literacy

To get good results from teaching, Logaw (2017:4), states that educators need to be conversant with the dimensions to assess. These dimensions according to CAPS are knowledge, skills, and values (DBE, 2011a: 24; 2019:47). Concurring with DBE is Thomas (2012:103) who states that the main purpose of education in any education system is to see outcomes in terms of a change in learner "behaviour, knowledge, skills and attitudes". This clearly indicates that educators need to be familiar with the dimensions to teach and assess in a subject. Lumadi (2013:44) and Natalia, Asib and Kristina (2018:49) argue that through the implementation of the dimensions of assessment, educators will be able to collect evidence and measure knowledge and skills acquired by learners; they will also be able to assess any change in behaviour, progress on learner academic performance, values, and their attitudes.

These dimensions are congruent with Bloom's Taxonomy which focuses on cognitive abilities that assess knowledge by focusing on learners' understanding of the learning content, psychomotor that focuses on skills, that is; physical ability and lastly, affective that focuses on emotion, attitude, and values of learners (Pickard, 2007:46; Flores,

2015:2). Teachers are therefore required to consider all these skills when planning teaching, learning and assessment activities (DBE, 2011a:24). Lumadi (2013:44) believes that the effective utilisation of formative assessment in a form of continuous assessment and formal assessment for summative assessment can be instrumental in the advancement of the dimensions of assessment where the development of learner's address "knowledge, skills, and values".

3.6.3.3 Methods of assessment

The National Protocol for Assessment Grade R-12 demands that educators inform learners of the knowledge and skills being assessed (DBE, 2012:3). Once this has been determined, an educator should then present to learners the learning material that they need to interact with and decide on the type of assessment to be administered. In doing this, educators need to ensure that the assessment tasks are directly and clearly linked with the learning objectives (Department of Education Papua New Guinea, 2008:27). Once learners know which dimensions of assessment are assessed, they will then be exposed to the method of assessment to be chosen by an educator in assessing their knowledge, skills, and values on a particular topic (Logaw, 2017:4).

In terms of the National Protocol for Assessment Grade R-12, assessment should be conducted through formative assessment (informal) and summative assessment (formal) activities (DBE, 2012:3; Logaw, 2017:4; Walker, 2012:903; Zhao, Heuvel-Panhuizen & Veldhuis, 2016:2). According to Crisp (2012:33) and Browne (2016:2), formative assessment is used to improve learning while summative is used to judge learning (Crisp, 2012:33).

Popham (2014) cited in Haley-Speca (2016:15) argues that tests may be formative or summative, it all depends on the reasons why such an assessment task is administered. This point of view is endorsed by Qu and Zhang (2013:338) who state that summative and formative assessment perform different functions. Therefore, the choice of assessment is determined by what educators want to know about learner performance at a given time. This implies that if a test is administered for grading purposes, it therefore performs the function of summative assessment, however, if it is used for continuous assessment to verify the extent of learners' learning of a topic then it serves the function of formative assessment. If the test is used to collect

evidence about learner performance for the term and such evidence is used to develop intervention programmes, then summative assessment performs the function of formative assessment.

Section 4.3.2 of Circular 38 of 2007 encourages all educators to conduct an analysis for all assessment tasks which includes controlled tests written per term, as well as the mid-year examination (GDE, 2007:3). Section 4.1.1 (i) of the Circular instructs all schools to conduct the statistical and diagnostic analysis of results per grade. The Circular states unequivocally that the analysis needs to identify specific areas of weaknesses within the subject. The fact that the analysis needs to identify specific areas of weaknesses means that the analysis needs to be diagnostic in nature. In section 4.3.2, the Circular states that diagnostic analysis needs to inform the remediation programmes for all assessment tasks (GDE, 2007:4). This shows that if the diagnostic analysis of summative assessment tasks is done effectively, this becomes the strong point for conducting this type of assessment.

This shows that both methods of assessment are important in the teaching and learning process (Holbeck, Bergquist & Lees, 2014:38) and should be used during the school year to make a judgement on the progress of learners (DBE, 2011a:24) since the effectiveness of teaching and learning can only be ascertained through assessments carried out using these types of assessments (Agbulu & Idu, 2008:246). In exploring educators' knowledge of assessment methods, techniques, and application thereof, the researcher adopted the framework presented by Haley-Speca (2016:14) which looks at method of assessment, the purpose of assessing, method used to collect evidence on learner performance, the time frames of collecting such evidence, and the inquiry method which provides judgement on what learners have gained in the learning process.

(i) Summative Assessment

Summative assessment, also referred to as assessment of learning, is used to obtain evidence and data that shows how much learning has occurred, usually at the end of the term, year, or unit. It is used to make a judgement about what a learner has achieved at the end of a topic or syllabus (Shuichi, 2016:81; Alahmadi, Alrahaili & Alshraideh, 2019:261). It is usually done for formal recording and reporting purposes (Department of Education Papua New Guinea, 2008:26). According to the National

Protocol for Assessment Grades R-12, formal assessment in the South African curriculum provides educators with regular practice of evaluating the performance of learners in a subject in a grade. In this regard, tests are mentioned as one of the methods used (DBE, 2012:4).

This clearly indicates that there is summative assessment taking place in each term. Concurring with DBE (2012) is Browne (2016:2) who asserts that summative assessments are examinations and formal tests that determine whether a learner has passed or failed the formal task. These types of assessment help educators to make a judgement about the progress of learners at the end of the term and academic year (Crisp, 2012:33; Anderson, 2007:471; Agbulu & Idu, 2008:246; Haley-Speca, 2016:15; DBE, 2011c:5; Logaw, 2017:40). In this way, educators will be able to measure what and how much learners have learnt (tied to the learning objectives set). A careful analysis of the literature review revealed that summative assessment has its own limitations that negatively impact learners' learning. The weaknesses of this type of assessment are discussed briefly below.

- **The weakness of summative assessment**

According to Haley-Speca (2016:15), this form of assessment is not used to guide improvement in teaching but used to make a judgement about learning (Crisp, 2012:33; Shuichi 2016:81). In other words, this means that there is no rectification that can take place during summative assessment; instead, a final verdict that determines whether a learner progresses to the next grade or not is issued to a learner. It is for this reason that Haley-Speca (2016:14) maintains that summative assessment is used for "reporting, accountability, grades, graduation, and promotion". This practice, according to Mikre (2010:104), emphasises competition rather than personal improvement. Browne (2016:2) also expressed some dissatisfaction about this type of assessment by pointing out that it encourages educators to adopt a 'teaching to test' approach not teaching to promote long-term knowledge acquisition.

- **The purpose of summative assessment**

According to Browne (2016:2), summative assessment activities are aimed at measuring learner progress. This view is supported by Logaw (2017:39) who states that the purpose of conducting this type of assessment is to "establish and record

overall progress of learners towards the achievement of desired outcomes". It is for this reason that Haley-Speca (2016:14) believes that summative assessment is used for reporting purposes by providing evidence to certify learners' competence, to assign grades or marks for learners, to provide educators with culminating evidence that helps them decide if learners have mastered certain content and skills, achieved specific standards, and are ready to move on to the next level of learning.

- **Methods of collecting evidence on learner performance**

According to Haley-Speca (2016:14), evidence on learner achievement in summative assessment is collected through the administration of tests and final examinations. Over and above these types of tasks, the following formal assessment activities are outlined in the National Protocol on Assessment: projects, oral presentations, demonstrations, performances, assignments, tests, examinations, practical demonstrations, etc. (DBE, 2011c:5). These activities are used to gather evidence on learner progress.

- **Time frames for the collection of evidence on learner performance**

Formal assessment activities are planned in terms of methods, as well as in terms of when it will take place. Generally, learners are informed ahead of time that they will be assessed (Logaw, 2017:40). According to the National Protocol on Assessment, educators are required to develop an annual formal programme of assessment which is used to develop an assessment plan for the school. The assessment plan needs to be shared and communicated to parents for them to provide support to their children.

The annual programme of assessment is calibrated in such a way that there are clear dates of the implementation of tasks (DBE, 2011c:5). In summative assessment, a judgement which summarises all collected evidence regarding learner performance (Anderson, 2007:471) is collected throughout the year in term 1 to 4, which Anderson (2007:472) describes as continuous assessment. Concurring with Anderson is Qu and Zhang (2013:336) who also maintain that summative assessment is used to evaluate learners' learning and the effectiveness of teaching after a teaching period. This can take place at the end of the term to assess learners' understanding of the learning content and make a judgement. For each term of the two formal assessment tasks, EMS educators are required to administer formal tasks in the form of a controlled test

which should cover all topics presented in the term in question, as well as any other form of assessment based on the programme of assessment. The other form of formal assessment task may include an assignment, project, a case study, or any other form deemed appropriate by an educator (DBE, 2011a:20). Educators are required to develop a programme of assessment which indicates the forms of assessment to be carried out in each term.

Learners are required to do two formal assessment tasks per term in the first, second and third term, and one formal task in the fourth term (DBE, 2011a:25). Anderson (2007:472) argues that continuous assessment provides a means for educators to track learner performance on a termly basis. In addition, learners also get feedback which enables them to monitor and evaluate their progress where necessary; learners can adapt their study methods to try and improve their performance before they sit for the final examination at the end of the year.

The annual teaching plan (ATP) for Grades 8 and 9 reveals that provisions for FL topics are catered for in each term, therefore, it is expected that each assessment task should cover a topic on FL. In EMS as a subject, there are two types of examinations that are required to be written in Grades 8 and 9, namely mid-year and end of the year examination. The latter is used as a measure to grade whether a learner has achieved all the subject topics and objectives for the subject, while the former focuses on the progress of learners in topics covered in term 1 and 2. The final (end-of-the year) examination encapsulates all the work covered in term 1 to 4 (DBE, 2011a:19; Haley-Speca, 2016:14).

- **Inquiry question in summative assessment**

The inquiry question focuses on what learners learnt and achieved at the end of the term or year (Haley-Speca, 2016:14; Donnison & Penn-Edwards, 2012:11). Rosenshine (2012:19) argues that educators need to assess learners on what they have learnt after the presentation of the topic. This can be done through tests conducted in each term, mid-year, and final examinations to determine how much learners have learnt in the subject and make a judgement. The next section focuses on formative assessment.

(ii) Formative Assessment

Formative assessment also known as assessment for learning refers to daily assessment of learners' learning activities (Qu & Zhang, 2013:337). Cauley and Mcmillan (2010:1) identify three aspects that are essential to the definition of formative assessment. Cauley and Mcmillan assert that this type of assessment provides evidence about learners' understanding and accumulation of new concepts, the type of feedback provided to learners during and at the end of the lesson, lastly, this type of assessment provides feedback to educators which informs the modification of teaching practices.

Formative assessment takes place during learning and is aimed at improving learning by providing learners with regular feedback for immediate action (Department of Education Papua New Guinea, 2008:26). This type of assessment is diagnostic in nature as its application during the learning process enables educators to identify learning gaps and to modify their teaching practices (Ketabi & Ketabi, 2014:437; Alahmadi et al., 2019:261-262; Huisman, 2018:3; Das, Alsalhanie, Nauhria, Joshi, Khan & Surender, 2017:39; Nasab, 2015:166; Wiliam, 2011:10). These points are endorsed by Qu and Zhang (2013:337) who assert that formative assessment is diagnostic in nature as it identifies the weaknesses within the subject – the feedback obtained is used to adapt teaching practices and develop intervention strategies to help learners master the learning content.

For the purposes of the current study, formative assessment was predominantly used as most of the time was spent inside the classroom conducting lesson observations, which was followed by interviews and documents analysis. Formative assessment is embedded in instruction and is conducted on an ongoing basis during lesson presentation (Riley-Ayers, 2014:4). For this reason, the researcher explored the cycle of instruction and formative assessment developed by Greenstein (2010) cited in Boumediene and Hamzaoui-Elachachi (2017:174), as depicted in Figure 3.3 below. This model was used to observe how formative assessment is applied during instruction and to subsequently interview EMS educators regarding the assessment practices observed in practice and class activities in the learners' books.
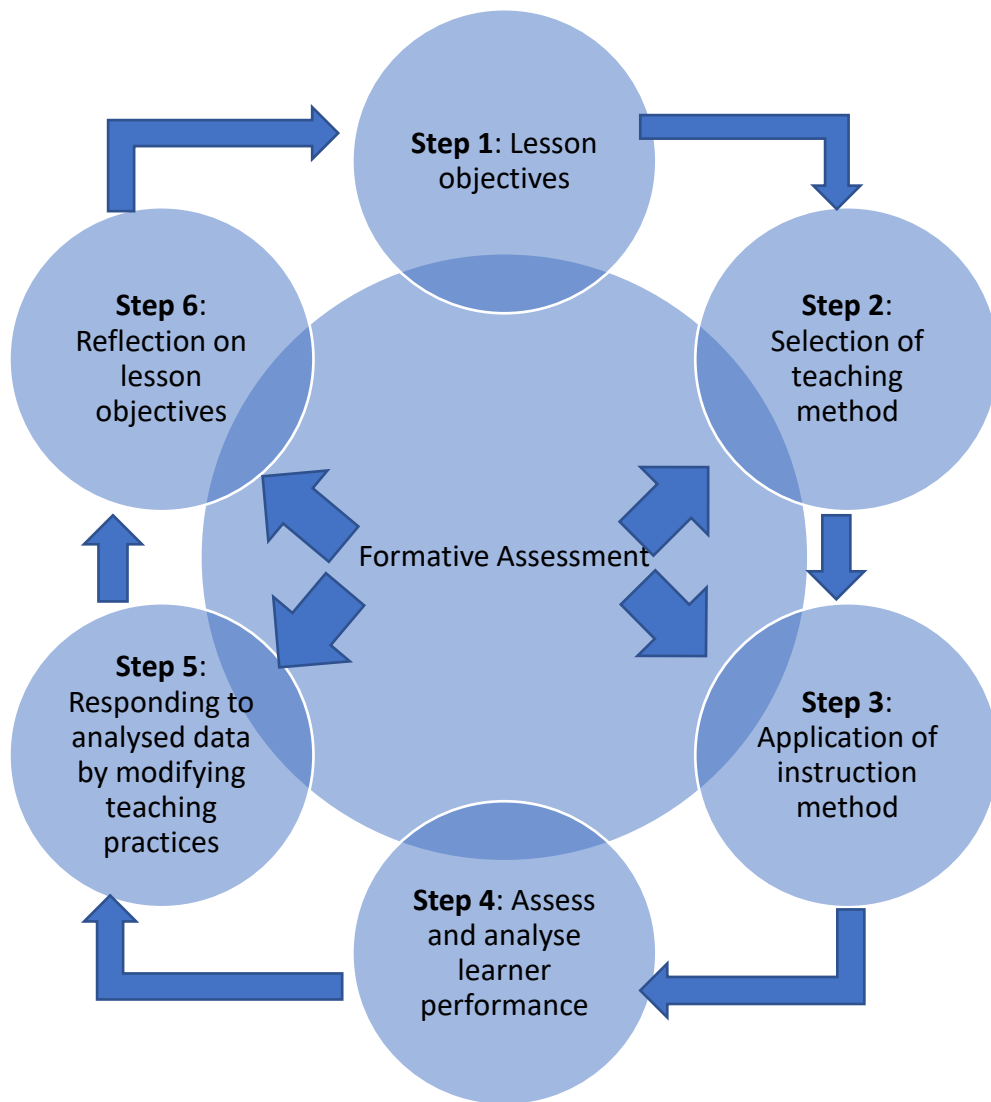
Figure 3.3: The cycle of instruction using formative assessment

(Adapted from Boumediene & Hamzaoui-Elachachi, 2017:174)

According to Boumediene and Hamzaoui-Elachachi (2017:174), the first step in implementing formative assessment is to formulate lesson objectives. The lesson objective statement consists of a cognitive verb indicating the knowledge and skills that learners need to be able to perform during and at the end of the lesson or topic. This means that the cognitive verb informs the method of instruction to be adopted by an educator. Based on the cognitive verb contained in the lesson objective statement, an educator needs to decide on the teaching method to be followed. The method needs to be a combination of two or more of the following methods: teacher-centred, social interactive, or learner-centred. Assessment cannot be separated from teaching (Natalia et al., 2018:49; Nasab, 2015:166) which means the learning content taught

needs to be assessed. This can be done by adopting a continuous assessment method of teaching where a questioning technique is used to gauge the success of the lesson. An assessment activity can be provided during or at the end of the lesson or topic. In line with step 4, an educator needs to analyse learner performance with the aim of identifying the strengths and weaknesses of learners in the subject.

Learning cannot be said to have improved unless the data collected indicates positive changes in learners' learning (Browne, 2016:2). Educators need to use data emanating from the analysis of learner performance to modify their teaching practices. The analysis of results should also be used to develop intervention strategies. This means that learner performance is used to inform and improve teaching. Thus, the learning outcomes can still be influenced by using feedback emanating from formative assessment to adjust teaching practices (Greenstein 2010 in Huisman, 2018:3).

Concurring with Greenstein (2010) in Huisman (2018) are Qu and Zhang (2013:338) who assert that feedback from the assessment is essential as it encourages and helps learners to learn better. Higgins, Grant, Thompson and Montarzino (2010:5) view this approach as the short-term strategy used to collect evidence on learner performance and use it to improve and guide teaching and learning hence feedback is crucial. It is for this reason that Gagné et al. (1992:196-197) believe strongly that learners need to be provided with feedback confirming the correctness of their performance. Post-lesson presentation, educators need to reflect on the lesson objectives to check the success of the lesson presented.

Agbulu and Idu (2008:246) argue that in formative assessment learners are asked questions during lesson presentation. These questions, according to Vingsle (2014:9), can be planned or unplanned. In unplanned questions an educator uses probing and spontaneous questions during lesson presentation to collect information about learners' learning, while a planned questioning technique is where an educator prepares some questions and activities to obtain information from learners. This practice enables educators to detect misconceptions and to provide immediate feedback to learners (Department of Education Papua New Guinea, 2008:26; Shuichi, 2016:81). Hence, Wiliam (2011:10) describes it as a regular activity communicating performance to educators and learners thereby informing the need to adjust teaching practices. It is used to promote interaction during lesson presentation and to provide

continuous feedback to learners (Shuichi, 2016:80). According to Logaw (2017:22), Huisman (2018:5), and the CAPS document for EMS (DBE, 2011a:24), formative assessment is "developmental in nature" as it assists educators to identify strengths and weaknesses during the learning process. In this way, learners' content needs are promptly addressed (Lumadi, 2013:44; Higgins et al., 2010:5).

It is for this reason that Thomas (2012:105) believes that through formative assessment, teaching and learning is enhanced in the classroom. The Hanover Research (2014:5) states that effective implementation of formative assessment needs to help learners answer the following developmental cycle questions depicted in Figure 3.4 below:
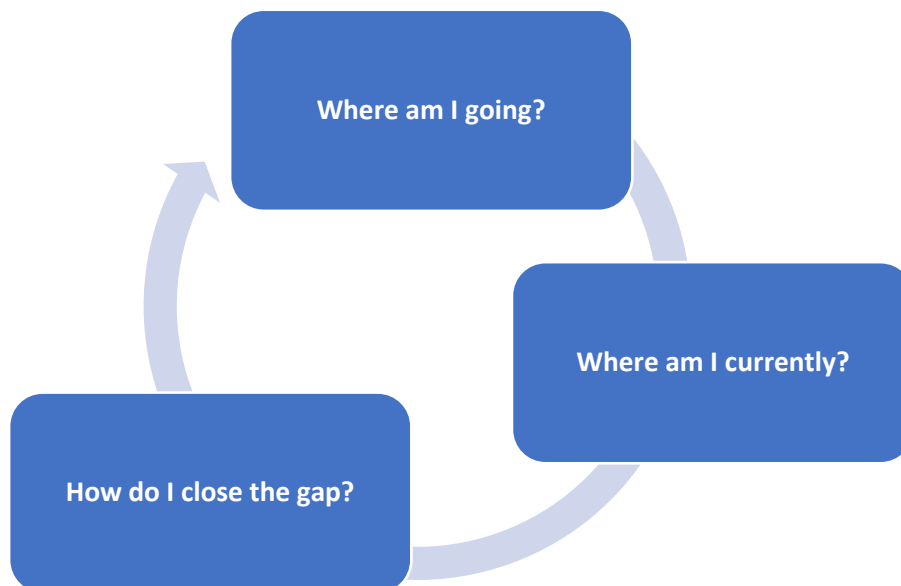
Figure 3.4: The developmental cycle for formative assessment

(Adapted from Hanover Research, 2014:5)

Notably, the questions suggested by the Hanover Research are echoed by Shuichi (2016:85) who states that educators need to establish where learners are before and during the learning process, where they are going, and what activities should be done to get learners where they need to be after instruction. The first question that learners need to answer is their intended destination (*where am I going*?). For learners to understand their destination they should be provided with clearly articulated lesson objectives and learning targets. The lesson objective statement needs to articulate the skills and knowledge that learners need to display after the completion of the lesson.

This will make learning easier because learners will understand the objectives that they need to achieve, the purpose of achieving the objectives and the qualities needed for them to achieve the objectives (Hanover Research, 2014:4-5). For example, if learners are required to analyse, interpret, and record transactions in subsidiary journals, the lesson objective statement needs to clearly articulate this so that learners know the expectations. Educators need to continuously aid learners clarify the intended learning as the lesson unfolds, not only at the beginning of the lesson (Hanover Research, 2014: 4-5). This means that educators need to clarify the learning intentions and the criteria for success while on the other hand learners need to understand learning intentions and criteria for success (Hanover Research, 2014:5). This will help in providing learners with clear directions of the intentions of lessons.

The second question that learners need to answer is their present status of learning (*where am I currently*?). This will help learners ascertain and learn how to discover their current position and the position where they need to be, an awareness that is central to their ultimate success (Hanover Research, 2014:5). Being aware of the knowledge and skills that one needs to exhibit during or at the end of the lesson/topic makes it easy for learners to measure any success from the learning process. The third question that learners need to answer relates to the plan of action needed to acquire new knowledge (*how do I close the gap*?). The application of formative assessment during instruction will help learners to close the gap by knowing the actions that they need to take to move from their present position to the final achievement learning objectives (Hanover Research, 2014: 5). This will only take place if learners are provided with clear and constructive feedback, clearly indicating areas where learners have done well and in sections where improvement is needed. In this way, assessment is geared towards improving learning.

It remains a fact that formative assessment is regarded as a continuous assessment method of teaching that improves teaching and learning; however, some weaknesses have been noted regarding this form of assessment.

- **The weaknesses of formative assessment**

Qu and Zhang (2013:338) noted that formative assessment has its own flaws. For instance, if an educator uses a question and answer method to gauge the success of the lesson, Qu and Zhang state that some learners might not be comfortable to

respond due to lack of confidence in expressing themselves well in front of other learners. Furthermore, Qu and Zhang assert that opinions are not objective; therefore, more time may be required for learners to respond to questions asked. Learners may be misunderstood by educators. Some learning targets cannot be assessed by short oral responses; they require longer time frames, wherein learners are free to talk, have time to think about correct answers and respond appropriately.

According to Lumadi (2013:46), formative assessment activities are given little attention because the results are not formally recorded nor taken into consideration for grading. Lumadi argues, therefore, that educators do not take daily assessment seriously because of little value placed on this type of assessment. Mikre (2010:104) also views formative assessment as having a negative impact on low-achieving learners since their poor performance or participation during instruction might lead them to believe that they lack the ability to learn, as a result, they might withdraw from participating in the lesson. Qu and Zhang (2013:338) urge educators to treat every learner equally. Their incorrect responses should not be ignored and be punished for making mistakes. Educators need to be skilful and sensitive in handling learner responses.

Shuichi (2016:80-81) noted that in some instances, formative assessment is used as convergent assessment that often leads to the practice of compliance where the assessment is reduced to classroom tests. This means that the misinterpretation of the application of formative assessment leads to misrepresentation of this type of assessment. The convergent type of questions encourages surface learning as the type of questions used are reproductive in nature, they do not promote critical thinking. This view is echoed by Browne (2016:3) who perceive formative assessment as deficient due to poorly focused questions used by educators which require short answers that promote factual knowledge involving regurgitation rather than reflection. In addition, such questions do not develop learners' "higher-order cognitive skills". Some educators allow learners to respond in a chorus form (Browne, 2016:3), which makes them struggle to identify learners experiencing learning barriers.

Mikre (2010:107) also concur with Browne that classroom questions usually focus on low cognitive levels of knowledge because educators do not ask thought-provoking questions that require learners to apply, analyse and synthesise themselves.

Furthermore, Mikre maintains that many educators use pencil and paper tests as the only assessment practice during instruction. The observational techniques are not used during the question-and-answer method where learners could be observed and assessed using checklists. Black and Wiliam (1998) cited in Qu and Zhang (2013:338) advocate for the promotion of high-quality formative assessment supported by the provision of regular and constructive feedback geared towards improving learning.

- **The purpose of formative assessment**

According to Browne (2016:2), the purpose of formative assessment activities is to improve learning. These classroom assessment activities provide formative feedback to educators with the belief that effective teaching produces learning, by way of actions, assessment serves to assess the effectiveness of teaching (Eskola, 2011:46). According to Haley-Speca (2016:14), Higgins et al. (2010:4), Cauley and Mcmillan (2010:1), Vingsle (2014:7), and Mikre (2010:103), the purpose of formative assessment is to "diagnose any weaknesses and misconceptions, monitor learner progress during and after the presentation of lessons, and provide timely feedback to learners in order for them to correct errors, to assist educators to adjust and plan next steps in improving their teaching practices and lastly to help learners to plan next steps to be taken in enhancing their learning". Logaw (2017:40) asserts that formative assessment should be used to continuously interact with learners with the view to sustaining learners' interests during lesson presentation.

According to Vingsle (2014:10), formative assessment is used to obtain information from learners about their learning, interpret the information and use the feedback to improve teaching and learning. Feedback help learners and educators to close the gaps in learners' knowledge and skills and improve teaching. According to the National Protocol on Assessment, the purpose of formative assessment is to prepare learners for summative assessment (DBE, 2011c:5). According to Walker (2012:905), formative assessment provides educators with an opportunity to share on a regular basis about their understanding of the objectives of the lesson and process of learning that in turn needs to create a dialogue between the educator and learners. Walker maintains that classroom assessment is not graded and the reason for that is to afford learners and educators with the opportunity to interact with the feedback and focus on it rather than being obsessed with grading.

- **The method of collecting evidence on learner performance**

According to Logaw (2017:22-23), formative assessment involves different techniques employed by educators to elicit information on learners' strengths and weaknesses with the aim of using the feedback to improve teaching and learning in the classroom. Evidence on learner performance in formative assessment is collected through informal observations and oral questions posed to learners during instruction (Cauley & Mcmillan, 2010:1). According to the National Protocol on Assessment, an educator can pause during the lesson and have discussion with the learners to ascertain from them about how learning is progressing (DBE, 2011c:5).

- **Time frames for the collection of evidence on learner performance**

According to Haley-Speca (2016:14) and Atibuni and Olema (2017:39), evidence on learner performance can be collected at any point during teaching and learning. This can take place through baseline assessment at beginning of the lesson; it can also take place during instruction through question and answer method or at the end of the lesson presentation (Natalia et al., 2018:49) by giving learners a class activity but certainly it must take place before summative assessment.

Assessments conducted during lesson presentation enable an educator to monitor the progress of learners which, according to Lumadi (2013:44-45), can take place in the form of question-and-answer method or learners can be required to do an activity in pairs, individually or in groups. Asking questions can enable educators to obtain important information about learners' learning and understanding of new concepts (Ozan & Kincal, 2017:87). In formative assessment, an educator can stop during the lesson with the aim of observing learners or to ask them about their understanding of concepts presented to them, therefore, educators should not view this type of assessment separately from teaching and learning activities (DBE, 2011a:24).

- **Inquiry question in formative assessment**

Formative assessment is an instrument that informs educators about what learners know and need to know (Haley-Speca, 2016:14) before summative assessment and promotion. Rosenshine (2012:19) argues that educators need to ask learners what they have learnt during instruction, and this can be achieved through questioning, homework, or a class activity at the end of the lesson. An educator can use questioning

97

technique to recap what learners have learnt (Rosenshine, 2012:19). Logaw (2017:5) believes that following the framework provided in the administration of formative assessment, it could lead to the provision of quality education, which is discuss in the following section.

3.6.3.4 Quality education

With regards to the model for assessment, as depicted in Figure 3.3 above, regardless of whether learners are assessed through formative or summative assessment, educators need to ensure that the dimensions to be assessed are timed and based on a clear criteria and assessment practice before the administration of the assessment, this will lead to attainment of quality education (Logaw, 2017:5). For the attainment of quality education, learners need to be provided with regular, constructive, encouraging, and developmental feedback that guides and helps them to improve (Atibuni & Olema, 2017:37).

Walker (2012:903-904) supports this view by arguing that learning can only improve from the assessment practices if the marking criteria for an assessment is transparent and clear as this will enable learners to understand and know what was required of them to obtain good marks. Walker argues further that clear marking enables learners to get feedback regarding their performance based on a pre-determined criterion. Walker (2012:904) maintains that feedback plays a critical role in learning and the assessment processes. For quality education to take place, Walker argues that learners need to learn from the assessment procedures because through this process, learners will be able to reflect on their performance in assessment activities and integrate the feedback in future assessment activities such as final examinations.

Qu and Zhang (2013:338) state that feedback encourages and motivates learners to draw lessons and learn better. It is for these reasons that Qu and Zhang maintain that feedback needs to be objective and fair for it to yield good results. It is therefore vital for learners to be aware of areas where they have done well and where they need to improve.

In conclusion, assessment is described as a process of collecting data about learner performance, analyse and interpret it then make stakeholders aware about the progress of learners (DBE, 2012:3; Idika & Eke, 2017:2). Therefore, for educators to

determine the kind of knowledge and skills obtained by learners, they need to assess how learners are performing in written tests, projects, assignments, examinations, their responses to question posed by educators during and after lesson presentation, in group discussions, in real-life scenarios and assignments (Natalia et al., 2018:50).

3.6.4 Educators' Knowledge of Learners' Learning Difficulties

According to Grossman (1990:8), learners' learning and understanding includes "learners' understanding, conceptions and misconceptions of particular topics in a subject matter". The researcher argues that educators need to have some knowledge about what learners already know about a topic and what they are likely to find confusing. This, according to Grossman (1990:8), will help educators to make use of appropriate explanations and representations to address any conceptions and misconceptions of certain topics in a subject matter. In his definition of the PCK construct, Shulman (1986:9-10) argues that PCK includes the learning content and how to make it easy for learners to understand it. The researcher argues that "Learners are unlikely to appear before educators as blank slates". Learners come to class with certain beliefs, thoughts, ideas, and assumptions learnt from previous grades and through interacting with citizens in their communities (Ambrose et al., 2010:4).

Therefore, learners come with various experiences of the most frequently taught topics and lessons (Shulman, 1986:10). Moreover, they come with different backgrounds, perceptions, and expectations to learning (Fry, Ketteridge & Marshall, 2009:10), which requires educators to build on these or correct any misconceptions. This is critical because the information, ideas, thoughts, and assumptions that learners come with, helps them to learn new concepts better and faster or might hinder the process of learning altogether (Ambrose et al., 2010:4). This clearly indicates the power of prior learning in promoting and hindering learning. The researcher explored the model provided by Ambrose et al. (2010:14) in dissecting the role of prior knowledge in learners' learning.

3.6.4.1 The role of prior knowledge in learners' learning

Ambrose et al. (2010:14) provided a model that simplifies the role of prior knowledge in the learning process.
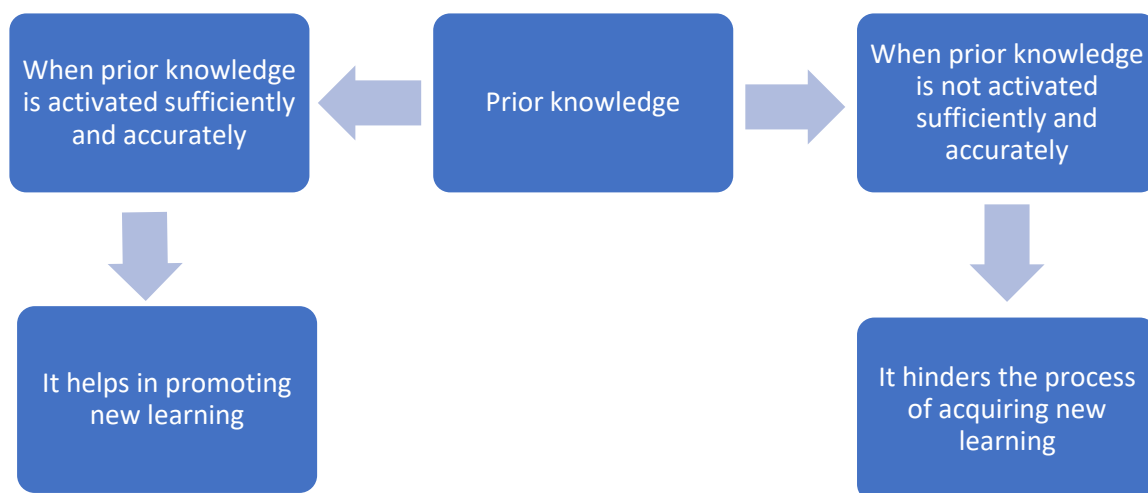
Figure 3.5: The role of prior knowledge in the learning process

(Adapted from Ambrose et al., 2010:14)

According to Ambrose et al. (2010:13-14), if educators do not make use of relevant prior knowledge in their teaching, this means that they type of knowledge is not activated in learners' mind, therefore, there will be no integration of old information with new knowledge. If educators do not activate prior knowledge, they will not be able to determine the amount of prior knowledge that can be used as a base to support new learning. Educators will not be able to link new learning content to what learners already know about new content presented to them.

Any misconceptions will not be addressed if prior knowledge is not activated, leaving learners with insufficient or inaccurate information in handling tasks which subsequently hinders learners from acquiring new learning. On the contrary, Ambrose et al. (2010:14) argue that if educators make use of prior knowledge by understanding learners' thinking and the amount of knowledge they already know, this will help educators to pitch their lessons at an appropriate level. This will help them adapt their teaching method to be appropriate to learners' readiness. The effective use of prior knowledge will also help educators to identify and fill any existing gaps.

In the context of FL, the learning content and topics taught in Grades 8 and 9 are different from the concepts taught in grade 7. Hence, Jones and Moreland (2015:70) argue that the knowledge of student learning and understanding in the subject

"includes existing knowledge, strengths and weaknesses and progression of learners' learning". These authors argue that educators need to be aware of how to build on learners' conceptual and procedural understandings and their strengths and weaknesses in the subject. When knowledge is inadequately activated in the mind of a learners or it is sluggish and inaccurate, it will impede progress on new learning; however, the opposite will provide a strong foundation on which educators can build new knowledge (Ambrose et al., 2010:4).

Fry et al. (2009:10) assert that even if learner's prior knowledge and understanding is undeveloped or incorrect, it remains the duty of educators to change any misconceptions or make additions to pre-existing knowledge and understanding so that learning can take place, otherwise learning will not occur. For learners to understand new concepts, educators need to undo the incorrect information that learners possess, and where prior knowledge is accurate, the educator needs to build on these concepts during instruction to make learning easy (Jones & Brader-Araje, 2002:4).

According to Kambouri (2016:1), the educators' understanding of learners' learning will inform appropriate teaching methods and strategies from which to choose to directly address preconceptions and misconceptions while teaching FL. Hence, Jones and Brader-Araje (2002:4) argues that educators need to establish what information learners have about the topic and then provide new knowledge and learning experiences that will confront prior conceptions to promote conceptual development. To achieve this objective requires an educator with adequate knowledge of the learning content. According to Sadler, Sonnert, Coyle, Cook-Smith, and Miller (2013:1043), "a teacher without knowledge may teach the concept incorrectly, may not be able to identify misconceptions and learners may end up with the same incorrect belief as their teacher".

In addition, Sadler et al. (2013:1025) assert that, "If teachers hold such misconceptions themselves or simply are unaware that their learners have such ideas, their attempts at teaching important concepts may be compromised". These authors maintain that educators need to be aware of learning difficulties encountered by learners in grasping certain learning content. If the preconceptions and conceptions are misconceptions, educators need knowledge of teaching methods and strategies most likely to be

beneficial in restructuring the understanding of learners (Shulman, 1986:9-10; Jones & Moreland, 2015:71). The educators' knowledge about learners' learning difficulties will inform educators' planning and preparation on how to guide and provide support to learners, this will in turn enhance teaching and learning in the classroom (Jones & Moreland, 2015:71).

Sadler et al. (2013:1025) believe that educators should know common learner misconceptions for the topics that they teach. During lesson presentation, learners' learning difficulties can be established through a continuous assessment method of teaching by using a questioning technique and an assessment after the lesson has been presented. In group discussion method of teaching, learners discuss amongst themselves and with other learners in the class, followed by giving feedback at the end of the discussion. An educator will be able to assess any misconceptions based on the feedback received through various strategies used during lesson presentation.

3.6.4.2 The requirements for learning Financial Literacy

The general aims of the National Curriculum Statement Grades R-12 are to ensure that learners acquire "knowledge and skills" meaningful to their daily life experiences (DBE, 2011a:5). Learners need to be taught "knowledge, skills and values" that address FL (Accounting) as a tool for starting and managing their own businesses and ensure that proper financial records are kept (DBE, 2011a:9). Educators need to be conversant about different knowledge dimensions for them to teach FL in a balanced manner. They need to know the subject specific skills to be instilled in the teaching of FL. Lastly, they also need to ensure that values are promoted in FL.

3.6.4.3 Areas of learners' learning difficulties

According to Eskola (2011:70), learners' approaches to learning literature is heavily characterised by three constructs: a deep approach, a surface approach, and a strategic approach. In the research study conducted by Dolmans, Loyens, Marcq and Gijbels (2015:2), the authors encountered that, learners had different intentions when approaching a particular subject topic or task. Dolmans et al., maintain that some learners intended to understand the meaning of the text in a particular topic that is referred to as deep learning approach, while others primarily wanted to be able to reproduce what they had read when questioned on it, which is referred to as a surface

approach to learning. According to Biggs and Tang (1999:22), surface and deep approaches to learning are helpful in comprehending ways of improving teaching and learning thereby understanding how learners learn. These approaches describe how different learners learn in the classroom. Surface and deep approaches to learning do not refer to personality traits or define the type of learners but they refer to the reactions of learners to teaching and learning activities (Biggs & Tang, 1999:29; Eskola, 2011:70).

The intensions of learning determine the learning approach to be used. If educators teach learners to memorise and regurgitate information, this will be the consequence of how learners interpret and perceive the context of learning (Eskola, 2011:72). In this case, learners will adopt surface learning but if teaching and learning activities require learners to analyse, discuss, explain, evaluate, and interpret then they will adopt a deep learning approach. Learners will learn the way they are taught. If an educator promotes surface learning during instruction, it means that learners will be taught to memorise and reproduce information, however, this does not define the type of learners, but the context in which teaching, and learning occur. If the teaching and learning promoted during instruction requires learners to understand concepts, this means that learning will take place (Eskola, 2011:73). Thus, higher cognitive knowledge and skills are taught. This shows that learners' learning is determined by the teaching and learning activities promoted by an educator in class.

The learning content that educators teach is what they will need to assess at the end, and how they teach concepts should be how they will assess them. It is therefore crucial for educators to know the impact of the kind of teaching and learning approaches promoted during instruction because this has a bearing on assessment. Learners cannot be expected to discuss, evaluate, interpret, record, and analyse if such teaching practices are not promoted during instruction. This means that educators cannot teach surface learning and assess deep learning. The educators' knowledge of the learning approaches will determine how learners learn in the class.

(a) The effects of surface learning:

In this type of learning, learners execute assessment tasks with minimum efforts to meet the subject minimum pass requirements (Biggs & Tang, 1999:22; Eskola, 2011:70-71; Young, Caudill & Murphy, 2008:30; Dolmans et al., 2015:4; Donnison &

Penn-Edwards, 2012:10). This means that learners are highly influenced by the requirements of the assessment task. Their focus is to study and pass an assessment task given to them. In return, they are awarded marks for regurgitating information. Educators give activities and skills that instil low cognitive-level activities and skills. This approach of learning promotes low cognitive skills (Biggs & Tang, 1999:22; Young et al., 2008:30).

This approach to learning promotes rote learning as learners do not learn facts, concepts, or principles of the subject with comprehension; instead, memorisation is promoted to give the impression that understanding has transpired (Biggs & Tang, 1999:22; Young et al., 2008:30; Eskola, 2011:70-71; Walker, 2012:903; Kilgour, Reynaud, Northcote & Shields, 2015:9; Fry et al., 2009:11; Donnison & Penn-Edwards 2012:10; Beattie, Collins & McInnis, 1997:1).

The intention is for learners to reproduce content learnt (Dolmans et al., 2015:3). According to Young et al. (2008:30), learners may possess good memory of facts and concepts of the subject however these learners are not able to apply the knowledge gained and relate it to real-life situations since this approach of learning does not provide learners with a deeper understanding of the learning material. Surface learning involves listing points and recalling facts (Kilgour et al., 2015:9) instead of encouraging an argument between and amongst learners (Biggs & Tang, 1999:22).

The facts, concepts, and isolated ideas are not integrated but are seen and treated as "separate entities", not as a whole (Biggs & Tang, 1999:23; Eskola, 2011:70-71; Walker, 2012:903; Chin, 1999:239-240). This type of learning is not consistent with CAPS since critical thinking is not promoted in surface learning, hence Biggs and Tang (1999:24) argue that the first step in improving teaching is "to avoid those factors that encourage a surface approach".

(b) The factors that encourage deep learning

In this approach, learning for understanding is promoted (Beattie et al., 1997:1; Kilgour et al., 2015:9). The objective of this approach, according to Kilgour et al. (2015:9), is learners' learning and not just for learners to recall and regurgitate facts about the subject. In the context of FL, learners are therefore required to display analytical skills, interpretation and recording skills. This approach of learning promotes the inter-

relatedness of concepts. In his study, Chin (1999:240) found that when learners use a deep learning approach, they are likely to venture their ideas more spontaneously. Their responses to facts and concepts are more sustained, interconnected and not treated independently from other topics. Furthermore, learners can relate new ideas, examples, and concepts to previous knowledge and to everyday life experiences (Chin, 1999:239; Beattie et al., 1997:1).

In a deep approach of learning, learners can make connections, they search for meaning and in the process develop critical thinking (Atibuni & Olema, 2017:35). In the context of FL, the Accounting cycle reveals the relatedness of concepts – starting with cash and credit transactions, analysis of transactions in source documents, organising transactions into groups, posting journal entries into ledger, summarising the General Ledger, and finally preparing the income statement and balance sheet. For example, learners may be required to analyse transactions recorded in journals to complete a General Ledger and they may be required to use information from the previous activities in drawing up a Trial Balance of a particular company (Barnard et al., 2013:37). Another example may include learners being required to post from the CRJ and CPJ to the General Ledger and balance the accounts (Barnard et al., 2013:43). If learners do not know the relatedness of concepts or if they treat certain concepts in isolation, they will struggle in completing the transactions. This clearly indicates that concepts in FL cannot be treated independently from other topics otherwise it will be difficult for learners to complete certain activities if these concepts are treated in isolation.

The aim of deep learning is to develop learners that can understand and interact with the learning content, teaching materials, and seek meaning in the matter being studied and relate it to other experiences and ideas (Eskola, 2011:70; Chin, 1999:239; Dolmans et al., 2015:3; Walker, 2012:903; Beattie et al., 1997:1). This requires a sound foundation of relevant prior knowledge, thus, interested learners will try to learn the details, as well as making sure that they understand the big picture as the big picture is not understandable without the details (Biggs & Tang, 1999:24). These authors argue that learners come to class with questions that require answers therefore learners who adopt a deep learning approach focus on underlying meanings, on main ideas, themes, principles, or successful applications (Biggs & Tang, 1999:24;

Dolmans et al., 2015:3) and in the process, effective teaching and learning is enhanced.

Young et al. (2008) conducted a study entitled '*Evaluating Experiential Learning Activities*', these authors gathered that learners who used a deep learning approach were able to understand the learning material and were also able to relate and apply knowledge gained in real-life situations. On the other hand, Bonsaksen (2018) conducted a research study entitled '*Deep, Surface, or Both? A Study of Occupational Therapy Students' Learning Concepts*". His findings revealed that learners' approach to learning plays a significant part in determining learning outcomes, as frequently measured by their academic performance results. In his study, the author argues that "Researchers have found a relatively consistent pattern of associations between employing deep and strategic study approaches and achieving good academic grades" (Bonsaksen, 2018:1).

In their study, Dolmans et al. (2015:2) discovered that learners with an intention to extract meaning from their readings were likely to try to relate information to prior knowledge, to structure ideas into comprehensible wholes, and to critically evaluate knowledge and conclusions presented in the text. Learners who took upon themselves the task of committing text to memory were likely to use processing strategies such as rote learning. It is therefore important for educators to have adequate knowledge of their learners' learning difficulties and understanding of the subject concepts, facts, principles, frameworks, etc. so that they can be able to guide learners properly and formulate appropriate instructional objectives. Biggs and Tang (1999:25) therefore suggest that educators need to focus on aspects that promote deep learning. These authors urge educators to set the stage properly for effective teaching and learning to prevail in the classroom (p. 31). On the other hand, Walker (2012:903) advocates for effective dialogue and interactive activities in the classroom. The researcher asserts that educators need to choose and implement assessment techniques carefully to circumvent surface learning.

Educators' understanding of the general aims of CAPS is critical in ensuring that teaching takes place in line with national policies of the DBE. They need to understand the general aims of CAPS and the kind of a learner that is envisaged. For example, the kind of learner envisaged by CAPS is one that can:

"Identify, solve problems and make decisions using critical and creative thinking", a learner that is able to "collect, analyse, organise and critically evaluate information" (DBE, 2011a: 4).

In their planning, educators need to ensure that the kind of learner envisaged by CAPS is developed. If their teaching is promoting surface learning, then learners will only regurgitate the information provided and not be able to apply and put into practice the knowledge gained. Educators need to quickly pick up how learners are learning and be able to guide them properly.

(c) The factors that encourage strategic learning

In the strategic approach of learning, learners seek to work hard to obtain good marks. They choose effective learning strategies to improve chances of achieving good academic progress. They also familiarise themselves with the structure and content of previous examinations to predict questions (Eskola, 2011:71-72). This means that they become strategic in their approach because they are familiar with the style of questions used by examiners.

3.6.5 Educators' Knowledge of Instructional Strategies

Peklaj (2015:183) argues that the educators' teaching methods and strategies can either promote or hinder the learning process in the classroom. According to Shulman (1987:13), an educator needs to have in-depth knowledge of "methods and strategies" to teach a subject. McNeill, Gonzalez-Howard, Katsh-Singer, and Loper (2016:263) assert that knowledge of teaching strategies refers to the educators' knowledge and understanding of various strategies to use in extending learners' knowledge. According to these authors, educators should not only understand what strategies to use, but they also need to know when and how to use those strategies to promote effective teaching and learning.

In terms of the conceptual framework for the current study, the educators' knowledge of teaching strategies includes the following sub-components: teacher and learner activities as well as presentation of the lesson. In this regard, data on teaching strategies were obtained through the observations of teacher and learner activities during lesson presentation and by scrutinising the lesson plans. In exploring teacher and learning activities, the researcher adopted the model presented by Stripling,

Thoron and Estepp (2014:152), which shows the activities taking place in different instructional methods, namely teacher-centred activities, social interaction activities, learner-centred activities, and the teaching strategies applicable for each domain (Stripling et al., 2014:152). This model shows the role played by teachers and learners during instruction. Lastly, it shows the teaching strategies applicable in each method of teaching. The focus was therefore to observe the teaching method and activities taking place during instruction.

The PCK conceptual framework, as depicted in Figure 3.1, reveals that teaching strategies includes teacher and learner activities as well as lesson presentation. Thus, this section discusses teaching and learning activities. According to Biggs (1999:65), these activities may be "teacher-controlled, peer-controlled, and self-controlled as best suits the context". For this study, Robert et al's. (2010) model cited in Stripling et al. (2014:152) was adopted – it consists of teacher-centred activities, social interaction activities and learner-centred activities, as well as the teaching method applicable for each domain. The classification of learning and teaching activities as displayed by Stripling et al. (2014) is congruent with the opinion presented by Gavric (2015:15) who argues that educators need to deliver a curriculum that meets basic needs of the subject and learners' needs at all levels, namely cognitive, effective, and psychomotor skills.

The activities, as depicted in Figure 3.6 below, reveal the levels are addressed in each method of teaching. According to Biggs (1999:65), the main activities taking place in the classroom are (1) teaching and learning activities using different teaching methods or strategies and (2) assessment activities using different forms of assessment that are both determined by the lesson objectives. Therefore, in their lesson planning and preparation, educators need to ensure that the teaching methods and learning activities encourage learners to engage with the verbs within the resources available for teaching and learning (Biggs, 1999:65). According to Lloyd and Abbey (2009:25), the methods for teaching Accounting include the following activities:

- Presentation of concepts using a lecture method,
- Answering short objective questions posed by an educator,
- Engaging learners in class discussion as peers or group discussion,
- Allowing learners to make oral presentations and answer questions posed by their fellow learners,
- Involving learners in demonstrations,

- Engaging learners in role playing or simulation games, and
- Analysing and recording transactions (Lloyd & Abbey, 2009:25).

It is for this reason that the researcher adopted the learning and teaching activities depicted in the model developed by Roberts et al. (2010) cited in Stripling et al. (2014:152). These activities include lecture, demonstration, questioning, discussion, cooperative learning, inquiry, and individualised application. The model, as depicted in Figure 3.6 below, clearly indicates that the teaching and learning activities are highly influenced by the method of teaching chosen by an educator. According to the framework presented by Stripling et al. (2014:152), if an educator selects a teacher-centred method of teaching, it means that the class activities will be more teacher-centred, but if a learner-centred approach is selected; there will be more interaction between the teacher and learners. The social interaction method encourages interaction between and amongst learners, which suggests that the learning environment needs to be social, interactive, and collaborative.
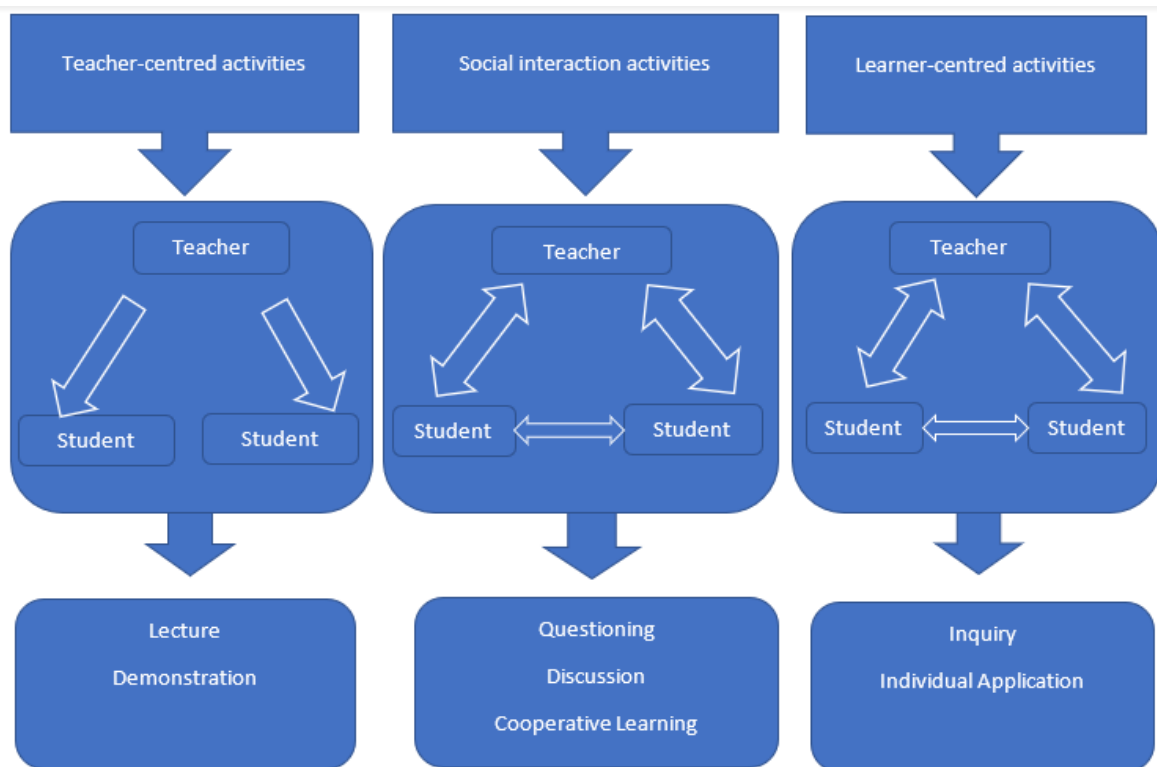
Figure 3.6: The model of teaching and learning activities

(Adapted from Roberts et al., 2010 in Stripling et al., 2014:152)

3.6.5.1 Teacher-centred activities

In a teacher-centred approach, the presentation is teacher-centred. Learner activities are determined by the method of teaching that falls under this domain. Figure 3.6 depicts that communication between teachers and learners is a one-way process (Stripling et al., 2014:152), suggesting that there is no interaction; instead, the information flows from the educator to learners. According to Stripling et al. (2014:152), the methods of teaching in this domain promote the following methods of teaching: lecture method and demonstration. The next section will therefore focus on the activities that take place in a lecture method of teaching.

- **Teaching and learning activities in a Lecture Method**

The single-headed arrows depicted in Figure 3.6 indicate that a lecture method is "a one-way flow of communication from an educator to learners" (Ningsih, 2017:5). Most of the talking is done by an educator while learners are passive listeners often taking notes (Benjamin & Wakhungu, 2014:222; Umoru & Haruna, 2018:449; Mwathwana, Mungai, Gathumbi & George, 2014:83). The learning and teaching activities are teacher-centred in that an educator makes all the decisions and teaches according to his predetermined plan (Gavric, 2015:15). If learners have any questions, they can ask at the end of the lesson since this type of teaching and learning is not interactive (Mwathwana et al., 2014:83). The common methods used in this approach are "telling, lecturing and direct instruction" (Van Wyk & Reis, 2016:104).

It has been noted in the literature that the lecture method has been criticised by various scholars such as Zhang and Patrick (2012:160), Mwathwana et al. (2014:83), and Dorgu (2015:80) who viewed it as a "chalk and talk" method of teaching where learners are filled with information. Mwathwana et al. (2014:83) further describe it as a "Jug and Mug" method of teaching where an educator is seen as a jug, a repository of wisdom and all knowledge that transmutes it to a learner who in this case is referred to as a mug. According to these authors, this method of teaching is mostly non-interactive and often boring to learners. This method has further been criticised for encouraging a passive mode of learning which restricts learners (Mwathwana et al., 2014:83; Ningsih, 2017:5).

Despite the criticisms of the lecture method of teaching and learning, the researcher noted an assessment made by Rahman et al. (2011:93) who argues that every teaching method has "its own characteristics, strengths, and limitations". El-Sayed et al. (2017:62) argue that the shortcomings of one method can be removed by the merits of another method. These authors are therefore advocating for what van Wyk and Reis (2016:105) called a "blend or mix" approach for teaching and learning.

This blend or mix approach is supported by Kaur (2011:9) and Rahman et al. (2011:86) who argue that a lecture method can "serve many useful instructional functions" if it is combined with any other teaching methods. Leish (1976) in Kaur (2011:9) further argues that a combination of the lecture method with any other teaching method when "used properly can inspire enthusiasm and capture the learners' imagination". In the same vein, Umoru and Haruna (2018:455) also believe that a lecture method needs to be incorporated with other teaching methods for learning and improvement in learner performance to be enhanced. Moate and Cox (2015:382) also support this view that the lecture method needs to be supplemented with alternative teaching approaches to help learners learning so that they can access and apply the information and knowledge gained during instruction.

In the face of learners' diversity (Shulman, 1987:9), argues that an educator must have a flexible and multifaceted comprehension of the subject matter adequate to impart alternative explanations of the same concepts or principles. Educators need to vary their methods of teaching to have room for individual differences and use appropriate teaching aids and methods of teaching to accommodate different learning abilities (Wumi, 2015:12). In support of a mix approach of teaching, Rahman et al. (2011:86) believe that a lecture method can be an effective method for communicating theories, ideas, concepts, and facts to students which can be explained by a combination of a lecture method and any other method of teaching. For example, an educator can use a combination of a lecture method with demonstration in explaining the concepts and assets by showing learners pictures of machines, buildings, land, source documents by showing learners how a cash receipt looks like, explain service by showing learners pictures of a hairdresser, motor mechanic, spaza shop, hospital, explain trading business by showing learners pictures of retail stores like Pick 'n Pay, Woolworths, Edgars, etc. As pictures are shown to learners, an educator could ask questions to elicit responses from learners and build on that by explaining the concepts further

during the lesson. The use of such a blend or mix for teaching and learning is usually determined by educator personality and competence, the nature of the knowledge and skills to be taught, the resources available, and the needs of the learners (van Wyk & Reis, 2016:105).

An educator can use a questioning, discussion, role-playing, inquiry, demonstration, simulation method of teaching but at the end of the lesson an educator needs to consolidate by summarising important facts and concepts so that learners can know if their perceptions about the subject are correct or not (Benjamin & Wakhungu, 2014:222). Therefore, no matter how practical the subject is, Rahman et al. (2011:86) maintain that the facts, rules, principles, procedures, theories, and framework still need to be explained to learners before they can be engaged in any activity. Rosenshine (2012:19) argues that educators need to give clear and detailed instructions and more time to provide explanations to learners. This can only be achieved by using a lecture method.

- **Teaching and learning activities in Demonstration Method**

Giridharan and Raju (2016:175) assert that a demonstration strategy or technique is a method of teaching concepts and principles of real things by combining explanation with handling or manipulation of real things, materials, or equipment. In this method, an educator tells and shows by acting or illustrating for learners to understand facts and new concepts of the subject (Benjamin & Wakhungu, 2014:222). According to Basheer (2017:557) and El-Sayed et al. (2017:62), demonstration involves illustrating a point in a lecture method or a lesson by means of something other than routine visual aids or other means of instruction.

The "tell and show by acting or illustrating" as discussed by Benjamin and Wakhungu (2014:222) clearly indicates the use of a combination of two methods of teaching, namely a lecture and demonstration method of teaching. In this way, the shortcomings of the lecture method are removed by the merits of the demonstration method, thus making what is called "Lecture-Cum-Demonstration method" (El-Sayed et al., 2017:62). In a demonstration method of teaching, learners need to pay attention to the principle explained by an educator using a lecture method and every step demonstrated by an educator (Yang & Liang, 2017:68; Umoru & Haruna, 2018:448; Dorgu 2015:83). According to Dorgu (2015:83) and Umoru and Haruna (2018:448),

the demonstration method of teaching is mostly beneficial in imparting psychomotor skills and lessons that require practical knowledge. Learners acquire skills since learning takes place through observation then followed by doing. The advantage of employing demonstration technique or as a method of teaching is that it "bridges the gap between theory and practice" (Dorgu, 2015:83).

The aim is to ensure that learners "perform the activity on their own as individuals or as a group" (Benjamin & Wakhungu, 2014:222). For example, in explaining the Accounting equation, an educator can use a demonstration to show the positive and negative effects on the assets, owner's equity and liabilities before requesting learners to do an activity on their own using the information provided. Or an educator can tell learners the principle of completing the cash payment journal (CPJ) or cash receipt journal (CRJ) and then demonstrate how the cash book is completed. In this case, learners will observe how CPJ and CRJ is completed, following a step-by-step principle explained by an educator and then follow the same steps in using the information provided to complete the cash book (Umoru & Haruna, 2018:448; Dorgu, 2015:83; Inuwa, Abdullah & Hassan, 2018:579). The learners' activities in the demonstration method are to observe then act thereafter.

Umoru and Haruna (2018:448) and Dorgu (2015:83) argue that demonstration is employed as a technique of teaching within the demonstration method of teaching, or it can be used as a method of teaching on its own. In the demonstration method, the role of an educator is to show learners or verbally share with learners' a step-by-step principle or procedure first, followed by demonstrating to learners before asking them to perform what an educator said or did (Inuwa et al., 2018:579; Benjamin & Wakhungu, 2014:224; Ekeyi, 2013:2). Giridharan and Raju (2016:175); Inuwa et al. (2018:580) argue that the demonstration strategy is effective for long-term memory retention of concepts because in this approach of teaching, concepts are presented clearly to the learners by means of diagrams, statements, and pictures. The act of demonstrating readily helps to kindle more natural interactions between learners and the teacher (Giridharan & Raju, 2016:175).

According to Inuwa et al. (2018:588), the demonstration method of teaching is effective in improving the understanding and performance of learners in the subject. The improvement in performance can be attributed to the fact that educators explained the

learning content by demonstrating through a step-by-step process to learners. Thus, learners were able to see and hear the explanation of concepts through demonstration. Learners are required to practise by following the steps as shown and explained by the educator (Inuwa et al., 2018:588). In the process, learners acquire skills.

3.6.5.2 Activities in Social Interactive

Social interactive teaching methods according to Gavric (2015:15) are based primarily on the successful interaction during instruction. The double-headed arrows depicted in Figure 3.6 above shows a two-way communication between an educator and learners as well as amongst learners themselves (Stripling et al., 2014:152). Kagaba and Kibanja (2017:46) argue that learning should always be viewed as a social activity where conversation and interaction amongst learners is encouraged. This means that learners are not passive, but they are actively involved in new knowledge creation. Charity and Igwe (2016:220) argue that interactive instructional strategies rely heavily on discussion and sharing among participants. Under these strategies, learners can learn from peer and educators, at the same time develop social skills and rational thinking (Charity & Igwe, 2016:220). These authors point out that the interactive instructional strategies are effective in the development of learners' critical and evaluative thinking ability as required by EMS CAPS documents (DBE, 2011a:5).

Ilić and Rešić (2017:120) argue that enhancing interaction is the form of behaviour where individuals encourage one another and help each other to make it easier to complete any task given. In this way, a learning and support system is created for all members of the group (Ilić & Rešić, 2017:120). Raluca (2016:130) asserts that interactive methods are modern ways of stimulating teaching, representing tools of learning which favour the interchange of ideas, experiences, and knowledge. According to him, learning in this method of teaching is achieved through communication and collaboration since it is based on mutual relationships and it refers to the process of active learning, whereby, a learner acts on information to turn it into new, personal, and internalised information. In a constructive way, "the learner rebuilds senses by exploring the educational environment, solving problems and using the information gained in new situations" (Raluca, 2016:130). The social interactive

method is consistent with the kind of learner envisaged, as stated in the CAPS general aims that aim to promote critical thinking.

The kind of learner envisaged in the CAPS is a learner who can do the work successfully as an individual and perform well when working in a group. In planning learner activities, educators need to ensure that the aims of the CAPS are realised. According to Stripling et al. (2014:152), the methods of teaching in this domain promote the following strategies of teaching: questioning, discussion, and cooperative learning. These methods are explored in the following sections.

- **Teaching and learning activities in Questioning Method**

Peklaj (2015:190) argues that posing questions related to learning content is an important educator competence that improves achievement. Benjamin and Wakhungu (2014:222) argue that in a questioning method, an educator asks questions and learners are expected to provide answers. In general, a question refers to any statement or sentence which has an "interrogative form or function"; however, in a classroom setting, these statements as referred to as "instructional or teaching indications or stimuli" that are used by an educator with the aim of eliciting information from learners to assess prior knowledge (Cotton, 2001:1; Etemadzadeh, Seifi & Far, 2012:1025; Naz, Khan, Khan, Daraz & Mujtaba, 2013:148; Fan, Levi & Shammah, 2014:7).

Mwathwana et al. (2014:84) point out that the question and answer method encourages interactive learning, and it enhances the ability of learners to remember what they have been taught. They also argue that the method provides a learning situation in which learners' views are promoted and inquiry among learners is inspired (Mwathwana et al., 2014:84). In her 17 principles of effective instruction, Rosenshine (2012:19) asserts that educators need to ask many questions to check for learners' understanding of new concepts presented to them. Furthermore, questions allow an educator an opportunity to determine the extent to which learners have understood the learning content and whether there is a need to re-teach the concepts (Rosenshine, 2012:19).

Dorgu (2015:82) and Ezenwafor and Akpobome (2017:37) argue that questioning is more of "a technique than a method of teaching" and it is used in various methods of

teaching during lesson presentation. For example, these authors assert that questioning can be used as a strategy in a lecture method to reinforce learning. Ezenwafor and Akpobome (2017:37) believe that "Any art or style applied by an educator to complement or accomplish any method of teaching is called teaching strategy". This means that one method of teaching can integrate or accommodate different teaching strategies.

The questioning method of teaching may take place in three stages, namely (a) at the beginning of the lesson (b) during lesson presentation and (c) at the end of the lesson presentation where an educator poses questions to learners to gauge the success of the lesson (Almeida, 2010:587). According to Mikre (2010:109), questions used "before, during, and after instruction" are well-known to support and guide learners' learning.

(i) The aim of using a question and answer method at the beginning of the lesson is:

➤ To conduct baseline assessment with the aim to establish prior knowledge of learners (van Wyk & Reis, 2016:112), with the aim to establish the level of readiness in terms of concepts that learners already know, and their awareness of what they do not yet know (Peklaj, 2015:189). For example, at the beginning of the lesson an educator can ask learners some questions to determine their prior knowledge of Accounting concepts such as capital, assets, payments, expenses, source documents, and understanding of how banks operate in terms of depositing and withdrawing money. By posing questions, learners' cognitive structures are activated (Peklaj, 2015:189).

➤ To stimulate learners' interest and curiosity about the subject topic (Dorgu, 2015:82; Almeida, 2010:588; van Wyk & Reis, 2016:112; Etemadzadeh et al., 2012:1025; Cotton, 2001:1). To focus the attention of learners on the topic (Dorgu, 2015:82; Almeida, 2010:588; Etemadzadeh et al., 2012:1025).

➤ To invite and encourage learners to become actively involved in lessons (Dorgu, 2015:82; Cotton, 2001:1).

➤ To develop critical thinking skills (Cotton, 2001:1; Etemadzadeh et al., 2012:1025; Croom & Staire 2005, cited in Naz et al., 2013:149).

(ii)   The aim of using a question and answer method during lesson presentation is:

➢ To steer the learners towards the realisation of the lesson objectives and keep them on the "right track and guide their thinking to direct attention and to maintain control" (Almeida, 2010:588).

➢ To determine how well learners understand the learning content presented so that any misconceptions can be rectified (Dorgu, 2015: 82); Almeida, 2010:588; Etemadzadeh et al., 2012:1025; van Wyk & Reis, 2016:112).

➢ To assess if learners are following the educators' line of thinking as the content of the lesson demands (Fan et al., 2014:8).

(iii)   The aim of using a question and answer method at the end of lesson presentation is:

➢ To assess the realisation of lesson objectives (Cotton, 2001:1; Fan et al., 2014:7) with the aim of gauging the success of the lesson.

➢ To assess the educator's ability to teaching a particular lesson (Fan et al., 2014:8). In addition, these authors maintain that an educator will be able to evaluate and get feedback on learners' attitude towards the learning content presented and to evaluate the effectiveness of the methods and strategies used. In this way, any shortcomings in achieving the lesson objectives would assist educators to modify their teaching methods and strategies.

Döş, Bay, Aslansoy, Tiryaki, Çetin and Duman (2016:2067) argue that asking questions is important however its effectiveness depends on the choice of questions used to achieve lesson objectives. Dos et al., advocate for the pre-determined lesson objectives that are congruent with the questions that are going to be posed at the beginning and during lesson presentation to avert chaos and disorder in the classroom which that hinder learners' ability to learn. Capel, Leask, and Turner (1996) in Naz et al. (2013:149) argue that effective teaching can only occur if educators ask good questions that foster educator-learner interaction. Educators should not ask questions just for the sake of involving learners in the lesson. Socrates stated that dead questions always create dead minds, and they never develop productive and intellectual brains (Rashid & Qaisar, 2016:155). According to Fan et al. (2014:7) and Almeida (2010:589), questions posed by an educator need to stimulate thinking

however the level of thinking stimulated depends on the type of question asked. This means that if questions are objective, they will not stimulate critical thinking.

The benefits of using the questioning technique depends on the educators' ability to use the method effectively (Dos et al., 2016:2066). This can be achieved by using effective questions aimed at improving learner achievement and performance (Mwathwana et al., 2014:84; Peklaj, 2015:190). According to Peklaj (2015:190), asking quality questions is even more important for learners' cognitive processes. Peklaj (2015:190) advocates for higher-level questions that require learners to classify, analyse, compare, evaluate, and create metaphors and analogies which leads to higher learner achievement. These higher order type of questions require learners to be able to apply new information or use their prior knowledge in coming up with solutions (Heng & Ziguang, 2015:68). This requires educators to carefully plan questions that cater for low and higher cognitive levels (Cotton, 2001:3). The planning of questions to ask during instruction is also supported by Heng and Ziguang (2015:68) who believe that educators need to prepare thinking skills questions.

In categorising the questioning technique based on the pattern of thinking that is promoted in learners, Rashid and Qaisar (2016:155) argue that a balance needs to be achieved between the basic knowledge levels. In this regard, Wilson (2002) in Kira, Komba, Kafanabo and Tilya (2013:67) classified questions as being convergent, divergent, evaluative, and Socratic.

Convergent types of questions are closed-ended in nature, and they require one-word answers, usually a yes or no. They allow for only one right response; they are questions about concrete facts (Kira et al., 2013:67; Dorgu, 2015:82; Dos et al., 2016:2066). With convergent questions learners are asked to "recall and remember certain knowledge" (Dos et al., 2016:2066). The questions focus on one answer (Fan et al., 2014:8). They are reproductive questions that encourage surface learning which promotes memorisation of facts (van Wyk & Reis, 2016:111). Learners in convergent assessment are involved as recipients of information (Shuichi, 2016:84).

Divergent questions are open-ended in nature with no specific answer instead these types of questions promote learners' ability to think broadly about a certain topic. They elicit a variety of answers or solutions to a given problem (Fan et al., 2014:8). Learners in divergent assessment are involved as active participants and initiators in new

knowledge creation (Shuichi, 2016:84). These questions allow for many right responses. Divergent types of questions provide learners with the space to explore various avenues and create alternative answers (Kira et al., 2013:67; Dorgu, 2015:82; Dos et al., 2016:2066). They require thought and present a challenge to learners since they are required to apply knowledge, analyse material, and make decisions (van Wyk & Reis, 2016:111). With divergent questions, learners are asked questions that promote critical thinking, understanding, application and learners can transfer knowledge gained during instruction (Dos et al., 2016:2066).

Evaluative questions are open-ended and more difficult to answer because some criteria must be established for making any judgement. They require learners to formulate a response based on their opinion. Basically, evaluative questions require learners to make judgements about something. Responses to these questions are limited to several choices (Kira et al., 2013:67; Dorgu, 2015:82). Evaluative questions are value-judgement oriented (Fan et al., 2014:8).

Socratic questioning requires learners to strive to make known what they do not know through critical thinking (Kira et al., 2013:67). According to Heng and Ziguang (2015:67), Socrates advocates for learners who can argue based on facts, ask questions, and engage in a discussion in the process of new knowledge creation. In addition, they believe in learners who can understand new ideas and introduce new thoughts. It has been mentioned earlier in this study that according to the CAPS document for EMS, the kind of learner envisaged is a learner who can identify and solve problems by applying their critical and creative thinking abilities. A learner that can develop knowledge and skills in collecting, analysing, organising and evaluate information using their critical thinking capabilities (DBE, 2011a:5).

In unpacking the concept critical thinking, the researcher explored the views presented by Duron, Limbach and Waugh (2006:160) who are of the view that critical thinking refers to learners' ability to analyse and critically evaluate information. Furthermore, these authors believe that critical thinkers could raise challenging questions and problems and they are skilful in assessing relevant information; they apply abstract ideas, and they also have an open mind thinking. Echoing the same sentiments are Heng and Ziguang (2015:67) who also believe that critical thinkers do not just accept information or knowledge as is, but they analyse, organise, process, and apply it.

On the other hand, passive thinkers are viewed as individuals who have "limited and ego-centric" perspectives of the world and such individuals can only answer convergent (yes or no) type of questions (Duron et al., 2006:160; Heng & Ziguang, 2015:67). The researcher observed the type of questions used by educators in their lessons. The classification of questions as presented by Wilson (2002) in Kira et al. (2013:67) was used to observe the type of questions used by educators during lesson presentation. The aim was to ascertain if learners are trained to identify and solve problems, and make decisions using their critical skills and creative thinking.

According to Duron et al. (2006:161), an educator needs to formulate lesson objectives that clearly express the expected change. To promote critical thinking during instruction, these authors assert that lesson objectives and the teaching and learning activities as well as assessment must be tailored in line with the higher order levels of thinking and questioning. Ezenwafor and Akpobome (2017:42) found in their study that questioning strategies are effective for teaching Accounting. Ezenwafor and Akpobome maintain that the questioning process is important for teaching because it enables educators to continuously monitor learner's learning progress and grasp of concepts.

Furthermore, they argue that effective questions stimulate learners' interest in Accounting and such questions promotes learner involvement in the learning process. Similarly, in the research study conducted by Naz et al. (2013:148), the authors also discovered that, effective questioning technique improves learner performance and achievement. The research study conducted by Cotton (2001:3) discovered that the teaching method which includes posing questions during lessons is more effective in producing achievement gains than teaching carried out without questioning learners. Cotton (2001:3) argues further that, learners perform better on test items previously asked as recitation questions, than on items they have not been exposed to before, i.e., oral questions posed during classroom recitations are more effective in fostering learning than written questions. In addition, questions which focus learner attention on salient elements in the lesson, result in better comprehension than questions which do not (Cotton, 2001:3).

Fan et al. (2014) conducted a study entitled '*Classroom Questioning as an Invaluable Teaching Strategy in Social Studies*'. In their study, these authors discovered that

questions asked during lesson presentation enable educators to gauge the success of the lesson since the questions provided feedback to the educator to ascertain whether learners are following the educators' "line of thinking as the content of the lesson demands". These authors believe that good questions asked during the lesson presentation will enable learners to "see the relationship between what they already know and the current knowledge, thereby helping them understand the sequence and continuity of the subject-matter" (Fan et al., 2014:8). In this study, the purpose of observing educators in practice was to explore the effectiveness of a questioning technique applied and the types of questions asked during instruction. With respect to learners' exercise books, the purpose was to view the quality of work given to learners.

- **Teaching and learning activities in discussion method**

Benjamin and Wakhungu (2014:222) and Mwathwana et al. (2014:84) define a discussion method as verbal interaction between an educator and learners or amongst learners themselves. This method promotes the exchange of information and ideas amongst learners, between learners, as well as the educator (Mwathwana et al., 2014:84). According to Rahman et al. (2011:86-87), the discussion method is "a process whereby two or more people express, clarify and pool their knowledge, experiences, opinions, and feelings" to arrive at a particular solution to the problem. Benjamin and Wakhungu (2014:222) argue that activities in discussion involve asking questions and providing answers therefore active participation of learners is promoted and the immediate feedback provided enhances effective teaching and learning.

Dorgu (2015:81) describes classroom discussion as a learner-centred teaching technique that requires careful planning by an educator in guiding the discussion. The success of classroom discussion relies on learners' participation as they are put in groups and engage in a free guided discussion where they express their views and ideas on a given topic or a problem provided by an educator. Learners discuss the issue amongst themselves and then report back to the whole class (Dorgu, 2015:82). This method encourages learners' participation, develops critical thinking, develops learners' ability to communicate, and problem-solving skills (Dorgu, 2015:82).

Rahman et al. (2011:86) describe discussion during instruction as a "free give and take" between an educator and learners as well as among learners on a particular topic in the subject. In class discussion, an educator presents a particular theme or

topic and then makes room for class discussion as most of the talking will be done by learners (Kaur, 2011:11) were learners' process information and ideas to provide solutions to a problem (Rahman et al., 2011:87). Small discussion groups can be organised, with an educator closing off the topic by summarising after the groups have presented (De Araujo & Slomski, 2013:23). In this study, educators were observed to ascertain how they promote the discussion method of teaching during lesson presentation.

- **Teaching and learning activities in cooperative learning method**

Van Wyk and Reis (2016:83) describe cooperative learning as a hands-on approach to learning experiences aimed at motivating learners to be positive about their work as they are responsible for their own learning. These authors argue further that in cooperative learning, learners learn from each other and face-to-face interaction between learners is promoted. It is for this reason that Ilić and Rešić (2017:119) argue that this type of teaching and learning has "social and academic benefits" for learners. Concurring with Ilić and Rešić is Rosenshine (2012:19) who asserts that through cooperative learning, learners get feedback from their peers regarding correct and incorrect answers, and in the process, they engage, and learning takes place. Learners learn new skills, ideas, and techniques from each other under close guidance of the teacher.

According to Ilić and Rešić (2017:119), Vrhovec (2015:133), Herrmann (2013:175) and Macpherson (2015:1), in cooperative learning, teaching, and learning is structured to allow learners to work in groups and they interact with each other in solving a particular problem by finding a common solution. In cooperative learning, every learner analyses the problem in search for a solution for the success and benefit of the group (Vrhovec, 2015:131). Learners do not work individually and compete; instead, there is active participation in helping each other in arriving at a particular view (Ilić & Rešić, 2017:119). In this method of teaching and learning, critical thinking is promoted instead of rote learning (Macpherson 2015:1). In the context of FL, educators can give learners a scenario that they are required to solve by using information provided by the educator in preparing certain journals. For example, learners can be requested to read through the transactions provided and record the transactions applicable to Debtors Journal, Debtors Allowance Journal and Cash Receipts Journal for a particular month

(Barnard et al., 2013:51). Learners can therefore be required to work together in groups to work out or complete transactions.

In working out the solution, learners will embark on the following activities: they will engage with each other in scrutinising the learning material provided, plan together, discuss, and evaluate each other's argument until they find common solutions for the problem (Ilić & Rešić, 2017:119; van Wyk & Reis, 2016:83). The role of educators is to ensure that clear instructions, goals, and duties, as well as responsibilities are clearly defined for learners to successfully complete their task (Vrhovec, 2015:132; Ilić & Rešić, 2017:120). This will ensure that every learner works hard in finding a solution to the problem for the benefit of everyone in the group (Vrhovec, 2015:131). During cooperative learning, educators are encouraged to move around and where necessary guide learners as they are busy working on the task given (Ilić & Rešić, 2017:120).

Cooperative learning can be perceived to be promoting a "free rider problem" where learners benefit at the expense and hard work of other learners. To circumvent this problem, Hennessey and Dionigi (2013:52) encourage educators to put certain measures in place to ensure the effectiveness of cooperative learning. These measures are (a) a cooperative task and (b) a cooperative incentive structure. In the cooperative tasks approach, learners work in groups towards the attainment of the set goals and the rewards are equally enjoyed by all members while in a cooperative incentive structure, the success in attaining the goal depends on the success of all group members and vice-versa (Hennessey & Dionigi, 2013:53). For cooperative learning to be successful, educators need to communicate these two requirements to learners so that learners can engage in activities with an objective of achieving something.

Herrmann (2013:176) argues that cooperative learning needs to adhere to two basic principles, namely "positive interdependence and individual accountability". For each strategy to be implemented successfully, educators need to make learners aware of the requirements of each approach. The positive interdependence is described as a "built in positive interdependence", which means that the success of the group in attaining its goals is reliant on the collective effort and cooperation of all group members (Hennessey & Dionigi, 2013:53; Herrmann, 2013:176; Macpherson, 2015:1). According to Macpherson (2015:3), learners need to recognise that they "are

linked with each other in a way that one cannot succeed unless everyone succeeds". They need to work in tandem, "assist, encourage, and support each other's efforts to learn".

In the individual and group accountability, the group is accountable for completing the task all members of the group are accountable for their contribution and for learning the material supplied (Hennessey & Dionigi, 2013:53; Macpherson, 2015:1). The performance of each learner is assessed, and feedback is provided to the group and an individual who participated in a group activity (Macpherson, 2015:3). To circumvent a "free rider problem", Hennessey and Dionigi (2013:54) urge educators to implement both the positive interdependence as well as individual and group accountability for cooperative learning to be effectively implemented in teaching. This is supported by Herrmann (2013:176) who asserts that individual accountability will prevent learners from social loafing. The researcher argues that while learners work within a group, they need to pursue their individual learning goals and be assessed as an individual. This method will be successful if all learners in a group share similar learning goals and when the individual members' goals are positively dependent on the actions of the group (Herrmann, 2013:175-176).

3.6.5.3 Learner-centred activities

In learner-centred activities, learners influence the learning content, learning activities, materials needed and pace of learning therefore this learning model places the learner at the centre of the learning and teaching process (Ezenwafor & Akpobome, 2017:37). Learners take control of their own learning with the support and guidance of an educator (van Wyk & Reis, 2016:81). The learner-centred activities, as presented in Stripling et al's. (2014:152) framework, consist of the inquiry and individualised application which are both briefly discussed below.

- **Teaching and learning activities in inquiry method**

According to Dorgu (2015:83), the inquiry method is also referred to as discovery method, which refers to a learning situation whereby learners are given space to discover things for themselves. This method of teaching is effective in such a way that learners do not forget as they discover things for themselves. Learners learn by experimenting, investigating, and exploring strategies that can be beneficial in solving

problems (Dorgu, 2015:83). For example, learners can be presented with a challenging question posed by an educator, or they can be requested to interpret a set of data and come up with a solution. Thus, learners learn and discover new things in response to the challenge given to them (Prince & Felder, 2007:14). In the context of FL, learners could be given transactions to analyse, interpret, and post from CRJ and CPJ to the General Ledger and prepare a Trial Balance.

Dorgu (2015:83) differentiates between two types of discovery methods that can be used by an educator, namely the structured method and the open discovery method. In a structured method, an educator gives a clear set of instructions that learners are to follow to "discover a fact, idea or skill for themselves". While, in the open discovery method, an educator presents a problem, and gives some questions and directions that require learners to find answers to. Here, learners are given the freedom to "explore different perspectives, views, possibilities, and solutions to the problem" (Dorgu, 2015:83).

- **Teaching and learning activities in individualised instruction method**

Chamberlin and Powers (2010:114) define differentiated instruction as "a process of proactively modifying teaching methods, learning activities and assessments based on learners' needs". According to Malinović-Jovanović, Zdravković and Malinović (2018:14), this includes "knowledge, skills, learning styles and abilities as well as interests of an individual learner". Learners are not the same, thus, educators need to adapt their teaching, such that it caters for differentiation in the classroom (Chamberlin & Powers, 2010:113). Therefore, in planning their lessons, educators need to consider the following aspects: educational aims and objectives, teaching methods appropriate for learners, teaching and learning types, resources needed to promote an understanding of concepts (Malinović-Jovanović et al., 2018:15).

Malinović-Jovanović et al. (2018:14) argue that the starting point for the individualisation of instruction is the curriculum which consists of the goal and objectives to be achieved in a particular subject. These authors argue that for the teaching goals and objectives to be applied during individualised instruction, they must be "clear, specific, and usable" to educators and learners, and they must be in line with the taxonomies. In this case, the authors refer to Bloom's Taxonomy, which they argue that the cognitive domain proved to be effective in improving the teaching and

learning. Chamberlin and Powers (2010:114) identify the following seven core principles that guide differentiated instruction.

First, these authors argue that educators need to articulate what is essential for learners to learn so that there is a clear link between the learning content, assessment, and the method of teaching. Furthermore, these authors advocate for a continuous assessment method of teaching in differentiated classrooms. This method will enable the educator to continuously gauge the success of the lesson as assessment during lesson presentation is ongoing and where necessary adaptations are made depending on the feedback received by the educator (Chamberlin & Powers, 2010:114).

Second, Chamberlin and Powers (2010:114) assert that in individualised instruction individuality should be respected, in that learners need to be accepted as they are, but they are all expected to achieve the aims and objectives of the subject. This does not mean that educators need to lower the standard however they need to utilise teaching methods and strategies that will enable all learners to achieve lesson objectives and educational aims and objectives since learners write the same examination and controlled tests. According to Malinović-Jovanović et al. (2018:14), the individualisation of instruction needs to be determined by the curriculum which outlines what learners need to do.

Third, educators need to ensure that learners take part in activities allocated to them (Chamberlin & Powers, 2010:114). Individualisation is based on an individual approach; therefore, educators need to prepare learning materials in line with the cognitive learning abilities of learners (Malinović-Jovanović et al., 2018:14; Chamberlin & Powers, 2010:114). Individualised instruction should provide additional information for pupils with "lower previous knowledge and lower intellectual abilities" (Ćurčić, Milinković & Radivojević, 2018:3), however, the activities allocated should "emphasise critical and creative thinking that promote individual growth" (Chamberlin & Powers, 2010:114).

Fourth, Chamberlin and Powers (2010:114) advocate for a good working partnership between an educator and learners to achieve the lesson aims and objectives. These authors argue that there should be a balance between educator and learner activities, as suggested in the model presented by Stripling et al. (2014:152).

Fifth, Chamberlin and Powers (2010:114) argue that teachers need to be flexible in their use of groups and whole class discussion because individualised group instruction takes several forms (Robinson-Geller, 2007:140). In other individualised group instruction classes, an educator may ask learners to come together in unplanned small groups for mini-lessons, or an educator may gather them for a short whole-group activity followed by individual tasks. Learners work in different groups and report back by engaging in whole class discussions and activities (Chamberlin & Powers, 2010:114).

Sixth, according to Ćurčić et al. (2018:3), the tasks for learners in differentiated instruction need to be "formulated and set up in different ways", therefore, educators need to adopt a "proactive rather than reactive" approach in their teaching (Chamberlin & Powers, 2010:114). This means that in lesson planning; educators, need to plan for differentiation and ensure that diversity is accommodated in the classroom. Educators should not react just because there is a situation in the classroom therefore advanced and proper planning cannot be over emphasised. Finally, Chamberlin and Powers (2010:114) assert that learning space, teaching time, and learning materials should be organised and used to advance the different learning abilities of all learners.

In this study, the framework provided by Chamberlin and Powers (2010) assisted the researcher in observing how the individualised method of teaching was used by educators in the teaching of FL. It should be borne in mind that this study does not advocate for a particular teaching method, strategies; and activities, instead, educators were observed to ascertain what type of teaching methods, strategies and activities are used in the teaching of FL. The framework provided by Stripling et al. (2010), as depicted in Figure 3.6 above, provided the researcher with a framework to observe the teaching and learning activities.

3.7 CHAPTER SUMMARY

This chapter outlined the theoretical and conceptual frameworks used to explore the teaching of FL. PCK was adopted as a theoretical framework, while the components of PCK were used to develop the conceptual framework. This chapter explored the role of theory in research and the origin of PCK. The next chapter focuses on the research methodology and design.

CHAPTER 4:

RESEARCH METHODOLOGY AND DESIGN

4.1 INTRODUCTION

The current chapter outlines the research paradigm, methodology, design, and the instruments used to gather evidence on educators' knowledge base in teaching FL. The type of data required is descriptive in nature hence interpretivism paradigm was adopted. Consistent with the paradigm adopted, qualitative research methodology was therefore considered suitable to respond to the study's research questions. This in turn, informed the choice of the research instruments used to collect data. The procedures for the collection of data and the instruments used are discussed in this chapter. This section of the study also deals with the management of ethical issues. The analysis of data and application of the frameworks developed from the literature are then described, and issues of validity and reliability are discussed. Figure 4.1 below depicts a framework of the research process applied in the collection and analysis of data.

Research Paradigm	Research Methodology	Research Design	Data Collection Methods	Data Analysis Method
•Intepretivism	•Qualitative Research	•Phenomenology	•Observations •Interviews •Document analysis	•Thematic Analysis

Figure 4.1: Research framework

(Researcher's own illustration)

4.2 RESEARCH PARADIGM

In Chapter 1, the research questions and objectives were formulated which informed the selection of the suitable research paradigm for the study (Alghamdi, 2015:78). The research paradigm is described by Kivunja and Kuyini (2017:26) as an approach used to describe a researcher's worldview or assumptions. Kivunja and Kuyini describe the worldview as the perspective of a researcher's own thinking of the nature of reality. The research paradigm selected for the present study was therefore of assistance in

framing a suitable approach in addressing a research problem and in the selection of appropriate strategies to address beliefs about the researcher's perspective (Shannon-Baker, 2016:321; Taylor & Medina, 2011:8).

In selecting a research paradigm, Alghamdi (2015:78) states that, researchers need to ensure that their presuppositions or beliefs are compatible with the research methodology chosen for the study. The researcher explored the following four types of paradigms mentioned by Wahyuni (2012:71): positivist, post positivist, interpretative, and pragmatic paradigm. From these four approaches, analysis of the literature review revealed that only interpretivism uses qualitative research methodology as a model to collect data. As stated above that the type of data needed in the current study is descriptive in nature therefore, open-ended types of questions were formulated to gather qualitative data. Interpretivism research paradigm was therefore deemed suitable for the study and the next section below outlines the rationale thereof.

4.3 RATIONALE FOR THE SELECTION OF INTERPRETIVISM AS A SUITABLE PARADIGM FOR THE STUDY

Knowledge in interpretivist research paradigm is generated by exploring the social world of participants involved in the study by focusing on their meaning and interpretation of the environment in which they operate (Ritchie, Lewis, Nicholls & Ormstonm, 2014:12; Kagaba & Kibanja, 2017:46). In this study, the researcher constructed meanings and interpretations of the PCK of EMS educators in teaching FL in schools where they teach; therefore, in collecting data, the researcher was a primary research instrument (Shah & Al-Bargi, 2013:258).

The nature of the current study is consistent with the characteristics of the interpretivism paradigm, the intent of which is, to obtain qualitative data by interacting with EMS educators in their respective schools. The aims of the researcher were to explore the insights and views of EMS educators regarding the subject under investigation. For this reason, the researcher circumvented collecting data remotely from outside, the intent of which, was to interact, interpret, and understand the views, experiences, and behaviours of EMS educators in teaching FL. To this end, the researcher avoided relying rigidly on universal laws about the PCK of EMS educators in teaching FL (Kivunja & Kuyini, 2017:34).

The research paradigm for the current study is explored with respect to its philosophical assumption, ontology, epistemology, methodology, and axiology. From the philosophical stance, interpretivist researchers reject the notion of objectivism and a single truth or reality as advocated by positivists (Wahyuni, 2012:71); instead, they believe in subjectivity and multiple realities. Congruent with the interpretivists believe, the researcher intended to understand the PCK of EMS educators in teaching FL. To achieve this objective, the researcher focused on the subjective experiences, perceptions, and behaviours of EMS educators (Antwi & Hamza, 2015:218-219). These educators were observed in practice, the intention of which, was to try to understand their perspective of the study under investigation, rather than relying on the researcher's perspective as an observer (Kivunja & Kuyini, 2017:33).

Tracy (2013:38) and Fazlıoğulları (2012:43) hold the view that a research paradigm can differ in terms of the nature of how things are, new knowledge to be constructed, values, and lastly, the strategies for gathering and analysing data. Therefore, the research paradigm for the current study was explored in terms of its ontology, epistemology, methodology, and axiology.

Ontological, interpretivists do not believe that reality is "out there" waiting to be discovered but their belief is that reality is constructed socially by people and their perceptions of it (Wahyuni, 2012:71; Alghamdi, 2015:79; Kivunja & Kuyini, 2017:34; Fazlıoğulları, 2012:42; Shah & Al-Bargi, 2013:257; Antwi & Hamza, 2015:218; Ritchie et al., 2014:13). Interpretivists, believe that constructing new knowledge consists of subjective experiences and perceptions of participants during the process of collecting data, hence there are multiple realities (Antwi & Hamza, 2015:218; Wahyuni, 2012:71). This means that interpretivists appreciate that people have different views, interpretations, and experiences which contribute to knowledge creation by interacting (Wahyuni, 2012:71).

Human perspectives and experiences are subjective, which means that social reality may change and can have multiple perspectives (Wahyuni, 2012:71) because participants have different perspectives, experiences and they behave differently. The subjective meanings of participants were obtained through individual interviews, lesson observations, as well as the scrutiny of educators' and learners' records as well as taking field notes during the process of data collection (Antwi & Hamza, 2015:222).

In this regard, numeric measures were not used for generating new knowledge; instead, descriptive data was obtained through multiple sources of data collection (Kivunja & Kuyini, 2017:26).

Epistemology is described by Ritchie et al. (2014:7) as a process of knowing or finding out about the nature of reality and the basis of knowledge creation. For Ritchie et al., the concept refers to means and "ways of knowing and learning about social worldview". In this study, knowledge was acquired by interacting with EMS educators through language during lesson observations and the interview sessions held with them (Tracy, 2013:41). Knowledge creation was therefore shared, it was not an individual activity. The researcher was not separated from knowledge creation; but the researcher was the primary source in the investigation processes by exploring the PCK of EMS educators in teaching FL (Alghamdi, 2015:78-79; Shah & Al-Bargi, 2013:257) and how that reality is to be clearly understood and accepted (Alghamdi, 2015:78; Bailey, 2018:65).

Multiple sources of data collection were employed to understand and explore the experiences and subjective meanings that EMS educators attach to their PCK in the teaching of FL. This objective was achieved by observing, analysing the records of educators and learners, and interacting through interviews with participants in their respective schools (Wahyuni, 2012:71; Kivunja & Kuyini, 2017:34). Data obtained was analysed and interpreted to discover and understand the underlying meanings regarding the teaching of FL (Kivunja & Kuyini, 2017:34; Shah & Al-Bargi, 2013:254).

The researcher relied on an insider perspective in generating new knowledge about the PCK of EMS educators in teaching FL (Brooke, 2013:431; Wahyuni, 2012:71), which means that the researcher was fully involved in all the methods of data collection used in the study (Shah & Al-Bargi, 2013:257; Alghamdi, 2015:79). This clearly shows that in interpretivism studies, co-existence of the researcher and participants in generating new knowledge is inevitable (Kivunja & Kuyini, 2017:34). There was total reliance on the EMS educators' point of view regarding the phenomenon under investigation (Alghamdi, 2015:79) as the researcher interacted with EMS educators in their respective schools (Kivunja & Kuyini, 2017:33).

Methodological, the researcher collected qualitative data which provided rich descriptions of participants' experiences, perceptions, and views about the teaching

of FL (Wahyuni, 2012:71; 2015:79; Antwi & Hamza, 2015:220). Data was collected through lesson observations, conducting interviews with EMS educators using open-ended type of questions, taking field notes during data collection, and documents analysis (Antwi & Hamza, 2015:218-222; Brooke 2013:431). The researcher, as a main source of data collection, was physically involved in all the processes (Antwi & Hamza, 2015:221). Through qualitative research methodology, the researcher succeeded in generating new knowledge regarding the PCK of EMS educators in teaching FL (Alghamdi, 2015:78; Taylor & Medina, 2011:2; Bailey, 2018:65; Hennink et al., 2011:12; Antwi & Hamza, 2015:217). The interaction with EMS educators enabled the researcher to obtain subjective evidence based on their behaviour, views, and experiences (Creswell, 2013:20) because qualitative researchers promote the reality of subjective experiences (Brooke, 2013:431). Therefore, in understanding the world as it is from the EMS educators' point of view, the researcher interacted with them through these multiple sources of data collection (Antwi & Hamza, 2015:218-222; Brooke, 2013:431). The researcher managed to address the research problem by providing the flow of new knowledge in a logical and coherent manner through the application of qualitative strategies of data collection (Kivunja & Kuyini, 2017:28).

From the axiological stance, this concept according to Wahyuni (2012:69-70) and Creswell (2013:21), relates to values in research and the position of the researcher in the study. The researcher explored the social reality from the perspective of the EMS educators (Wahyuni, 2012:71). The experiences and values of the participants and the researcher significantly influenced the collection of data and its analysis (Wahyuni, 2012:71). The values and ethics in terms of the appropriate conduct in the process of collecting data were strictly adhered to (Kivunja & Kuyini, 2017:27-31) by observing ethical consideration. Creswell's (2012:23) ethical considerations framework guided the researcher's code of conduct in the data collection processes. Human values of participants involved were respected by conducting the study in a transparent, fair, and respectful manner (Kivunja & Kuyini, 2017:28). In this regard, measures were put in place to avoid any risk or harm to participants (Kivunja & Kuyini, 2017:28), these procedures are explained in detail in section 4.10.1 to 4.10.5 of the current study. The rights of participants in participating in the study were explained before data was collected. Confidentiality was ensured throughout the processes of data collection.

According to Antwi and Hamza (2015:217-218), the research paradigm determines the choice of a research methodology for the research study. Selecting interpretivism paradigm assisted the researcher to examine the appropriate research methodology and methods to collect data and decide to on the suitable method of data analysis (Kivunja & Kuyini, 2017:26). According to Shah and Al-Bargi (2013:258), quantitative research methods cannot suitably understand a social phenomenon due to their lack of diversity hence Shah and Al-Bargi advocate for qualitative techniques which they believe are diverse in exploring a social phenomenon.

4.4 THE RESEARCH METHODOLOGY

According to Long (2014:428), Creswell (2014:32) and Williams (2007:65), there are three methodologies used to conduct research studies, namely quantitative, qualitative, and mixed methods. The preliminary literature review revealed that quantitative research studies serve to objectively test a theory or conduct experiment wherein the relationship among variables is tested and this is done by conducting measurements to analyse numbers using statistical procedures to answer research questions (Creswell, 2014:32; Long, 2014:428). Consistent with positivism paradigm, quantitative research scholars conduct a scientific inquiry by being detached from the participants or the research site where data is collected (Tomal, 2010:3). The definition of quantitative research, as explained by Creswell (2014) and Long (2014), clearly indicates that researchers in this field, favour to work with numeric data. According to Williams (2007:65), it is common practice for researchers to anticipate the nature of data desirable to respond to the study's research questions formulated. The numeric type of data used in quantitative research and the questions thereof are objective in nature, thus were deemed inappropriate for the type of data required for the present study which is qualitative and descriptive in nature. For these reasons, open-ended research questions were formulated and used.

The mixed method was also deemed inappropriate for the current study since it believes in application of quantitative and qualitative data in a single study (Addae & Quan-Baffour, 2015:152). The current study is a single method of inquiry hence qualitative research was adopted. This research methodology is descriptive in nature as it consists of people's own spoken words, which described EMS educators' experiences, perceptions, and their behaviour regarding the teaching of FL (de Villiers

& Fouché, 2015:132; Mohajan, 2018:2) and is consistent with the research paradigm selected. This methodology was chosen since the researcher intended to collect, organise, describe, and interpret data obtained in a systematic way (Hammarberg, Kirkman & de Lacey, 2016:499). This was done from the point of view of EMS educators, which enabled the researcher to acquire new knowledge regarding their teaching of FL (Mohajan, 2018:2).

Consistent with the interpretivists' research paradigm chosen for the current study, which requires the researcher to be part of what is being investigated, the researcher was physically involved in collecting data from secondary schools in Ekurhuleni North District. There was face-to-face interaction with EMS educators in their respective schools (Creswell, 2014:234). The researcher was therefore an instrument of data collection (Antwi & Hamza, 2015:221) in the field. This kind of interaction enabled the researcher to raise questions immediately where more clarity was needed, and this allowed the researcher to gain deeper insight in the respondent's beliefs, attitudes, experiences, and perceptions (Shakouri, 2014:675). Working in collaboration with the EMS educators in their respective schools enabled the researcher (as an observer and interviewer) as well as educators (as interviewees) to create rich and in-depth data that was used to answer research questions (Guest, Namey & Mitchell, 2013:21). The next section focuses on the research design chosen in line with the research paradigm and methodology for the study.

4.5 RESEARCH DESIGN

Williams (2007:67), Creswell (2014:41), Butina (2015:190) and Shah and Al-Bargi (2013:258) identified general approaches that can be applied in qualitative research designs, namely case study, ethnography study, phenomenological study, grounded theory study, and content analysis. Case study and phenomenology were identified as qualitative research methods that are suitable to study individuals (Williams, 2007:67). Creswell (2013:20) argues that in a phenomenological study, researchers report how participants in the study view their experiences. Shah and Al-Bargi (2013:258) support this point of view by pointing out that phenomenology considers the experiences of different individuals and focuses on what all participants have in common while they experience any social phenomenon. Phenomenology was therefore selected to study and investigate the knowledge base of EMS educators in their schools. This design

was employed to explore perceptions, behaviours, and experiences of EMS educators by relying on first-hand information that was obtained through observations, interviews and scrutiny of educators' and learners' records (Gentles et al., 2015:1773; de Villiers & Fouché, 2010:134). The design assisted the researcher in exploring and understanding how EMS educators make sense of their teaching experiences in FL (Mohajan, 2018:8).

4.6 SAMPLING

According to Etikan and Babatope (2019:50), the method used by researchers to draw a sample from the population is called sampling. Johnson and Christensen (2014:269) argue that any sampling strategy employed in qualitative research is "criterion-based selection" since researchers develop a criterion to select participants, sites, events, objects, schools, etc. to be used in collecting data that answers research questions. There are 48 public ordinary secondary schools in Ekurhuleni North therefore half of the schools, that is 24, were targeted to take part in the research study. The reasons for sampling half of the schools in the district are explained in detail in chapter one of the study (*cf*. section 1.8.3). In addition to the explanation provided in 1.8.3, the researcher could not predict the response or educators' interest in participating in the study hence more schools were sampled. The focus of this study was on Grades 8 and 9 therefore, the researcher remained optimistic that one educator per grade would show interest and participate in the study. The next section discusses the type of sampling employed and justification thereof.

4.6.1 Purposive sampling

Anderson (2010:4) states that, purposive sampling is common and popular in qualitative research studies. This sampling method was employed to obtain participants that provided relevant and credible data for the study (Turner, 2010:757). Purposive sampling was considered suitable for the study since the researcher aimed at obtaining deep understanding of EMS educators' perceptions and experiences about the teaching of FL (Rosenthal, 2016:514). This implies that educators who do not teach EMS had a zero chance of being selected to participate in the study (Bhattacherjee, 2012:69), since these educators did not meet the criterion adopted by the researcher. According to Suri (2011:65) and Gentles et al. (2015:1778), the reason and power of purposeful sampling depends on participants that will provide rich and

profound data about the research study. Gentles et al. (2015:1778) describe such participants as information-rich cases and the logic for selecting such information-rich cases is that a researcher get to learn a great deal about the subject under investigation since, according to Vasileiou et al. (2018:2), they will provide "richly-textured information" relevant to the study. The insight presented by Suri (2011), Gentles et al. (2015) as well as Vasileiou et al. (2018) provided cogent reasons for considering only EMS educators to participate in the study.

In quantitative studies, researchers collect numeric data by selecting random samples with the aim of generalising findings; however, in qualitative studies, sampling is drawn with the aim to develop an understanding of the meaning behind behaviours of participants (Rosenthal, 2016:511) and not to generalise the findings. The EMS educators were therefore selected on the premise that they will provide relevant information for the researcher to best understand the research problem (Creswell, 2012:205) and get more insight and in-depth understanding about the teaching of FL (Gentles et al., 2015:1778). This study is about by the teaching of FL, which is embedded within EMS. Therefore, participants in this study were selected because of their characteristics hence they were viewed as most informative about the study under investigation (Anderson, 2010:4).

The public ordinary secondary schools of Ekurhuleni North District are located in the following towns: Kempton Park, Edenvale, Bedfordview and Benoni, as well as in the following townships: Daveyton, Tembisa, Petit and Watteville. Educators from these schools were visited prior to data collection for the researcher to introduce himself and explain how the study will be conducted. The aim was also to invite them to partake in the study. Prospective participants were made aware that the collection of data involved lesson observations, individual interviews post-lesson observations, as well as scrutiny of educators' records and learners' exercise books. Educators were informed that lesson observations will be conducted in line with the periods indicated in the schools' timetable. Participation information letters and consent forms were supplied to prospective participants for their perusal and signature. The researcher was subsequently granted permission by the participants to go ahead with the process of data collection in line with the dates agreed upon.

As indicated in 4.6 above that 24 out 48 public ordinary secondary schools were earmarked to be involved in the research project, this means that 48 participants out of the 24 schools were expected to be sampled depending on their availability and interest in taking part in the study. In schools that were visited, it was noticed that EMS is allocated one educator per Grade while in some instances, especially in cases where there too many learners in a particular Grade, EMS was taught by more than two educators. All EMS educators at a school were invited to take part in research study. The following instruments were developed prior to data collection from schools: lesson observations schedule (*cf.* Appendix J), individual interview schedule with EMS educators (*cf.* Appendix K), and the document analysis tool (*cf.* Appendix L). These instruments were informed by the research questions and the following conceptual framework: educators' knowledge of the subject matter, curriculum, assessment, teaching methods and strategies, as well as educators' knowledge of learners' learning difficulties and understanding.

A pilot study was conducted to test the efficacy of the data collection instruments as advised by Nunes, Martins, Zhou, Alajamy and Al-Mamari (2010:75) as well as van Teijlingen and Hundley (2001:2). This, according to Nunes et al. (2010:75), is helpful in circumventing any unpleasant surprises or embarrassment as Gumbo (2014:386) put it. The following section therefore discusses the important role of conducting the pilot study.

4.7 PILOT STUDY

The pilot study is a mini research that precedes the actual or main study (Gumbo, 2014:387; Dikko, 2016:521; Fraser, Fahlman, Arscott & Guillot, 2018:262; Darmayanti, Simatupang & Rudito, 2018:106). It is a study conducted as a "trial run" prior to a full-scale research study with the aim of pre-testing the research instruments to be used in the study (Dikko, 2016:521; Gumbo, 2014:387). The trial run was carried out to mitigate any risk that may have resulted to a failure to conducting the main research study (Fraser et al., 2018:261). It remains a fact that pilot studies are popular in quantitative research; however, the review of literature reveals that such studies have also been expanded to qualitative studies and they are carried out in preparation for the full-scale research study (Majid, Othman, Mohamad, Lim & Yusof, 2017:1074). This point of view is supported by Dikko (2016:521) and Gumbo (2014:386) who argue

that pilot studies are useful in any type of research. The pilot study was conducted to test aspects of research design chosen and to assess the processes of data collection prior to the implementation of the main research study (Fraser et al., 2018:261).

The pre-testing of instruments was conducted in two (2) schools with 2 Grade 8 and 2 Grade 9 EMS educators from two public ordinary secondary schools in Ekurhuleni North District. As mentioned earlier (in 4.6.1 above), that the current study was limited to EMS educators thus the participants in the pilot study possessed the same features as those that were involved in the actual study (Dikko, 2016:522; Turner, 2010:757; Majid et al., 2017:1076). Data was collected from the first school visited. Limitations in the lesson observation, interview and document analysis tools were identified and corrected at an early stage before conducting a full-scale research (Turner, 2010:757; Darmayanti et al., 2018:106; Dikko, 2016:522; Majid et al., 2017:1073; Fraser et al., 2018:263). It was noted during the interview sessions in the first school that some questions were ambiguous – the researcher had to clarify certain questions to participants, this necessitated for some modification and refinement of questions before the visit to the next school (Dikko, 2016:522; Williams-McBean, 2019:1055; Fraser et al., 2018:263; Turner, 2010:757; Malmqvist, Hellberg, Mollas, Rose & Shevlin, 2019:3). The researcher also detected during the interview session that some of the questions were a replica of what had been asked earlier in the session and such questions were removed from the instrument. The revised questions were asked in the second school and participants were able to respond to them without the researcher explaining much.

The researcher planned to spend 45 minutes for interview sessions with EMS educators; however, the pilot study proved that 30-35 minutes were sufficient to conduct interviews. Although the 45 minutes was not changed in the letters sent to participants, the researcher knew that there was enough time set aside for the interview sessions. In this regard, the processes of conducting a pilot study assisted in measuring the time needed to complete an interview session with each participant (Williams-McBean, 2019:1056; Dikko, 2016:522; Nunes et al., 2010:75). The interview sessions were conducted during free periods, break and after school. The feedback from the pilot study revealed that the interview questions elicited information that directly responded the research problem and questions (Dikko, 2016:522; Darmayanti et al., 2018:106; Malmqvist et al., 2019:3). It was also established that the interview

questions directly addressed all aspects related to the conceptual framework used to conduct the study (Dikko, 2016:522; Majid et al., 2017:1073). Additionally, the process of conducting the pilot study was fruitful in that, the researcher got the opportunity to practise and sharpen interviewing and probing skills (Dikko, 2016:522; Majid et al., 2017:1076) since semi-structured interviews were employed for data collection. It was noted during the pilot study that the data collection instruments did not make provisions for the researcher to obtain biographical information of participants and as such the interview tool was modified accordingly. The pilot study confirmed the researcher's choice of phenomenology as a research design and interpretivist paradigm, qualitative research methodology, and the research instruments chosen to collect data. The data obtained from the pilot study revealed that the researcher succeeded in obtaining rich and relevant data to answer the research questions (Teddlie & Yu, 2007:84), hence the data collection instruments were deemed appropriate for the main study.

4.8 DATA COLLECTION

During the researcher's visits to the sampled schools, narrative and descriptive data was collected (Gay, Mills & Airasian, 2011:381). This consisted of the participants and learners' behaviour during lesson presentation. It also consisted of EMS educators' spoken words of their perceptions, experiences, and beliefs regarding the teaching of FL (de Villiers & Fouché, 2015:132). Gay et al. (2011:381) put forward the following data collection sources and techniques: "observations, interviews, questionnaires, phone calls, personal and official documents, pictures, recordings, drawings, journals, email messages and responses as well informal conservations". Data was collected through multiple sources, namely interviews, document analysis, and lesson observations (Zohrabi, 2013:254). In addition to the three data collection instruments, pictures of FL posters displayed on the classroom walls were also taken. During the analysis of learners' exercise books, pictures of learners' work were also taken. Zohrabi (2013:254) believes that the use of such multiple sources of data collection boosts the validity and dependability of information collected. The researcher started by observing educators in practise, followed by scrutiny of educators' and learners' records in preparation for the interview sessions with the EMS educators. These instruments were used to gather narrative and descriptive data (Tavallaei & Abu Talib,

2010:571). Figure 4.2 below depicts the research questions and the related instrument/s used to respond to the question.

What types of knowledge base do EMS educators possess to teach Financial Literacy?	Observations and Interviews
What are the views of EMS educators regarding the challenges faced by educators who teach Financial Literacy but do not have an Accounting background?	Interviews
What curriculum knowledge do EMS educators have in the teaching of Financial Literacy?	Observations and Document analysis
To what extent are EMS educators knowledgeable in administering Financial Literacy assessments?	Observations and Document analysis
What teaching and learning activities do EMS educators employ to promote effective teaching and learning in Financial Literacy?	Observations and Document analysis
What are learners' learning difficulties in Financial Literacy according to EMS educators?	Interviews

Figure 4.2: Research questions and the research instrument

(Researcher's own illustration)

The next section focuses on lesson observations employed to collect first-hand information.

4.8.1 Observations

Lesson observations were one of the most effective method of collecting data (Gay et al., 2011:382) since the researcher was physically present throughout the presentation of the lessons (Merriam & Tisdell, 2016:137). The observation schedule was used to take notes regarding the events and behaviour of educators and learners during lesson presentation (Creswell, 2014:239; Merriam & Tisdell, 2016:137; Zohrabi, 2013:257). Observing educators in practice allowed the researcher to obtain "first-hand information" regarding the PCK of EMS educators in teaching FL (Tomal, 2010:38, Creswell, 2014:239; Merriam & Tisdell, 2016:137). Data collected through lesson observations were informed by the purpose of the study, research problem, theoretical and conceptual framework, as well as the research questions (Merriam &

Tisdell, 2016:140). By conducting lesson observations, the researcher was able to obtain much more objective data compared to what participants would have reported (Gay et al., 2011:382).

The role of the researcher was to observe and record events as they unfold during lesson presentation (Gay et al., 2011:382; Hennink et al., 2011:185). The researcher did not participate in the lessons. Therefore, the researcher was able to observe specific events, incidents, and behaviours of and interactions between learners and educators in their classrooms (Merriam & Tisdell, 2016:139; Hennink et al., 2011:170). This information was used as a point of reference for subsequent interview sessions with participants. It was also used during the process of analysing and interpreting raw data.

4.8.1.1 Procedure for the collection of data during lesson observations

During lesson observations, the researcher requested to sit quietly at the back of the classroom to observe how FL concepts are taught without participating in the lesson (Bailey, 2018:91). The researcher observed, listened, and took notes pertaining to the presentation of lessons (Hennink et al., 2011:185; Creswell, 2013:167). According to Gay et al. (2011:382), a method to document observations is needed. In this regard, field notes were taken using an observation schedule to record the events as they unfolded during lesson presentation (Hennink et al., 2011:194). The field notes were informed by five main PCK categories, namely knowledge of the learning content, curriculum, assessment, instructional methods by focusing on educator and learner activities, and educators' knowledge of learners' learning difficulties (*cf.* Appendix J). Both the lesson observation and interview schedules were designed to investigate the knowledge base of educators regarding the categories mentioned. The display and utilisation of FL posters displayed on the classroom walls was also observed.

The observation schedule was therefore designed in such a way that it addresses all the aspects to be observed in answering the research questions (Merriam & Tisdell, 2016:140; Zohrabi, 2013:257). The schedule provided a description of what transpired inside the classroom, the behaviours of learners, activities that they were engaged in during the lesson, educators' activities, and learners' attitude during teaching (Gay et al., 2011:382). It also made provisions to record how the topic was introduced and presented to learners in the classroom (Zohrabi, 2013:257) and to maintain

consistency in conducting lesson observations in all sampled schools so that it is easy to analyse data collected at the end. A separate lesson observation schedule was used for each participant, it was dated and labelled as School A, Educator A1, A2 and A3, School B, Educator B1, B2 and B3, etc. Regarding the lesson observation schedule, participants were labelled as such to seal their identity. At the end, field notes were analysed to provide the description of the classrooms setting and participants (Gay et al., 2011:382).

4.8.2 Document Analysis

According to Gay et al. (2011:388), Johnson and Christensen (2014:243) and Creswell (2012:223), qualitative researchers collect data by examining various types of official records or documents. These documents include records such standardised tests, retention rates, curriculum guides, records of learner performance, learners' books, minutes of meetings, etc. (Johnson & Christensen, 2014:243). For this study, the following records were analysed to enrich the data collected through lesson observations: lesson plans/preparation, annual teaching plans (ATP), EMS CAPS document, and learners' exercise books (*cf*. Appendix L). These documents are regarded by Creswell (2012:223) as reliable sources of information as they represent a good source for text and are ready for analysis.

4.8.2.1 Procedure for the collection of data during document analysis

A tool was developed to promote uniformity in scrutinizing educators' records and learners' books (*cf*. Appendix L). The analysis of learners' books enabled the researcher to assess educators' knowledge of assessment strategies and techniques. The aim was to view the types of assessment activities available in the learners' books in line with the lesson objectives. The quality of marking of formative assessment was scrutinised to view the quality of marking and book control by educators. The type and quality of work available in the learners' books enabled the researcher to assess the alignment of learning content taught and assessed in the subject. The researcher was also able to check whether the work presented and assessed is line with the FL annual teaching plan outlined in the CAPS document for EMS. Lesson planning was also scrutinised against the teaching methods used during lesson presentation. The aim was to examine the integration of lesson and objectives with knowledge, skills, and values to be taught and assessed in the subject.

4.8.3 Interviews

Individual interviews were conducted with EMS educators where the researcher posed questions to obtain information that answered the research questions (Gay et al., 2011:382). The researcher opted to conduct interviews since this strategy remains popular and it is valuable in collecting qualitative data (Zohrabi, 2013:255), hence Ritchie et al. (2014:55) argue that interviewing remains critical and an effective method of collecting data in qualitative research studies. In qualitative research studies, participants may be interviewed individually or in focus groups (Gay et al., 2011:382). According to de Villiers and Fouché (2015:135), focus groups are cost-effective, time saving, and an efficient method of obtaining data from many participants. However, Fusch and Ness (2015:1410) point out some limitations, one of which is that in focus groups, peer pressure could play out where members are pressured to conform to the view/s of group members. In view of this limitation, the researcher considered Tomal's (2010:51) view that a one-on-one interview is more effective in drawing out one's true feelings since participants feel free in responding to questions. This means that there is no influence of group thinking; therefore, the researcher opted to conduct individual interviews with EMS educators to allow them to express their views, perceptions, and opinions freely.

Through interviews, the researcher acting as a primary source in data collection (Merriam & Tisdell, 2016:137) was able to obtain first mouth information straight from knowledgeable informants (Zohrabi, 2013:255). Participants' feelings and thinking cannot be observed; therefore, the use of interviews enabled the researcher to understand what was going on in the minds of EMS educators (Zohrabi, 2013:255) regarding the teaching of FL. In this way, the researcher was able to obtain inaccessible data that would otherwise be impossible through observations alone (Gay et al., 2011:382). In this regard, open-ended types of questions and follow-up questions were used to obtain information about the participants' experiences, behaviours, views, knowledge, and perceptions regarding the research topic under investigation (Turner, 2010:754; Rosenthal, 2016:510). Gay et al. (2011:386), Edwards and Holland (2013:2) and Bailey (2018:106-107) differentiate between three types of interviews which are, "unstructured, structured, and semi-structured interviews".

- **An unstructured interview** is informal and may be unplanned. It is a little more than a casual conversation that allows the qualitative researcher to enquire about something that has presented itself as an opportunity to learn about at the research setting (Gay et al., 2011:386; Bailey, 2018:106). There is no predetermined set of questions hence Turner (2010:755) describes it as "of the top of your head" type of interview.

- **A structured interview** is formal and planned with a specific set of questions to be asked. These questions elicit the same information from different participants in interviews (Gay et al., 2011:387; Bailey 2018:106). Participants are asked identical open-ended questions which are formulated and worded so that responses are qualitative. According to Turner, this open-endedness allows participants to provide detailed information and a researcher can probe and make follow-ups on what participants said. In addition, participants can express their viewpoints and experiences (Turner, 2010:756).

- **A semi-structured interview** combines both structured and unstructured approaches (Gay et al., 2011:386). Semi-structured interviews are more flexible as they allow a researcher to make follow up questions and probe deeper, and it allows a participant to expand in responding to questions (Alshenqeeti, 2014:40). With this type of interviews, the researcher can explore participants' subjective views to collect in greater detail their experiences, perceptions, and viewpoints (SAGE Research Methods Datasets, 2018:2).

Semi-structured interviews were deemed appropriate for the study because they allowed the researcher to combine the characteristics of structured and unstructured approaches (Gay et al., 2011:386). Given the fact that semi-structured interviews are not rigid but more flexible, participants volunteered more information (Zohrabi, 2013:256; Alshenqeeti, 2014:40) since the researcher was able to probe, follow-up and expand on the responses of participants (Alshenqeeti, 2014:40; Edwards & Holland, 2013:29; de Villiers & Fouché, 2015:135; Darmayanti et al., 2018:109). Clarity seeking questions were asked with the aim of eliciting more information from participants (de Villiers & Fouché, 2015:135; Zohrabi, 2013:255). In cases where participants misinterpreted questions, paraphrasing was employed (Turner, 2010:758).

Probing permitted the researcher to investigate other issues that emerged during the interview sessions (de Villiers & Fouché, 2015:135; SAGE Research Methods Datasets, 2018:2). The interview schedule used ensured that all research questions were addressed. It enabled the researcher to remain within the parameters that were in line with the research questions and objectives as well as the theoretical and conceptual frameworks (Alshenqeeti, 2014:40; SAGE Research Methods Datasets, 2018:2). Moreover, following a schedule, as recommended by Alshenqeeti (2014:40), and asking identical questions (Edwards & Holland, 2013:29) assisted in reducing the researchers' biasness (Turner, 2010:756; Johnson & Christensen, 2014:230; Cohen, Manion & Morrison, 2011:413).

Since semi-structured interviews combine both structured and unstructured approaches, as mentioned earlier, the researcher prepared a set of questions in advance in a fixed order and same questions were asked in the same order (Turner, 2010:756; Zohrabi, 2013:256; Johnson & Christensen, 2014:230; Cohen et al., 2011:413). It should be mentioned that the interview sessions were neither "too rigid nor too open" (Zohrabi, 2013:256). The open-ended types of questions used permitted participants to fully express their points of view and experiences (Turner, 2010:756). Appropriate and knowledgeable informants were involved in this study to provide relevant, valid, and reliable data (Zohrabi, 2013:256). The fact that study's participants responded to the same questions meant that the researcher was able to compare responses since an interview schedule was completed for each respondent. This facilitated a smooth process of data organisation and analysis (Johnson & Christensen, 2014:230; Cohen et al., 2011:413).

Field notes were taken during interviews and all interview proceedings were typed for data analysis purposes. Participants were identified neither by name nor school name; instead, pseudonyms were used to conceal their identity. The interview sessions enabled the researcher to bring up what was noted during lesson observations and document analysis therefore this opportunity was used to engage the EMS educators to verify, expand or refute the researchers' observations (Gay et al., 2011:386; Tracy, 2013:133). This was to follow-up and understand the reasons behind some of the things that transpired during lesson presentation in class. Merriam and Tisdell (2016:139) describe this type of interviewing as "anchored interviewing" since interview questions are anchored to what was observed and analysed in various

documents. This approach enabled the researcher to triangulate the data collected through lesson observations and to afford educators an opportunity to clarify the researcher's observations.

4.8.3.1 Procedure for the collection of data during interviews

According to de Villiers and Fouché (2015:135), Zohrabi (2013:257) and Gay et al. (2011:387), interviewers have three basic choices for collecting data, namely taking notes during the interview, writing notes after the interview, and audiotape recording or video-recording the interview. The video or audio-recording provides a verbatim account of the session. Writing notes during an interview session can disturb the free flow of information while taking notes after the session can be difficult for one to remember the contents of the interview accurately (Turner, 2010:757). de Villiers and Fouché (2015:135) advocate for the use of tapes which according to them, are convenient, accurate and reliable because the original data remains available for use at any time.

In this study, the researcher had planned to audio-record interview sessions however, some of the participants felt uncomfortable with their voices being recorded, thus audio-recording was aborted. It would have been good to listen attentively and maintain eye contact with participants (Edwards & Holland, 2013:69); however, this was not feasible in most schools. The researcher decided to maintain consistency in data collection and not have this partial arrangement where audio-recording is used for some participants and not for others. It remains unclear whether the researcher would have obtained the present rich data had audio-recording been used.

In collecting data, the approach used for taking notes during lesson observations was followed. In this regard, an interview schedule was prepared and used for each participant, the data sheets were dated and labelled as School A, Educator A1, A2 and A3, School B, Educator B1, B2 and B3, etc. This made it easy for the researcher to verify and review the field notes taken (Gay et al., 2011:388). Figure 4.5 below depicts the interview protocol that was followed to interact with educators in their respective schools.
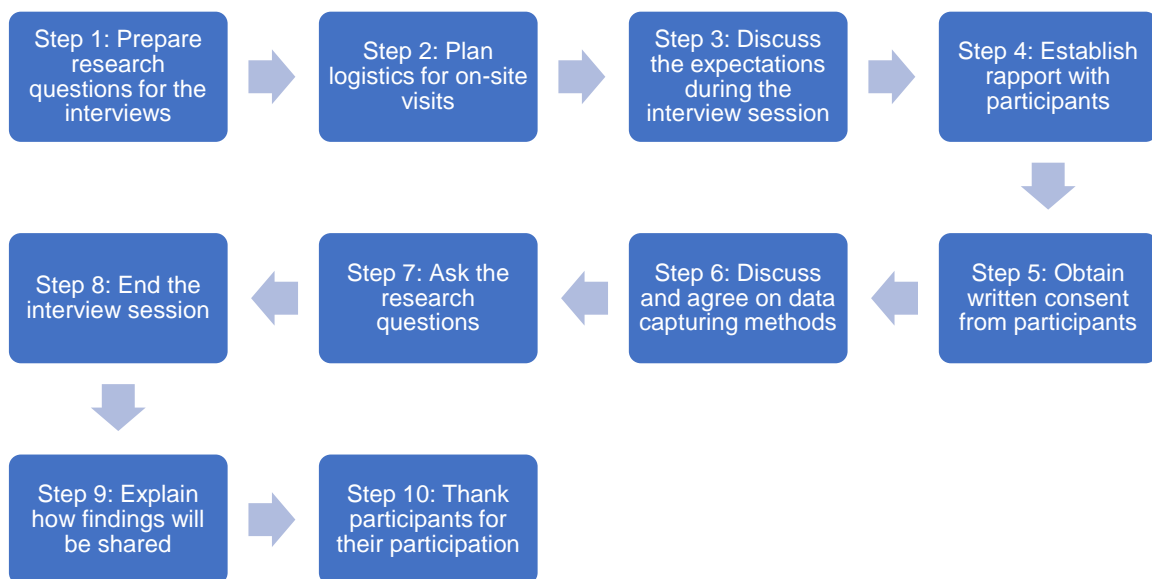
Figure 4.3: Interview protocol

(Adapted from Tomal, 2003:36; 2010:45)

- **Step 1:** The researchers' aim was to obtain information on the PCK of EMS educators in teaching FL in Grades 8 and 9, therefore, this influenced the preparation of the research questions. The questions were open-ended and were tailored in line with the conceptual framework for the study (*cf*. Appendix K).

- **Step 2:** One-on-one interviews were conducted. According to Tomal (2010:51), such interviews are more effective in exploring the feelings, perceptions, and experiences of participants as they normally feel free in responding to questions. The interviews were conducted during free periods, break, and after school. These were conducted in participants' classrooms where they felt comfortable to express their views freely (Tomal, 2010:46; Alshenqeeti, 2014:41; Turner, 2010:757). The interview schedule was prepared to ensure uniformity and continuity in all the interviews conducted (*cf*. Appendix K). This facilitated a smooth data analysis process.

- **Step 3:** The researcher explained the purpose of the interview to participants (Zohrabi, 2013:256; Turner, 2010:757). They were requested to answer the questions candidly and honestly (*cf*. Appendix K). The duration of the interview session was also communicated to participants (Tomal, 2010:46). At this stage,

participants were given time to ask questions before commencing with an interview (Turner, 2010:757).

- **Step 4:** According to Tomal (2010:46), the researcher needs to be courteous and try to obtain the trust of the participants. A rapport was established with participants to create trust and make them feel at ease by asking them how they felt about participating in the study (Hennink et al., 2011:124; Merriam & Tisdell, 2016:143; Zohrabi, 2013:257). A word of gratitude and appreciation was also conveyed in advance to participants for agreeing to be observed and interviewed. Trust and rapport were therefore established with participants.

- **Step 5:** Congruent with Tomal (2010:46) and Bailey (2018:114), written consent from participants granting the researcher permission to conduct interviews was obtained (*cf.* Appendix H). In this regard, all sampled schools were visited before time, where a meeting with EMS educators was held. In this meeting, the consent letter and participant information letter were provided, which contained the following information: "confidentiality, anonymity, privacy, purpose and that participation is voluntary" (Tomal, 2010:46; Turner, 2010:757). During this meeting, potential participants were also given the consent return slip for their perusal, completion, and signature.

- **Step 6**: The methods of data collection were discussed with participants. According to Bailey (2018:114), tape-recording an interview without permission is unethical. Permission was therefore sought with participants to tape-record the interview sessions however most of them were not comfortable with that arrangement hence the researcher decided to take hand-written field notes.

- **Step 7:** Zohrabi (2013:256) argues that in any interview encounter, the type of questions asked are an important issue. The pilot study ensured that all questions are clear however, in cases where responses were not addressing the question, paraphrasing was employed (Tomal, 2010:47). This was done to address misinterpretation and questions that were answered indirectly (Turner, 2010:758).

- **Step 8:** After the last question was responded to, as per the pre-determined interview schedule, the researcher summarised the session by thanking the participants for the information provided. Participants were allowed to ask questions and make any comments regarding the interview session.

- **Step 9:** The researcher informed the participants about the possible date for the completion of the research project and how feedback will be made available to them. In this regard, the researcher exchanged contact details with participants – this included email addresses, cell phone numbers (where possible), and the schools' contact details (Turner, 2010:757).

- **Step 10:** The researcher concluded the session by thanking the participants for their time, commitment, opinions, feelings, experiences, inputs, perceptions and for agreeing to be part of the research study. The sessions were formally concluded.

The next section focuses on the analysis of data and interpretation.

4.9 DATA ANALYSIS AND INTERPRETATION

Analysing and interpreting data, are critical steps for the researcher to know, make meaning and understand data collected (Gay et al., 2011:466). Data analysis involves summarising what is in the data whereas data interpretation involves making sense of and finding meaning in those data (Gay et al., 2011:466). It is therefore critical to clearly define the two concepts, namely data analysis and data interpretation and clarify how these concepts were employed in the study.

4.9.1 Data Analysis

During data analysis, the researcher tries to make sense out of the data collected (Butina, 2015:192). Data that were collected through lesson observations, interviews and document analysis were organized and prepared for analysis (Creswell, 2013:180). The tools used were labelled as School A, Participant A1, A2, A3. The researcher immersed himself in the data and consolidated it by focusing on segments that provided insight into the questions of the study. The intentions were to understand what has been learnt during data collection processes (Gay et al., 2011:465). As data was received and analysed, the researcher interpreted the responses from participants to find meaning from the statements, which depicted a similar pattern, these became the findings of the study.

Data was analysed by employing an ongoing recursive process that occurred simultaneously with data collection. The processes of data analysis began before all the data were collected. This was done to constantly compare data collected with the

research questions, literature review, and the conceptual framework (Delamont, 2012:273). It was also done to track the data emerging from participants to determine the saturation point, and to identify key ideas and patterns emerging from the field (Mohajan, 2018:16). Data analysis occurred simultaneously with data collection.

4.9.2 Interpretation

Data are interpreted to find meaning concerning the responses obtained from participants (Gay et al., 2011:465). Data collected were analysed with the view to identify common themes and interpret EMS educators' perceptions of their experiences in teaching FL in Grades 8 and 9 (Williams, 2007:69). From the analysis process, the views of participants were drawn and then interpreted (de Villiers & Fouché, 2015:133). The information gathered through interviews, lesson observations, and document analysis was used to consider the experiences and perspectives of EMS educators and focus on what they all have in common regarding the teaching of FL (Shah & Al-Bargi, 2013:258).

4.9.3 Thematic Data Analysis

Thematic analysis is defined by Bailey (2018:189) as a process of searching for themes that emerge from the data. Costa, Breda, Pinho, Bakas and Durão (2016:39), Vaismoradi, Jones, Turunen and Snelgrove (2016:100), SAGE Research Methods Datasets (2018:3) and Braun and Clarke (2006:6) described it as "a method of identifying, analysing and interpreting textual data, report and explain patterns" within data collected. Data collected were organised, read through, coded, and prepared for analysis (Cohen et al., 2007:461). Braun and Clarke (2006:7) maintain that researchers need to be explicit about how data were analysed and the factors that informed their choice of selecting the method of analysing data. In this regard, the thematic method of data analysis was employed. According to the SAGE Research Methods Datasets (2018:2), the process commences at data collection, and it moves throughout the "process of transcribing, reading and re-reading" then analysis and interpretation of data takes place. In the context of the current study, data were analysed after each visit to a school. This was done to track the saturation point.

The thematic method of analysing data was used to examine, and develop themes of data collected (Wang, Wang & Khalil, 2018:204). Data was organised in a group of

repeating ideas that answered the research questions (Vaismoradi et al., 2016:101). For Costa et al. (2016:39), in thematic analysis, priori themes based on the theoretical framework can be used or generate themes emerging from the analysis and interpretation of data. This process is described by Bailey (2018:197) as "theory-driven" and "data-driven" methods of analysis because other themes are generated from theory while some emerge from the analysis. The "theory-driven" and "data-driven" methods of analysis were employed because the theoretical together with the conceptual framework as well as research questions were used to develop the lesson observation and interview instruments.

Deductive and inductive data analysis were used to sort through the findings that do not match the pre-determined frame (preconceived categories of PCK), with the aim of developing and introducing new knowledge on the topic under investigation (Joffe, 2012:3). Costa et al. (2016:39) maintain that data analysis in qualitative studies is mainly inductive in nature. However, Joffe (2012:3) advocate for the use of deductive and inductive approaches where a researcher collects data with certain preconceived categories derived from theories, while on the other hand, they also remain open to new concepts that might emerge during data collection. As mentioned, that a "theory-driven" and "data-driven" methods of analysis were employed in this study, this implies that the researcher kept an open mind to new information emerging from participants. Joffe (2012:3) argue that what use of conducting a qualitative study if a researcher does not draw on the naturally arising themes that manifest in the data itself.

In defining the concept themes, Bailey (2018:188) identifies two different types of themes, namely topical themes, and overarching themes. In this study, topical themes were employed in data analysis since this type of analysis depicted the pattern of data of what participants explicitly said and did not say during interviews but was observed in practice (Bailey, 2018:194). A topical theme refers to (a) observation of a pattern in data (b) reoccurring events noticed during observations, and (c) topics that multiple participants raised or discussed during data collection (d) similar answers provided by participants, and (e) shared meanings (Bailey, 2018:193-194).

During data analysis, these themes were described and supported by quotations from field notes taken during lesson observations, interviews, and document analysis (Bailey, 2018:188-189). Different research scholars such as Attride-Stirling (2001),

Boyatzis (1998) and Tuckett (2005) as cited in Braun and Clarke (2006:6) argue that thematic analysis is widely used even though there is no clear agreement about what thematic analysis is and how to go about doing it. According to Braun and Clarke (2006:7), clarity around the processes and practice of conducting data analysis within a particular research methodology is vital otherwise it will be difficult to evaluate a research study. The next section therefore provides the framework followed in conducting thematic analysis.

4.9.4 Framework for Data Analysis

Figure 4.3 below depicts the framework employed in analysing data (Braun & Clarke, 2006:6).
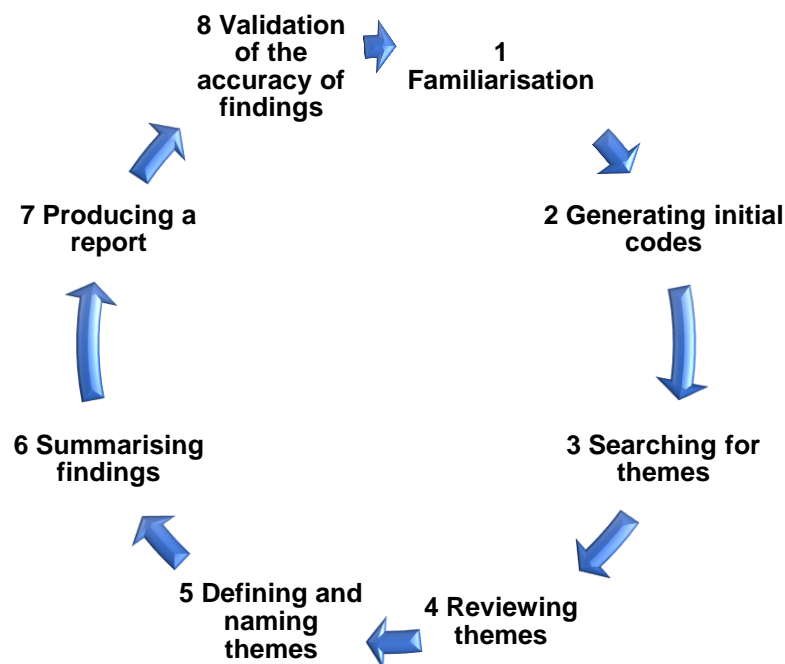
Figure 4.3: Framework for data analysis

(Adapted from Braun & Clarke, 2006:6)

4.9.4.1 Familiarisation

The first step in analysing the qualitative study entailed the researcher starting by organising data collected (by typing the field notes captured in the interview and observation sheets). Thereafter, a decision was taken to analyse data manually, not by a computer software programme (Creswell, 2012:261). This was done to prepare

and organise data in preparation for analysis (Creswell, 2012:260; Creswell, 2014:247; Gay et al., 2011:467). The researcher read through the interview transcripts individually and line by line from the first school visited and, in the process, notes were made about the researcher's first impression of the data collected. The interview and lesson observation tools were again read carefully, and the process of coding started (Cohen et al., 2007:461).

The field notes collected were typed and captured in the computer in a word format in preparation for analysis. The tool for analysing data obtained consisted of the themes and sub-themes observed, which was developed in line with the research questions and conceptual frameworks for the study. Data in these tools were captured as participants 1 to 16. This format was adopted to compare the findings from observation and responses from interviews.

Data was analysed manually by hand since the pages of transcripts were fewer than 500 (Creswell, 2012:240). In this study, 16 educators from eight public ordinary secondary schools were involved in the process of data gathering. These educators were observed and interviewed post-lesson observations, which means that there were 16 observation, interview and document analysis tools completed for all the schools involved in the study which amounts to 48 tools; hence data was analysed manually by the researcher.

It remains a fact that the hand analysis of data is labour-intensive but nonetheless the researcher wanted to be close to the data collected and have a hands-on feel of it (Creswell, 2012:260). The silver-lining in this process, according to Braun and Clarke (2006:18), is that the time spent in transcription, informs the early stages of data analysis. In addition, through this process of transcribing the researcher develops deep knowledge and understanding of the data collected. The researcher was directly involved in the data analysis processes. As notes were taken during the analysis process, the researcher became familiar with data which eventually led to the crafting of preliminary ideas for coding (Braun & Clarke, 2006:6). Codes were used to describe the segments of text of the data collected (Creswell, 2012:244). As patterns were emerging from data, coding and categorization of themes were formulated.

4.9.4.2 Generating initial codes

In this phase, the researcher conducted a preliminary analysis of the responses from participants and the information captured during interviews, lesson observations and the analysis of learners' work assisted the researcher to assign codes to the data collected (Creswell, 2012:261; Braun & Clarke, 2006:6). At this stage, data was not interpreted but it was described and organised into meaningful groups. Subsequently, the researcher collated all the sections of the interviews, lesson observations, and document analysis that fit into each code (Braun & Clarke, 2006:6), and were recorded accordingly.

The process of coding included reducing text database to descriptions and themes describing the events that transpired during lesson observations, interviews, and scrutiny of educators' and learners' records (Creswell, 2012:261). This was done by examining data from the tools line by line in search for meaning on what each participant said and eventually codes were assigned. Through reading and re-reading lesson observations and interview transcripts, the researcher reached an overall understanding of data and the main issues in the phenomenon under study (Vaismoradi et al., 2016:103). Similar text segments were identified and assigned codes to develop themes. In this primary step of data analysis, the researcher transcribed data, notice was made of emerging trends and the researcher read through the notes several times to describe the emerging trends of the participants' perspectives that can be traced back using direct quotations from the transcription (Vaismoradi et al., 2016:103). From this process, new themes started emerging.

4.9.4.3 Searching for themes

In this phase, the researcher started to sort codes into themes. At this stage, the researcher started looking for consistent phrases emerging from data, expressions, and as common ideas among the responses of participants (Turner, 2010:759). Braun and Clarke (2006:6) argue that themes are "broader and involve active interpretation of the codes and the data". A list of codes and their associated extracts were collated into broader themes that articulated something interesting about the data collected. The identified codes were then used to develop descriptions of events to develop themes that presented a broader thought than codes.

These themes were organised to tell a story about the phenomenon under investigation (Creswell, 2012:261-262). In searching for themes, the researcher employed an iterative process, described by Braun and Clarke (2006:6) and Wang et al. (2018:204) as a process where a researcher moves codes back and forth between the six phases in attempt to try forming different themes. This process was done by going back to the interview transcripts that have already been analysed to constantly compare them with the new issues emerging in other interview transcripts.

4.9.4.4 Reviewing themes

In this phase of the analysis of data, the researcher reviewed and refined the themes identified during the searching phase (Braun & Clarke, 2006:6). The researcher read through all the extracts related to the codes with the view to ascertain if they supported the theme identified. The identified overlapping themes were moved to existing theme where they fitted better (Braun & Clarke, 2006:6). This process was conducted until a coherent and distinctive set of themes were established.

4.9.4.5 Defining and naming themes

In this phase, the themes identified were described and named to ensure that they were descriptive in nature. Braun and Clarke (2006:6) assert that as themes are described, this enables the researcher to identify which story the theme tells and how this story relates to other themes, as well as to the overall research question.

4.9.4.6 Summarising findings and producing the report

Thematic analysis was employed to gain insight and understanding about the PCK of EMS educators in teaching FL (Wang et al., 2018:204). It is believed that the findings provided through the application of thematic analysis will provide decision-makers with a useful tool to introduce informed intervention strategies in schools. In this regard, Chapter 6 of the current study provides recommendations addressed to the following stakeholders: The National Department of Basic Education, the Provincial Department of Basic Education, Economic Management Sciences Subject Facilitators at District level, Economic Management Sciences Educators, School Management Teams, and the School Development Teams.

4.9.4.7 Validation of the accuracy of the findings

The following procedures are used to validate the accuracy of findings in qualitative studies: member checking, triangulation, and auditing (Creswell, 2012:262). Interviews were conducted post-lesson observations and document analysis; therefore, the researcher used this opportunity to validate some of the data obtained through observations. During interviews, recapitulation of each question was done to ensure that the information from participants has been captured accurately. In addition, the researcher used a "within-method" type of triangulation to crosscheck the data collected.

4.9.5 The Rationale for Selecting Thematic Data Analysis

According to Braun and Clarke (2006:9), Ibrahim (2012:40-41) and the SAGE Research Methods Datasets (2018:2), thematic analysis is not married to any pre-existing theoretical framework therefore it can be used within different theoretical frameworks. For this reason, Ibrahim (2012: 40-41) argues that thematic analysis means it can be used in inductive and deductive methodologies.

Ibrahim (2012: 40-41) argues that thematic analysis has the ability to "detect and identify" factors that influence any issue generated by the participants therefore participants' interpretations are significant in terms of giving the most appropriate explanations for their behaviour, actions and thoughts. Hence this type of analysis is viewed to realist in nature because it gives an account regarding the "experiences, meanings and the reality of participants". Therefore, thematic data analysis method was chosen to reflect reality and unravel the surface of reality regarding the PCK of EMS educators (Braun & Clarke, 2006:9) as these authors strongly believe that "a good thematic analysis will make this transparent".

4.10 CREDIBILITY AND TRUSTWORTHINESS

Reliability and validity in qualitative research studies concerning the truth and confidence in the data collected are substituted by trustworthiness (Bashir, Afzal & Azeem, 2008:39). Trustworthiness of data collected is critical to ensure the reliability of qualitative research studies. This was therefore ensured through the following four strategies mentioned by Gunawan (2015:4), Lincoln and Guba (1985) in de Villiers and Fouché (2015:136) and Gay et al. (2011:392): credibility, transferability,

dependability, and conformability. These generic guidelines were used to assess and ensure trustworthiness, as well as to defend the truthfulness of the qualitative data collected in this study (Hammarberg et al., 2016:499).

To ensure trustworthiness of the data collected, Hammarberg et al. (2016:500) further argue that researchers need to be "transparent and explicit" about how research was conducted, the procedures and decisions thereof, details of the research instruments, as well as how data was collected and managed are explained in the current chapter. This was done to ensure that any reviewer can follow the decisions and steps taken in conducting the study and understand the logic thereof because a detailed explanation, the rationale for the selection of the research methodology, design and methods are provided (Hammarberg et al., 2016:500).

4.10.1 Credibility

Credibility, according to Bailey (2018:145), refers to the "genuineness, believability, and acceptability" of the results for the research study. Data collected is said to be credible if its level of confidence can confirm the truth regarding the findings of the research study (Anney, 2014:276). Hammarberg et al. (2016:500) argue that credibility is "the criterion for evaluating the truth value or internal validity of qualitative research". Gay et al. (2011:393), Gringeri et al. (2013:764) and Anney (2014:276) identify the following eight key strategies that can be used to ensure credibility: "prolonged engagement, persistent observation, data triangulation, peer review or debriefing, negative or deviant case analysis, member-checking, thick description, and audit trail".

In ensuring credibility in this study, the researcher heeded to the guidance provided by Gringeri et al. (2013:764) who advocate for the use of at least two or more of the eight key strategies mentioned above for the enhancement of methodological thoroughness in the research study. For the current study, triangulation, audit trail, and thick description were applied in different strategies. For trustworthiness, triangulation was employed to ensure credibility.

Thick description was used for transferability, while audit trail was employed for dependability of findings. Triangulation is defined by Anderson (2010:2) as using two or more methods of data collection in a research study. Echoing the same sentiments is Anney (2014:277) and Fusch and Ness (2015:1411) who describe the concept as

multiple use of data collection methods. Gringeri et al. (2013:764) describes it as a diverse data collection method, while Creswell (2012:259) views it as the process of verifying evidence by using different data sources. Based on the definitions provided by these research scholars, there is consensus regarding the definition of the term triangulation.

Anney (2014:277) strongly recommends that researchers need to at least use one or two techniques of triangulation to ensure validity and trustworthiness of findings. The author differentiates between three types of triangulations, namely investigator triangulation, data triangulation/informant's triangulation, and methodological triangulation. The rationale for selecting the type of triangulation employed in the current study is informed by the exploration of the following three types of triangulation techniques as explained by Anney (2014:277):

(a) In the investigator triangulation technique, many researchers are employed to investigate the same research problem, the advantage is that the different researchers involved in the investigation bring diverse insights of the inquiry, in turn strengthening the integrity of the findings (Anney, 2014:277; Fusch & Ness, 2015:1411). This type of triangulation was not suitable for the study since it involved only one researcher.

(b) In the data triangulation/informant's triangulation technique is data triangulation, different sources of data or research instruments are employed, and this includes individual interviews, focus group interviews, non-participant, or participant observation. Yeasmin and Rahman (2012:158) call this type of triangulation a "within-method type of triangulation", which means that it is not triangulation across the research methodologies, but it is within one methodology. The use of this kind of technique enhances the quality of data since different research instruments are used in obtaining data about the research problem. Coupled with data triangulation is informant's triangulation that uses different informants to obtain data from different sources. This technique also enhances the quality of the data because data are obtained from various sources (Anney, 2014:277).

(c) The other type of triangulation technique is called, methodological triangulation, which uses different research methods (Anney, 2014:277; Fusch & Ness,

2015:1411). The triangulation technique used is across research methodologies, namely quantitative and qualitative research methodologies.

Based on the features of the investigator triangulation and methodological triangulation, the two techniques were deemed inappropriate for the current study instead; the data triangulation technique which Yeasmin and Rahman (2012:158) call a "within-method type of triangulation" was viewed as a suitable triangulation technique since it is congruent with the data collection instruments used to crosscheck or examine the data collected in this study. This strategy also ensured that data collected are rich and in-depth (Fusch & Ness, 2015:1412), this was done by conducting lesson observations, analysing of both learner and educator records, which led to anchored individual interviews with EMS educators with the aim of following up on what was observed in practice and discovered through document analysis.

This strategy provided "a valuable way to gather complementary data" (Gay et al., 2011:382) and for the researcher to explore different perspectives in collecting data about the teaching of FL in Grades 8 and 9 (Fusch & Ness, 2015:1411). As mentioned earlier that during interviews, the researcher recapped each statement to verify with the participant whether data has been captured accurately before moving to the next question. The aim was to capture the exact words of participants since audio-recording was not used. In this way, educators were afforded an opportunity to clarify the events observed by the researcher during lesson observations and what has been noted in educators' planning records and learners' exercise books.

The application of the "within-method" type of triangulation assisted the researcher in strengthening the validity and trustworthiness of data collected and to confirm the study's findings (Zohrabi, 2013:258; Bailey, 2018:152; Fusch & Ness, 2015:1411). According to Zohrabi (2013:258), gathering data through one technique can be questionable, biased, and weak; therefore, to circumvent this limitation, the truthfulness of the responses of the participants were cross-examined using this type of triangulation technique (Anney, 2014:277). The same results obtained from multiple sources of data collection gave the researcher confidence that data gathered are valid and trustworthy.

4.10.2 Transferability

According to Hammarberg et al. (2016:500), Bailey (2018:146) and Anney (2014:277-278), transferability is the likelihood of transferring the findings of a qualitative research study to different contexts using different participants in another setting, hence Gay et al. (2011:393) describe it as "a researcher's belief that everything is context-bound". Researchers need to provide a detailed descriptive data and context (Anney, 2014:277-278; Gay et al., 2011:393). In this regard, Anney (2014:277-278) advocates for the use of "thick description" and purposive sampling. Thick description, according to Gringeri et al. (2013:764), is intended to support transferability of the inquiry. Anney (2014:277-278) argues that it is the role of the researcher to provide thick descriptions of the study to ensure that is it transferable. Therefore, researchers need to collect a detailed descriptive data and develop detailed descriptions of the context.

In this study, the researcher clarified all the research processes followed, attempts were made to provide a detailed explanation of data collection procedures, and the steps in making findings and recommendations were also explained (Anney 2014:278). Following Anney's advise, this was done to help other researchers who might desire to replicate the study in similar conditions. Bailey (2018:51) argues that a descriptive research needs "a guiding hand of theory" so that it produces thick descriptive data informed by a particular theory. It is for this reason that PCK was selected as a theoretical framework and a qualitative research methodology, together with interpretivist paradigm, were also employed in gathering knowledge about the PCK of EMS educators in teaching FL.

The researcher used multiple methods to collect data to provide a complete picture of the research study, therefore, triangulation within the qualitative research methodology was used to crosscheck data (Gay et al., 2011:393). Purposeful sampling was employed which Anney (2014:278) describes it as the technique used in real-life research studies and it involves selecting units with certain characteristics to aid the researcher in answering the research questions (Teddlie & Yu, 2007:77). To this end, participation in the study was opened only to EMS educators.

4.10.3 Dependability

Dependability, according to Anney (2014:278) and Bailey (2018:146), is the consistency of findings over a period which could be easily recognised through an audit trail. According to Bailey (2018:146), the research is dependable if another researcher read the results and concluded that findings are logical based on how the study was conducted. The author argues further that the process and procedures followed in conducting the study will reveal any "lack of traditional reliability". For further verification of the results and findings, the researcher will keep the following records safely for audit purposes: raw data collected through interview schedule, used and transcripts thereof, completed lesson observation instruments, and the information pertaining to the type of documents viewed on-site (Anney, 2014:278; Bailey, 2018:152). In this study, the following aspects were explained in greater detail for perusal and further verification by future researchers in the field: research methodology, paradigms, research design, data collection instruments and sampling procedures.

4.10.4 Conformability

According to Bailey (2018:148), to achieve conformability, the researcher needs to demonstrate that the findings are closely linked to the data collected. The research paradigm employed in this study was explored in terms of its philosophical assumptions, epistemology, ontology, methodology, and axiology. It is believed that the application of the strategies followed in this regard will provide any interested reader with detailed information on how the research was conducted. To this end, the nature of the problem was provided, the theoretical and conceptual frameworks used in developing new knowledge are clearly explained, the application of the research methodology, design and data collection instruments are explained in greater detail and lastly, ethical considerations are also explained in this study. Everything is therefore left in the hands of readers to verify the findings by using all the methods applied in the study and judge the conformability of the research study, and in the end provide their opinion. The next section focuses on ethical considerations.

4.11 RESEARCH ETHICS

According to Tomal (2010:34), researchers should always be concerned with protecting their subjects and thereby avoiding legal problems. It is for these reasons that Creswell (2012:23) argues that researchers need to strictly adhere to ethical practices throughout the research processes. In this regard, the ethical considerations were observed in accordance with the characteristics presented by Creswell (2014:132), which stipulate the ethical considerations to be adhered to before the commencement of the study, during data collection, analysis, reporting of findings, sharing them with readers, and storing data for future scrutiny.

4.11.1 Ethical Considerations prior to conducting the Research Study

Tomal (2010:169) emphasises the importance of researchers in respecting the rights of participants, their privacy and dignity. The researcher ought to be sensitive to the choice of their population, the integrity, and reputation of the institutions registered with for the research study. In addition, researchers need to strictly adhere to institutional policies, rules, and guidelines for conducting research. In this regard, the University of South Africa's code of ethics for conducting research were strictly adhered to.

4.11.1.1 Ethical clearance certificate

Prior to conducting the research study, the researcher requested approval from the ethics review committee at the University of South Africa (UNISA) to collect data (Creswell, 2014:13; 2012:22-23). The application form was completed and submitted to the committee with the required supporting documents. After complying with all the requirements, permission was subsequently granted to the researcher granting permission to collect data. This was done by issuing the ethical clearance certificate to the researcher (*cf.* Appendix A). The approval from the committee serves as confirmation that the required ethical considerations have been strictly adhered to by the researcher prior to conducting the study.

4.11.1.2 Consent from gatekeepers

Gatekeepers are described by Tracy (2013:85) as those persons who hold access keys to schools. According to Creswell (2014:135), a researcher needs to seek written

approval from gatekeepers to gain access to schools where the study will be conducted. In this regard, an application to request permission to collect data from schools was submitted to the Education Research and Knowledge Management, a Directorate responsible for processing research applications and issuing of GDE research approval letters. The GDE research guidelines were studied carefully and adhered to. The following documents were submitted as per the Directorate's requirements: research request form signed by the researcher and the supervisor, research proposal, research instruments, and a draft detailed consent letters for participants.

The GDE granted the researcher permission to interact and observe EMS educators and analyse relevant documents in Ekurhuleni North public ordinary secondary schools (*cf.* Appendix B). It should be mentioned that this site was selected without any vested interests but due to its proximity. The GDE approval for access to conduct the research study within a GDE schools serves as confirmation that the researcher has complied with the GDE requirements and guidelines for conducting research. This enabled the researcher to gain access to the sampled schools in Ekurhuleni North District. Getting permission was also the display of the researcher's respect for the site and participants. Permission was also sought from the Director of Ekurhuleni North District for the researcher to be granted approval to collect data from secondary schools in the district (*cf.* Appendix C). The same procedure was followed in requesting permission from school principals (*cf.* Appendix E).

4.11.2 Ethical Considerations at the Beginning of the Study

4.11.2.1 Transparency and openness to participants

According to Creswell (2014:136) and Tomal (2010:33), researchers need to explain and disclose the intentions of conducting a research to participants. Information and participation letters were provided to the participants for them to read. In these letters, the researcher explained to participants how the findings of the study were going to benefit them and the subject, FL which is embedded within EMS.

4.11.2.2 Consent from participants

Participants were informed that participation in the study is voluntary (Creswell, 2014:136; Tomal, 2010:33). They were alerted that they can withdraw from partaking

in the study when a need arises and that there will be no consequences. Details, in this regard, were clearly articulated in the consent letter and form shared with them. The following information was included in the participants' information letter: Name and contact details of the supervisor: Prof M.W. Lumadi in the College of Education, Department of Curriculum Studies and Instruction. Contact details: Telephone (W); 012 429 4033, Email address; lumadmw@unisa.ac.za (*cf.* Appendix G).

The purpose of sharing the supervisor's information was to create a platform for participants to know where to register their complaints about the way the research was being carried out. Participants were satisfied with the information provided and subsequently the consent forms and participation consent forms were issued out to each participant for their perusal and signature (*cf.* Appendix H and I).

4.11.3 Ethical Considerations during Data Collection

4.11.3.1 Respect for the site in collecting data

Creswell (2014:137) argues that researchers need to respect the site and not cause any disruptions. In this regard, interviews were conducted after school, during free periods and breaks. This ensured that the running of the schools was not affected during the data collection processes. This arrangement was discussed with participants, especially those educators who could not remain after school due to transport arrangements and other commitments. The lesson observations were conducted in line with the period allocated to participants.

4.11.3.2 Continuity and consistency

The researcher ensured that all participants receive the same treatment by following the interview and observation schedule (Creswell, 2014:137). This ensured continuity and consistency in data collection procedures throughout the research study (*cf.* Appendix J and K).

4.11.3.3 The use of audio-recording

According to Tomal (2010:171), participants need to be made aware of any technology that is going to be applied in data-gathering so that participants can take a decision whether to take part in the investigation or to withdraw. Participants were informed that a tape recorder will be utilised and that its use is solely for raw data capturing and for

authenticity of the data collected, unfortunately many participants were not comfortable with the use of audio-recording hence this was abandoned. Such partial occurrences were going to cause inconsistencies in data collection and analysis.

4.11.3.4 Avoidance of participants' exploitation

Creswell (2014:137) argues that the research study needs to be reciprocal in nature to avoid the exploitation of participants where the researcher would collect data and then leave the site abruptly. In this study, the researcher promised to reward participants by sharing with them the outcomes of the final research report. In this regard, contact details were exchanged with participants.

4.11.4 Ethical Considerations during Data Analysis

4.11.4.1 Analysis of data

Creswell (2014:138) argues that researchers need to be impartial when analysing data. In complying with Creswell's assertion, the researcher presented a full range of findings obtained through interviews, document analysis, and lesson observations. Data collected was triangulated. The names of participants were concealed to ensure confidentiality during data analysis processes.

4.11.4.2 Anonymity of participants

In line with Creswell (2014:138), the confidentiality of participants was strictly respected during data collection. To this end, they were assured confidentiality – their real names including schools were not used anywhere in the research study (*cf.* Appendix H). To this end, pseudonyms such as School A, A1, A2, A3, etc. were used for the concealment of educators and schools throughout the research study. This ensured that educators participate freely in the research study.

The records of interviews held, and lesson observations conducted were anonymised to conceal participants' identity (Hennink et al., 2011:76), instead they were labelled as follows: School A, Teacher A1, A2, A3, School B, Teacher B1, B2, B3, etc. The purpose of the research was not about an individual educator but on the status of the teaching of FL in schools hence the names of participants were not required.

4.11.5 Ethical Considerations regarding Reporting, Sharing and Data Storing

In reporting, sharing and storage of data, the researcher ensured that the following aspects outlined by Creswell (2014:133) are adhered to:

4.11.5.1 Reporting

The researcher ensured that reporting is communicated in a clear, straightforward, and appropriate academic language. Data was reported as honestly as possible without altering the findings to satisfy the predictions of the researcher (Creswell, 2012:24).

4.11.5.2 Protection of participants

The researcher was cautious of any information, conduct, or behaviour that would have been harmful to participants hence they were guaranteed that their participation was not going to cause any harm be it social, physical, psychological, economic, legal, or otherwise (Kivunja & Kuyini, 2017:27).

4.11.5.3 Authenticity of the research

Field notes obtained through interviews and observations will be kept safely. These notes were typed and kept in a form of a soft copy as well as handwritten notes. Findings and conclusion were done in line with the data obtained through the literature review and the instruments used in collecting data. Plagiarism was avoided by using the Turnitin software computer programme to detect and address any similarities of words. Complete proof of compliance with ethical issues and permission granted by the GDE and the District Director to conduct research in Ekurhuleni North District are attached as annexures in the current research study.

4.12 CHAPTER SUMMARY

This chapter started by providing the research framework for data collection processes. It highlighted the research paradigm adopted. The study is supported by interpretivism research paradigm. The rationale for selecting this paradigm was explained. This informed the research methodology suitable to collect data. Consistent with the research methodology chosen, phenomenology was selected as the research design. EMS educators were purposefully selected as participants since they met the

criterion set. The researcher had intended to observe and interview 48 EMS educators from 24 out of 48 public ordinary secondary schools however, 16 educators from 8 schools participated due to the saturation point that was reached early during data collection. Pilot study was conducted to pre-test the effectiveness of the research instruments. The following data collection instruments were used: interviews, lesson observations, analysis of educators' planning, learners' exercise books, tests, and other forms of assessment available at the time of data collection. Data were analysed through thematic method. Trustworthiness of qualitative data was ensured through the following strategies: credibility, transferability, dependability, and conformability. The chapter concluded by providing a discussion on the ethical considerations followed in the process of collecting data. The next chapter focuses on data analysis, interpretation, and discussion of findings.

CHAPTER 5:

DATA ANALYSIS, INTERPRETATION AND DISCUSSION OF THE FINDINGS

5.1 INTRODUCTION

Chapter four presented the research paradigm, methodology, design, methods of data collection, sampling methods, and ethical considerations. This chapter presents the analysis of raw data, interpretation, and discussion of the findings. It outlines the summary of the biographical information of participants, followed by the protocol followed in conducting lesson observations, interviews, and documents analysis. Data were collected from sixteen (16) EMS educators. In these schools, 1 participant from each Grade, that is, Grades 8 and 9 were observed in practice in 6 out of 8 schools visited. In the other 2 schools, specifically schools A and H, 1 participant from Grade 8 was observed while 2 from Grade 9 were observed which means that 3 participants from schools A and H respectively, availed themselves to take part in the study. Participants were purposefully sampled because they are teaching the subject under investigation.

The theory-driven and data-driven themes developed by the researcher are presented in this chapter. Data was collected through observing educators in practice, conducting individual interviews, and by scrutinizing educators' and learners' records. Findings are therefore presented jointly to circumvent duplication. The study aimed at exploring the PCK of EMS educators in teaching FL in Grades 8 and 9; thus, to achieve this objective, the research problem was stated in Chapter 1, followed by the research questions and objectives formulated to address the problem of the study. The study is explorative in nature; thus, it consists of descriptive data. Data was collected to address the following sub-questions:

- What types of knowledge base do Economic and Management Sciences educators possess to teach Financial Literacy?

- What are the views of Economic and Management Sciences educators regarding the challenges faced by educators who teach Financial Literacy but do not have an Accounting background?

- What curriculum knowledge do Economic and Management Sciences educators have in the teaching of Financial Literacy?

- To what extent are EMS educators knowledgeable in administering Financial Literacy assessments?

- What teaching and learning activities do Economic and Management Sciences educators employ to promote effective teaching and learning in Financial Literacy?

- What are learners' learning difficulties in Financial Literacy according to Economic and Management Sciences educators?

5.2 BIOGRAPHICAL INFORMATION OF PARTICIPANTS

During the interview sessions held with participants, the following background information was collected: qualifications, level of education in Accounting, teaching experience in EMS, gender, and age group. Confidentiality was ensured in the data collection processes; hence, alphabets were used to conceal the names of schools and participants. For example, participants in School A were allocated the pseudonym participant A1, A2, and A3 to conceal their identity and schools. Table 5.1 below provides the biographical information of participants. The table depicts that in Schools D and G, only one participant's biographical information was captured, the reasons for this is that Educator D2 and G2 did not want to participate in the study for motives unknown to the researcher.

During first visit to schools, the researcher introduced himself to the principal and provided reasons for the visit. Departmental heads managing EMS, were invited to the principal's office to be informed about the purpose of the researcher's visit. The researcher explained that the study was only opened to Grades 8 and 9 EMS educators. Based on the type of sampling selected for the study, only EMS educators were invited to meet with the researcher. The purpose of the meeting was explained by the researcher. These educators seem to have found the research topic very interesting hence most of them showed interest in participating in the study except for Educator D2 in school D and G2 in school G. The following documents were distributed to prospective participants for their perusal: invitation letter to participants, information

letter, consent letter, and participation form. The former and latter were later signed on the day of data collection.

Table 5.1: Summary of the biographical information of participants

		Nature of Institutions: Public Ordinary Secondary Schools					
Schools	Number and description of participants	Accounting Education at Secondary level	Accounting Education at University level	Accounting Education at College level	Years of teaching experience in EMS	Gender	Educators' age group
School A	A 1	Grade 12	Level 2	Level 3	>10 Years	M	40-50
	A 2	Grade 12	Level 3	Level 3	>10 Years	F	50-60
	A 3	Grade 12	Level 2	Level 3	>10 Years	F	50-60
School B	B 1	Grade 12	None	None	>5 Years	F	30-40
	B 2	Grade 12	Level	N/A	>10 Years	F	40-50
School C	C 1	Grade 12	N/A	Level 3	>10 Years	F	50-60
	C 2	Grade 12	Level 4	Level 3	>10 Years	F	50-60
School D	D 1	Grade 12	Level 2	Level 3	>10 Years	F	40-50
School E	E 1	Grade 12	Level 1	N/A	<5 Years	F	30-40
	E 2	Grade 12	Level 4	N/A	14 Years	F	30-40
School F	F 1	Grade 12	Level 1	N/A	7 Years	M	30-40
	F 2	Grade 12	Level 2	Level 3	>10 Years	M	60-70
School G	G 1	None	Level 1	None	>10 Years	F	40-50
School H	H 1	Grade 12	Level 3	N/A	5 Years	F	20-30
	H 2	Grade 12	Level 2	N/A	1 Year	M	20-30
	H 3	Grade 12	Level 2	N/A	4 Years	M	20-30
Total no. of participants	**16**						

The participants' background information reflects a mixture of both young and old. It further reveals that participants have an Accounting background from secondary level education and university, while some majored in Accounting at university and college level. It was noted; however, that there is one participant who did study Accounting at secondary level but has completed an Advance Certificate in Education (ACE) that includes Accounting as a module. This means that this educator has acquired basic knowledge required to teach FL in Grades 8 and 9.

With regards to teaching experience, the profile reveals that most participants have adequate experience in teaching EMS, except for two participants who have less than five (5) years teaching experience. It was also interesting to note that there were more female FL participants than males; there were only five (5) males out of sixteen (16) educators who participated in the study. The researcher's interpretation of this unequal representation at face value could be attributed to the lack of interest in the subject by male learners at secondary education which has a spill-over effect at tertiary education. The following section describes the protocols followed in collecting data through lesson observations, interviews, and document analysis. These protocols are briefly described to remind readers how data was collected, analysed and interpreted. [the external examiner wanted me to provide the rationale for the research design explained in the sections below] – hence I added the statement in red.

5.3 LESSON OBSERVATIONS PROTOCOL

The observation tool was developed to document the events as they unfolded during instruction (*cf.* Appendix J). The following themes informed by the research questions and conceptual framework were observed: educators' knowledge of the subject matter, curriculum, assessment, teaching methods and strategies, as well as educators' knowledge of learners' learning difficulties and understanding.

The duration of the lessons observed varied according to the cycle followed by the school and the duration of periods within a cycle. In School A and D, the duration of a period was one (1) hour while it was thirty (30) minutes in Schools B, C, F, G, and forty (40) minutes in Schools E and H. The researcher observed the start and the conclusion of the lessons. Different schools were visited at different times; therefore, different topics were taught in the grades observed. The role of the researcher was to observe, take notes and not interfere in the presentation of lessons.

The focus of the occurrences under each theme mentioned above was on the following aspects:

- The structure of lessons and the way they are presented.
- Interaction during instruction.
- The teaching, learning and assessment activities at various levels.
- The availability of learning, teaching and support material and the use thereof, this included the display of FL posters on the classroom walls.
- The communication of lesson objectives to learners, implementation, and accomplishment thereof.
- Subject content presented during instruction, in this regard, the observation tool made provisions for the researcher to take field notes pertaining to lesson presentation.
- Educators' knowledge of learning content, curriculum, assessment practices, teaching methods and understanding of learners' learning difficulties.

Data extracted through lesson observations are presented and discussed in line with the headings provided in the observation schedule (*cf*. Appendix J).

5.4 INTERVIEW PROTOCOL

The researcher conducted individual semi-structured interviews with participants post-lesson observations. An interview schedule was prepared and used to ensure uniformity in all the interviews conducted (*cf*. Appendix K). The schools targeted for data collection were visited prior to the on-site visit to explain the process to the school principal, departmental heads, and EMS educators (known as participants in this study). Participants were provided with consent letters and participation letters for discussion and their perusal. Participation and consent forms were signed by all participants. Having learnt from the pilot study conducted that the duration for interviews lasted for 30 minutes; the researcher thus planned 40 minutes for each interview however it was noted that they lasted between 30-35 minutes. The interviews were conducted for thirteen (13) days since they had to be carried out post-lesson observations and, in most schools, this was done during break, free periods and after school, with the exception for School A, C, and E where the researcher had to go back

as Participant A3, C1, and E1 had other commitments. The researcher thus had to schedule additional sessions to conduct the interviews with them.

The researcher captured the data on each interview schedule. Participants were allocated pseudonyms A1, A2, A3 in School A to conceal their identity and their respective schools. Interviews were conducted in line with the steps provided in Chapter 4 of the current study (*cf.* Figure 4.2) in this regard. Data obtained through interviews are presented and discussed in line with the headings provided in the interview schedule. The next section outlines the protocol followed in scrutinising the records of EMS educators and learners.

5.5 DOCUMENT ANALYSIS PROCESS

The documents analysis template was used to scrutinize the following records of educators and learners (*cf.* Appendix L): Lesson plans and preparation, annual teaching plan, educator timetables, CAPS document, learners' exercise books and FL workbooks, where applicable. Learners' books were scrutinized to ascertain the quality of FL work given to learners, the frequency of the assessment of FL topics, the quality of FL assessment activities, whether assessments are in line with the content outlined in the annual teaching plan, to determine learners' attitudes in self-assessment, the quality of marking, and book control by educators.

5.6 DATA ANALYSIS AND INTERPRETATION PROCESS

This section discusses briefly the procedures followed in analysing and interpreting data. As indicated in the introduction above, a conceptual framework for the study was used to develop tools used to extract data from participants therefore data are presented and interpreted in line with the headings outlined in the lesson observation, interview, and document analysis schedules. Thematic method of analysis was employed, and it is informed by theory-driven and data-driven type of analysis. The findings which are supported by the literature review and the conceptual framework were referenced accordingly, while new data that emerged from the field was acknowledged as new contribution to the existing literature in the field of enquiry.

In analysing data, the researcher employed the data analysis framework provided by Braun and Clarke (2006:6), which includes the following themes as discussed in chapter 4 (*cf.* section 4.9.2): "familiarization, generating initial codes, searching for

themes, reviewing themes, defining, and naming themes, summary of findings, providing a report and lastly, the validation of the accuracy of findings".

Transcripts were typed in an interview data analysis tool indicating participant 1 to 16. This facilitated a seamless data analysis process. The next process was to generate initial codes, in this regard, primary analysis of the information captured during interviews, lesson observations and the analysis of educators' and learners' work were used to develop and assign codes.

In the third phase, the researcher started to sort codes into themes by identifying constant expressions and common ideas emerging from the responses of participants. Identified codes were used to develop themes. The researcher engaged in the process of moving codes back and forth between eight steps used in analysing data (*cf.* Figure 4.3 in Chapter 4) with the aim of developing themes. In the fourth phase, themes were reviewed and refined. In phase five, themes identified were described and named and a description was presented under each theme.

As previously mentioned, that a within-type of triangulation was employed in collecting data, the presentation of findings, discussion and interpretation thereof was conducted by integrating data obtained through various research instruments. In this regard, the information that addresses the same theme was reported by indicating the source (observations, interviews, and document analysis). This was done to avoid unnecessary repetition throughout the current chapter; therefore, the data extracted through lesson observations and interviews are presented and discussed in line with the headings provided in the observation and interview schedule (*cf.* Annexure J & K) in this regard. In analysing data obtained through lesson observations and interviews, each aspect in the lesson observation and interview schedule were analysed with the aim of comparing data. This was done by analysing each theme and sub-themes.

In examining data, an observation and interview analysis sheets were developed for each school, and they consisted of three columns denoting responses from Participant 1, 2 and 3 since there were more than two participants in Schools A and H. This was done to ensure uniformity in the tools used. This means that sixteen (16) interview and observation sheets were generated for analysis of data. Responses were transcribed from a handwritten interview schedule to a word document and were compared and coded. In presenting the findings in a qualitative research study, Anderson (2010:3)

assert that researchers need to focus on quotes that are most representative of the research findings. Table 5.2 below presents the framework used to discuss the main and sub-themes developed during the data analysis and interpretation.

Table 5.2: Main and sub-themes

5.7 MAIN THEME 1: EDUCATORS' KNOWLEDGE OF THE LEARNING CONTENT	
5.7.1 Sub-theme 1:	Educators' knowledge and teaching of factual knowledge
5.7.2 Sub-theme 2:	Educators' knowledge and teaching of conceptual knowledge
5.7.3 Sub-theme 3:	Educators' knowledge and teaching of procedural knowledge
5.7.4 Sub-theme 4:	Educators' knowledge and application of meta-cognitive knowledge during instruction
5.7.5 Sub-theme 5:	Educators' application of knowledge, skills, and values in the teaching of Financial Literacy
5.7.6 Sub-theme 6:	Educators' views about the knowledge base required to teach Financial Literacy
5.7.7 Sub-theme 7:	The role of subject specialisation
5.8 MAIN THEME 2: EDUCATORS KNOWLEDGE OF FINANCIAL LITERACY CURRICULUM	
5.8.1 Sub-theme 1:	The implementation of the annual teaching plan
5.8.2 Sub-theme 2:	Lack of the formulation of lesson objectives
5.8.3 Sub-theme 3:	Educators' knowledge of lesson objectives
5.8.4 Sub-theme 4:	Educators' knowledge of the purpose of formulating lesson objectives
5.8.5 Sub-theme 5:	Communication of lesson objectives to learners
5.8.6 Sub-theme 6:	The synergy between assessment and lesson objectives
5.8.7 Sub-theme 7:	The achievement of lesson objectives
5.8.8 Sub-theme 8:	Educators' knowledge of resources to use in teaching Financial Literacy
5.9 MAIN THEME 3: EDUCATORS' KNOWLEDGE OF ASSESSMENT	
5.9.1 Sub-theme 1:	Educators' knowledge of the purpose of formative assessment
5.9.2 Sub-theme 2:	Educators' knowledge of the application of formative assessment
5.9.3 Sub-theme 3:	The weaknesses of formative assessment
5.9.4 Sub-theme 4:	Assessment in Financial Literacy
5.9.5 Sub-theme 5:	Learners' attitude in self-assessment
5.9.6 Sub-theme 6:	The quality of marking of Financial Literacy activities and book control by educators
5.9.7 Sub-theme 7:	The quality and type of questions asked during instruction
5.9.8 Sub-theme 8:	Educators' knowledge of the purpose of summative assessment
5.9.9 Sub-theme 9:	The weaknesses of summative assessment
5.9.10 Sub-theme 10:	Educators' knowledge of the application of summative assessment

5.10 MAIN THEME 4: EDUCATORS' KNOWLEDGE OF TEACHING METHODS AND STRATEGIES	
5.10.1 Sub-theme 1:	Educators' application of teaching and learning activities within a teacher-centred method of teaching
5.10.2 Sub-theme 2:	Educators' application of teaching and learning activities within a social interactive method of teaching
5.10.3 Sub-theme 3:	Educators' application of teaching and learning activities within a learner-centred method of teaching
5.10.4 Sub-theme 4:	Educators' knowledge of effective teaching method/s in Financial Literacy
5.11 MAIN THEME 5: EDUCATORS' KNOWLEDGE OF LEARNERS' LEARNING DIFFICULTIES	
5.11.1 Sub-theme 1:	The learning approaches implemented during instruction
5.11.2 Sub-theme 2:	Educators' perceptions regarding learners' learning difficulties in Financial Literacy

5.7 MAIN THEME 1: EDUCATORS' KNOWLEDGE OF THE LEARNING CONTENT

In this theme, the researcher observed educators' knowledge of FL learning content, by focusing on substantive and syntactic knowledge where the former focused on educators' knowledge of facts, concepts, procedures, rules, principles, and frameworks used in promoting an understanding of FL concepts, while the latter focused on the teaching and learning activities applied during instruction. Drawing from the definition of the term substantive knowledge, the focus during lesson observations was on the teaching of factual knowledge, procedural knowledge, conceptual knowledge, the application of rules, principles, and explanatory frameworks used to teach FL concepts, as well as aspects of metacognitive knowledge. The following sections discuss the sub-themes as depicted in Table 5.2 above. The lesson observations, interviews and document analysis conducted resulted in the following findings regarding the PCK of EMS educators' knowledge of the learning content.

5.7.1 Sub-Theme 1: Educators' Knowledge and Teaching of Factual Knowledge

The teaching of and educators' factual knowledge were observed in line with the framework provided by Anderson et al. (2001:45) and Krathwohl (2002:214) who differentiate between two subtypes of factual knowledge, namely knowledge of terminology and knowledge of specific details and elements. According to Anderson

et al. (2001:45) and Shakhman and Barak (2019:3), knowledge of terminology includes specific terms, acronyms, symbols, and signs used as the language of communicating financial information in the subject discipline. Consistent with Anderson et al., and Shakhman and Barak, the study found that the following terms were taught in grade 8: assets, types of assets (current and non-current assets), liability (long-term and current), owner's equity (capital, drawings, expenses, and income), creditor, and debtor. The educators expected learners to know the definition of terms. This view is endorsed by Ilhan (2019:46) who asserts that for learners to display knowledge of specific terms, they are expected to define and understand the basic concepts and their relatedness. The extract below indicates how some of these terms were explained to learners by educator E1 in School E using a questioning technique.

Educator: What is a liability?

Learners: "It is money owed to others for goods supplied".

Educator: What is a debtor?

Learners: "Someone who owes someone money".

Educator: What is a creditor?

Learners: "Someone who provides someone with money".

The lessons drawn from the questioning technique used by the educator is that learners were not encouraged to provide examples or a scenario to show their understanding of concepts in relation to their daily life experiences. Supporting this assertion are Al-Mutawah et al. (2019:259) who argue that the learners' ability to provide examples related to concepts presented in class demonstrates their understanding of concepts. Requesting for examples from learners leads to the activation of prior knowledge, which educators can use to gauge learners' knowledge on the concepts presented. In this way, learners are likely to integrate old information with new knowledge (Ambrose et al., 2010:13-14). Educators need to ask learners to provide more examples to show their understanding and applicability of concepts in real life situations. This could be done by asking learners where their parents buy clothes for them and whether they buy cash or using credit accounts.

The activation of such prior knowledge would provide educators with an opportunity to build on what learners already know. This would also assist educators to correct any misconceptions that shall have been detected from the examples provided. Jadama (2014:25) states that while teaching is in progress, educators need to clarify any misconceptions. Fry et al. (2009:10) agree with Jadama that educators need to change any misconceptions or make additions to pre-existing knowledge so that learning can take place. Jones and Brader-Araje (2002:4) concur with Fry et al., and Jadama, by stating that, for learners to understand new concepts, educators need to undo incorrect information possessed by learners and where prior knowledge is accurate then educators need to build on these concepts during instruction to make learning easy.

Jones and Brader-Araje emphasise further that, educators need to establish what information learners have about the topic and then provide new knowledge and learning experiences that will confront prior conceptions to promote conceptual development. Therefore, asking learners to define by providing examples will make it possible for educators to change learners' thinking about FL concepts. The examples provided by learners will demonstrate what is on learners' minds about the concepts presented. In turn, educators will be able to detect any inaccurate information in learners' minds and correct it. It is therefore critical for educators to activate prior knowledge so that learners can also contribute meaningfully to new knowledge creation. Despite the limitations noted in the lesson presentation, the educator went ahead and provided learners with an example of the explanation of the concept's "debtor" and "creditor". The below summarises what the educator said to learners:

> *"When you go to Woolworths and buy groceries and clothes for R1000,00, and use a Woolworths card to pay, Woolworths becomes your creditor and as a consumer you become a debtor because you owe Woolworths a credited amount of R1000,00, which you would normally pay at later stage in instalments every month-end".*

From the example provided, the researcher observed that the participant assumed that purchases are always made on credit. The fact that learners were able to explain the terms "debtor" and "creditor" suggests that the participant should have requested learners to provide examples of trading (where they think a creditor and debtor were

involved, and where they think there was no creditor or debtor, and why they think so). Learners could have been asked about the payment methods used by their parents when buying clothes for them. The possible responses from learners would have been "my parents buy on cash, my parents use a credit card, my parents use a store card, my parents use a bank card, or my parents buy on credit from a local store or supermarket". Such a general question would have also accommodated learners from rural areas because they would have related the example provided by the participant to their experiences of where they reside. This would have provided the educator with an opportunity to clarify that for cash purchases, there is neither a creditor nor debtor because goods are purchased on cash; therefore, there is just an exchange of cash and goods. This means that there is a movement of cash which positively affects the bank balance of the business owner, while the customer is negatively affected because of expenses for goods purchased which decreases the bank balance.

In teaching concepts, participants should not take it for granted that all learners are from the township; therefore, their teaching should be considerate and accommodative of all learners' possible experiences. For example, a learner from a rural area might indicate that during the month, his/her parents buy groceries on credit from the local shop. Therefore, asking learners to list stores or shops and the payment methods used by their parents to buy clothes and groceries, as well as any other types of household items would have made it easier for learners from townships, suburbs, and rural areas to draw from their real-life experiences and relate them to the learning content presented in class. In teaching terminology, educators need to think of different strategies and the circumstances of learners.

In the same lesson, the concept "drawings" was also explained to learners. The following question was posed to learners to get their understanding of the concept "drawings".

Educator: "What are drawings in the business?"

Learners: "It is money taken by the owner for personal use", said learners responding in a chorus form.

Educator: "Does drawings for personal use bring any benefit to the business?"

Learners: "Noooo!" responding in a chorus form.

Educator: Give me an example of money taken from the business for personal use.

The lessons drawn from the questioning technique used by the participant allowed learners to respond in a chorus form. However, allowing learners to respond in a chorus form will not enable the participant to identify learners with barriers. There could be learners in class who cannot read, hear, see properly therefore educators need to encourage learners to respond individually so that any barriers can be identified and remediated in the process. Educators therefore need to promote a culture where learners are encouraged to raise their hands if they know the answer and want to respond.

It was also noted that the questioning used did not promote critical thinking as required by CAPS. Learners were not asked follow-up questions such as "how does money taken by the owner for personal use affect the business?", "why do you think drawings for personal use do not bring any benefit to the business?" Such questions would have provided more information to learners regarding any action taking place in the bank of the business. In teaching FL terminologies, educators need to encourage learners to provide reasons for their answers and not just respond to yes or no questions. Educators need to promote discussion in their teaching by asking open-ended questions that stimulate critical thinking and promote meaningful learner involvement in knowledge creation.

With respect to the last question asked by the participant, unfortunately, learners could not provide an example of money taken by the owner for personal use. The participant had to provide an example in this regard. In doing so, the educator used a questioning technique in guiding learners towards the understanding of the concept "drawings" for personal use. The following example was used:

Educator: "If a business owner cashes a cheque to buy flowers for the wife, does this bring any benefit to the company?"

Learners: "No", said learners responding in a chorus form.

Despite the limitation noted in the questioning technique used, the participant went ahead and explained that this kind of practice is "*eating up capital, because such a drawing does not bring any benefit to the business*". The participant further explained that "*If the business owner withdraws money to pay salaries or electricity, such drawings generate income for the business; therefore, there is a benefit for the business. Electricity is needed to operate computers. In a printing company, printing should be carried out to generate income for the business*". The participant concluded by saying "*yes, the money is going out of the business, but the purpose is to generate more income for the business therefore the company is benefiting*".

The example provided by the participant was found to be enlightening in that the participant related the learning content into daily life experiences of learners; however, this participant did not engage learners to encourage them to provide more examples or scenarios to show their understanding of the concept "drawings" in the business so that they know that anything private done by the owner is recorded as drawings. After explaining concepts, educators need to request more examples from learners or scenarios that they think relate to the topic discussed in class. Learners should not be treated as tabula-rasa, but their prior knowledge needs to be activated and used during the lesson.

The study revealed that the concept source document was taught in grade 8 and it was established that participants are still textbook bound for teaching terminologies. Participants mentioned a cheque and cheque counterfoil as a source document. It is not a secret that there is a continuous rapid decline in the use and acceptance of cheques in the South African banking industry in recent years. The traditional banking methods are continuously being replaced by internet banking which takes place online. Banks are therefore increasingly terminating the use of cheques since this method of payment has become outdated. Clients have and are migrating to paperless payment transactions. It was, therefore, concerning to note during lesson observations that participants are still trapped in the traditional ways and knowledge of processing transactions that involve the use of cheques. Participants did not mention internet banking, which involves electronic payment methods and how source documents apply in such an environment – is the electronic system accessible in rural areas? What are the resources required to facilitate such payments? This finding was inconsistent with Jadama's (2014:26) conviction that educators need to have subject

content knowledge that surpasses the boundaries of the curriculum that they teach because such knowledge is likely to improve learners' understanding of concepts. There is, therefore, a need to train educators on the use of new alterative electronic payment methods. There is also a need to update the current learning material to suit the current financial environment.

The definition of factual knowledge, according to Anderson et al. (2001) and Shakhman and Barak (2019) also includes knowledge of symbols, labels and signs used as the language of communicating financial information in the subject discipline. FL uses a lot of acronyms such as A that stands for (assets), OE (owner's equity), L (liabilities), CPJ (cash payment journal), CRJ (cash receipt journal), CR (credit), DR (debit), DJ (debtors' journal), CJ (creditors' journal), CRT (cash register tape), CRR (cash register roll), N (nominal accounts), B (balance sheet accounts), b/d (balance brought down), c/d (balance carried down), T shape was used to reflect the double entry in the General Ledger Accounts, etc. The following symbols are also used in the Accounting equation (+) which refers to an increase and (-) which refers to a decrease. A=OE + L which refers to the Accounting equation, which means assets is equal to owner's equity plus liabilities. The application of the signs, symbols, and acronyms in FL relates to the definition of factual knowledge as explained by Anderson et al. (2001) and Shakhman and Barak (2019) who assert that factual knowledge includes knowledge of specific terms, symbols, acronyms, and signs used as the language of communicating information in the subject discipline. The study found that the acronyms, signs, and symbols mentioned above were used to communicate financial information in FL.

There is no doubt that participants were conversant with the acronyms, signs, and symbols; however, they tended to just write them on the chalkboard without providing learners with more information about their use in FL. According to Anderson et al. (2001:47), learners need to be acquainted with the terms, labels, signs, acronyms, and symbols used in the subject discipline and learn how to use them in conveying information. The assertion by Anderson et al. (2001) was found to be congruent with CAPS which envisages a learner that can use symbols, visuals, and acronyms as a language to communicate information in the subject (DBE, 2011a:5). FL involves the application of financial language, which is used to communicate financial information

in the business; therefore, educators need to ensure that learners are acquainted with the appropriate signs, symbols, and acronyms relevant to FL.

The study found that in Schools A, B, E and F, posting from CRJ and CPJ to the General Ledger was presented, it was noted that Educator A2 in School A, C2 in School C and F2 in School F did not explain in detail the use of b/d, c/d, CRJ1 and CPJ1 when recording transactions in the General Ledger. Instead, these participants wrote these acronyms without providing learners with detailed information of how they relate to the General Ledger and their purpose in indicating them as such. It is possible that the educator assumed that learners know why these acronyms are used in different sides of the General Ledger.

The observations of lessons were conducted during the first term; therefore, learners should have been asked why b/d was written on the debit side, c/d on the credit side, and CRJ1 and CPJ1 were also written on the General Ledger. These acronyms are written to communicate financial information; therefore, educators need to involve learners in every step in the recording of transactions. Educators need to establish from learners by asking for reasons why certain things are happening during the recording of transactions. This proclamation is consistent with Shakhman and Barak (2019:3) who state that for learners to solve problems in FL, they will need to remember and identify facts, terms, symbols, signs, acronyms, and labels by retrieving appropriate knowledge from their long-term memory.

This will ensure that any misconceptions detected are addressed with the aim of improving learners' learning. Learners should not only know or memorise that they need to use b/d, c/d, CRJ1 and CPJ1 in different sections of the General Ledger but they need to know the reasons why such acronyms are recorded as such in the ledger account. This statement relates to Shulman (1986:9) who emphasises that educators must not only be able to define concepts for learners, but they need to explain why certain things are done in the way they are done in a subject discipline, why it is important to know the rules and principles, and how concepts are related. Shulman maintains that learners need to know what is legitimate to do and say as well as what constitute breaking the rules in a subject discipline. Educators need to frequently remind learners about symbols, acronyms, and signs used in the subject discipline by

explaining them and provide specific details of why certain things are written as they are in FL.

Participant B2 in School B provided learners with more information when presenting the General Ledger. This participant explained the purpose of indicating the journal number by explaining to learners that CRJ1 and CPJ1 indicated on the debit and credit sides of the General Ledger refer to a summary of total receipts and payments as recorded in the bank column of the journal at the end of the month. The participant explained that these acronyms are written for reference purposes for people who might require more details on transactions recorded in the total receipts and total payments. This participant emphasised to learners that the balances in the CRJ and CPJ at the end of the month are important in balancing the General Ledger Account. The participant used the information on the CRJ and CPJ to show how the balances are recorded in the General Ledger and how the information is used to balance the Bank Ledger account.

The use of such factual knowledge by this participant was found to be more informative and guiding in that, learners were provided with facts as to why certain things are as they are and should be shown in the recording process. Such explanation was found to be consistent with the view presented by Anderson et al. (2001:27; 2002:214) who is of the view that in teaching factual knowledge, learners must be provided with basic elements to solve problems in the subject. It remains a fact that educators cannot explain or teach concepts in the same way; however, it is expected for educators to utilise their learning content knowledge to extend learners' knowledge of the concepts. Supporting this view, is Jadama (2014:27) who states that the educators' knowledge and understanding of the learning content means that an educator can teach the main points of the subject to learners. Such an educator, according to Yildirim and Yazici (2017:113), has good knowledge and in-depth understanding of concepts and can reflect them to learners in the classroom. Educators need to use their content knowledge and teaching methods to convey information and extend learners' knowledge in the subject discipline. Educators should not assume that learners know why certain things are done in the subject discipline, they need to continuously ascertain if learners possess correct information about the concepts.

The other subtype of factual knowledge, as explained by Anderson et al. (2001:45), refers to knowledge of specific details and elements. According to Anderson et al. (2001:47), knowledge of specific details and elements refers to knowledge of events, locations, people, dates, sources of information. The study discovered through lesson observations and the analysis of learners' exercise books that in teaching CPJ and CRJ, learners were taught types of sources of documents, sources of cash likely to be received by the business, specific date when the transactions took place, name of the business or persons making a payment, knowledge of the types of transactions taking place in the business. For example, in Schools A, B, E and F, CPJ and CRJ were taught. The study found that the teaching of factual knowledge in some of the topics was presented within the framework provided by Anderson et al. (2001:47).

The framework by Anderson et al., was viewed as useful in providing aspects that educators needed to focus on when teaching knowledge of specific details and elements in FL. For example, in teaching CPJ and CRJ, participants shared with learners the following specific details in the recording of transactions in the subsidiary journals mentioned: first, they mentioned that the subsidiary journals need to indicate the name of the journal, name of the business, month, and the year along the top of the journal. Second, the following analysis of columns were shared with learners: column for documents, date, bank, receipts, and payment transactions applicable to the business and the sundry accounts section. In this instance, factual knowledge was taught in line with the framework provided by Anderson et al. (2001). This framework was found to be useful and relevant in teaching the CPJ and CRJ because it addressed the aspects mentioned by Anderson et al. (2001). The next section focuses on conceptual knowledge.

5.7.2 Sub-Theme 2: Educators' Knowledge and Teaching of Conceptual Knowledge

The teaching of and knowledge of concepts were observed in accordance with the framework provided by Anderson et al. (2001:49), which included three subtypes of knowledge, namely "knowledge of classifications and categories", "knowledge of principles", and "knowledge of theories, models, and structures". In the first subtype of conceptual knowledge, the study found that the knowledge of classifications and categories were taught in School A, B, E and F when CRJ and CPJ were presented

to learners. There was uniformity in the classification and categories of the analysis of columns of these subsidiary journals which were shared and explained to learners. For example, participants A2 in School A, B2 in School B, F2 in School F explained that the columns in CPJ consist of the following categories: document number, day, name of payee (or details), bank, and accounts such as trading stock, equipment, and wages, depending on the activities taking place in the business and lastly, sundry account section.

In School E, the following categories of the CRJ were shared with learners: document number, day, name of payee (or details), bank, and accounts such as sales, cost of sales and sundry account section. These findings relate to VanScoy (2019:169) who proclaims that conceptual knowledge consists of the core concepts for a domain and their interrelations. Therefore, learners were provided with relevant concepts to be used in recording transactions on the CPJ and CRJ. Learners were told that all payments relate to CPJ while receipt relates to CRJ. Learners were shown how transactions are recorded in each subsidiary journal. This was found to be consistent with the description of the term conceptual knowledge which according to Shakhman and Barak (2019:3) and Schneider and Rittle-Johnson (2011:1525) refers to the understanding of concepts, their operations, and interrelatedness amongst them. Participants used their conceptual knowledge in providing learners with relevant concepts and their relatedness in recording transactions on a CRJ and CPJ, respectively. Figure 5.1 below depicts an example of the CPJ that was drawn on the chalkboard and explained to learners. Transactions such as trading stock, equipment, and wages paid related to payments made by the business.

Cash Payment Journal   TBC Repairs   January 2020

Doc	Day	Payee	Bank	Trading stock	Equipment	Wages	Sundry accounts		
							Amount	Fol	Details

Figure 5.1: Cash payment journal of a business for the month (Participant A2's drawing on the chalkboard)

For CRJ, learners were informed that the columns in this journal would consist of the following components as depicted in Figure 5.2 below: document number, day, details, analysis of receipts, bank, sales, cost of sales, sundry accounts, and its details. Learners were told that transactions such as sales and income relate to money received by the business.

Cash Receipts Journal   TBC Repairs   January 2020

Doc	Day	Details	Analysis of Receipts	Bank	Sales	Income	Sundry accounts		
							Amount	Fol	Details

Figure 5.2: Cash receipts journal of a business for the month (Participant A2's drawing on the chalkboard)

The study found that in presenting the CRJ and CPJ in School B, Participant B2 provided learners with more information which displayed that the educator has in-depth knowledge of the subject as the Participant used relevant and appropriate strategies to extend learners' knowledge by providing them with hints to be used in analysing transactions according to payments and receipts. Such knowledge related well with Egodawatte and Stoilescu (2015:290) who maintain that the knowledge and understanding of concepts are important in aiding learners to understand problems and develop appropriate strategies to solve them. For example, the educator used the following key words: "pay", "paid", "buy or bought" and "issued a cheque" to identify payment transactions and words such as "received" and "deposit" to identify receipts. This finding links well with the views presented by Ezeudu and Utazi (2014:79) and Jadama (2014:26-27) who state that the educators with adequate learning content knowledge apply various teaching methodologies, which help learners to acquire knowledge. Similarly, Mizzi (2013:3) is also of the view that that educators with in-depth knowledge of the learning content tend to offer learners different approaches and explanations that helps them to understand and master complex concepts within a subject. The teaching strategy used by the participant was found to be insightful because learners were properly guided before they could analyse and classify transactions. In the process of analysing transactions, learners were able to classify transactions according to payments and receipts.

Key words were used by Participant B2 to help learners link concepts with transactions that they were required to analyse, interpret, classify, and record in journals. This finding relates to Anderson et al. (2001:49) who viewed conceptual knowledge as knowledge of classifications and categories that deals with connecting links between and among specific elements. Similarly, the finding also relates to Al-Mutawah et al. (2019:260) who state that conceptual knowledge and understanding means learners understand concepts, how they are used, and their relatedness. The use of key words enabled learners to analyse and classify transactions according to payments and receipts.

In School E, for the CRJ, Participant E2 told learners about the following sources of cash that is likely to be received by the business: capital contribution by the owner, money received for services rendered, interest received, cash sales for goods and merchandise, rent income and commission income. Furthermore, this Participant shared with learners the following possible sources of documents to be used for CRJ: duplicate receipt, cash register roll, which is commonly recorded as CRR, duplicate cash invoice, and duplicate bank deposit slip. Sharing such information with learners was found to be congruent with Yurniwati and Yarmi (2020:188) who assert that an educator with adequate conceptual knowledge can explain the concepts and understands the relationship between them. In this case, the educator related the concepts applicable for receipts in the business and their source documents. The educator displayed adequate knowledge of concepts and their relatedness.

In this way, it was easy for learners to use the key words and the concepts regarding the possible sources of cash and source documents in classifying transactions according to payments and receipts. This finding links with Mills' (2019:17) who asserts that once learners gain conceptual knowledge, they will be able to use such knowledge to reconstruct a procedure. Concurring with Mills is Flores (2015:3) who proclaims that once learners establish the foundation of knowledge, they can move into the comprehension level where they do not only remember concepts, but they understand them such that they are able to apply and relate them into real life experiences. During lesson presentation, it became evident that learners were able to identify which transaction goes to which subsidiary journal.

It emerged through lesson observations that some educators tended to teach concepts in isolation. For example, the General Ledger Accounts were presented in School A, B, E and F. Participants from these schools did not show the relatedness of concepts throughout their teaching of the General Ledger Accounts. In opening and recording transactions on the General Ledger Accounts, participants did not ask learners to indicate which accounts are classified as assets (current and non-current), owner's equity (drawings, capital, income, and expenses), and liabilities (long term and current). These participants went ahead to open General Ledger Accounts using a T-format and started showing learners how transactions are recorded. This means that the teaching of the General Ledger unfolded in isolation of the classification of accounts.

The lesson on the presentation of the General Ledger Account was observed in grade 9; therefore, one can only assume that these participants assumed that assets, owner's equity, and liabilities were taught in grade 8 therefore they probably did not see a need to find out if learners still remember the classification. This was found to be in contrast with Shakhman and Barak (2019:3) and Schneider and Rittle-Johnson (2011:1525) who argue that conceptual knowledge refers to the understanding of "concepts, operations, and connections among interrelated constructs". Participants need to refrain from teaching concepts in isolation. They need to show learners how concepts relate to other sections of the learning content. During instruction, educators need to utilize the questioning technique to ascertain if learners can relate concepts to previous topics.

In teaching General Ledger Accounts, participants should have used questioning technique to establish if learners know the classification, even though that was not the focus of the lesson but to remind them about the relatedness of concepts. This would have enabled the participants to find out if learners can relate the concepts taught in previous lesson to the present topic. Educators need to always utilise their conceptual knowledge to teach and explain concepts and show their relatedness in other topics. This assertion is congruent with Khashan (2014:182), Shakhman and Barak (2019:3) as well as Schneider and Rittle-Johnson (2011:1525) who argue that conceptual knowledge is rich with relations in that it refers to the basic subject constructs and relations between the ideas that illustrate subject procedures. Lesson observations revealed that participants failed to use their conceptual knowledge in showing the

relatedness of concepts. Showing learners, the relatedness of concepts in different topics within the subject discipline is likely to empower them to always think how certain concepts are applicable in current, previous, and future topics. Learners need to know that concepts in FL are not taught and learn in isolation but are always taught in relation to other topics.

To teach the General Ledger Accounts, educators need to train learners to classify accounts according to assets, owner's equity, and liabilities, and show how they relate to accounts such as the bank, debtors' control, trading inventory, creditors' control, sales, and cost of sales. Learners need to know what type of asset a favourable bank balance is, cash float, debtors, land and building, fixed deposit, equipment, etc., They need to know what type of liability a loan for more 12 months is, creditors' control, mortgage bond, bank overdraft, etc. Learners need to know what type of owner's equity account is rent, income, salaries, cash cheque for personal use, advertising, etc. Showing the classification of accounts and how they relate to different accounts would provide learners with examples and be able to enhance their knowledge in the classification of accounts according to assets, owner's equity, and liabilities. Supporting this view is Khashan (2014:216) who states that conceptual knowledge is reflected through learners' ability to provide relevant examples in their endeavour to show their understanding and application of concepts. Using examples means conceptual knowledge is learnt meaningfully. This view is supported by Egodawatte and Stoilescu (2015:291) who assert that conceptual knowledge must be learnt meaningfully because, according to VanScoy (2019:169), conceptual knowledge is acquired through meaningful learning.

The educators' conceptual knowledge, in terms of the explanation of the knowledge of classification, displayed some limitations in that educators did not display competency in finding the connection and application of FL concepts in different sections of the subject content; instead, concepts were taught in isolation. The study therefore found that there was lack of conceptual development in the lessons presented by Participant A2 in School A, B2 in School B, E2 in School E and F2 in School F. Educators need to ensure that learners know the classification of accounts. This will assist learners to know the reasons why a transaction is recorded on the debit or credit side of the General Ledger, and this will assist them in solving problems. If learners are not empowered to classify and relate concepts, this will make it difficult

for them to quickly solve problems using their conceptual knowledge. This finding concurs with Surif et al.'s (2012:419) proclamation that, lack of conceptual development may lead learners to using inappropriate concepts in solving problems.

The second subtype of conceptual knowledge, according to Anderson et al. (2001:49), includes the knowledge of principles and simplifications. The study discovered that this type of knowledge was taught in Grades 8 and 9. For example, posting from CPJ and CRJ to the General Ledger was presented to learners by Participants A2 in School A, E2 in School E, D1 in School D. The Participants started by drawing the T-Account format depicting debit (Dr) and credit (Cr) side, the name of the account between Dr and Cr. The principles to be observed when posting from CPJ and CRJ were explained to learners. For example, learners were shown how dates are written on the debit and credit sides. They were shown how receipts and payments are recorded. As a rule of thumb, learners were told that if all entries are on the credit side and none on the debit side of the ledger, they need to just add the amounts recorded on the credit side and indicate the total at the end. However, if there are amounts on the credit and debit sides of the ledger account, they need to balance it at the end of the month.

In balancing the ledger account, learners were advised to always look at the bigger amount and use it for balancing it. For example, if the bigger amount is on the debit side, amounts should be added, and the total should be taken down and recorded on both sides of the account. Learners were told that they need to leave a line open on the credit side. The line left open by the participant on the chalkboard was below the opening balance on the credit side which had a smaller amount. The difference was calculated by subtracting the opening balance from the total recorded at the end of both sides of the ledger account. This showed the difference that was recorded as balance carried down (c/d) to reflect as balance brought down (b/d) for the next month.

The simplified method as well as the rules and principles were shared with learners on how to balance the General Ledger Accounts. In this instance, the participant shared with learners the FL (Accounting) principles and rules that they need to apply to balance the General Ledger Accounts. This was found to be consistent with Anderson et al. (2001:51) who argue that knowledge of principles and generalisations are used to study and solve problems in the subject discipline. Concurring with Anderson et al., are Surif et al. (2012:419) who state that rules and principles need to

be followed in solving a problem in a subject discipline. The principles and rules shared with learners means that they will know that if there are entries on one side of the ledger account, that type of account is not balanced but if there are entries on both side of the ledger account, such an account needs to be balanced. The researcher was left convinced that if learners apply the rules and principles shared with them, they will be able to ensure that ledger accounts are recorded appropriately.

The third subtype of conceptual knowledge, according to Anderson et al. (2001:49), includes the knowledge of models and structures. The study found that this type of knowledge was taught in Grades 8 and 9. For example, in one lesson observed in grade 8, the participant taught source documents by using the Accounting cycle which was also used to indicate the flow and the relatedness of concepts. Below is the model depicting the Accounting cycle that was drawn on the chalkboard and explained to learners.
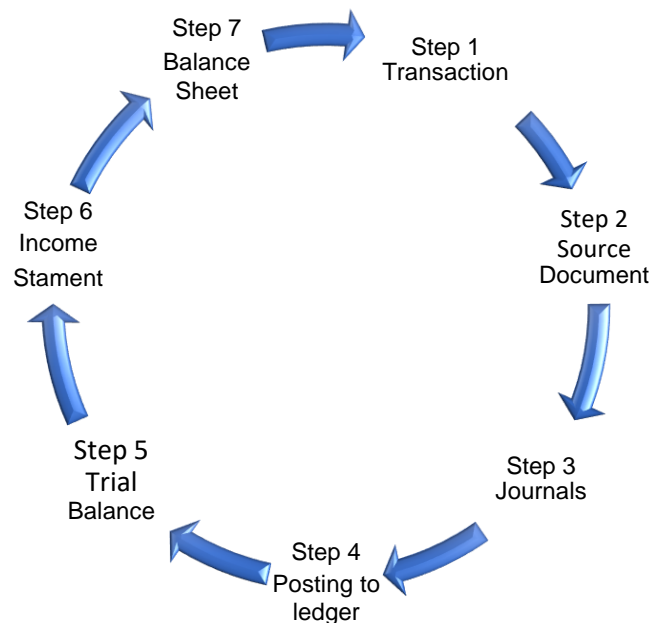
Figure 5.3: Accounting cycle: Participants' drawing on the chalkboard

The participant explained that recording in Accounting starts with a transaction taking place between a buyer and a seller. The participant used this opportunity to illustrate the relatedness of concepts in the Accounting cycle. This was explained by using a question-and-answer method.

The following questions were asked?

> Educator: "*What happens when you go to the shop to buy bread and milk from the shop?*"

> Learner 1: "*You get inside the shop; you take bread and milk and pay for it at the cashier and go back home*".

> Educator: "*What proof do you get from the cashier as evidence that you have paid for the goods (bread and milk)?*"

> Learners: "*You get a slip", responded the learners in a chorus form. Some learners could be heard saying "a receipt*".

The participant explained to learners that a slip or a receipt provided is called a source document and generally, the receipt contains the following information: date, details of the store, amount tendered, and the description of goods purchased. The receipt is then used to record the transaction on the journal called CPJ, which is the next step in the Accounting cycle. It should be mentioned that the purpose of the lesson was to teach source documents hence only the first and second steps of the cycle were explained to learners. The researcher was convinced that learners could understand step one and two in the Accounting cycle because the participant was able to show the connection between these concepts by means of an example. This was found to be consistent with Shakhman and Barak (2019:3) who state that conceptual knowledge and understanding involves learners' ability to interpret and explain the different representations. The Accounting cycle was used to show the transactions taking place at various stages of the cycle in real-life and the relationship between the concepts used in the cycle.

The participant explained further to learners that in the next lesson they are going to learn in detail about step 3 which deals with the journals, namely CPJ and CRJ, which will be followed by posting to the General Ledger. The participant emphasised the importance of the Accounting cycle to learners by indicating that, "*I will keep on referring you back to the cycle, please make sure that you keep the concepts of the cycle in mind and the relationship that exists between them*". This participant used conceptual knowledge in explaining the connection and flow of concepts in the Accounting cycle. In this way, the participant indicated to learners how the concepts

presented in the current lesson relate to future lessons. This participant's conceptual knowledge was found to be informative.

5.7.3 Sub-Theme 3: Educators' Knowledge and Teaching of Procedural Knowledge

According to Anderson et al. (2001:52); Shakhman and Barak (2019:3), procedural knowledge is "knowledge of how" to do something or knowledge of a procedure follow in carrying out or completing an activity. In this study, procedural knowledge was taught in presenting CPJ and CRJ in some lessons observed in grade 9. For example, in presenting the two subsidiary journals, educator F2 in School F started by drawing lines on the chalkboard depicting different columns for CPJ and CRJ. Learners were provided with worksheets consisting of payment and receipt transactions which were analysed and recorded together with the educator. The CPJ worksheet issued to learners consisted of the following columns: source document indicated as doc, day, name of payee, folio (indicated as fol), bank, equipment, wages, trading stock, and sundry accounts section that consisted of the columns for amount, folio, and details. The worksheet for CRJ also consisted of the following columns: document number, day, details, analysis of receipts, bank, sales, cost of sales, sundry accounts, and its details.

Ostensibly, the components of these journals were introduced and explained to learners in previous lessons because during lesson observations, the participant used the questioning technique to show how transactions are recorded. In this way, the application of the questioning technique was to ascertain if learners still remember the FL (Accounting) rules and principles as well as concepts and whether they can apply them. As learners responded to the questions, the participant completed the recording of transactions on the journals drawn on the chalkboard in a chronological order to demonstrate the procedure to follow in recording transactions on the journals. The format or structure of the CPJ and CRJ worksheets assisted the educator and learners to follow a step-by-step procedure in recording transactions in the subsidiary journals. This finding links with VanScoy (2019:169) who describes procedural knowledge as a "step-by-step" instruction or knowledge of steps required in completing a task. This finding is also supported by Anderson et al. (2001:53) who state that procedural knowledge involves an order or sequence of steps to be followed in doing something.

The same view is articulated by Al-Mutawah et al. (2019:260-261) that procedural knowledge is a skill in carrying out procedures to perform a task.

Egodawatte and Stoilescu (2015:291) describe this type of knowledge as a rule-oriented approach to problem solving because a certain procedure needs to be followed in recording transactions on the journal. The analysis of columns for the CPJ provided a clear criterion in the process of recording transactions. The extracts below depict the questioning technique used the participant in demonstrating the logical steps to follow in recording transactions on the CPJ.

Educator: "*On which day did the transaction take place?"*

Learners: "*On the 12*th", responded learners in a chorus form.

Educator: *"To whom is the payment made and why?"*

Learners: "*Telkom for telephone"*, said the learners, responding in a chorus form.

Educator: "*Is this a payment or receipt?*"

Learners: "*Payment*", said the learners, again responding in a chorus form.

Educator: "*So, where do we record this transaction?*"

Learners: "*In the cash payment journal?*"

Educator: "*Is there a column for telephone?*"

Learners: "*No*", said learners loudly.

Educator: "*Where do we record the transaction then?*"

Learners: "*In the sundry account section*".

The procedure followed by the educator in recording transactions in the CPJ clearly indicated the steps that learners need to follow in analysing and recording the transactions in the CPJ. This assertion is supported by Shakhman and Barak (2019:3) who proclaim that procedural knowledge refers are logical steps and the criteria followed in recording transactions. Schneider and Rittle-Johnson (2011:1525) and

Anderson et al. (2001:52) maintain that learners need to be able to apply and follow a sequence of steps in solving problems, analysing, and recording transactions in FL. The responses from learners revealed that they understand the rules and procedures to follow in recording transactions on the CPJ and CRJ. This finding is consistent with Al-Mutawah et al. (2019:259) who assert that learners portray procedural knowledge in a subject discipline when they can apply correct procedures in solving problems. In teaching this type of knowledge dimension, educators displayed adequate knowledge of procedural knowledge.

Some limitations were noted with respect to the questioning technique used by the participant. For example, the participant did not ask follow-up questions regarding why learners think a transaction is a payment or receipt and why some transactions are recorded in the sundry accounts section. It could be concluded that the participant assumed that learners know how to identify transactions according to payments and receipts, as well as why certain transactions are recorded in the sundry accounts section. This could be true; however, how do we ascertain for sure if this is true or not. This means that educators need to make follow-up questions to find out if learners know the reasons why a transaction is regarded as a payment or receipt; thus, learners need to be encouraged to provide reasons for their answers. An educator can only impact learners by asking them follow-up questions. This will promote meaningful interaction during instruction. Like in all the other lessons observed, the participant allowed learners to respond in a chorus form. It was therefore difficult to confirm with certainty that all learners know the procedure to record transactions on the CPJ and CRJ. It was also difficult to ascertain whether all learners are conversant with the rules and principles that they need to apply in recording transactions on the subsidiary journals. For example, the rule and principle to apply if some transactions are not allocated columns in the journals. This implies that educators need to refrain from encouraging learners to respond to questions in a chorus form.

The participant did not ask learners what should be done if certain accounts are not allocated columns in the CPJ or CRJ. It could be construed that the participant assumed that learners know that if an account is not allocated a column, then it should be recorded in the sundry accounts section. However, educators need to promote active participation in their lessons and ask follow-up questions to examine the existence of any misunderstandings and clarify them for the benefit of all learners. This

strategy will promote an environment where learners learn from responses of their peers. This finding agrees with Anderson et al. (2001:54) who assert that procedural knowledge covers teaching methods and techniques used in seeking solutions to problems. Concurring with Anderson et al., is Ilhan (2019:46) who states that procedural knowledge covers the criteria for how to solve any problem and how to use teaching methods, skills, set of rules, and techniques in the process. Educators need to allow individual learners an opportunity to respond to questions during instruction. This will afford educators an opportunity to determine whether all learners understand the concepts and procedures and that there is progress in acquiring new knowledge. Therefore, educators need to create a learning environment where learners are motivated to communicate their views freely during the lesson.

The lesson drawn from the interaction between the educator and learners is that the educators did not promote meaningful learner involvement. The lack of learner involvement can be attributed to the fact that educators do not prepare lesson plans. It is assumed that educator and learner activities will be indicated in the lesson plans, which means that teaching and learning activities will be carried out as planned. If lesson plans were prepared, educators would probably have prepared educator and learner activities during instruction. Educators need to prepare lesson plans, clearly indicating the educator and learner activities to be performed during instruction and they need to monitor if events are unfolding as planned.

5.7.4 Sub-Theme 4: Educators' Knowledge and Application of Metacognitive Knowledge during Instruction

The study established during lesson observations that metacognitive knowledge was not applied in all lessons observed. The researcher could not observe how self-directed learning is applied in the teaching of FL. First and foremost, there were no lesson objectives shared with learners to make them aware of the actions and tasks to perform during instruction. In lessons where lesson plans were provided, it was revealed that they did not make provisions for lesson objectives; thus, participants did not share any lesson objectives with learners so that they can plan, monitor, evaluate, and reflect on their learning progress. There were no benchmarks set against which to measure their learning progress. Teaching and learning activities that took place during instruction were therefore not informed by lesson objectives.

The motives behind and the demands of the task prepared are not communicated in advance to the learners so that they can be strategic in their approach. Learners could not listen and participate in learning activities with the lesson objectives in mind. The lack of formulation and communication of the lesson objectives did not empower learners to determine new information that they were about to know and the actions they needed to take to acquire new knowledge.

The researcher could not observe how learners plan suitable approaches together in achieving tasks given to them as teaching and learning activities were not socially interactive and learner centred. Participants did not create a learning environment where learners interact with each other in solving problems. It was, therefore, not possible to observe how learners monitor their performance in completing tasks during instruction. Learners were not afforded opportunities to work on their own and discover things for themselves; they were not given transactions to solve as a group, work out solutions and then give feedback to fellow learners. They were not given a chance to do financial transactions so that they could reflect on their own work and evaluate themselves on the steps followed in achieving the objective.

In most schools visited, learners were provided with an activity that was marked during instruction. During marking, the researcher observed that peer-assessment was not applied so that during feedback learners can correct fellow learners and share with the rest of the class about the mistakes or errors committed in the recording of transactions. Discussion, cooperative learning, and self-discovery learning strategies were not applied in the lessons observed, thus suggesting that there were no opportunities for educators to understand the strategies used by learners in solving problems. This means that learners could not reflect and adjust their approach to learning.

The available teaching plans were scrutinised with the aim of examining if lesson objectives are formulated in line with the knowledge (cognitive), skills (psychomotor), and values (affection) to be taught and instilled in learners. It was noted with great concern that these three dimensions are not addressed in any of the available planning. It remained a concern as to how do educators ensure that the appropriate knowledge, skills, and values are taught and instilled in learners, if there are no lesson objectives formulated to address the three dimensions.

Having explored the different types of knowledge dimensions and framework to be used in teaching the type of knowledge, the researcher was left concerned about the teaching of factual, conceptual, procedural, and meta-cognitive knowledge in context. Interviews revealed that, participants are not acquainted with the different forms of knowledge dimensions to be taught and the framework within which to teach concepts. This meant that knowledge is taught but not by following the techniques that need to be implemented in the teaching of the different types of knowledge dimension. It is, therefore, fundamental for subject facilitators to familiarise educators with the different types of knowledge dimensions and the framework within which they need to be taught so that all aspects are addressed in the teaching of FL concepts. Subject facilitators need to ensure that lesson objectives are formulated in line with knowledge, skills, and values. This will ensure that teaching of concepts occur in a balanced manner.

5.7.5 Sub-Theme 5: Educators' Application of Knowledge, Skills, and Values in their Teaching of Financial Literacy

The aims of CAPS are to ensure that learners are equipped with "knowledge, skills, and values" to apply in their daily life experiences (DBE, 2011a:4). It is worth mentioning that the following knowledge dimensions were taught in different lessons observed: factual, conceptual, and procedural knowledge. It remained unclear whether participants were aware of the type of knowledge taught during instruction. Based on this assertion, the researcher conducted interviews with participants to ascertain if they are familiar with the different types of knowledge dimensions, the skills that they need to inculcate in learners, as well as the values that they need to promote in their teaching of FL. The following question was asked regarding the types of knowledge dimensions:

- ***Based on the lesson presented, what type of knowledge were you intending to teach?***

The responses laid bare that factual, conceptual, and procedural knowledge dimensions were taught by default because in their responses, the participants were not specific about the type of knowledge dimension/s that they intended teaching. For example, Participant E1 in School E said, *"I wanted learners to understand financial terms".* This is factual knowledge. Participant E2 in School E said, *"I wanted learners to understand how the information on the CRJ and CPJ is used to record transactions*

on the General Ledger Accounts and balance it at the end of the month". In this case, the participant taught procedural knowledge. Participant B2 in School B said, *"I wanted learners to know different account, that is, the classification of accounts according to payments and receipts. I wanted learners to be able to analyse transactions, categorise them into the relevant account or to be recorded, they need to know whether a transaction is an income or expense and how such transactions influence the bank account of the business".* In this case, the participant taught conceptual knowledge. As mentioned above, that there is evidence that different types of knowledge dimensions were taught however this happened by default. It remains a fact however that participants are not familiar with the different types of knowledge dimensions because these dimensions were not taught within the appropriate framework recommended by Anderson et al. (2001). It was expected that participants would be specific about the type of knowledge dimension/s taught. This would have indicated to the researcher that they are aware of the existing four types of knowledge dimensions. Knowing these knowledge dimensions and the framework to teach them would have guided participants to ensure that all aspects to be covered in teaching the knowledge dimensions are implemented. It was clear during instruction that the framework for teaching a knowledge dimension was not followed. This meant that the teaching of FL concepts was not carried out within Anderson et al's., framework.

According to Van Wyk and Reis (2016:184), knowledge is what the learner should be able to know, to do, and understand by the time the topic is completed. Therefore, educators need to be clear about the kind of knowledge they want to impart to learners and assess it at the end of a topic. They need to be made aware of aspects to be taken into consideration when teaching a knowledge dimension. This will ensure that all aspects that need to be considered in the teaching and assessment of each knowledge dimension are addressed. For example, in factual knowledge learners need to be taught terms, symbols, signs, acronyms, and labels used in the subject discipline. In their teaching and assessment of factual knowledge, educators need to address these aspects. The next section focuses on the type of skills that Participants wanted to instil in learners. The following question was posed to participants:

- ***Based on the lesson presented, what type of skills were you intending to inculcate and assess?***

The study discovered through lesson observations that learners were taught to analyse, interpret, and record financial transactions in CPJ and CRJ. The response of participant B2 in School B was consistent with what the researcher observed during lesson presentation. In response to the question the participant said, *"I wanted learners to analyse and interpret transactions and know in which journal to record them"*. This means that learners were expected to analyse and interpret the transactions to determine if it is a payment or receipt. Participant D1 in School D said, *"I wanted learners to know how to record transactions on the journals and post from journals to the General Ledger Accounts", so I want them to analyse and follow the correct steps in posting"*. This participant wanted learners to know how to analyse, record and do posting to Ledger Accounts. Participant E1 in School E said, *"I wanted to teach learners how to complete a receipt, analyse it, and be able to use the information to record transactions on the journals"*. This participant wanted learners to know how to complete a receipt, to analyse the information in it and use it to record transactions. The skills that these participants wanted to instil in learners relate to the CAPS document for Accounting Grades 10-12 which demands that learners need to be able to analyse, interpret, and record financial data, and develop logical thought processes (DBE, 2011b:9). From the responses of participants B2, D1 and E1, it was evident that they are conversant with the skills that they intended to instil in learners.

The overview of the EMS content was scrutinised for the subject specific skills that learners need to be able to display; however, it was noted that the skills that learners were required to display are not clearly articulated in the CAPS document for EMS. Hence, the researcher mentioned in section 2.6.2 of Chapter 2 that the skills to be acquired by learners in FL were borrowed from the CAPS document for Accounting Grades 10-12. Additionally, the study found during lesson observations that learners needed to present writing and communicate financial information using the Generally Accepted Accounting Principles (GAAP). Learners were required to demonstrate an understanding of fundamental FL (Accounting) concepts.

It transpired during assessment that educators wanted learners to relate the knowledge and skills acquired in real-life experiences. They were also required to

apply principles to solve problems in various fields of FL namely, analysing, interpreting, and recording transactions on CPJ, CRJ, do posting from completed journals to the General Ledger Accounts, Total and balance the Ledger Accounts, draw up a Trial Balance, and record transactions on the Accounting Equation and show the effects on assets, owner's equity, and liabilities. These findings relate to the skills outlined in the Grades 10-12 CAPS document for Accounting (DBE, 2011b:9).

Through the analysis of the CAPS document for EMS, the study found that skills to be promoted in FL are not articulated like in the CAPS document for Accounting Grades 10-12. It could be argued that the general aims are articulated in the CAPS document; however, they are generic. The EMS CAPS document made it impossible for the researcher to prepare skills to be observed during instruction. The fact that FL carries 50% weighting of the EMS content means the CAPS document needs to articulate FL skills to be inculcated learners. It is for this reason that the researcher borrowed the skills from the CAPS document for Accounting Grades 10-12 to understand the skills that should be instilled in learners. It remains a fact that FL is not a standalone subject; however, the CAPS document for EMS stipulates that FL deals with Accounting concepts and this section of the subject as mentioned above, carries 50% weighting of the EMS content. Moreover, the skills taught by participants were mainly related to the skills outlined in the CAPS document for Accounting Grades 10-12 (DBE, 2011b:9). Therefore, this calls for the DBE to review the CAPS document and ensure that FL specific skills are clearly articulated so that teaching and the formulation of lesson objectives is done in line with the skills that learners need to take away from learning the subject discipline. At the end of the lesson presentation or topic, educators need to reflect the attainment of specific skills by learners in FL. The promotion of skills should not be done superficially but must be informed by policy.

DBE needs to consider borrowing skills stated in the CAPS document for Accounting Grades 10-12 to ensure that educators are properly guided in terms of the skills to promote in the teaching of FL. This will ensure that there is continuity in the teaching of skills to be acquired in the subject discipline in both the GET and FET band. Moreover, this will ensure that assessment is aligned to the skills to be acquired by learners. The next section deals with the promotion of values in the teaching of FL. In this regard, the following question was posed during the interview session with EMS educators:

- *Based on the lesson presented, what values were you intending to teach and assess?*

When learners were writing an activity during lesson observations, participant D1 in School D reminded them to write neatly when recording transactions on the subsidiary journals. Learners were told that they need to make sure that the numbers are clear and not written on top of each other. This finding related to Lepădatu and Pîrnău (2009:102) who assert that the recording in FL must be free from errors and bias. This finding was also consistent with the CAPS document for Accounting Grades 10-12 which also encourages learners to be objective and accurate when recording transactions (DBE, 2011b:8-9). Participant F2 in School F reminded learners to be accurate and write legibly. Participant A2 in School A also informed learners to write neatly and make sure that the calculations are correct because the balances will be used for posting. This was found to be consistent with the CAPS document for Accounting Grades 10-12, which promotes thoroughness, orderliness, accuracy, and neatness (DBE, 2011b:8-9).

The study discovered during the review of lesson plans that planning does not cater for values to be instilled in learners, which suggests it is something that happens by default during teaching.

During interviews, participants were asked about the values that they intended instilling in learners during instruction. Participant D1 from School D said, "*Learners need to be neat, faithful and accurate when recording transactions in the business*". Participant A2 said, "*Learners need to ensure that calculations are correct, and they need to write neatly so that figures are clear*". Participant F2 said, "*I want learners to be accurate when doing calculations and recording. I also want them to write neatly*". Lesson observations revealed that these responses were consistent with the values promoted during instruction.

Interviews revealed that participants B2, G1, H2, H3, F1 and E2 are aware of the values that oversees the teaching of FL. These participants responded well to the question asked about values that they intended promoting during teaching however during instruction, the participants did not mention any values that learners need to observe when recording transactions. Below are extracts from the interviews held with participants B2, G1, H2, H3, F1 and E2.

Participant B2 in School B said, "*Learners need to be honest and fair when handling monies in the business, they need to be trustworthy*". Participant G1 in School G mentioned that *"I want learners to be transparent when dealing with money, they need to be accountable, and recording must be accurate"*. Participant H2 in School H said, *"I wanted to instil moral values, ethical values, honesty in recording all transactions and they need to be responsible, that is, they need to be accountable for their actions*. These assertions were in accordance with Todorović (2018:140) who believes that Accounting learners should have the ability to identify "what is good and what is bad" as they perform business transactions that have been allocated to them. Echoing the same sentiments as Todorović (2018) is Krč (2015:2) who describes ethical behaviour as knowing "what is right and what is wrong, what is good and what is evil". Learners can only be able to do this if the values, rules, and principles are communicated to them and promoted during instruction. Participant H3 in School H said, "*Learners need to ensure that their work is neat, accurate, and they need to be honest when dealing with finances*". Participant E2 in School E mentioned that "*Learners need to know that everything that happens in the business positively and negatively affects the bank account; therefore, the recording of transactions needs to be trustworthy, correct and true*". In support of this assertion are Karaibrahimoğlu et al. (2009:540) who argue that ethical behaviour refers to performing the Accounting duties in accordance with GAAP, which emphasises amongst other things reliability, accuracy, and objectivity. Participant F1 in School F stated that, "*I wanted them (learners) to be accurate when recording transactions*".

It was concerning to note that Participants A1 and A3 in School A, B1 in School B, C1 and C2 in School C, E1 in School E and H1 in School H did not know the values that needed to be instilled in learners in the teaching of FL. Participant B1 and E1 went to the extent of asking the researcher to provide a clue of what kind of values should be instilled in learners as they perform the recoding of financial transactions in FL. This was an indictment to the developers of the CAPS document for EMS, which was found silent on the values to be engraved in learners. It can be interpreted that these educators do not teach Accounting in higher grades, otherwise they would have known from the CAPS document used in the FET phase of what values to instil in learners through the teaching of FL. If they also teach in the FET, it might be possible that these participants do not constantly refer to the CAPS document to ensure that their teaching

is in line with CAPS. The fact that lesson objectives are not formulated, which should also address values, clearly laid bare that values are not promoted in the teaching of FL. Scrutiny of the lesson plans made available during data collection revealed that lesson planning does not make provisions for the promotion of values during teaching. Therefore, it could be concluded that the non-mentioning of values during lesson presentation can be attributed to the fact that the CAPS document for EMS does not articulate the values to be instilled in learners during teaching. This means that in their planning, educators do not consider linking values to the subject content during instruction.

Learners' exercise books were scrutinised to view any comments made by educators regarding values in FL, however, it was noted that there were no comments addressing values. In fact, most educators do not write comments in the learners' exercise books. Moreover, the current study found that some of the learners' work is not neat (figures were not legible). The use of corrective fluid was noted in some of the books. This practice is not acceptable in FL as this casts doubt on the reliability of information recorded in the journals; educators need to instruct leaners to refrain from using corrective fluid in FL. They need to encourage learners to write neatly and legibly.

The Department of Basic Education needs to consider amending the CAPS document and ensure that values are articulated and promoted. This can be achieved by borrowing values stipulated in the CAPS document for Accounting Grades 10-12 (DBE, 2011b:8-9), to ensure that there is continuity and uniformity in the values promoted in lower and higher grades. Educators will therefore need to infuse values in their planning and ensure that they are inculcated in learners during instruction. This can be done by formulating lesson objectives in line with the values articulated in the policy. FL is guided by GAAP; therefore, learners need to be aware of these principles so that they can administer transactions in line with the rules and principles of FL. This statement is supported by Todorović (2018:140) who maintains that the promotion of ethical behaviour eliminates the opportunity for activities that are not in line with moral standards. Therefore, in teaching FL, educators need to enforce the values, rules, and principles that learners should adhere to.

5.7.6 Sub-Theme 6: The Views of Educators about the Knowledge Base required to Teach Financial Literacy

Post the lesson observation, the researcher conducted interviews with educators to obtain their views regarding the knowledge base that EMS educators need to possess to be able to teach FL. The following question was asked during the interview session with participants:

- ***What kind of knowledge base should EMS educators have to be able to teach Financial Literacy?***

It was established that participants A2 in School A, B1 in School B, A3 in School A, D1 in School D, E2 in School E and H2 in School H believed that a background in Accounting is a prerequisite to teach FL since this subject discipline is about Accounting concepts. This was found to be consistent with the CAPS document for EMS, which stipulates that FL involves the development of Accounting skills (DBE, 2011a:10; 2019:33). Participants believe that educators also need to know how to teach FL concepts. They stated further that EMS educators need to have the ability to integrate concepts and not teach them in isolation, educators need to be conversant with the principles of Accounting. They need to be acquainted with teaching methodologies and apply them in stimulating learners' interest in FL. The learning content needs to be related to real-life experiences for learners to easily relate.

One participant mentioned that EMS educators need to know and understand how FL is taught and be able to identify learning gaps. This finding concurs with the view presented by Deng et al. (2013:69) who assert that educators' lack of adequate knowledge of learning content would constrain their teaching of the subject in the classroom. The school management teams need to ensure that FL is taught by someone who has a background in Accounting. Supporting this proclamation are Rosacker and Rosacker (2016:3) who believe that well-trained educators that implement a structured and mandated curriculum in the teaching of FL may yield positive results through empowering learners with appropriate financial knowledge and skills. The view presented by Rosacker and Rosacker clearly indicates that an educator who does not have adequate background in the learning content will not be able to teach the subject and improve learner performance. This suggest that proper implementation of a curriculum depends largely on the competence of educators as,

according to Ezeudu and Utazi (2014:78), "no education can rise above the quality of its educators". These authors believe that "An educator is the most important of all inputs that go into educational provision".

5.7.7 Sub-Theme 7: The Role of Subject Specialisation in Teaching

In this theme, the focus was on subject specialisation; therefore, participants were asked about their views regarding the challenges faced by EMS educators that teach FL but do not have an Accounting background. The following question was posed during the interview sessions:

- ***In your view, what are the challenges faced by EMS educators who teach Financial Literacy but do not have an Accounting background?***

The study discovered that all the participants observed and interviewed have Accounting background from secondary education, with the exception for one participant who had only studied Accounting at tertiary level (*cf*. Table 5.1 in section 5.2). Participants argued that FL is a practical subject involving a lot of calculations and concepts, which should be presented in an integrated manner by referring to the current lesson, previous lessons, and future lessons. These participants felt that someone who does not have background in the subject might struggle to find the link and teach all the concepts effectively and with confidence.

This finding relates to Ngwenya (2014:175) who states that educators that have inadequate knowledge on learning content tend to teach concepts in isolation and find it difficult to find the connection among the concepts. Ngwenya further believes that educators who are lacking knowledge of the learning content are ill-equipped to explain and present topics in a logical and coherent manner that makes the understanding of concepts easy to learners. Agreeing with Ngwenya is Jadama (2014:23) who believes that an educators' understanding of the learning content has an impact on their capacity to explain and simplify concepts to help learners learn better and effectively. This clearly indicates that FL needs to be taught by a specialist in the field. The school management teams (SMT's) need to ensure that EMS is allocated to someone with an Accounting background.

Participants raised concerns that most learners do not want to take Accounting in grade 10; therefore, if the subject is taught by a non-specialist this would cause further

implications. This finding relates to the view presented by Ingersoll (1998:774), that an educator who teaches a subject outside his/her area of specialisation will face a challenge that might be detrimental to the educational process. The views presented by participants are that educators who are non-Accounting specialists need to consider enrolling for a Basic Accounting course to help them teach FL effectively and with confidence. This will help in ensuring that FL is properly introduced and taught effectively. For this to be realised according to Emmanue and Ambe (2014:157), an educator needs to be knowledgeable about the learning content and the teaching techniques necessary to make teaching interesting and effective. Emmanue and Ambe (2014:158) maintain that subject specialisation remains an essential requirement for every educator in the teaching fraternity.

The study found that non-specialist educators in Accounting might provide limited and incorrect information to learners. Participant E1 from School E felt that a non-specialist will be learning with learners therefore their knowledge in the subject will be limited. This finding is confirmed by Jadama (2014:22) who cautions that an educator who has shallow, inaccurate information, and limited understanding of the subject content is likely to transfer the very same limited information and understanding of concepts to learners. This clearly shows that FL needs to be taught by someone who has a background in Accounting. Jadama (2014:22) points out that the knowledge of the learning content needs to be prioritised in all the grades. This means that since FL is offered at the Senior Phase, it should not be undermined and be allocated someone who does not have a background in Accounting. This shows that the need for proper grounding in the subject cannot be overemphasised. Concepts need to be properly introduced to learners for them to master the learning content.

The study discovered that non-specialist educators might not implement effective teaching methods and strategies. This finding is consistent with Mizzi (2013:3) who believes that educators with strong knowledge of the learning content tends to apply different teaching methods and strategies that allow meaningful interaction during instruction. Similar sentiments are shared by Ezeudu and Utazi (2014:79) and Jadama (2014:26-27) who also believe that the educators' knowledge of the learning content allows them to apply various teaching methodologies that help learners to learn the subject effectively. Mizzi (2013:3) believes that educators who have in-depth knowledge of the learning content are likely to offer learners different approaches and

explanations to help learners understand complex concepts within a subject. This statement is also supported by Ardzejewska et al. (2010:204) who assert that a specialist in the field of inquiry brings numerous dimensions to the teaching of a subject.

Findings revealed that FL in schools visited was taught by specialist in the subject however, the current study discovered that participants did not bring numerous dimensions in the teaching of FL as there was over-reliance on lectures, demonstration, and question and answer methods. Participants did not try to introduce various teaching strategies such as discussion, cooperative and inquiry learning. Therefore, educators need to plan their lessons and prepare activities that will make the lesson more interesting where learners are encouraged to participate actively in the lesson. Educators need to utilise their knowledge of the learning content and apply teaching strategies that will make the content more fun and understandable to learners.

The study revealed that non-specialists will not know how to teach certain topics. This confirms an assertion by Mizzi (2013:2) who believes that educators with adequate knowledge of the learning content tend to adjust their teaching approach. They modify learner activities to an extent that some develop their own activities, ask convergent and divergent type of questions with the aim of promoting deep learning. Furthermore, they identify learners' misunderstanding of concepts and deal efficiently with learners' learning difficulties.

Participants mentioned that non-specialists might not be able to explain concepts adequately by relating them into real-life situations using relevant and practical examples. This finding relates to Ghazi et al. (2013:453-454) who assert that educators with good command over learning content tend to provide learners with additional information pertaining to the subject. This means that the knowledge of the learning content of such educators, is not restricted to information on the textbook, but they interpret the learning content for the benefit of learners. Sharing the same sentiments with Ghazi et al. (2013) is Mizzi (2013:3) who argues that educators with in-depth knowledge of the learning content provide learners with additional information, alternative ideas, and explanations. This clearly shows that knowledge of the learning content influences how concepts are presented to learners. Educators

need to have knowledge and understanding of how learners learn and implement strategies to make learners understand the concepts easily. The way educators present and explain concepts reflects their knowledge of the subject.

The study found that non-specialist educators will struggle to answer difficult questions posed by learners due to limited knowledge of the learning content they possess. This finding is endorsed by Jadama (2014:26) who asserts that sometimes dedicated learners may challenge an educator to simplify certain challenging concepts for them. For an educator to provide diverse and alternative answers to questions probed by learners will be determined by the educators' in-depth knowledge of the learning content (Jadama, 2014:26). If an educator has little knowledge of the learning content, such an educator will find it extremely difficult to answer varied questions from learners (Jadama, 2014:25). This shows that an educator needs to possess adequate knowledge of the learning content to respond to learners' questions accurately and with confidence. For this to be realized, means an educator needs to be a subject specialist. Subject specialisation according to Ezeudu and Utazi (2014:79) as well as Mizzi (2013:2), is vital in equipping educators with adequate knowledge and skills to handle learners' questions and to adequately promote divergent questions during instruction. The promotion of divergent type of questions is consistent with the kind of learner envisaged by CAPS, which advocates for critical thinking.

It transpired from interviews that non-specialist educators might only teach simple content and neglect important topics thereby not building a proper foundation. This finding relates to the view presented by Yildirim and Yazici (2017:115), that educators' deficiencies in the knowledge of subject content will result in weak learning as some of the important topics might be ignored because of lack of competency in teaching them. This means that educators might skip certain topics due to lack of adequate learning content knowledge. Learners will not be exposed to all the topics outlined in the ATP. The low knowledge of the learning content, according to Karami (2016:243), will have deleterious effects on the teaching and learners.

Scrutiny of learners' exercise books, in some of the schools, revealed that there were limited FL activities available in the books. It has been mentioned in this study that, Participants observed had the necessary minimum qualifications to teach FL at Grades 8 and 9 (*cf.* table 5.1 above). It remained a mystery why there were insufficient

FL activities in the learners' books. It is, therefore, important for the departmental heads and subject facilitators to monitor and ensure that all topics are taught thoroughly to prepare learners for summative assessment. They need to ensure that learners are adequately assessed in all the topics as outlined in the ATP. This implies that, there should be vigorous and consistent monitoring of curriculum implementation. Any challenges that are detected need to be resolved by making recommendation stating clearly what educators need to do, to improve the teaching and assessment of FL topics.

The biographical information of participants revealed that participants have acceptable qualifications to teach FL; however, it was worrying to note that their PCK in teaching the subject has some limitations. The limitations observed in the teaching of FL confirm that knowledge of subject content alone is not adequate to promote effective teaching and learning of concepts, what is required as Shulman (1986:9) put it, is a mixture of learning content knowledge and suitable methods to impart the knowledge to learners.

Learners learn differently – some learn by seeing, others by listening to an educator, while others learn by experimenting. In their planning, educators need to consider the different learning abilities in the explanation of concepts; however, observations revealed that this was not the case. Educators do not plan activities that keep learners occupied while promoting an understanding of concepts. This was found to be in contrast with Shulman (1987:9) who states that in the face of learners' diversity educators need have flexible and multifaceted comprehension of the learning content adequate to impart alternative explanations of the same concepts or principles. Educators need to apply various teaching strategies that allow for differentiation during instruction. In achieving this objective, educators need to know and understand how their learners learn.

The participant who did not have an Accounting background at secondary education level but has since acquired FL teaching experience through the school-based mentorship programme, advocates for the implementation of such programmes in schools. The participant believed in a mentoring system where an experienced educator in Accounting mentors a novice in the subject. The participant indicated that, "*Through mentorship, you get to learn and know the subject – as long as one a has passion for the subject. Mentorship exposes you to various ways of presenting*

Accounting concepts because you learn from a subject specialist. The mentoring system ensures that there is always help within the school instead of waiting for the subject facilitator, this also promotes good and healthy peer teaching within the school". This kind of support was found to be beneficial to non-specialist educators in the field. This finding resonates well with Mizzi (2013:3) who viewed mentorship programme as providential to educators who are not specialists in the field because such educators can seek help and advice from specialists within the school. A school-based developmental support programme provides educators with immediate help with their weaknesses in certain sections of the learning content (Mizzi, 2013:3-4). Furthermore, Mizzi (2013:3-4) perceives such support as the most efficient and popular strategy to help educators address their weaknesses in the subject discipline. This view is also supported by Mokotedi (2013:91) who also views the establishment of a mentoring system to be helpful since professional relationships are enhanced with the aim of assisting fellow educators in developing PCK.

5.8 THEME 2: EDUCATORS' KNOWLEDGE OF FINANCIAL LITERACY CURRICULUM

Educators' knowledge of curriculum is discussed in terms of the specific FL curriculum outlined in the annual teaching plan (ATP), lesson objectives, and the learning material required in the teaching of FL. The researchers' observations, interviews, and the documents analysed led to the following findings:

5.8.1 Sub-Theme 1: The Implementation of the Annual Teaching Plan

The curriculum clearly defines what learners will learn in the subject (Jadhav & Patankar, 2013: 5). According to these authors, without the guidance of a curriculum, educators cannot be certain that they have supplied the necessary knowledge or the opportunity for learner success at the next level (Jadhav & Patankar, 2013:5). In the South African context, the ATP provides the learning content topics and framework within which to teach curriculum. This ATP is calibrated in such a way that there are clear phases of the implementation process. It is divided according to weeks and terms. Data obtained through analysis of documents revealed that educators were in possession of the ATP provided to them by district subject facilitators for EMS. The review of the ATP revealed that the topics presented during instruction were in line with the topics outlined in it. Therefore, the role of an educator was to ensure that

knowledge, skills, and values are imparted to learners. This assertion relates to Jadhav and Patankar (2013:3) who assert that the role of an educator is to use knowledge of the curriculum to mediate the learning content to learners.

The fact the participants were in possession of the ATP meant that they are aware of the specific curriculum to be taught in FL. This finding is consistent with the view presented by Magnusson et al. (1999:99) who assert that an educators' knowledge of curriculum means knowing the specific subject curriculum to be presented to learners. For example, in grade 8, educators who presented CPJ and CRJ told leaners that these subsidiary journals presented are of a service business. Learners were told that in grade 9, the CPJ and CRJ of a sole trader will be presented. This clearly indicated that educators are conversant with the curriculum presented in the current grade and in other grades.

The participants' knowledge of the curriculum to be taught in Grades 8 and 9 was found to be consistent with the definition of vertical curriculum knowledge as described by Shulman (1986:10). Shulman states that educators need to be knowledgeable with the topics and issues that have been taught in previous years and those that will be taught in the same subject area during the current or in years to come, and the materials that represent them. The available ATPs covered all aspects as required by CAPS. The content and topics to be taught are divided into weeks and terms. Scrutiny of learners' books revealed that work is presented in line with the topics in the ATP.

Although the ATPs were available, there were no lesson plans indicating how topics will be presented, which means lessons were not guided by planning. There was no planning indicating what resources will be used during teaching, what will be the educator and learner activities, which methods of teaching are going to be followed, and how are learners going to be assessed to gauge the success of the lessons presented.

5.8.2 Sub-Theme 2: Lack of the Formulation of Lesson Objectives

It emerged through lesson observations that there were no lesson objectives shared with learners at the beginning of the lesson and even during instruction. Furthermore, it was also discovered through the analysis of the lesson plans made available during on-site visits that the lesson plan template used by educators does not cater for lesson

objectives. This means that teaching and learning is not informed by pre-determined objectives. Therefore, educators need to formulate lesson objectives that clearly articulate what educators expect from learners. The reasons for formulating lesson objectives, according Acito (2002:1) and Biggs (1999:64), is to ensure that educators follow a "fully criterion-referenced system" that clearly defines the learning content to be taught, how it should be taught, and how it will show how well learners have learnt it.

During the interviews, the participants mentioned that planning is provided by a subject facilitator and their role is to implement what is provided. There is, therefore, a need for subject facilitators to ensure that the objectives of CAPS are realised. They need to ensure that lesson plans cater for lesson objectives that address knowledge, skills, and values. They need to ensure that the aims of CAPS are implemented through the teaching of the learning content by addressing the three dimensions mentioned.

As mentioned, that the lesson plan template used by some of the participants, which was made available during visits to school does not cater for lesson objectives. Participants were asked why the format of their lesson plan does not make provision for lesson objectives, they defended themselves by indicating that lesson plans are provided by the district subject facilitator and that they do not have a say in the planning process and that their role is to implement what is provided. This indicated that educators do not have autonomy in developing their own planning, which suggests that creativity in planning is stifled and not enhanced.

This finding is inconsistent with Ariav (1991:185) who perceives an educator as an independent end-user who is expected to use wisely ready-made curriculum materials that are described by Hill and Charalambous (2012:444) and Shulman (1986:10) as lesson plans and instructional materials. Therefore, according to Ariav (1991:184), an educator as an independent end-user or consumer-developer needs to develop materials of limited scope to supplement and enrich ready-made materials. This means modifying the available ready-made teaching material since educators must become independent consumers because as specialists in the field, they are expected to be conversant with the learning and teaching material necessary to promote an understanding of concepts in the classroom (Ariav, 1991:185). This means that

educators need to be given autonomy to adjust the lesson plans provided by the district facilitator so that teaching and learning is guided by lesson objectives.

5.8.3 Sub-Theme 3: Educators' Knowledge of Lesson Objectives

Having noted through the analysis of lesson plans that, participants do not formulate lesson objectives, the researcher wanted to ascertain their knowledge about lesson objectives. Thus, during interviews, post-lesson observations, the following question was asked:

- ***What were the objectives of the lesson presented?***

This is how some of the participants responded to the question:

"*The objectives of my lesson were to ensure that learners understand how transactions must be recorded in journals*" (Educator H1 in School H). Participants A2 in School A and E2 in School E mentioned that: "*I wanted learners to be able to post from the CRJ and CPJ to the General Ledger Accounts*". Participant A3 in School A cited that, "*I wanted learners to understand a source document*". The responses demonstrated that participants understand and know what the lesson objectives are. Their responses further indicated that they knew what they wanted learners to be able to do during and at the end of the lesson. This finding relates to the definition of lesson objectives provided by Mathumbu et al. (2014:2), Denton et al. (2001:11), Fielder (2014:19), Haley-Speca (2016:22), and Acito (2002:1) who assert that lesson objectives refer to the actions that learners need to be able to perform during and after the completion of a lesson. This can only be achieved if there is a clear indication reflecting what learners should be able to perform at the end of the lesson or topic. This assertion is supported by Fielder (2014:19) who postulates that a lesson objective statement should clearly articulate what a lesson seeks to achieve in helping learners to acquire knowledge, skills and values from the learning content presented to them.

However, in responding to the question, it was noted that some of the participants had to think about what they wanted their learners to be able to perform post-lesson presentation. This indicated that the topic presented by these participants was not delivered with the objectives in mind – this can be attributed to the fact that participants do not formulate lesson objectives, and the available planning provided to them by district subject facilitators does not make provision for lesson objectives. Educators

need to utilize their knowledge of the learning content in adjusting the planning provided and customize it to suit learners' needs in class. These adjustments need to reflect the objectives of the lesson for educators to evaluate the success of the lesson presented because they will be guided by the cognitive level to be achieved in a topic. The absence of lesson objectives meant that there is no yardstick to assess whether learners can perform the intended outcomes of the lesson presented. This also makes it difficult for learners to measure their learning progress. It is therefore pertinent for educators to modify planning provided and formulate lesson objectives so that lessons are presented and assessed in a structured manner.

According to Jadama (2014:20), teaching means imparting knowledge, skills, values, and attitudes to learners. Therefore, the lack of formulation of the lesson objectives made it impossible for the researcher to observe the lesson objectives in relation to the aspects mentioned by Jadama. It should be mentioned that knowledge and skills were taught during instruction however these dimensions were not taught in line with pre-determined objectives. It is for this reason that in responding to the question, participants did not display the correlation between the content and cognitive level with the knowledge, skills, values, and attitudes that they wanted their learners to portray at the end of the topic. This clearly calls for the formulation of lesson objectives in line with the knowledge that educators intend teaching, skills that they intend instilling in learners, as well as values and attitudes that they aim to implant in learners' minds.

5.8.4 Sub-Theme 4: Educators' Knowledge of the Purpose of Formulating Lesson Objectives

Having established the participants' objectives for the lessons presented the researcher intended to ascertain their understanding of the purpose of formulating lesson objectives. In achieving this goal, the following question was posed to them:

- ***In your view, what is the purpose of formulating lesson objectives?***

The study discovered from the interaction with participants that there is consensus on the value and the need to formulate lesson objectives. Participant A1 in School A said, "*The purpose of lesson objectives is to assist educators to stay focused on the topic outlined in the ATP*". Supporting this point of view, participant H2 in School H indicated that "*Lesson objectives help educators to focus on the topic to be presented and not*

get side-tracked". These findings were found to be consistent with Fielder's (2014:19) view that formulating lesson objectives in detail will help educators to organize their thoughts regarding each lesson. This means that lesson objectives will ensure that educators know the learning content to be presented and at what level it should be taught. For example, if the purpose of the lesson is for learners to analyze and show the effects of transactions in an accounting equation, then the objectives need to give expression to what learners should be able to perform. This means that teaching will be guided by pre-determined objectives.

Participant F2 in School F indicated that "*Lesson objectives provide clear direction regarding the knowledge and skills to be transferred to learners and how such knowledge and skills should be conveyed*". This finding relates to Ambrose et al. (2010:244) and Popenici and Millar (2015:2) who are of the opinion that learning objectives provide educators with a framework in that they bring "clarity, precision and transparency" pertaining to curriculum content to be presented, the method of teaching practice to be adopted by an educator and the methods of assessing progress. Participant B2 in School B commented that "*Lesson objectives prescribe the context in which learning content should be presented and they guide assessment*". This shows that participants know that lesson objectives indicate the level at which the content should be assessed. Therefore, the teaching and learning activities need to be tailored with lesson objectives. This will ensure that the learning content taught is assessed the way it is taught. The finding concurs with Acito (2002:1) who articulates that assessment activities, whether formative or summative, should also be formulated directly from learning objectives to ensure that these activities are directly addressing what learners are meant to benefit from instruction. Supporting Acito's point of view is Reed (2012:22) who proclaims that educators need to ensure that there is a link between the teaching and learning activities and lesson objectives as this will guide learners in doing their work, in turn enhancing their learning.

Concurring with Participant F2 and B2 is Participant A3 in School A, this participant mentioned that "*Lesson objectives enable an educator to have clear direction on the content to be taught, including how it should be taught and assessments at the end of the period*". This finding relates to the Department of Education, Papua New Guinea (2008:27), which states that for an educator to decide what to assess, the educator needs to determine the learning content to be learned. For this to be achieved, it

requires educators to formulate lesson objectives clearly articulating type of knowledge, skills to be inculcated, and values to be promoted to learners and be able to execute. This view was found to be congruent with the endorsement by Ezenwafor and Akpobome (2017:37) and Dorgu (2015:77) who contend that teaching methods and strategies that are to be utilized depend on the learning content to be taught and the lesson objectives. This means that if the purpose of the lesson is for learners to know how to analyze and record transactions on the CPJ and CRJ, then an educator needs to choose the teaching method/s that matches the intended objectives (De Araujo & Slomski, 2013:23; Dorgu, 2015:86).

The study discovered that even though participants defended the lack of lesson objectives in their lesson plan by stating that it is provided to them by the district subject facilitator, they know the purpose and the need for formulating lesson objectives. This means that they need to use the planning provided and make some adjustments to suit the needs of learners in classes. This statement concurs with Reed (2012:16) who maintains that educators need to know the goal of the learning content to be presented to learners so that lessons can be purposefully crafted and planned to help educators achieve the objectives set. This means that the action word contained in the lesson objective statement needs to indicate knowledge and skills that learners should be to do at the end of the lesson. For example, the action word should indicate whether learners should be able to explain, discuss, interpret, analyse, record, etc. Educators need to formulate lesson objectives in line with the "knowledge, skills, and values" that they need to infuse in learners. In assessing learners, they also need to ensure that these three dimensions are addressed.

Clearly stated lesson objectives are regarded as an essential ingredient and "component of a well-planned lesson" (Mathumbu et al., 2014:1) because they help the educator to know which knowledge and skills to teach, and how knowledge and skills will be assessed at the end of the lesson or topic (Middle States Commission on Higher Education, 2007:10). It is for this reason that Reed (2012:17) asserted that the lesson objectives need to answer the question, "*How does the educator ascertain whether learners have met the required standards and that they understand the concepts presented to them*?" This can only be done by assessing content in relation to the cognitive level contained in the lesson objective.

From the responses of participants, the current study found that they are aware that lesson objectives help educators to assess whether learners have learnt something during instruction. This means that they provide educators with an indicator, which enables them to reflect on the lesson presented and be able to make a judgement on the achievement of the objectives of the lesson. According to Anderson (2007:472), educators need to always reflect on the objectives of the learning content and examine whether the lesson presentation enabled learners to attain and achieve the objectives of the learning content, and whether what is assessed is indeed measuring learners' achievement of the specified objectives.

This means that lesson objectives enable educators to gauge the success of the lesson because there is a benchmark or standards set. Reed (2012:16) supports this viewpoint by stating that, the fact that lesson objectives explicitly state what learners need to be able to do at the end of the lesson, serves as a performance indicator of an output or expected change. Concurring with Reed (2012) is Acito (2002:1) who also believes that lesson objectives bring clarity of expectations for learner performance which assists in determining the achievement of outcomes of teaching and learning. The need for educators to formulate lesson objectives cannot be over emphasized. Lesson objectives help educators to know the purpose of teaching a topic.

5.8.5 Sub-Theme 5: Lack of Communication of the Lesson Objectives to Learners

As mentioned above in theme 5.8.2 sub-theme 2, the study found that there was no communication of lesson objectives to learners at the beginning of and throughout the lesson. This means that learning took place without learners knowing what they needed to be able to perform at the end of the lesson, nor were they familiar with the objectives. Thus, they were not able to assess their progress in relation to the pre-determined objectives. The lack of the formulation of lesson objectives meant that there are no set learning targets so that educators can be able to measure what learners know against the intentions of teaching. To obtain participants' point of view in this regard, the following question was asked:

- *In your view, should lesson objectives be communicated to learners? Provide reasons for your answer?*

It became evident through interviews that participants strongly believed that lesson objectives should be formulated and communicated to learners at the beginning of the lesson because they will provide learners with a clear direction of the intentions of the lesson. Participant B2 in School B remarked, "*I think they should be communicated so that learners know in advance what they will be learning, and what they should be able to do at the end of the topic*". Participant G1 in School G also agreed by stating that, "*Yes, I feel they should be communicated so that learners know what is expected of them at the end of the topic or lesson*". Participants indicated that communicating lesson objectives will help learners to know in advance about the content that they will be learning about and what they should be able to perform at the end of the topic. In this way, learners listen with the objectives in mind. At the end of the lesson, learners can indicate their learning progress in relation to the lesson objectives set. They also provide learners with reasons for paying attention to the lesson and doing the work.

As the lesson progresses, learners will relate the content presented to what they were expected to be able to perform. Therefore, communicating lesson objectives will guide learners about what they need to know. These findings concur with Reed (2012:16) and Gagné, Briggs and Wager (1992:1) who maintain that educators need to inform learners up front about the "knowledge and skills" that they want them to achieve after completion of the lesson. Gagné et al., believe that in this way, learners become aware of educators' expectations regarding the learning content that is to be presented to them during instruction. Concurring with Gagné et al. (1992) and Reed (2012) is Acito (2002:1) who argues that learning objectives need to be formulated prior to the presentation of a lesson to provide a clear framework of how the learning content should be presented and to describe what knowledge, skills, and values learners should display once the lesson has been concluded. This shows the need for learners to know the objectives of the lesson.

It has been established that communicating lesson objectives will enable learners to assess progress and indicate whether they feel that the lesson objectives have been achieved or not. Participant H1 in School H commented that, "*Yes, lesson objectives need to be communicated so that learners can indicate whether they feel they have*

achieved the objectives at the end of the topic". This means that if learners feel they have not achieved their objectives, then it means an educator will have to review the teaching methodology and strategies used and re-teach the concepts. Participant A1 in School A said, "*Yes, I feel they should be communicated because they guide learners about what they need to know*". Comments from these participants revealed that communicating lesson objectives will enable learners to indicate whether lesson objectives have been achieved based on what they are able to perform post-lesson presentation. This finding concurs with Ambrose et al. (2010:244) who believe that if lesson objectives are communicated, learners' learning efforts will be guided properly in that they will be able to monitor their learning progress. This will empower learners to measure their progress in line with the objectives.

Educators need to share lesson objectives with learners as this will make them listen attentively and with an objective that at the end of the lesson or topic, they will be expected to show their understanding of concepts presented. This will be done by completing an assessment task or by asking the questions to assess learners' learning. According to Nasab (2015:166), assessment deals with "what is taught and learnt". Therefore, Ozan and Kincal (2017:87) state that when a new topic is introduced, it is crucial for educators to share lesson objectives with learners to get good results. Based on the assertion by Nasab, sharing the lesson objectives with learners will alert them to be aware of the learning content and how it will be taught. This should be done to ensure that learners are able to become active participants instead of being passive onlookers in the learning process. Participants see the need of communicating lesson objectives to the learners however this was not done. Educators need to prepare and share lesson objectives with learners and inform them about the knowledge and skills that they need to display at the end of the lesson/topic.

5.8.6 Sub-Theme 6: The Synergy between Assessment and Lesson Objectives

It was impossible for the researcher to assess the synergy between assessment and the lesson objectives since they are not pre-determined. Lesson objectives generally indicate the content to be taught and at what cognitive level it should be taught and assessed. The verb contain in the lesson objective makes it easy to assess whether learners can perform the intended actions. This assertion relates to Ambrose et al. (2010:244), Biggs (1999:64), Popenici and Millar (2015:3), Van Wyk and Reis

(2016:184), Mathumbu et al. (2014:2), Denton et al. (2001:11), Fielder (2014:19), Haley-Speca (2016:22), and Acito (2002:1) who define lesson objectives as guiding statements of what learners need to know, perform, understand and be able to demonstrate during or by the end of the lesson.

Scrutiny of lesson plans revealed that guiding statements are not formulated to indicate how the learning content taught will be assessed since assessment forms an integral part of teaching. The same view is echoed by Nasab (2015:166) who states that "assessment is an indispensable part of teaching and learning", hence the author advocates for a balance between assessment and lesson objectives (Nasab, 2015:168) using multiple assessment strategies. Educators need to ensure that lesson objectives are formulated and that they indicate the cognitive level to be assessed during or at the end of the topic or lesson.

The study discovered that formative assessment was applied during instruction, however, it was not driven by lesson objectives. Judd and Keith (2011:34) argue that to make a judgement whether learners have achieved lesson objectives should be based on evidence, hence Haley-Speca (2016:22) raises the following question, *how will learners show they can do it*? According to Ambrose et al. (2010:3), learning involves change in "knowledge, skills, beliefs, behaviours, or attitudes", therefore, educators can only conclude that learning took place by observing or assessing the intended outcomes from learning based on the learning objectives.

Formative assessment was administered during and at the end of lesson presentation however the researcher could not establish the synergy between assessment and lesson objectives. The success of the lesson was not measurable due to lack of pre-determined indicators. This relates to the views presented by Anderson (2007:472) who argues that "What you teach is what you assess". In other words, the way learning content is taught is how it should be assessed. Concurring with Anderson (2007) is Biggs (1996) [in Biggs (1999:64)] who argues that educators need to be clear about what learning content they want learners to learn so that they can "teach and assess" in what he calls an "aligned system of instruction". This clearly indicates the synergy needed between the lesson objectives and assessment. This suggests that the learning content should be taught in line with the way it will be assessed. Learners

cannot be required to explain, discuss, interpret, analyse, etc. if these cognitive levels were not promoted during teaching.

It is therefore important for educators to envision assessment activities that are going to unfold during teaching and at the end of lesson presentation so that teaching is informed by what learners will be required to perform. This assertion relates with Noddings' (2007:12) view that educators need to analyse the assessment task to ascertain whether the task given to learners addresses the knowledge and skills needed to achieve lesson objectives.

5.8.7 Sub-Theme 7: The Achievement of Lesson Objectives

Even though the study found that lesson objectives are not formulated, the researcher wanted to establish whether the participants believed that the presented lesson's objectives were achieved. In this regard, the following question was posed to educators:

- ***Based on the lesson presented, do you feel that you have achieved the objectives of the lesson, provide reasons for your answer?***

The findings from interviews revealed that participants believed that lesson objectives were achieved for lessons presented. Participant A1 in School A mentioned that "*Yes, because almost all learners were able to do the transactions on their own without my help*". This finding is related to the views shared by Participant C1 in School C who said, "*I think I have because learners were able to answer all questions and incorrect answers were corrected*". Participant E2 in School E also felt that lesson objectives were achieved, this is how the participant responded, *"I have achieved them because we were able to do the General Ledger and answers provided by learners in completing the General Ledger were correct except for few learners who are still struggling with concepts but that will be fixed because now I know that some have a problem*".

Indeed, the study found that participants provided class activities which were marked, and this provided participants with feedback that they have achieved what they intended to achieve. The questioning technique was also used to assess learners' understanding of the concepts presented during instruction. During the feedback sessions, it was established that learners provided correct answers and in cases

where there were misconceptions, these were corrected by participants. The researcher was therefore convinced that learners benefited from the lessons presented; however, the question remained whether quality learning content was presented or not since it was not easy to gauge it against the lesson objectives as objectives would have indicated at what cognitive level the content should be presented. Lesson objectives would have indicated the knowledge, skills, and values that learners needed to take away from the lesson. For example, they would have indicated whether a learner needed to define, analyse, interpret, record, calculate or discuss. It was therefore going to be easy to assess learners' progress based on the intended cognitive skills to be acquired. It is therefore important for educators to articulate the cognitive levels at which the content should be presented. The cognitive level needs to indicate what learners should be able to perform while learning is in progress or post-lesson presentation.

Although the researcher was convinced that the imaginary lesson objectives were achieved, it remained a fact that predetermined measurable indicators were not set to assess the success of the lesson against the lesson objectives as recommended by Reed (2012:17). This made it difficult for the researcher to confirm whether the presented learning content addressed the knowledge, skills, and values to be acquired in the topics presented. This finding relates to Gagné et al. (1992:3) who argues that learner performance should be measured in line with predetermined objectives that enable educators to measure how well learners have learnt a particular topic. This shows that educators need to formulate lesson objectives, clearly indicating actions that learners should be able to perform during instruction and at the end of the lesson or topic.

It is for this reason that Dorgu (2015:78) argues that educators need to guide learners for them to achieve the objectives of the lessons. To achieve this goal, Reed (2012:16) argues that lesson objectives need to describe learner expectation in behavioural and measurable terms, which provides an educator with a specific measurable indicator to determine the success and quality of the lesson (Reed, 2012:17). Educators need to formulate and communicate lesson objectives to learners. They need to reflect on the lesson at the end of the presentation. This will help improve teaching because any intervention will be informed by the learning progress.

5.8.8 Sub-Theme 8: Educators' Knowledge of Resources to use in Teaching and Learning of Financial Literacy

According to Grossman (1990:8), educators' knowledge of curriculum means that they can draw upon their knowledge in selecting appropriate textbooks, exercise books and topics that are typically addressed in a particular grade. The study discovered through lesson observations that participants selected appropriate learning and support material to use in promoting an understanding of FL concepts. In this regard, worksheets, textbooks, Accounting exercise books and calculators were prepared and used during instruction. This finding is consistent with the CAPS document for EMS, which states that educators need to have the following teaching and learning materials for FL in Grades 8 and 9: textbook; calculator; Cash Journal exercise book, one General Ledger exercise book, and a normal exercise book (DBE, 2011a:10). This displayed the participants' knowledge of the relevant teaching and learning support material needed to explain concepts. This finding is consistent with the view presented by Shulman (1986:10) who asserts that the curriculum is represented by the full range of the variety of teaching and learning materials available and programmes designed for use in the teaching of learning content and topics.

The study found that participants have knowledge of the curriculum; however, some limitations were observed in School A, C, and D in that participants in these schools did not create a positive learning environment by displaying FL posters on the classroom walls to promote ongoing and incidental learning. These participants limited the teaching and learning resources listed in CAPS. They did not use their knowledge of the learning content to prepare other teaching resources to simplify concepts during teaching. This finding is in contrast with Shulman (1986:10) who argues that educators need to have a list of teaching material from which they draw teaching aids to help them promote an understanding of concepts to learners. Educators need to utilise their curriculum knowledge of the subject in exploring alternative resource material to enhance their teaching. Educators need to be conversant with the learning material required to make teaching and learning effective in a subject.

Shabiralyani et al. (2015:227) argue that the primary objective of teaching is for learners to acquire new "knowledge and skills" during instruction. To achieve this objective, educators need to use their curriculum knowledge in creating a learning

environment that recognises different learning styles and abilities since some learners learn by seeing and doing, while others by hearing. Participants should not limit their teaching resources to textbooks, calculators, and worksheets. During interviews, the use of charts was not mentioned as a useful resource to teach FL. This was found to be contrast in with Shabiralyani et al. (2015:228) who believe that good subject posters could improve language barriers since such learning resources provide accurate visual images that are likely to make learning easier for learners. They enable learners to relate the learning content with learning material, which makes it easy for learners to understand concepts.

This shows the need for educators to ensure that FL posters are displayed in their classrooms to promote ongoing and incidental learning. Where possible, educators need to refer to the material available on the walls in explaining concepts so that learners see the importance and reason for displaying subject posters in the classroom. The display of charts and posters on the classroom walls is likely to stimulate learners' interest in the posters even after the presentation of the lesson because a learner might still want to figure out what was discussed during lesson presentation. Figure 5.4 below depicts some posters that were available on the walls in some of the classrooms.
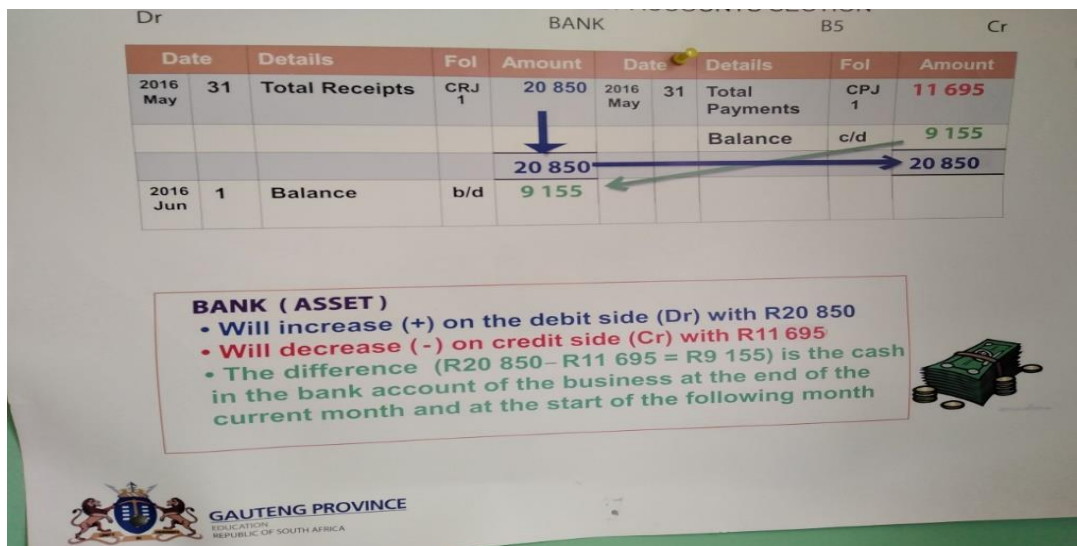
Figure 5.4: General ledger for the business bank account - (Display on the classroom walls)
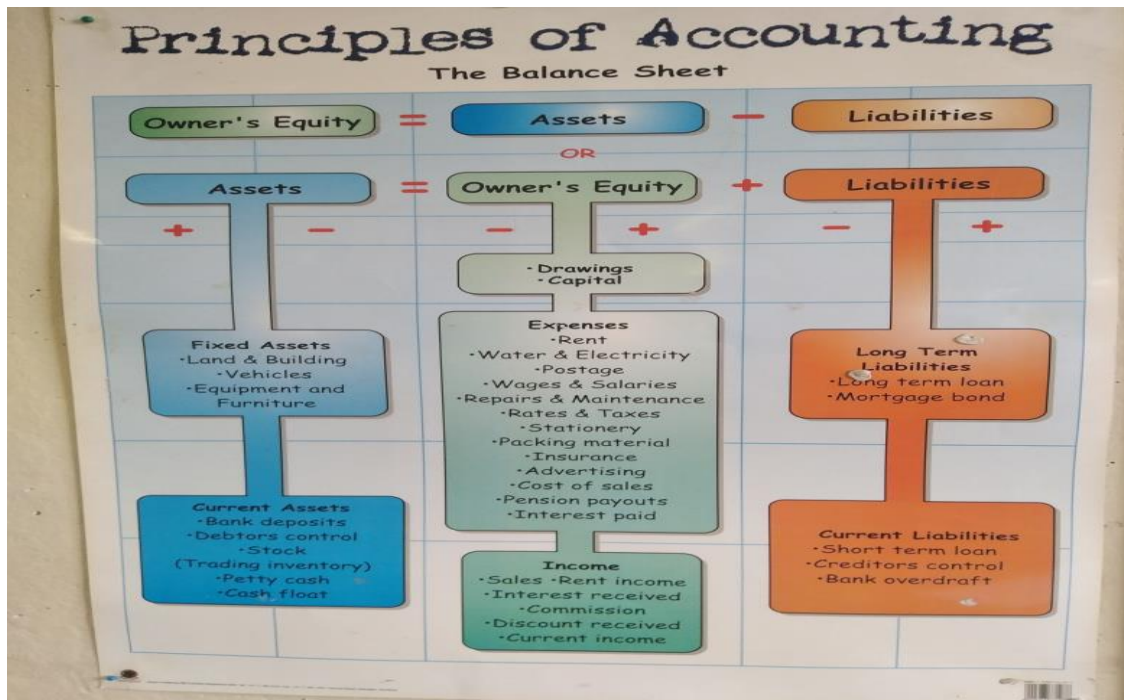
Figure 5.5: Principles of Accounting depicting the Accounting Equation - (Display on the classroom walls)

The display of subject posters promotes ongoing learning because leaners can learn something just by looking at the subject material displayed on the walls. For example, Figure 5.5 teaches learners about the Accounting equation, examples of the grouping of fixed and current assets, the types of income likely to be received by the business, long term and current liabilities, and type of expenses likely to be incurred by the business. This means that even if the topic presented in class is not about the Accounting equation, there is ongoing reinforcement of concepts about the grouping of assets, owner's equity, and liabilities. Educators should not underestimate the power of subject wall-charts. It should be mentioned that some learners have a photographic memory, and the display of subject material would be beneficial to such learners. It is therefore important for EMS educators to display posters such as CPJ, CRJ, General Ledger, Trial Balance, Accounting equation, Accounting cycle, etc in their classroom walls. The display of subject posters has a potential of stimulating discussion amongst learners during their spare time. Learners will learn something as they engage in an argument about the concepts displayed on the classroom walls.

During the interview session with participants, the following question regarding the learning and support material needed in the teaching of FL was asked:

- *Which learning material should learners have in Financial Literacy?*

Participants mentioned the following resources: Worksheets, textbooks, Accounting books and calculators. It was concerning to note that subject posters, the use of technology, particularly, Google and YouTube were not mentioned as useful learning material in simplifying concepts. According to Hill and Charalambous (2012:444) and Shulman (1986:10), learning material also includes visual materials that are used to communicate ideas and practices to shape classroom activities. As mentioned earlier, some learners learn by seeing; therefore, viewing pictures or videos about a particular concept is likely to be beneficial for such learners. Educators need to broaden their scope and empower learners to explore various platforms to acquire knowledge. This assertion relates to Jadama (2014:22) who states that educators' knowledge of the learning content should not be limited to specific topics outlined in the annual teaching plan. Educators need to do adjust the planning provided and add other teaching resources that promotes the understanding of concepts.

It remains a fact that the current generation is obsessed with gadgets such as cell phones, laptops, and tablets therefore educators need to promote the effective use of gadgets to improve learning. Learners like using such gadgets for pleasure therefore they need to be given concepts addressing certain topics for discussion during teaching so that such resources can enhance learning. One could argue that some learners might not have cell phones; however, if discussion and cooperative learning are promoted during instruction, this would enable learners to share information and, in this way, learners will be learning from one another. This means that even learners who do not have the gadgets mentioned, through the implementation of discussion and cooperative learning, these learners will benefit from interacting with their peers.

They study discovered that there is lack of teaching resources, which impacts negatively on curriculum delivery. Participant D1 in School D remarked that, "*Sometimes learners struggle to understand the link between the CPJ and CRJ in doing posting to the General Ledger; therefore, as an educator you need to refer learners to the work done previously, this cannot be done without showing them the actual journals. This means I need to draw the lines again so that I can explain the link, this consumes too much time. There are no overhead projectors so that one can quickly display the journals on the projector and explain the link*". This is concomitant

with the views presented by Educator A1 in School A who commented that, "*We do not have projectors to quickly show learners the work done previously and how it relates to the topic for day and drawing columns on the board to remind learners is time consuming*".

Participants cited that in doing posting from CRJ and CPJ to the ledger account, learners tend to forget the link between the journals and the ledger accounts and educators need to show them the summary of the journals and how they relate to the ledger account, therefore, they are forced to re-draw the journals on the chalkboard. This consumes a lot of time. In addressing this challenge, the departmental heads need to discuss the resources needed by educators to teach concepts effectively and make a submission to the school management team (SMT) wherein a motivation and request is made for educators to be provided with the necessary teaching tools. The availability of overhead and data projectors will make it easy for educators to show learners the previous concepts discussed and how they relate to the current topic presented in class. This is likely to save teaching time. In addition, the use of resources tends to add variety in teaching, and it also helps in gaining the attention of learners. Therefore, educators need to think of teaching resources that will make FL interesting, fun, and exciting.

The study revealed that source documents were presented in some of the lessons observed, it was therefore observed that participants do not use teaching aids in simplifying concepts to learners. For example, in one lesson observed, a participant mentioned that a cheque counterfoil is regarded as a source of information about payment incurred, but the information contained in the cheque counterfoil was not discussed with learners (and indicate why it is regarded as a source document). The participant did not use a cheque book sample so that learners can see the type of information available on the cheque counterfoil and how the information recorded in it is used as a source document. The non-utilisation of teaching aids means teaching is not accommodative of all learning abilities, therefore, the participants' knowledge of teaching resources for use in teaching FL concepts was found to have some limitations on effective teaching and learning.

5.9 THEME 3: EDUCATORS' KNOWLEDGE OF ASSESSMENT

Educators' knowledge of assessment was explored in terms of their knowledge of assessment methods and the dimensions to assess in FL. During lesson observation, the researcher focused on formative assessment as this type of assessment is implemented during instruction to improve teaching and learning. Participants were also interviewed to ascertain their knowledge of formative and summative assessment. Popham (2014) as cited in Haley-Speca (2016:15) argues that tests may be formative or summative it all depends on the reasons why a test is administered. This suggests that if a test is administered for grading purposes, it performs the function of summative assessment; however, if it is used for continuous assessment to verify the extent of learners' learning of a topic then it serves the function of formative assessment. If the test is used to collect evidence about learner performance for the term and such evidence is used to develop intervention programmes, then summative assessment performs the function of formative assessment. Educators need to be clear why an assessment is conducted because the reasons for assessment have a direct bearing on how the feedback is used.

The sub-themes below looked at how assessment was applied in promoting an understanding of FL concepts. The study found that knowledge and skills are assessed however there was no evidence of the assessment of values. The CAPS document for EMS emphasises that assessment in the subject needs to focus on knowledge, skills, and values. (DBE, 2011a:24). For this objective to be realised, it means that educators need to ensure that lesson objectives are formulated in line with the three dimensions mentioned. This is to ensure that assessment expresses knowledge, skills, and values as required by CAPS. In determining participants' knowledge of assessment, the study focused on the educators' knowledge of the purpose of formative assessment.

5.9.1 Sub-Theme 1: Educators' Knowledge of the Purpose of Formative Assessment

During the interview sessions, participants were asked the following questions regarding their knowledge of the methods of assessment:

- *What is the purpose of formative assessment?*

The interaction with participants revealed that they are familiar with the purpose of formative assessment. The study found that participants believe that the purpose of formative assessment is to obtain feedback on the lesson or topic presented and it serves as an indicator about the knowledge acquired during instruction. Such feedback needs to be used to introduce an action plan aimed at improving teaching and learning. This assertion is consistent with Crisp (2012:33) and Browne (2016:2) who concur that formative assessment improves learners' learning. This will only take place if feedback provided is guiding, constructive, informative, and encouraging. The feedback obtained will enable educators to respond to learners' learning needs because it will indicate learners' strengths and weaknesses in the subject.

Lumadi (2013:44) and Higgins et al. (2010:5) support this view, maintaining that using the feedback obtained to improve learning means learners' content needs are promptly addressed. As and when formative assessment is applied during teaching, educators will be able to determine learning progress based on the feedback that is continuously received. Eskola (2011:46) also agrees that the assessment activities taking place during instruction provide feedback to educators with the belief that effective teaching produces learning, by way of actions, assessment means assessing the effectiveness of teaching. In this way, educators get feedback about the success of the lesson presented. This shows that assessment cannot be divorced from teaching.

Interviews revealed that participants are aware that formative assessment provides evidence that learners have acquired new knowledge. The evidence obtained indicates learners' level of understanding. This finding relates to Cauley and Mcmillan (2010:1) who also believe that formative assessment provides evidence of learners' knowledge and understanding of new concepts. Supporting this point of view is Vingsle (2014:10) who asserts that formative assessment is used to elicit information from learners about their learning. Concurring with Vingsle are Higgins et al. (2010:5) who proclaim that this type of assessment serves as the short-term strategy used to collect evidence needed to improve and guide teaching and learning. The evidence collected needs to be interpreted and the information should be used to improve teaching and learning. The feedback will help learners and educators to improve

learners' knowledge and performance. It is important for educators to ensure that the feedback provided is accurate so that there is evidence of progress made or any shortcomings.

It was noted that participants believe that formative assessment help learners to see their mistakes and rectify them. This finding supports the Hanover Research (2014:5), which states that this type of assessment enables learners to identify and close the learning gaps by knowing the actions that they need to take to move from their present position to the final achievement of their learning objectives. Educators need to ensure that feedback provided to learners is clear and guiding. It should clearly indicate areas where learners need to improve. Participants also mentioned that formative assessment helps to improve teaching for learners to gain knowledge. Concurring with the participants is Thomas (2012:105) who believes that through formative assessment, "continued teaching and learning is enhanced in the classroom". This clearly indicates the need for continued co-existence of teaching and assessment which calls for educators to always infuse assessment in their daily teaching. They need to plan assessment activities that will unfold during teaching and after the topic has been presented. They need to plan questions to ask learners during instruction and they also need to be skilful in probing, following what shall have been said by learners. Ezenwafor and Akpobome (2017:42) believe that "Effective and well-organised questioning strategies make Accounting learners develop interest and participate in the learning process".

According to Agbulu and Idu (2008:246), in formative assessment learners are asked questions during lesson presentation. Therefore, the application of probing skills means that planned questions will give birth to unplanned questions that will be beneficial to learners because the more probing is applied, the more information is revealed and shared with learners. In support of this assertion is Vingsle (2014:9) who also believes that questions asked during instruction can be planned or unplanned where in unplanned questions an educator uses "spontaneous, unpredictable or unplanned" with the aim of providing additional information and to collect evidence about learners' learning, while a planned questioning technique is where an educator prepares questions, tasks, or activities to be performed during teaching. It is therefore important for educators to plan effective questions to use during instruction.

Educators need to maintain a balance in the type of questions asked during teaching. The formulation of questions needs to be informed by the general aims of CAPS, which envisage learners who can analyse and think critically. Educators need to ensure that open-ended type of questions are promoted during teaching. Questions need to stimulate critical thinking. This proclamation is supported by Fan et al. (2014:8) who believe that the use of open-ended questions promotes learners' ability to think broadly about a certain topic. These types of questions elicit a variety of answers or solutions to a given problem.

The study found that participants believed that formative assessment is used to measure learning outcomes and to check if lesson objectives have been achieved. According to Boumediene and Hamzaoui-Elachachi (2017:174), the cycle of instruction using formative assessment begins by the formulation of lesson aims and objectives followed by the selection of the method of instruction aimed at achieving the aims and objectives of the lesson. This means that educators need to clarify the learning intentions and the criteria for success while on the other hand learners need to understand learning intentions and criteria for success (Hanover Research, 2014: 5). Shuichi (2016:85) strongly maintains that educators need to establish where learners are before and during the learning process, where they are going, and what activities should be done to get learners where they need to be after instruction.

The study found that formative assessment helps educators to modify their teaching practices. This statement relates to Ketabi and Ketabi (2014:437), Alahmadi et al. (2019:261-262), Huisman (2018:3), Das et al. (2017:39), Nasab (2015:166) and Wiliam (2011:10) who confirm that formative assessment is diagnostic in nature since its application during teaching enables educators to identify learning gaps and to modify their teaching practices and learning activities. This is how one participant commented, "*It helps an educator to review teaching methods used in order to improve learning*". Educators need to use assessment data efficiently for informing future planning.

It emerged from the study that participants believe that formative assessment helps them to analyse the strengths and weaknesses of learners within the subject, which assists in developing informed action plan to rectify any learning problems. This finding relates to Logaw (2017: 22), Huisman (2018:5) and the DBE (2011a:24) who maintain

that formative assessment is "developmental in nature" since it assists educators to identify strengths and weaknesses in the subject hence formative assessment is diagnostic in nature. It was observed during instruction that learners were provided with an activity that was marked before the end of the period. In this way, learners were provided with feedback which indicated their strengths and weaknesses when corrections were done.

For educators to identify strengths and weaknesses, they need to continuously analyse how learners respond to questions posed during instruction. They also need to analyse their performance in class and homework activities with the aim of identifying learning gaps so that any intervention provided is informed by the analysis. This statement relates to Ketabi and Ketabi (2014:437), Alahmadi et al. (2019:261-262), Huisman (2018:3), Das et al. (2017:39), Nasab (2015:166) as well as Wiliam (2011:10) who affirm that this type of assessment is diagnostic in nature since its application during the learning process enables educators to identify learning gaps and to modify their teaching practices and learning activities based on the feedback obtained through formative assessment. Educators need to take advantage of the power of formative assessment in detecting learners' learning problems and develop performance data-driven intervention strategies to improve teaching.

The study also found that formative assessment helps to identify any misunderstandings and monitor the performance of learners. This shows that participants know that formative assessment is diagnostic in nature. This finding is congruent with the views expressed by Haley-Speca (2016:14), Higgins et al. (2010:4), Cauley and Mcmillan (2010:1), Vingsle (2014:7) as well as Mikre (2010:103) about the purpose of formative assessment. These authors believe that this type of assessment helps to diagnose any weaknesses and misconceptions, monitor learner progress during and after the presentation of lessons, and provide timely feedback to learners for them to correct errors, to assist educators to adjust and plan next steps in improving their teaching practices; and lastly, to help learners plan the next steps to be taken in enhancing their learning. Educators need to monitor the performance of learners in all assessment activities with the aim of identifying learning gaps and devising strategies aimed at addressing any maladies.

The study revealed that participants know that formative assessment prepares learners for controlled test and examination. Participants A2 in School A, F1 in School F and E2 in School E remarked that, "Assessments *prepare learners for formal assessment"*. In support of this statement is Participant C2 in School C who commented as that, "*It prepares learners for formal test, to analyse strengths and weaknesses of learners and create an action plan to rectify any learning problems"*. Participants showed understanding that formative assessment prepares learners for formal assessment conducted per term, which prepares them for the final examination. This finding was found to be consistent with the National Protocol on Assessment, which states that the purpose of formative assessment is to prepare learners for summative assessment (DBE, 2011c:5).

Agreeing with the DBE is Haley-Speca (2016:14) who also believes that formative assessment is an instrument that informs educators about what learners know and need to know before summative assessment and promotion. A scrutiny of learners' exercise books revealed that learners are not adequately assessed in FL topics. This finding was found to be inconsistent with Cotton (2001:3) who argues that learners perform better on test items previously asked as recitation questions than on items they have not been exposed to before. Educators need to ensure that learners are thoroughly prepared for formal assessment. They need to continuously assess learners through class activities to assess progress. Educators need to train learners to tackle different types of questions as this will expose them to the application of different cognitive levels. In this way, learners will be thoroughly prepared for controlled tests, mid-year examination, and the final examination.

Participant E2 in School E pronounced that formative assessment is used to gauge learners' knowledge and understanding of the concepts. This finding relates to Fan et al's. (2014:8) view that questions asked during the lesson presentation enable educators to gauge the success of the lesson since the questions posed during teaching provide feedback to the educator in assessing whether learners are following the educators' "line of thinking as the content of the lesson demands". Educators need to plan questions to be asked during instruction and these questions should directly address the content and the cognitive level at which such content needs to be taught.

The study found that participants limited formative assessment to tests and examination. The questioning technique used during instruction, as observed, was not mentioned as part of formative assessment. This finding was in contrast with Logaw (2017:40) who asserts that formative assessment should be used to continuously interact with learners with the view to sustaining learners' interest during lesson presentation. Educators need to view the questioning technique as formative assessment and they need to know the purpose of its application. They should not pigeonhole formative assessment to tests and examination only.

5.9.2 Sub-Theme 2: Educators' Knowledge of the Application of Formative Assessment

The study discovered during lesson observations that all participants applied the questioning technique during instruction. This was done to introduce the topic and throughout lesson presentation. The use of the questioning technique and class activities was done to involve learners in the lesson and to assess their understanding of concepts presented to them. Formative assessment was applied during instruction even though learners were not aware of the type of knowledge to acquire, skills to display by the end of the lesson, and values to observe in a topic. This finding is inconsistent with the Hanover Research (2014:5), which asserts that educators need to clarify the learning intentions and the criteria for success so that learners learn and listen with the learning intentions and criteria for success in mind. Learners should be made aware of the knowledge, skills, and values that they need to be able to perform during and at the end of lesson presentation. Despite these limitations, post-lesson observations, participants were asked the following question:

- ***When does formative assessment take place?***

Participants A1 in School A, C1 in School C, E2 in School E, F2 in School F said, *"It takes place at the end of the topic presented in class".* Participants B2 in School B, E1 in School E, G1 in School G, B1 in School B, A2 in School A, C2 in School C, H2 in School H said, *"It takes place when I give them (learners) a class activity or homework to check their understanding of the work".*

The study found that eleven (11) of the sixteen (16) participants have the perception that formative assessment takes place when learners are provided with a class activity

or homework. These participants confined formative assessment to written classwork and homework activities. This finding contradicts the assertion by Natalia et al. (2018:49) who state that formative assessment can take place during instruction through question asked during instruction. In agreement with Natalia et al., is Riley-Ayers (2014:4) who asserts that formative assessment is embedded in instruction and is conducted on an ongoing basis during lesson presentation, hence Shuichi (2016:85) strongly maintains that educators need to establish where learners are before and during the learning process, where they are going, and what activities should be done to get learners where they need to be after instruction.

Participants did not view formative assessment as activities happening concurrently with teaching. This finding was inconsistent with Logaw (2017:22-23) who argues that formative assessment involves different techniques employed by educators to elicit information on learners' strengths and weaknesses, with the aim of using the feedback to improve learning. It means according to the eleven (11) participants, one can only gauge the success of the lesson by assessing a class activity at the end of the topic when in fact they were able to assess learners' understanding throughout the presentation of the lesson. In this instance, participants therefore displayed limited knowledge of the application of formative assessment because they did not view it as an activity that is taking place during lesson presentation. In responding to the question posed, the questioning technique used during instruction was not mentioned as part of formative assessment. It means the continuous assessment method of teaching applied during instruction was not viewed as part of the assessment.

This finding contradicts the views presented by Haley-Speca (2016: 15) and Atibuni and Olema (2017:39) who assert that evidence on learner performance can be collected at any point during teaching and learning. This can take place through baseline assessment at beginning of the lesson by asking questions. The view presented by Haley-Speca (2016) and Atibuni et al. (2010) concur with the CAPS document for EMS and the National Protocol on Assessment that in formative assessment, an educator can pause during the lesson with the aim of observing learners or to ask them about their understanding of concepts presented to them (DBE, 2011a:24; 2011c:5). Therefore, educators should not view this type of assessment as an activity that is taking place separately from teaching and learning activities. The subject facilitators need to monitor the implementation of assessment

practices in schools and advise educators on the application of formative assessment. They need to make educators aware that the questioning technique used during instruction forms part of assessment aimed at improving learning and learner performance. This will ensure that this teaching strategy is applied effectively.

Naz et al. (2013:148) concur with this assertion that the questioning technique is vital in improving learning and the performance of learners. Concurring with Naz et al., is Cotton (2001:3) who emphasises that the teaching method that includes posing questions during instruction is more effective in producing achievement gains than teaching carried out without questioning learners. It is therefore important for educators to know that asking questions during instruction is vital in improving teaching and learner performance. Although participants did not mention the questioning technique used at the beginning and during lesson presentation as part of formative assessment, the study found that formative assessment was applied during instruction. Riley-Ayers (2014:5) emphasises that educators need to view formative assessment as a strategy to continuously gather evidence that informs instruction.

The study found that five (5) of the sixteen (16) participants tended to confuse formative assessment with formal assessment as they were unable to distinguish between the two. According to them, formative and formal assessment is one and the same thing. In responding to the question about when formative assessment takes place, Participants D1 in School D, A3 in School A, F1 in School F mentioned that *"It takes place when they (learners) write a controlled test"*, while participants H1 in School H and H3 in School H indicated that, *"it takes place at the end of the term"*.

The confusion between formative and formal assessment was concerning and might negatively impact teaching and learning since these participants might not use the advantages that come with the application of formative assessment aimed at improving teaching. Shuichi (2016:80-81) noted that in some instances, formative assessment is used as convergent assessment that often leads to the practise of compliance where the assessment is reduced to classroom tests. This means that the misinterpretation of the application of formative assessment leads to misrepresentation of this type of assessment. The SMT's therefore needs to encourage the enforcement of class visits so that limitations in teaching and

assessment can be identified and addressed. This will provide educators with a platform to engage and assist one another on assessment and teaching practices.

5.9.3 Sub-Theme 3: Weaknesses of Formative Assessment and its Application

The study discovered some weaknesses about the application of formative assessment. Qu and Zhang (2013:338) noted that formative assessment has its own flaws. In all the lessons observed, participants used the question and answer method throughout lesson presentation. Due to limited time available for the lesson and the learning content to cover during a period, learners were not given enough time to think in responding to questions posed by educators. This finding relates to Qu and Zhang (2013:338) who argue that opinions are not objective therefore more time might be needed for learners to respond to questions asked. This clearly indicates that learners need to be given time to think before responding appropriately to the question posed. It remains a fact that time for the teaching period is limited therefore educators need to share lesson objectives for learners to learn with the objectives in mind. In this way, learners will know what knowledge, skills, and values they need to display during instruction and at the end of lesson presentation. Sharing lesson objectives is likely to stimulate learners' thinking quickly because they know what educators want them to take away from the lesson.

The study revealed through scrutiny of learners' exercise books that formative assessment is not taken seriously by learners. It was noted during lesson observation that self-assessment was administered. At the end of lesson presentation, the researcher requested for learners' exercise books to examine the quality of work given and marking. It remains unclear whether learners are aware that these types of assessment activities are not recorded for grading purposes hence the lack of interest in ensuring that activities are properly marked. This assertion relates to an observation by Lumadi (2013:46) who asserts that formative assessments are given little attention because the results are not formally recorded and not taken into consideration for grading.

Lumadi (2013) argues therefore that educators do not take daily assessment seriously because of little value placed on this type of assessment. If educators do not show learners the value played by formative assessment in the learning process, learners will never take this type of assessment seriously. This will negatively impact learner

performance. According to the National Protocol on Assessment, the purpose of formative assessment is to prepare learners for summative assessment (DBE, 2011c:5). Therefore, educators need to indicate to learners that if incorrect information is not corrected, it means that they will enter the examination room with incorrect information leading them not to progress to the next grade or obtain good marks during summative assessment. Educators need to take advantage of the benefits of formative assessment in improving learner achievement.

Formative assessment should not be administered for malicious compliance, but it should be used to gauge learners' learning. Educators should not lose sight of the bigger picture about formative assessment. They should not only think about grading, but they also need to consider the long-term value of formative assessment in teaching and knowledge acquisition. Therefore, educators need to continuously remind learners about the importance of formative assessment so that class activities and questions posed during instruction are taken seriously in the learning process. Learners need to be made aware that feedback provided serves as an indicator regarding their performance in the subject and it also enables educators to modify their teaching practices to improve learning. This statement relates to Vingsle (2014:10) who proclaims that formative assessment is used to elicit information from learners about their learning, interpret the information, and use the feedback to improve teaching and learning. Educators need to communicate to learners how important formative assessment is. They need to encourage learners to always ensure that corrections are done because the feedback will assist them in preparation for formal assessment.

It was noted during lesson observations that only a handful of learners participated in responding to questions posed by an educator. It remained unclear whether most learners were shy, did not know the answers to the questions, or did not have confidence in their answers or in expressing themselves in front of other learners. This finding was found to be consistent with Qu and Zhang (2013:338) who noted that some learners might not be comfortable in answering questions due to lack of confidence in expressing themselves well in the presence of their peers. Educators need to create a learning culture and an environment wherein learners are encouraged to communicate freely with educators and fellow learners. This could be achieved by encouraging learners to interact in group or discuss in pairs because in reporting back,

240

a representative is likely to have confidence because that member will be representing and sharing the ideas and opinions of the group. This will boost learners' confidence.

The study found that in their questioning technique, participants used convergent type of questions which did not promote critical thinking. This finding relates to Mikre (2010:107) who states that classroom questions usually focus on low cognitive levels of knowledge because educators do not ask thought-provoking questions that require learners to apply, analyse and synthesise. Browne (2016:3) concur with Mikre by viewing formative assessment as deficient due to poorly focused questions used by educators, which often require short answers that promote factual knowledge involving the regurgitation rather than reflection. Consistent with CAPS, which envisaged learners who can think critically, educators need to plan questions that encourages learners to discuss, evaluate, interpret, and analyse information. This means that educators need to maintain a balance between low-order, middle-order, and high-order type of questions. The questions used during instruction need to promote meaningful learner involvement. They need to stimulate learners' interest and encourage participation in new knowledge creation.

It was disturbing to note that participants tended to focus on learners seated in front while ignoring those seated at the back of the classroom. The participants' shortcomings in encouraging and inviting all learners to take part in the lesson hindered them in identifying learners with learning barriers. Educators need to be aware of the activities happening inside the classroom. Additionally, the study found that participants allowed learners to respond in a chorus form, this was seen to impact negatively on teaching and learning since this practice hindered participants in identifying learners who might be having learning barriers such as language problem, reading problems, eye-sight problems, and hearing problems. Educators discourage learners from responding in a chorus form. Learners need to present their opinions individually so that learning gaps can be easily identified and resolved. It was established from the lesson presented by Educator B1 in School B that some learners did not have respect for fellow learners in that they were insensitive towards them when giving incorrect answers. They silently laughed at other learners, which the researcher believed might be the reason why some learners do not participate in the lesson. If this is the culture in the school, then this practise will have a negative effect on the self-esteem of most learners. Supporting this finding is Mikre (2010:104) who

also views formative assessment as having a negative impact on low-achieving learners since their poor performance or participation during instruction might lead them to believe that they lack the ability to learn, as a result they might withdraw from participating in the lesson.

Educators need to formulate classroom rules stipulating clear procedures regarding what is acceptable and unacceptable behaviour towards fellow learners. They need to create an atmosphere that is conducive for teaching and learning. Learners need to be taught self-discipline and respect the opinion of fellow learners. Promoting group discussion and peer teaching might yield positive results since decisions regarding the responses to be shared will be taken as a collective. Educators need to ensure that incorrect responses are handled with great sensitivity including learners.

It emerged through lesson observations that in assessing learners, participants relied on the questioning technique and written class activities. Learners were not afforded an opportunity to discuss in groups or in pairs and then report to the entire class where they are observed and allocated marks. This finding relates to Mikre (2010:107) who argues that educators rely heavily on the use of pencil and paper assessment during instruction. The observational techniques are not used during the question-and-answer method where learners could be observed and assessed using checklists. Educators need to encourage peer and group discussion to maximise optimal participation during instruction by using a checklist to assess learner progress. The purpose of using this strategy needs to be shared with learners with the aim of encouraging them to take part in new knowledge creation.

As part of formative assessment, learners' books were scrutinised, and the following findings were noted:

5.9.4 Sub-Theme 4: Assessment in Financial Literacy

In some schools, it was noted that the amount of work given to learners pertaining to FL topics is insufficient. This can be attributed to poor guidelines provided to educators in the form of a subject policy provided by the SMT's regarding the number of class and homework activities to be provided to learners per week. It is expected that a subject policy would articulate clear procedures on how assessment should be carried out in a subject. The lack of such guidelines also compromises curriculum monitoring

due to lack of a clear benchmark regarding the number of activities to be available in learners' books on a weekly basis. It should be mentioned that scrutiny of the subject policy was not part of the documents that the researcher planned to scrutinise. It therefore remained unclear why there was insufficient FL work in learners' books. It should be mentioned that the CAPS document does not provide guidelines in terms of the number of class or homework activities to be given to learners per week.

It therefore remains the duty of the SMT's to develop clear guidelines in the form of a school-based subject policy that clearly articulates the assessment practices to be adhered to in a subject. In the absence of guidelines, monitoring and holding educators accountable for insufficient work becomes difficult because there are no pre-determined standards set. As mentioned earlier in this study that, insufficient work means learners are not thoroughly prepared for summative assessment which leads to promotion. The amount of work that should have been covered in line with the topics in the ATP was worrying. This shows that learners are not sufficiently exposed to different FL topics. The departmental heads need to ensure that the schools' subject policy is clear on the number of class activities to be given to learners per week – they need to monitor the implementation of the schools' subject policy. The monitoring needs to indicate good practice and areas where educators need to improve.

5.9.5 Sub-Theme 5: Learners' Attitudes in Self-Assessment

At the end of the period, the researcher requested to view learners' exercise books, it was at this stage that the negative attitude of learners towards FL were realised because some learners do not bother doing corrections nor mark their work. According to Majid (2014) in Natalia et al. (2018:50), in assessing the attitudes of learners, an educator needs to observe the behaviour of learners in self-assessment and peer-assessment. Even though there were limited FL activities in learners exercise books in some of the schools visited, there is evidence that FL topics are assessed, and the self-assessment is administered, which was found to have some limitations. The attitude of learners in self-assessment was not pleasing – they do not mark their work. This shows a poor culture of learning, and lack of commitment as mentioned by some educators during the interview sessions. Figure 5.6 below depicts the attitude of some learners towards their work.

Figure 5.6: Learners' attitude towards their work (Picture taken from a learners' exercise book)

The SMT's needs to ensure that the Code of Conduct for Learners gives expression to schedules of misconduct. Failure to complete class or homework activities should be regarded as a misconduct. This needs to be communicated to learners by making sure that they are provided with copies of the policy. This document should be mediated to learners to improve their behaviour towards their schoolwork. The code of conduct needs to clearly spell out what actions will be taken in case of such a misconduct. Educators need to draw classroom rules by infusing certain sections of the Code of Conduct for Learners. The rules need to indicate that failure to complete an activity is a misconduct and learners must be referred to it as and when a misconduct is committed. Educators need to ensure that consistency is maintained in the enforcement of school policies in the classrooms.

5.9.6 Sub-Theme 6: Quality of Marking Financial Literacy Activities and Book Control by Educators

The quality of marking of FL (Accounting) activities has limitations in that the marking of formative assessment activities is not done in the same manner as it is done for formal assessment. The study found that in formal tests, participants put a pick in all areas where learners need to earn marks. However, in informal assessment, global marking is predominantly used by participants where they put a tick and signature even where answers have not been marked. This shows that informal assessment is not taken seriously. Educators need to use formative assessment effectively to prepare learners for summative assessment that takes place on a termly basis before

they sit for the final examination. They need to understand that their daily teaching and intervention strategies need to be driven by data obtained through continuous assessment. According to Walker (2012:905), classroom assessment is not graded and the reason for that is to afford learners and educators an opportunity to interact with the feedback and focus on it rather than being obsessed with grading. Learners' exercise books were scrutinised to determine the quality of marking and control of learners' books. The marking, as depicted in Figure 5.7, is not constructive and guiding because there are no marks allocated, nor are there ticks indicating how marks are earned. This clearly indicates that classroom assessment is not taken seriously.

Figure 5.7: Poor quality marking of financial literacy activities (Picture taken from a learners' exercise book)

The study found that the feedback provided, as depicted in Figure 5.7, is not helping learners to improve. The quality of marking is in contrast with Gagné et al. (1992:196-197) who believe strongly that learners need to be provided with feedback confirming their correctness of their work. The finding was also inconsistent with Atibuni and Olema (2017:37) who avow that for the attainment of quality education, learners need to be provided with regular, constructive, encouraging, and developmental feedback that helps and directs them on how to improve. Walker (2012:903-904) supports this view by arguing that learning can only improve learning from the assessment practices if the marking criteria for an assessment is transparent and clear as this will enable learners to understand and know what was required of them to obtain good marks.

Walker argues further that clear marking enables learners to get feedback regarding their performance based on a pre-determined criterion. The marking needs to guide learners and see how marks are allocated in an activity. It should be done in the same manner as it is done in formal activities. Marks need to be allocated. Walker (2012: 904) maintains that feedback plays an important role in learning and the assessment processes. For quality education to take place, Walker argues that learners need to learn from the assessment procedures because through this process, learners will be able to reflect on their performance in assessment activities and integrate the feedback in future assessment activities such as final examinations. This will not be attainable if feedback provided to learners is ambiguous.

The poor quality of marking observed in learners' books is inconsistent with Qu and Zhang (2013:338) who state that proving feedback to learners on assessment activities is important because it encourages and helps them to learn more and better. Qu and Zhang argue further that, learners need to know where they did well and where they need to improve. However, the marking as depicted in Figure 5.7 above is in contrast with Qu and Zhang's assertion. This means that this participant does not use formative assessment to identify learners' specific areas where support and guidance is needed. Participants need to refrain from this kind of marking because it does not show which areas learners need assistance. Appending a signature and putting a right tick, and not indicating whether the work is correct or incorrect does not improve learning since learners' misconceptions are not corrected – the researcher did not view this as helpful as it does not guide learners on where to improve.

The control of learners' books by participants was therefore concerning because it gives the impression that learners' work is correct because of a right tick and signature. When asked why they are doing this, one participant said, "*We want parents and the school management to see that work has been controlled*". This practice was viewed to be misleading. Educators need to write comments such as "Please mark your work". Writing such a comment and putting a signature would have sufficed that the work has been controlled. Figure 5.6 above shows good book control because the participant remarked by saying, "Without this you cannot do the next activity" and a comment saying "Incomplete" was written on the learners' work. This shows that the participant has controlled the work and the participant is not happy with the incomplete work.

Educators need to write comments expressing their dissatisfaction about the work. They need to refrain from putting a tick that suggests that the work is correct.

This remained a serious concern because learners would enter the examination with work that has not been certified correct or incorrect. It was noted, however, that for formal assessment, namely tests, a memorandum is prepared, and it indicated how marks are allocated and as such marking is conducted as per memorandum. This means that there is no continuity and consistency in the marking of formal and informal activities. Educators need to ensure that the marking of informal activities is consistent with the style of marking used in formal assessment activities. It is a culture that should be engraved in learners so that they can answer all the questions knowing that they will be rewarded at various stages of the task. The marking needs to indicate how learners will earn marks in an activity.

The study found that marking was developmental and guiding in other schools. For example, Figure 5.8 below clearly depicts how learners earned marks in an activity wherein they were required to record transactions in the General Ledger Accounts.

Figure 5.8: Constructive style of marking of financial literacy activities (Picture taken from a learners' exercise book)

The style of marking used in Figure 5.8 above is consistent with Jadama (2014:27) who argues that a specific criterion needs to be used in the marking of activities so that learners can draw lessons from feedback provided by an educator. Feedback

needs to guide learners about the errors committed when completing an activity and it should direct learners on future steps that they need to take to correct and avoid doing the same mistakes. It is common knowledge that formative assessment improves teaching, therefore, the feedback obtained from learners needs to equip educators in devising alternative teaching methods and strategies that will make learners understand the learning content. Jadama (2014:27) emphasises that feedback from learners' work has a direct bearing on learning therefore educators need to ensure that learners' work is assessed appropriately.

5.9.7 Sub-Theme 7: Quality and Type of Questions asked during Instruction

The study revealed through lesson observations that, formative assessment was applied to introduce the topic, during instruction, and to conclude the lesson by recapping. This finding relates to Almeida (2010:587) who supports the application of the three-pronged approach, as observed in class by the researcher. Although the questioning technique was used by educators, it was not adequately used to empower learners with critical thinking and analytical skills. According to Jadama (2014:22), educators' knowledge of the learning content shapes the type of questions they ask during instruction. It was therefore disappointing to note that the types of questions used by participants during instruction.

The types of questions used were not of high order level and did not promote critical thinking. This was inconsistent with CAPS, which advocates for learners to be able to collect, analyse, evaluate information (DBE, 2011a:5). This means that the kind of learner envisaged by CAPS will never be realised if participants promote rote learning in the classroom by asking closed-ended type of questions. In their study, Ezenwafor and Akpobome (2017:42) found the questioning strategies to be effective for teaching Accounting. Ezenwafor and Akpobome maintain that the questioning process is "an essential part of instruction in that it allows educators to monitor learner competence and understanding as well as increase thought-provoking discussion".

Achieving this objective depends on the type of questions used by educators. Educators need to plan effective questions and ensure that the questions provoke discussion and that they stimulate critical thinking as required by the general aims of CAPS in the classroom. Over and above the planned questions, educators need to use probing with the aim of eliciting more information from learners. Probing will

promote cooperative learning and a productive two-way communication, where learners should also be encouraged to ask questions. This assertion relates to Heng and Ziguang (2015:67) who argue that Socrates advocates for learners who could argue based on facts, ask questions, and engage in a discussion in the process of new knowledge creation.

It was established that some of the questions were planned while some were follow-up questions. The quality of questions planned and unplanned did not promote critical thinking. According to Dos et al. (2016:2067) asking questions is important however its effectiveness depends on the choice of questions used to achieve lesson objectives. These authors advocate for pre-determined lesson objectives that are congruent with the questions that are going to be posed at the beginning and during lesson presentation to avert chaos and disorder in the classroom, which might hinder learners' ability to learn. Educators need to promote the realization of the objectives of CAPS by preparing questions that promote meaningful learner involvement and critical thinking as envisaged by CAPS.

The planning of questions to ask during instruction is also supported by Heng and Ziguang (2015:68) who believe that educators need to prepare thinking skills questions. Supporting Heng and Ziguang is Peklaj (2015:190) who advocates for "Higher-level questions that require learners to classify, compare, and create metaphors and analogies which leads to higher learner achievement". These higher order type of questions require learners to be able to apply new information or use their prior knowledge in coming up with solutions (Heng & Ziguang, 2015:68). For this objective to be realised, this calls for educators to carefully plan questions that cater for low and higher cognitive levels (Cotton, 2001:3).

It was noted, however, that attempts were made by one participant to use divergent types of questions with the aim of promoting critical thinking. This participant tried in every transaction to ask learners the question "why" and "how", learners had to provide an explanation to the answers provided. For example, an Accounting equation was explained during instruction by means of a question and answer method of teaching. The participant kept on asking learners why a transaction is recorded on asset, owner's equity, or liabilities. Where learners struggled to provide correct answers, the participant was able to re-direct them. This was found to improve learners' learning.

The fact that lesson objectives are not pre-determined means that questions used during instruction were not planned for if they were, then they were not informed by the objectives of the lesson. The type of questions posed by most participants were closed-ended, which did not lead to expansion of ideas. Thought-provoking type of questions were not used to promote deep learning. The questions used required learners to recall and regurgitate information. Socrates stated that dead questions always create dead minds, and they never develop productive and intellectual brains (Rashid & Qaisar, 2016: 155). According to Fan et al. (2014:7) and Almeida (2010:589), questions posed by an educator need to stimulate thinking; however, the level of thinking stimulated depends on the type of question asked. Browne (2016:3) echoes the same sentiments by viewing formative assessment as deficient due to poorly focused questions used by educators that require short answers that promote factual knowledge involving regurgitation rather than reflection. In addition, such questions do not develop learners' "higher-order cognitive skills".

Participants did not ask follow-up questions to activate critical thinking and for learners to process and show how certain concepts are applied in real-life. For example, in completing CPJ, there were transactions such as rent and wages/salaries. Participants did not ask learners to provide reasons why the business is paying rent, wages, and interest so that learners know that it is not about recording transactions only, but they need to know why certain things are happening in the business. This point of view is supported by Shulman (1986: 9) who states that educators should not only knowledge and understand that how things are, but they need to understand why things are like that.

As mentioned, that participants did not ask follow-up questions, instead, their focus was, on which journal to record transactions, the why question was not asked whereby learners would respond by saying we pay rent because we do not own the building used for the business, or we pay wages because we have hired employees, or we pay interest because we owe the bank. Educators need to ask for more information from learners to show their understanding of concepts. They need to train learners to respond to what, why and how questions. Such questions are consistent with the kind of learner envisioned by CAPS.

5.9.8 Sub-Theme 8: Educators' Knowledge of the Purpose of Summative Assessment

The definition of summative assessment, as provided by Shuichi (2016:81) and Alahmadi et al. (2019:261), reveals that this type of assessment is used to obtain evidence and data that shows how much learning has occurred, usually at the end of the term, year, or unit. It is usually done for formal recording and reporting purposes (Department of Education Papua New Guinea, 2008:26). In the South African context, educators are required to assess learners through controlled tests which are administered on termly basis and the June half-yearly examination as well as the final examination at the end of the last term.

The following question was posed regarding participants' understanding of summative assessment and its application:

- *What is the purpose of summative assessment?*

Information obtained through interviews revealed that participants are conversant with the purpose of summative assessment. Participant E1 in School E mentioned that purpose of summative assessment is, "*To assess performance, to know learners' weak points and be able to assist them where they are lacking, and to get feedback about learners' performance*". Participant H3 in School H mentioned that this type of assessment is used "*To ascertain whether learning has taken place, to assess learners' understanding of various concepts*". These responses are in accordance with Rosenshine (2012:19), Haley-Speca (2016:14) and Donnison and Penn-Edwards (2012:11) who assert that after the presentation of the topic, educators need to assess learners on what and how much they have learnt through tests conducted in each term, mid-year, and final examinations, and make a judgement. Echoing the same sentiments is Logaw (2017: 39) who declares that summative assessment is used to establish and keep track of the overall progress of learners towards the attainment of desired learning outcomes. In each term, a judgement should be made about learner performance and the information should be used to modify teaching practices and intervention strategies.

Participant H2 in School H remarked, "*To see if learners understood the work, can learners apply knowledge practically, have they studied, to see what they are*

struggling with, the information about their performance will be helpful for revision purposes, and such an analysis will inform the need for re-teaching". In South African schools, formal assessments, as displayed in the CAPS document for EMS, are conducted at the end of each term to provide educators with learner progress in a subject (DBE, 2011a:24). The response from participant H2 clearly revealed that summative assessment is not only used for grading but that the analysis of learner performance in tests can still be used to improve learning. The data from the analysis of results will impel educators to review their teaching methods or to replicate them if the performance is good.

Participant F1 in School F stated that, "*To ascertain whether learners understand the work, and if they have acquired knowledge, and whether they are ready to progress to the next grade*". This response relates well with Haley-Speca (2016:14) who asserts that summative assessment is used for reporting purposes by providing evidence to certify learners' competence, to assign grades or marks for learners, to provide educators with culminating evidence that helps them decide if learners have mastered certain content and skills, achieved specific standards, and are ready to move on to the next level of learning. This clearly shows that this type of assessment is used to make a judgement about what a learner has achieved at the end of a topic, syllabus, or lesson presentation (Shuichi, 2016:81; Alahmadi et al., 2019:261). These types of assessment help educators to make a judgement about the progress of learners for the term and academic year (Crisp, 2012:33; Anderson, 2007:471; Agbulu & Idu, 2008:246; Haley-Speca, 2016:15; DBE, 2011c:5; Logaw, 2017:40). This means that conducting summative assessment enables educators to grade learners based on evidence.

The study found that participants are conversant regarding the purpose of summative assessment. Their articulation in this regard shows that they understand the use of this type of assessment in the South African curriculum since they indicated that it is used to examine if learners understand the work for the term and that they are ready for the next term. They also showed understanding that this assessment is ultimately used for grading purposes at the end of the last term.

It was interesting to note that Participant G1 from School G believes that summative assessment *"Helps educators to assess holistic knowledge of what was taught, to*

remedy if there is a need, to introduce intervention strategies and make parents aware of their children's progress". Looking at the response of this participant, one may argue that the participant was referring to formative assessment however given that learners are assessed formally at the end of each term in South African schools and that diagnostic analysis of results is mandatory, this means that summative assessment can be used to remedy learners' weaknesses detected in each term before learners sit for the final examination. It is, therefore, important for educators to use the diagnostic analysis of results to improve their teaching practices. Assessing learners on a termly basis provides educators with a chance to rectify errors committed in the first term because they can use reliable data based on the performance of learners in the controlled, or term test to improve teaching by modifying their teaching strategies and to implement intervention strategies based on the diagnostic analysis of learner performance during the term in question. Such a diagnostic analysis will provide educators with reliable data in terms of the strengths and weaknesses within the subject.

This finding is consistent with the view presented by Holbeck et al. (2014:38) who assert that formative assessment and summative assessment are both important in the teaching and learning process hence the DBE (2011a:24) emphasises that these two types of assessment need to be used during the school year to make a judgement on the progress of learners. Educators need to take advantage of the strengths of these two types of assessment in improving learner performance. The diagnostic analysis of tests and mid-year examination need to be conducted to identify the strengths and weaknesses of learners in the subject.

The analysis should be used to put intervention strategies in place with the aim of improving learner performance because, according to Anderson (2007:472), continuous assessment provides a means for educators to track learner performance on termly basis. This means that the use of information on learner performance obtained on a termly basis can still be used to improve learning. This clearly shows that the use of learner performance data per term in the South African context does not agree with Haley-Speca (2016:15) who asserts that formative assessment is not used to guide improvement in teaching, but it is used to make a judgement about learning. Concurring with Haley-Speca are Crisp (2012:33) and Shuichi (2016:81) who

assert that there is no rectification that can take place during summative assessment instead a learner is graded.

Readers may view this as a weakness of this type of assessment. However, in the South African curriculum, the administration of term tests and mid-year examination allows educators to provide learners with feedback, which enables them to monitor and evaluate learner progress thus far and where necessary, educators can adapt their teaching practices based on data obtained on learner performance. Learners can also adapt their study methods to try and improve their performance before they sit for the final examination at the end of the year. The information obtained through diagnostic analysis can be used to mitigate the weaknesses of summative assessment.

The current study was conducted in the Gauteng Province, the Department of Education in this province has developed Circular 38 of 2007 wherein all educators are required to conduct diagnostic analysis of results for all assessment tasks, which includes controlled tests written per term as well as the mid-year examination (GDE, 2007:3). According to this Circular, in their analysis of results per term, educators need to identify specific areas of weaknesses within the subject. The fact that the analysis needs to identify specific areas of weaknesses means that the analysis needs to be diagnostic in nature.

The Circular states further that the diagnostic analysis needs to inform the remediation programmes for all assessment tasks (GDE, 2007:4). This clearly shows that the feedback obtained about learner performance for the term needs to inform intervention programmes, suggesting that this type of assessment is also used to improve teaching and learning because the intervention programmes are performance data driven. This means that educators need to see term assessment as a tool to obtain evidence about learner performance and then analyze the results. The feedback should be used to develop intervention strategies.

5.9.9 Sub-Theme 9: Weaknesses of Summative Assessment

The study revealed through the literature review that summative assessment has some weaknesses – it emphasises competition rather than personal development (Mikre, 2010:104). Browne (2016:2) also expressed some dissatisfaction about this

type of assessment as it encourages educators to adopt a "Teaching to test" approach not teaching to promote long-term knowledge acquisition. Educators need to know the purpose of administering an assessment. For example, if an assessment is meant for grading purposes, then it will perform the function of summative assessment however if it is used to provide constant insightful and encouraging feedback throughout the year before the final examination, then it can still be used to modify teaching practices.

5.9.10 Sub-Theme 10: Educators' Knowledge of the Application of Summative Assessment

During the interview sessions, the researcher asked the following question regarding the participants' knowledge of the application of summative assessment:

- *When does summative assessment take place?*

The study discovered through interviews that participants are conversant with the time frames for summative assessment. They indicated that it takes place at the end of each term. The responses of participants revealed that there is summative assessment taking place at the end of the term that can still provide educators with a chance of addressing misconceptions. This finding concurs with Anderson (2007:471-472) who asserts that in summative assessment, a judgement that summarizes all collected evidence regarding learner performance is collected throughout the year from term 1 to 4, which is described as continuous assessment. Furthermore, Anderson (2007:472) argues that continuous assessment provides means for educators to track learner performance on a termly basis. In addition, learners also get feedback, which enables them to monitor and evaluate their progress where necessary; learners can adapt their study methods to try and improve their performance before they sit for the final examination at the end of the year. This suggests that there are benefits in the application of summative assessment, which takes place on a termly basis because educators can still use the analysis of results to improve their teaching practices.

Educators can still introduce intervention programmes with the aim of re-teaching certain topics that were found to be an issue in the preceding term. This clearly indicates that this type of assessment in the South African curriculum is not used solely for grading and promotion, but it is also used to improve teaching and learning. The

study found through analysis of learners' work and educators' records the programme of assessment that tests, mid-year examination, projects, and assignments are administered throughout the year during each term. This finding was consistent with Haley-Speca (2016:14) who argues that evidence on learner achievement in summative assessment is collected through the administration of tests, examinations, and any other form of assessment.

The DBE (2011c:5) also agrees with Haley-Speca and Anderson that formal assessment activities, as outlined in the National Protocol on Assessment, include projects, oral presentations, demonstrations, performances, assignments, tests, examinations, practical demonstrations, etc. These activities are used to gather evidence on learner progress. In ensuring that these assessments are carried out, the study found that the programme of assessment has been developed and it indicated the forms of assessment to be carried out in each term. This was found to be in line with the DBE (2011a:25), which requires that learners do two formal assessment tasks per term in the first, second, and third term; and one formal task in the fourth term, which is the final examination.

For each term, EMS educators are required to administer formal tasks in a form of a controlled test which should cover all topics presented during the term as well as any other form of assessment based on the programme of assessment. The other form of formal assessment task may include an assignment, project, case study, or any other form of assessment as per the programme of assessment (DBE, 2011a:20). The ATP for Grades 8 and 9 reveals that provisions for FL topics are catered for in each term, therefore, it is expected that each assessment task should cover a topic on FL. In EMS as a subject, there are two types of examinations that are required to be written in Grades 8 and 9, namely mid-year and end of the year examination. The latter is used as a measure to grade whether a learner has achieved all the subject topics and objectives for the subject while the former focuses on the progress of learners in topics covered in term 1 and 2. The final (end-of-the year) examination encapsulates all the work covered in all the terms (DBE, 2011a:19; Haley-Speca, 2016:14).

5.10 THEME 4: EDUCATORS' KNOWLEDGE OF TEACHING METHODS AND STRATEGIES

This theme is discussed in accordance with the definition of syntactic knowledge, which refers to the methods used by EMS educators in teaching knowledge, skills, and values (Blankman et al., 2016:427). The focus was on teaching and learning activities implemented during instruction to help learners learn and understand the learning content. In this regard, the framework provided by Stripling et al. (2010:152) which focuses on teacher-centred, social interactive, and learner-centred activities, was used to investigate the teaching and learning activities implemented by educators during instruction. According to this framework (a) teacher-centred consists of lecture and demonstration methods (b) social interactive consists of questioning, discussion, and cooperative learning methods while (c) learner-centred consists of inquiry and individualised methods of teaching. Lesson observations led to the emergence of the following sub-themes.

5.10.1 Sub-Theme 1: Educators' Application of Teaching and Learning Activities within a Teacher-Centred Method of Teaching

The study revealed through lesson observations that participants employed two methods of teaching from the teacher-centred approach, namely lecture and demonstration methods, as well as one method from the social interactive activities (the question-and-answer method of teaching). In grade 8 where definitions of concepts were presented, educators used a mixture of the lecture and question and answer method to introduce the topic and to explain concepts further. Participants did most of the talking when introducing concepts including asking questions.

In lessons where CPJ and CRJ were taught in grade 8, participants did most the talking explaining the rules, principles, structure of the journals, and procedures to record transactions on the journals. These findings related well to Rahman et al. (2011:86) who maintain that no matter how practical the subject is, facts, rules, principles, procedures, theories, and framework still need to be explained to learners before they can be engaged in any activity. This, according to Rahman et al. (2011:86) can only be achieved by using a combination of a lecture method and other methods of teaching. In this regard, participants used a questioning technique, together with the lecture method. In this way, teacher-centred and social interactive methods were

applied. The educator activities were to introduce the topic using the question and answer method while learner activities were to respond to questions asked and write a class activity.

It was noted however, that during the introduction and explanation of concepts, participants used some examples to clarify them. However, they did not ask learners to provide more examples to show their understanding of concepts and to relate them into real life situations. Participants provided all the information to learners. In this case, learners were treated as a "Jug and Mug", a description of lecture method of teaching provided by Mwathwana et al. (2014:83) who view educators as a jug, a repository of wisdom and all knowledge that transmutes it to a learner who in this case is referred to as a mug.

According to Mwathwana et al., a lecture method of teaching is mostly non-interactive and often boring to learners. This method of teaching has been criticised by Mwathwana et al. (2014:83) and Ningsih (2017:5) for encouraging a passive mode of learning which restricts learners. Even though, participants used a questioning technique, it did not promote active participation in the lessons as learners were only required to respond to convergent type of questions. Educators need to ask questions that promote critical thinking as required by CAPS. They need to encourage learners to provide more examples to show that they can relate concepts to their daily life experiences.

In lessons where CPJ and CRJ were taught in grade 8, in addition to the questioning technique and lecture method – which was used to introduce the components of CPJ and CRJ, the demonstration method was also applied in presenting lessons. Participants demonstrated and asked questions – learners were required to respond to the questions. Structures of the CPJ and CRJ were drawn on the chalkboard depicting the analysis of columns for each journal. The questioning technique was used to show learners how payment and receipt transactions are recorded in the journals.

Participants demonstrated a step-by-step process of how transactions are recorded in these journals. In doing all this, Participants used the rules and FL (Accounting) principles that learners need to always observe in recording transactions in journals. This finding is in accordance with Umoru and Haruna (2018:448), Dorgu (2015:83)

and Inuwa et al. (2018:579) that learners in a demonstration method of teaching need to be shown a step-by-step process of how transactions are recorded in the CPJ and CRJ by following the rules and principles before learners could be asked to complete the same activity. Benjamin and Wakhungu (2014:222) also state that in the demonstration method of teaching, an educator tells and shows by acting or illustrating for learners to understand facts and new concepts of the subject.

Participants used demonstration to close the gap and ensure that there is a link between theory and practice, a view that is strongly supported by (Dorgu, 2015:83). Therefore, the use of the lecture method, questioning technique together with demonstration, was found to be effective since learners were able to mimic the educator by analysing, interpreting transactions and record them in journals. This finding concurs with Inuwa et al. (2018:588) who discovered in their study that, demonstration as a teaching strategy was effective in improving the understanding and performance of learners in the subject.

This means that a mixture of three teaching methods were used namely, demonstration and lecture methods from teacher-centred approach as well as the questioning technique from social interactive approach of teaching. This finding relates to El-Sayed et al. (2017:62) who argue that the shortcomings of one method can be removed by the merits of another. These authors are therefore advocating for what van Wyk and Reis (2016:105) called a "blend or mix" approach for teaching and learning. The use of a blend or mix approach is also supported by Kaur (2011:9), Rahman et al. (2011:86) and Umoru and Haruna (2018:455) who posit that a lecture method needs to be incorporated with other teaching methods for learning and improvement in learner performance to be enhanced.

Similarly, in the lesson observed in grade 9, the study revealed that a lecture method was used at the beginning of the lesson to explain the concepts CPJ and CRJ, as well as to provide the description of the analysis of column for these subsidiary journals. The same teaching methods were used in lessons presented in grade 9. A mixture of a lecture method, questions and answers, and the demonstration method were used to conduct a step-by-step process to show learners how transactions are recorded in each journal. The role of learners was to listen attentively, observe the recording of transactions conducted by an educator, and answer the questions posed. The same

methods were used to explain and demonstrate how transactions are recorded in the General ledger, Accounting equation, and a Trial Balance. Through the application of a questioning technique, a continuous assessment method of teaching was employed throughout lesson presentations.

In most lessons observed, after participants had demonstrated how transactions are recorded in subsidiary journals, learners were provided with an activity to mimic what the participants had demonstrated on the chalkboard. The activity was marked before the end of the period. The way learners responded when corrections were conducted revealed that the strategy used by participants assisted them to understand the concepts presented. As corrections were done, learners corrected incorrect entries made on the transactions in their exercise books.

In a teacher-centred approach, it is commonly known that only a lecture method is used; however, it was observed that participants did not rely exclusively on this method in their teaching, but there was a mixture of two or three methods of teaching, namely lecture, demonstration and question and answer methods. In this way, the shortcomings of one method were supplemented by the benefits of other method/s used. Participants were not the only sources of information as attempts were made in getting information from learners through a questioning technique used during instruction. It remains a fact however that close-ended type of questions were used during instruction. Therefore, the lecture method was not used as a one-way communication process, Participants supplemented it by using a combination of one or two methods of teaching. The teacher activities were to introduce and explain concepts, ask questions, and demonstrate, while learner activities were to answer the questions posed by an educator and to mimic what the educator had demonstrated on the chalkboard by writing an activity and answer the questions during the marking of activities.

The next section focuses on the observation noted in the application of teaching and learning activities in the social interactive domain.

5.10.2 Sub-Theme 2: Educators' Application of Teaching and Learning Activities within a Social Interactive Domain

Lesson observations revealed that most participants did not promote meaningful interaction during instruction. The only teaching strategy used to interact with learners in this approach of teaching was the implementation of the question and answer method. There was just over-reliance on the usage of question and answer method. This finding does not relate to the view presented by Stripling et al. (2014:152) who believe that teaching and learning activities in a social interactive approach of teaching, educators need to use the questioning technique, and ensure that learners engage in discussion and cooperative learning.

Participants did not implement teaching and learning activities that promoted meaningful learner involvement. Learners were not encouraged to work or discuss in pairs and in groups. This finding is not consistent with CAPS, which envisages a learner who can work successfully as an individual and as a team member (DBE, 2011a:5). EMS educators need to plan teaching and learning activities that involve peer and group teaching. Concurring with the DBE is Kagaba and Kibanja (2017:46) who argue that the learning environment should always be viewed as a social activity where conversation and interaction amongst learners is encouraged. Therefore, educators need to encourage learners to engage in discussion and cooperative learning where they help each other analyse transactions and record them in appropriate subsidiary journals. In doing so, Ilić and Rešić (2017:120) believe that a learning and support system is created for all learners in a group.

Discussion and cooperative learning were not used at all in the lessons observed. The study found that participants do not create opportunities where learners are encouraged to discuss and learn from one another; instead, educators tended to provide information to learners. This finding was in contrast with Charity and Igwe's (2016:220) views – they emphasize that the social interactive instructional strategies are effective in the development of learners' critical and evaluative thinking ability as required by EMS CAPS documents (DBE, 2011a:5). Educators need to ensure that the objectives of CAPS are realized by sculpting learners who can identify problems and devise strategies to solve them using their critical thinking. Allowing learners to

engage with each other would have afforded them an opportunity to exchange ideas, experiences, and knowledge (Raluca, 2016:130).

It emerged that in the social interactive approach, the participants' activities were to ask learners some questions. This finding is consistent with Benjamin and Wakhungu (2014:222) who argue that in a questioning method, an educator asks questions and learners are expected to provide answers. The questioning technique was used in all the lessons observed but not as two-way communication aimed at promoting meaningful learner involvement. This suggests that educators did not strike a balance by ensuring that they implement teaching methods that encourage discussion, cooperative and inquiry learning where learners learn from one another.

With respect to the questioning technique, Ezenwafor and Akpobome (2017:42) found this technique to be effective for teaching Accounting. The study found that although the questioning technique was used in all the lessons observed, it was not effectively used to achieve the objectives of CAPS since the questions used did not promote critical thinking. Participants did not pose questions that encourage discussion and cooperative learning. The former and the latter are viewed by Mwathwana et al. (2014:84) as teaching methods that provide a learning atmosphere which recognizes learners' views where inquiry among them is inspired. This finding relates to Dos et al. (2016:2067) who argue that asking questions is important; however, its effectiveness depends on the choice of questions used to achieve lesson objectives.

The study found that lesson objectives are not formulated thus it was not possible for the researcher to determine the effectiveness of questions used (since there were no pre-determined objectives to measure the effectiveness). Educators need to formulate lesson objectives so that it is easy to gauge the success of the lesson and to evaluate the effectiveness of questions used in line with the objectives. This will ensure that the feedback obtained from learners is assessed to determine the achievement of the objectives of the lesson. This proclamation relates to Duron et al. (2006:161) who argue that an educator needs to formulate lesson objectives that clearly articulate the expected change. To promote critical thinking during instruction, Duron et al., assert that lesson objectives and the teaching and learning activities, as well as assessment must be tailored in line with the higher order levels of thinking and questioning.

It was discovered through lesson observations that the questioning technique was employed to introduce the topic for the day, and it was also employed as a continuous assessment method of teaching with the aim of guiding learners during instruction. According to Fan et al. (2014:7) and Almeida (2010:589), questions posed by an educator need to stimulate thinking, which is determined by the type of questions asked. It was observed that the type of questions asked were closed-ended as they were not thought provoking. This finding was conflicting as Peklaj (2015:190) maintains that educators need to ask quality questions to enhance learners' cognitive processes. Peklaj advocates for higher-level type of questions that require learners to classify, compare, and create metaphors and analogies, which leads to higher learner achievement. Therefore, to achieve this objective, educator's need to carefully plan questions that cater for low and higher cognitive levels (Cotton, 2001:3).

The study revealed that cooperative learning was not encouraged in all the lessons observed. This finding was found inconsistent with CAPS, which advocates for teamwork (DBE, 2011a:5). The finding was also found to be conflicting with the views presented by Ilić and Rešić (2017:119), Vrhovec (2015:133), Herrmann (2013:175), and Macpherson (2015:1) who believe that in cooperative learning, learners get the chance to work together in finding solutions to problems. In support of this view is Vrhovec (2015:131) who believe that in cooperative learning, every learner is involved in analysing the problem in search for a solution for the success and benefit of the group. Macpherson (2015:1) strongly believes that in cooperative learning, critical thinking is promoted instead of rote learning. It was therefore disturbing to discover that this method of teaching is not promoted in the teaching of FL. The CAPS document envisages a learner who can work individually and as a team member therefore educators need to create a learning environment that promotes teamwork.

It remains shrouded in mystery as to why group discussion and cooperative and inquiry learning were not promoted during instruction. Having learnt from experience with classroom observations regarding the implementation of group work where some learners benefit at the expense of other learners, participants might have noted a similar behaviour which discouraged them from implementing group work and discussion. Participants might have perceived the implementation of group work and discussion as promoting a free rider problem, hence the lack of interest in applying it.

However, there are measures that can be put in place to circumvent this challenge as suggested by Hennessey and Dionigi (2013:52). They encourage educators to implement a cooperative task and a cooperative incentive structure. In cooperative task approach, learners work in groups towards the attainment of the set goals and the rewards are equally enjoyed by all members. This approach is likely to promote a free rider problem. The other approach is a cooperative incentive structure wherein the success in attaining the goal depends on the success of all group members and vice-versa (Hennessey & Dionigi, 2013:53). This means that each group member is given a task which means responsibilities are shared. For cooperative learning to be successful, educators need to communicate to learners these two requirements so that learners can engage in activities with an objective of achieving something.

On the other hand, for cooperative learning to come to fruition, Herrmann (2013:176) maintains that this approach of learning needs to adhere to two basic principles, namely "positive interdependence and individual accountability". For each strategy to be implemented successfully, educators need to make learners aware of the requirements of each approach. The positive interdependence is described as a "built in positive interdependence", which means that the success of the group in attaining its goals is reliant on the collective effort and cooperation of all group members (Hennessey & Dionigi, 2013:53; Herrmann, 2013:176; Macpherson, 2015:1). According to Macpherson (2015:3), learners need to recognise that they "are linked with each other in a way that one cannot succeed unless everyone succeeds". They need to work in tandem, "assist, encourage, and support each other's' efforts to learn". This approach is like a cooperative incentive structure because duties are shared to achieve the set goals.

In the individual and group accountability, educators need to inform learners that the group is accountable for completing the task and each learner within the group remains accountable for their contribution and for learning material supplied in completing the task (Hennessey & Dionigi, 2013:53; Macpherson, 2015:1). Educators need to inform learners that an individual's performance will be assessed, and marks will be allocated to the group and to an individual (Macpherson, 2015:3). To circumvent a "free rider problem", Hennessey and Dionigi (2013:54) urge educators to implement the cooperative incentive structure, positive interdependence, as well as individual and group accountability for cooperative learning to be effectively implemented in teaching.

Supporting this view is Herrmann (2013:176) who assert that individual accountability will prevent learners from social loafing. This author argues that while learners work within a group, they need to pursue their individual learning goals and be assessed as an individual. This method will be successful if all learners in a group share similar learning goals and when the individual members' goals are positively dependent on the actions of the group (Herrmann, 2013:175-176). Educators need to explore the views presented to ensure that learners benefit from the implementation of cooperative learning. This will also ensure that the objectives of CAPS are realised.

5.10.3 Sub-Theme 3: Educators' Application of Teaching and Learning Activities within a Learner-Centred Method of Teaching

The study discovered that a learner-centred approach was not applied in all the lessons observed. Learners were not given an opportunity to discover things for themselves. According to Dorgu (2015:83), in the inquiry method, learners are given space to discover things for themselves. This method of teaching is effective in such a way that learners do not forget what they were taught because they discover things for themselves. Educators need to expose learners to strategies to use in discovering things for themselves. This can be implemented by adopting the two types of discovery methods proposed by Dorgu (2015:83), namely the structured method and the open discovery method. In a structured method, an educator needs to provide learners with a clear set of instructions that they need to follow in discovering a "fact, idea or skill for themselves" while in the open discovery method, an educator needs to present a problem, and provide learners with some questions and directions that guide learners in finding answers to the problem.

In this way, learners are given the freedom to "explore different perspectives, views, possibilities, and solutions to the problem" (Dorgu, 2015:83). This will ensure that the general aims of CAPS are implemented because learners will engage in critical thinking, analyse, and evaluate information, identify problems, and work out solutions to the problems, and make decisions using critical thinking. In the context of FL, learners can be given transactions to analyse, interpret and record in appropriate subsidiary journals. During instruction, educators need to create a learning space where opportunities are created for learners to present and respond to questions from

fellow learners. In this way, learners will learn from one another. They should be encouraged to ask questions and correct each other in the process.

It remains a fact that learners in the classroom are not the same therefore the study found that in all lessons observed, teaching did not cater for different learner abilities. In addition, scrutiny of the lesson plans provided during on-site revealed that the available planning did not cater for differentiation. There was no evidence that teaching methods and learning activities are modified in line with learners learning needs. Educators need to know that learners learn differently, therefore, they need to ensure that their teaching and learning activities cater for differentiation. They need to know the strengths and weaknesses of each learner and plan activities that accommodates all learning abilities. They need to consider using additional teaching resources in simplifying concepts to learners.

The questioning technique was used to improve teaching and monitor learning progress; however, learner participation was minimal in that it did not assist educators in identifying learners who required individualised instruction. Participants were not skilful in promoting maximum participation in the lessons; they need to monitor the events taking place during teaching and ensure that learners are motivated to communicate their views and ideas freely during teaching. Educators need to encourage learners to be responsible for their own learning. They need to prepare for lessons by giving learners tasks to prepare for the next lesson and allow them to present their views and then build on what learners have presented. Educators will be able to identify sections where learners committed errors and correct them. Lessons need to be made appealing to learners by planning activities that keeps them occupied during instruction.

5.10.4 Sub-theme 4: Educators' Knowledge of Effective Teaching Method/s in Financial Literacy

It emerged through lesson presentation that the teaching of FL topics was dominated by a mixture of teacher-centred and one social interactive method of teaching wherein most participants employed a lecture and demonstration method from teacher-centred activities, and a questioning technique from a social interactive method as teaching strategies. This could be interpreted that; participants have become comfortable with the application of these teaching methods and strategies. This was evident from the

analysis of lesson plans made available during visits to schools; there is a section for educators to indicate the method/s of teaching to be used however this was not done. It was clear to the researcher that teaching is not driven by lesson plans; instead, one could conclude that the available lesson plans are kept in the educators' files for malicious compliance.

Educators need to prepare planning and teaching in line with the objectives of CAPS. They need to use planning to guide their teaching and learning activities. Planning for the lesson will help them to implement all the activities in a structured and coherent manner. Furthermore, educators need to organise all inputs required for teaching, plan activities to be carried out during teaching, reflect on the output expected, and the change they would like to see taking place. They need to continuously consult the CAPS document and reflect on the realisation of the general aims of CAPS and ensure that teaching and learning activities address these aims. The CAPS document clearly articulates the kind of learner envisaged. This will ensure that a balance is maintained, by ensuring that learners acquire "knowledge, skills, values, and attitudes" in line with the general aims of CAPS.

During the interview sessions, educators were asked the following question:

- ***In your perception, which teaching methods are effective in teaching Financial Literacy?***

In responding to the question, the study found that educators were not sure about the methods of teaching they had applied during teaching – they had to think carefully before responding to the question. In Schools E and H, Participants E1, E2, H1 and H3 requested the researcher to provide some examples of the teaching methods because they did not know which teaching method/s they had used. This clearly indicated that lesson plans are not used to inform and guide teaching and learning activities. Educators need to plan and prepare for the presentation of lessons. They need to indicate educator and learner activities. This will help them to monitor the events taking place during teaching and learning. It will also help them to ensure that the presentation of lessons is logical and coherent. If planning is done in line with the general aims of CAPS, then educators would plan such that the teaching and learning activities address knowledge, skills, and values, which would eventually ensure the implementation of CAPS and the realisation of its objectives.

During interviews, none of the educators mentioned discussion, cooperative learning, inquiry method, and the individualised method as the methods of teaching because these methods were not applied at all. This clearly indicated that critical thinking is not encouraged, and teamwork is not promoted during instruction as required by CAPS. Critical thinking skills need to be promoted during instruction and this can be done by asking divergent type of questions and by encouraging learners to engage in group discussion and cooperative learning. This will ensure that the kind of learner envisaged by CAPS is developed.

Participants admitted that they do not use lesson plans but rely on the topics indicated in the annual teaching plan. This was a concern to the researcher since planning needs to indicate educator and learner activities, teaching and learning resources needed, assessment activities, teaching methods and strategies, lesson objectives, time frames, to mention a few. It remains unclear how educators monitor the events that are expected to unfold during instruction if teaching is not guided by lesson planning. The lack of adequate planning suggested that the events unfolding during lesson presentation happen on the spur of the moment because the available planning is not used. It is expected that educators would plan in advance and clearly indicate educator and learner activities that will take place during instruction so that a topic is presented in an arranged and reasonable manner. Planning teacher and learner activities helps in monitoring the events during instruction and it ensures that planned activities are carried out and assessed during and at the end of lesson presentation.

5.11 THEME 5: EDUCATORS' KNOWLEDGE OF LEARNERS' LEARNING DIFFICULTIES AND UNDERSTANDING

Educators' knowledge of learners' learning, and understanding was observed by focusing on learning approaches employed by educators. This was followed by interview sessions held with participants. The aim of this theme was to observe the kind of learning approaches promoted during instruction.

5.11.1 Sub-Theme 1: Learning Approaches implemented During Lesson Presentation

Lesson observations revealed that more surface learning was promoted in all the lessons observed. Learners were engaged in the lesson by answering closed-ended

type of questions and by completing class activities provided during the lesson. The type of questions used promoted surface learning. This finding relates to Biggs and Tang (1999:22) and Young et al. (2008:30) who assert that surface learning promotes low cognitive skills. Participants did not encourage learners to provide examples and motivations when responding to questions. According to Young et al. (2008:30), learners may possess good memory of facts and concepts of the subject; however, these learners are not able to apply knowledge gained and relate it to real-life situations since this approach of learning does not provide learners with deeper understanding of the learning material that empowers them to apply knowledge gained in real-life.

Discussion, cooperative, and inquiry learning were not implemented during instruction; instead, learners were mostly required to recall facts. This finding relates to Walker (2012:903) who advocates for effective dialogue and interactive activities in the classroom. Educators need to promote meaningful learner involvement where learners engage in finding a solution for the task given. Concurring with Walker are Biggs and Tang (1999:22) who assert that learners need to be encouraged to argue between and amongst themselves in finding solutions for the task provided.

In line with surface learning, the study revealed that participants tended to teach concepts in isolation. This finding relates to Biggs and Tang (1999:23), Eskola (2011:70-71), Walker (2012:903) and Chin (1999:239-240) who assert that in surface learning, the facts, concepts, and isolated ideas are not integrated but are seen and treated as "separate entities" not as a whole. In their teaching, educators need to always show the relatedness of concepts where possible. For example, source documents are used to record transactions on the journals; the balances on these journals are used to do posting from journals to the General Ledger; balances on the General Ledger Accounts are used to do posting from the General Ledger Accounts to the Trial Balance. It is therefore important for educators to communicate how the current lesson relates to the other sections of the learning content. Concepts should not be taught in isolation. For example, when recording transactions on the General Ledger, educators need to reflect the classification of accounts according to assets, owner's equity, and liabilities. This will help learners see how concepts are related.

It emerged from the empirical study that in teaching terminologies, participants did not encourage learners to provide examples to relate the learning content to real-life situations and to display their prior knowledge. This finding relates to Beattie et al. (1997:1) and Kilgour et al. (2015:9) who assert that learning for understanding needs to be promoted during instruction. Encouraging learners to provide examples and relate concepts in their daily life experiences is supported by Chin (1999:239) and Beattie et al. (1997:1) who state that learners need to relate new ideas, examples, and concepts to previous knowledge and to their real-life experiences. Educators need to encourage learners to provide examples and motivations for their responses as this shows their understanding of concepts presented in class.

5.11.2 Sub-Theme 2: Perceptions of Educators regarding Learners' Learning Difficulties in Financial Literacy

In exploring the perceptions of participants regarding learners' learning difficulties, the researcher asked this question:

- ***In your view, what are learners' learning difficulties in Financial Literacy?***

In responding to this question, participants raised the following aspects which they believe contribute to learners' learning difficulties in FL: lack of practice, lack of continuity in the teaching of FL due to gaps caused by the teaching of other subject disciplines within EMS, insufficiency of time to teach all topics thoroughly, learners' lack of interest in FL, learners' negative attitude towards FL and financial language as a barrier. These aspects are briefly discussed below.

- **Lack of practice**

Participants B2 in School B, E2 in School E, C2 in School C and A2 in School A indicated that FL is a practical subject like mathematics that requires regular practice of the recording of financial transactions. These participants remarked that learners do not practice how to record different transactions taking place in a business. Participants mentioned that practicing should not be done as an event but a process throughout the year; however, they mentioned that learners were too lazy to practice on their own; instead, they rely heavily on educators. In addition to this, learners do not come up with solutions and questions to pose to educators during instruction. They indicated that learners relied heavily on educators.

Although participants blame learners for not practicing FL transactions, it was observed that this culture is not promoted during instruction where learners are given problems to solve in class. There was over-reliance on the question-and-answer methods, which required learners to respond to closed-ended type of questions. Educators need to promote a culture wherein learners are given transactions to analyze and report back to fellow learners in groups or in pairs. FL is a practical subject; therefore, learners need to be kept busy analyzing, interpreting, and recording transactions. In this way, learners will be accustomed to the culture of learning promoted in class. Active participation in lessons needs to be encouraged, which is likely to develop learners' interest in the subject.

- **The sequencing of subject disciplines within EMS**

Participants from schools A, B, C, D, E and F raised their concerns about the sequencing of topics which causes discontinuity in the teaching of the three disciplines, namely Economy, Entrepreneurship and Financial Literacy. According to them, this affects the continuation and linking of topics from previous lessons to current and future lessons because of a break between the disciplines. According to participants, the sequence confuses learners because FL topics, as indicated in the annual teaching plan, exhibit "a going back and forth approach". According to participant F1 in School F, it is not easy to maintain a link between the concepts as indicated in the Accounting cycle which starts with a transaction, source document, recording in journals, recording in the General Ledger, Trial Balance, then formulating a financial statement.

Participant A2 in School A mentioned that "*Learners need to understand the flow therefore there should not be a break in between because going back is a challenge since learners forget the concepts and the flow, this back and forth going is really confusing learners and it is causing delays in syllabus completion*". Participant B2 agreed with Participant A2 by stating that, "*Accounting (referring to FL) concepts cannot be taught in isolation; you always need to show the link, but this is difficult because learners tend to forget because there is a break in between the teaching of Financial Literacy which is caused by the other subject disciplines within EMS*". Echoing the same sentiments is Participant D1 in School D who mentioned that "*We are following the ATP, and in some weeks, we do not teach Financial Literacy and by*

the time you go back to Accounting (Financial Literacy), learners have forgotten how recording is done, this is frustrating for me".

The study revealed through lesson observations, document analysis, and interviews, that there is no continuity in the teaching of FL. During the interview sessions with participants, concerns were raised that they are not able to teach FL on a weekly basis because of the break in between the teaching of FL and the other two disciplines embedded within EMS. This was found to be inconsistent with stipulations in the CAPS document for EMS which stresses that FL must be taught weekly during the one-hour allocated to this subject discipline (DBE, 2011a:10; 2019:33). In addition, scrutiny of the EMS CAPS document revealed that FL content is only allocated a weighting of 50% subject content (DBE, 2019:31; 34), suggesting that more time is needed to teach this subject discipline. The break in between the teaching of FL and other subject disciplines was found to be disruptive and affecting the linkage of concepts in the teaching of FL content.

Although the DBE (2011a:10; 2019:33) stipulates that FL needs to be taught weekly, the analysis of the current structure of the ATP, as outlined in the CAPS document for the subject, revealed that FL topics are not divided or spread out across all the weeks. Therefore, the way the ATP is currently structured does not make it possible for this subject discipline to be taught weekly. The way topics are currently structured in the CAPS document was found to be contradictory with the stipulations in the same CAPS document. This clearly revealed the limitations embedded in the CAPS document for EMS. The DBE must review the CAPS document and ensure that stipulations in the policy are implemented and that there is uniformity in doing so.

The participants' timetables were scrutinised, and they revealed that in Schools A, B, C, D, E, and F, there is no evidence that FL is taught weekly because the timetables did not indicate periods allocated for FL indicated as EMS-FL. This would have made it clear that during this period, FL is taught therefore everyone will come prepared for FL. Educators confirmed during interviews that there is no period allocated for FL (Accounting) because they follow the ATP. The SMT's need to structure the timetable such that it indicates the periods allocated for FL, this will ensure that educators and learners come prepared for the lesson.

The study found that in Schools G and H, FL was allocated an hour and the periods for FL were clearly indicated as Accounting in their timetables, suggesting that the educator and learners know that FL will be taught during a particular period. In this instance, the study found that the teaching of FL is conducted in terms of the time stipulated in the CAPS document.

The study discovered that in Schools A, B. C, D, E, and F, FL content is only taught on the weeks allocated for it in the ATP. This means that it was impossible for these schools to ensure that FL is taught weekly because participants teach in accordance with the ATP. There is a need for the DBE to review the CAPS document and ensure that what is stipulated in the policy is not contradictory, and that there is uniformity in the teaching of FL. They need to review the ATPs in the CAPS document with the aim of ensuring that the objectives of CAPS are realised by making sure that FL topics are taught weekly. They need to ensure that the one-hour allocated is optimally utilised since this subject discipline carries 50% of the content to be taught in EMS. Furthermore, the SMT's need to ensure that the timetable reflects a period allocated for FL; this will also ensure that there is continuity and uniformity in the teaching of FL.

It should be mentioned, however, that in School G and H, where FL topics are taught every week, and there are periods allocated for FL in the educators' timetables that these were fee paying schools. This means that the School Governing Body (SGB) has the capacity to employ additional staff to ensure that subjects that consist of more than one discipline are taught by a subject specialist. It is unfortunate that this cannot be implemented in no fee-paying schools due to lack of funds. The SMT's need to ensure that EMS is allocated to an educator who has an Accounting background. They need to ensure that the one-hour allocated for FL is clearly indicated in the timetable. It was noted in the schools visited that EMS educators have Accounting background; therefore, the SMT's need to ensure that FL is taught on a weekly basis. They need to ensure that it is allocated one-hour per week.

- **Lack of interest and negative attitudes of learners towards Financial Literacy**

Participants mentioned that learners' learning difficulties in FL are caused by negative attitudes and lack of interest. Participant A3 in School A mentioned that "*Learners do not show interest in the subject. There is a lack of commitment from the learners*". Participant F2 in School F indicated that, "*There is no doubt that learners have a*

negative attitude towards Accounting. They see Accounting as a difficult subject; hence, a negative attitude towards it – some learners have already decided that they are not going to pursue Accounting in grade 10. As a result, they do not put any effort into the subject". Participant A2 in School A also added that, "*Negative attitude towards the subject makes it difficult for them to perform well in class activities, never mind the controlled tests.* The study revealed through interviews that learners see Accounting as a difficult subject; hence, the negative attitude towards it. Participants indicated that some learners have already decided that they are not going to take Accounting in Grade 10 therefore they do not put any effort in improving their knowledge in FL. This finding relates to Türkarslan and Akdemir (2019:152) who state that attitudes affect individual learners' decisions – if learners feel that a subject is difficult to understand they are not likely to pursue it any further in a higher grade. In agreement with Türkarslan and Akdemir are Xiong et al. (2014:2) who emphasise that attitudes are viewed as beliefs that influence individuals' choices, behaviours, and actions. Xiong et al., further maintain that attitudes will determine to what extent a learner recognises the need to learn a subject.

As noted from the responses of participants, that some learners have already decided that they will not pursue further studies in Accounting post grade 9. Such an attitude and decision make learners perform poorly in the FL. This confirms an assertion by Xiong et al. (2014:2), that negative attitude impedes learning (as noted by participant A2 in School A, that learners are not performing well in the subject because of a negative attitude towards it). Davadas and Lay (2020:489) noted various reasons leading towards learners developing an attitude towards a subject. First, Davadas and Lay question the teaching styles used by educators in presenting the learning content, learners' difficulties in understanding the subject content and their ability to apply appropriate strategies in solving problems in the subject. The researcher noted during lesson observations that educators do not teach the subject in a way that is appealing to learners. Discussion, cooperative, and inquiry learning are not applied during teaching. There are no activities planned to ensure meaningful learner involvement in the lesson. This confirms the argument presented by Davadas and Lay.

Educators need to promote teaching strategies that encourage learners to be active participants wherein the activities are planned to make the learning of the subject interesting. Concurring with this assertion, Maison et al. (2020:55) proclaim that

educators need to make a subject more fun to learners because if they find the subject enjoyable, they are likely to add more learning time to such a subject and will want to know more about it. This means that the pleasure and fun created by an educator in a subject makes learners love and feel happy about it. Feeling happy about the subject means there is an interest in it. Maison et al. (2020:55) agree with this view, stating that learners will develop a love for the subject if educators add variety in its teaching by presenting learning material that stimulates their interest in it.

Therefore, if the teaching methods used are boring, learners are likely to develop a negative attitude towards a subject. It is therefore crucial for educators to adopt teaching methods and strategies that makes learning fun. Supporting this view are Türkarslan and Akdemir (2019:152) who urge educators to use teaching approaches and strategies which encourage learners to develop a positive attitude to a subject. This is likely to have a positive influence on learners' attitude towards FL. In achieving this objective, Davadas and Lay (2020:490) advocate for the advancement of four components which might yield good result in stimulating learners' interest in the subject and these are "value, motivation, confidence, and enjoyment". Supporting Davadas and Lay's point of view, Berková et al. (2020:9-10) assert that learners' motivation, enjoyment, and perceptions about the subject plays a major role in their attitude towards it. According to Türkarslan and Akdemir (2019:151), attitudes can be strengthened, lessened, or reformed. For this to happen, educators need to know learners and know how they feel about the subject and use the information to improve the learning process in the classroom.

Türkarslan and Akdemir (2019:152) support this idea, maintaining that if an individual's attitude is known, it is easy to predict that person's behaviour. This calls for educators to be observant of learners' attitudes and behaviour during teaching and ensures that strategies are put in place to avoid learners developing an attitude towards FL. They must ensure that learners see the value of doing FL by relating it to the learners' daily life experiences. They should constantly motivate learners by advising them about the approaches that make learning easy and interesting. If learners perform better in FL, they will have confidence in the subject. As a result, they are likely to change their perception and attitudes towards it. If performance improves, their confidence in the subject will be enhanced and they will enjoy the subject and aspire to know more about it.

- **Financial language as a barrier to learning Financial Literacy**

Financial language was cited as a factor causing learners' learning difficulties. Participant A2 in School A responded by saying, "*There is a language barrier in that learners are struggling with financial language because the concepts are difficult for them to understand. This limitation has a ripple effect because as new concepts are introduced, learners become overwhelmed by the number of concepts that they need to master to understand Accounting*". Similarly, Participant D1 in School D agreed with Participant A2 by mentioning that, "*Language is a problem because we talk about things that learners have not seen before, it therefore becomes difficult to relate*". This clearly indicates that educators, as specialist in the subject, should organize additional learning material that will make the subject more appealing to learners. This assertion relates to Shabiralyani et al. (2015:228), as mentioned in section 5.8.8, who assert that good subject posters could improve language barrier because visual images make learning easy for learners. Therefore, educators need to ensure that classroom walls are print-rich with FL posters. Participant E1 in School E mentioned that "*Accounting language is important for learners to be able to understand the different Accounting transactions, this is also important for the classification of transactions*".

FL is described by Ngwenya (2014:172) as a specialised "language of communicating financial information"; therefore, learners need to apply their knowledge of analysing and interpreting financial information in solving problems. In support of this view, Mahdzan and Tabiani (2013:43) argue that people who are financially literate need to possess a range of analytical skills. The study found through lesson observation that the culture of analysing is not promoted during instruction. Learners need to be given a chance to analyse and present their views as individuals, in pairs, or as a group. As they analyse transactions, they are likely to develop critical thinking skills because as they report back, questions may arise, which will require them to respond. Educators need to plan and teach with the general aims of CAPS in mind to ensure that learners are developed in line with the requirements of CAPS. In FL, financial language is used to communicate financial information; therefore, to master the skill of analysing transactions, a learner must understand the language used in a subject discipline.

For learners to easily assimilate the financial language used in the subject, educators should always ensure that they relate the learning content to real-life situations so that

learners can relate the concepts to their daily life experiences. This will make learners to understand the concepts better. The language barrier will result in inaccurate analysis of a transaction; thus, leading to incorrect recording. This means that educators need to always ensure that concepts are well explained by means of examples and that prior knowledge is activated to build on existing knowledge.

5.12 CHAPTER SUMMARY

The chapter provided the description of the following biographical information of participants: gender, age group, qualifications, level of education in FL (Accounting) and teaching experience in the subject. This was followed by a presentation of the results obtained through lesson observations, individual interviews and the review of learners' and educators' records using a "within-method" type of triangulation. Data were analysed, interpreted, and discussed jointly to avert repetitions. During this process, themes and sub-themes were developed. The literature review and conceptual framework provided a structured plan for data collection, analysis, interpretation, and discussion. The next chapter focuses on the summary, conclusions, and recommendations.

CHAPTER 6:

SUMMARY, RECOMMENDATIONS AND CONCLUSION

6.1 INTRODUCTION

This final chapter starts by restating the objectives of the study followed by the presentation of the summary of each chapter. This chapter also presents the limitations, contributions of the study and makes suggestions for further research. The conclusions, and recommendations are presented in line with the objectives of the study which were to:

- Establish the types of knowledge base that Economic and Management Sciences educators possess to teach Financial Literacy.
- Explore the views of Economic and Management Sciences educators regarding the challenges faced by Financial Literacy educators who do not have an Accounting background.
- Determine the curriculum knowledge of Economic and Management Sciences educators in the teaching of Financial Literacy.
- Examine EMS educators' knowledge in administering assessment in Financial Literacy.
- Explore and identify the teaching and learning activities employed by educators in the teaching of Financial Literacy.
- Ascertain the views of Economic and Management Sciences educators regarding learners' learning difficulties in Financial Literacy.

6.2 SUMMARY OF THE THESIS

Chapter 1, the orientation of this chapter, focused on the introduction and background. The motivation for exploring the PCK of EMS educators in teaching Financial Literacy was provided in this chapter. The research problem was discussed. This was followed by the formulation of research questions and objectives. Theoretical and conceptual frameworks were selected to guide the thesis in terms of data collection and analysis of findings. Concepts used throughout the study were clarified. An overview of the research methodology and design, trustworthiness, and research ethics were presented in this chapter.

Chapter 2 provided the literature review. The chapter started by focusing on the rationale for the introduction of FL in South Africa followed by the exploration of international experience on educators' knowledge in teaching FL. This chapter also explored the following aspects: the nature of the FL curriculum in South Africa, the role of FL, the domains to teach and assess in FL, and the role of subject specialisation in teaching.

Chapter 3 articulated the theoretical and conceptual frameworks. This was done by explaining the role of theory in research followed by introducing the theoretical framework that underpinned the study. PCK was selected as a suitable theoretical framework to provide a roadmap for the study. This chapter provided a detailed explanation of the origin of PCK and why this theory was introduced. The rationale for selecting PCK to guide the study was explained in this chapter. The conceptual framework provided a comprehensive discussion of the components and sub-components of PCK which informed the data collection instruments used to collect data.

Chapter 4 presented the research paradigm, methodology, design, and instruments used to collect data. Interpretivist research paradigm was adopted since scholars of this paradigm prefer to work with qualitative data. The research paradigm was defined, discussed, and applied in relation to the following philosophical four domains: ontology, epistemology, axiology and methodology. Consistent with qualitative research, a phenomenological research design was found to be suitable to explore the experiences, meaning, and perceptions of EMS educators about the teaching of FL. The pilot study was conducted as a "trial run" prior to a full-scale research study with the aim of pre-testing the research instruments. Trustworthiness was guaranteed by employing the following four strategies: credibility, transferability, dependability and conformability. These guidelines were used with the aim of assessing trustworthiness and to defend the integrity of qualitative data collected.

Chapter 5 presented the data analysis, interpretation and a discussion of findings. The chapter started by outlining the participants' biographical information, followed by the protocol followed in conducting lesson observations, interviews, and document analysis. The data analysis and interpretation process were also briefly discussed. This was followed by the themes and sub-themes that were developed. This chapter

also discussed the empirical findings in relation to the research questions, literature review, and the theoretical and conceptual framework.

6.4 CONCLUSIONS

To explore the PCK of EMS educators in teaching FL, it was crucial for the researcher to observe participants in practice, conduct interviews with them and scrutinise learners' and participants' records to respond to the research questions. Permission to conduct interviews and observe educators in practice was granted to the researcher (*cf.* Appendix B and C). The conclusions are therefore presented in relation to the data obtained through the multiple methods of data collection. The study found some limitations in the PCK of EMS educators in teaching FL. The limitations were noted in the educators' knowledge of the learning content, assessment, curriculum, instructional methods and strategies as well as educators' knowledge of learners' learning difficulties.

Based on the information obtained through lesson observations, interviews and document analysis, the following conclusions are made in accordance with the study's objectives.

6.4.1 Conclusions in relation to the First Objective

The first objective was to establish the types of knowledge base that EMS educators possess to teach Financial Literacy. The focus was on participants' knowledge and teaching of different knowledge dimensions, namely factual, conceptual, procedural and metacognitive knowledge. It transpired from lesson observations that three different types of knowledge dimensions were taught in different lessons observed. Metacognitive knowledge was not applied in all the lessons observed. Even though the three knowledge dimensions were taught, this took place by default. During interviews, educators could not specify the type of knowledge taught. This suggested that they were not conversant with the different types of knowledge dimensions and the framework to teach them.

6.4.1.1 Factual knowledge

In some lessons, only factual knowledge was taught where learners were expected to know the definitions of terms. The teaching of factual knowledge was observed in

terms of the teaching of terminologies, that is, the educators' knowledge of specific terms, which included the knowledge of symbols, signs and acronyms that are used as the language of communicating financial information in the subject discipline (Anderson et al., 2001:45; Shakhman & Barak, 2019:3).

The teaching of terms also included the use of signs, symbols and acronyms to convey financial information (DBE, 2011a:5). Participants tended to just write signs, symbols and acronyms without explaining why they were used or their importance. They did not ask questions to ascertain whether learners know the purpose of using signs, symbols and acronyms. It transpired during interviews that participants were not conversant with the knowledge dimensions. The researcher also conducted lesson observations during the first term which showed that teachers were not familiar with the framework used to teach factual knowledge and displayed deficiencies in the teaching thereof.

Furthermore, it was established that, in teaching factual knowledge, terms should be taught. In addition to the framework to teach factual knowledge as recommended by (Anderson et al., 2001:45), it was expected that educators would use their knowledge of the learning content in promoting an understanding of concepts. In this regard, participants did not encourage learners to provide examples or scenarios to show their understanding of concepts in relation to their daily life experiences. This means that participants did not activate prior learning to make it is easy for learners to integrate old information with new knowledge or to identify misconceptions and correct incorrect information in learners' minds. This would have enabled participants to determine prior knowledge and make additions to pre-existing knowledge and enhance learning. The questioning technique was not adequately used to determine prior knowledge and pitch the lesson in line with the existing learners' knowledge. A study conducted by Ambrose et al. (2010:14) revealed that when prior knowledge is inadequately activated in the mind of a learner or it is sluggish and inaccurate, it will impede progress in new learning; however, the opposite will provide a strong foundation on which educators can build new knowledge (Ambrose et al., 2010:4). Fry et al. (2009:10) asserted that it remains the duty of educators to change any misconceptions and make additions to pre-existing knowledge and understanding so that learning can take place; otherwise, learning will not occur. This means that for learners to understand new concepts, educators need to undo the incorrect information that learners possess, and where

prior knowledge is accurate, the educator needs to build on these concepts during instruction to make learning easy. Jones and Brader-Araje (2002:4) argued that educators need to establish what kind of information learners have about the topic and then provide new knowledge and learning experiences that will confront prior conceptions to promote conceptual development.

It transpired during lesson observations that the questioning technique was used in teaching factual knowledge; however, it was noted that educators tended to ask learners closed-ended type of questions. The questioning technique used did not promote critical thinking as required by CAPS. The closed-ended questions used promoted rote learning. There were no follow-up questions asked to encourage learners to provide reasons for their responses. This means that the questioning technique was not used to promote meaningful learner involvement in new knowledge creation. It was not used to stimulate two-way communication, encourage learners to be lively participants in constructing knowledge, nor to encourage learners to contribute meaningfully to knowledge creation and acquisition. Participants failed to promote meaningful interaction during the teaching of factual knowledge. This means that the participants' teaching of factual knowledge was not comprehensive. It was noted that during the interviews that participants allowed learners to respond in a chorus form. This made it difficult for them to identify learners with learning barriers. Allowing learners to respond in this manner made it impossible for participants to identify learners who cannot read, hear or see properly. This suggests that learners with learning barriers were not supported.

It emerged from the study that participants used textbooks for the teaching of factual knowledge. Participants did not try to relate the learning content to the current practices in the financial sector. For example, in teaching source documents, participants still used cheques and cheque counterfoil as a source of information. The source document for when using electronic fund transfer (EFT) was never mentioned to educate learners of the type of source document that should be available in a business. Factual knowledge also included the educators' knowledge of specific details and elements. In this regard, the framework proposed by Anderson et al. (2001:47) that refers to knowledge of events, locations, people, dates, and sources of information were well applied. The structure of journals and the analysis of columns were explained to learners. This included the following aspects: name of the journal,

name of the business, month, year, column to indicate source document, bank, receipts, payment transactions applicable to the business, as well as a sundry accounts section. This was also taught by default since educators were not acquainted with the framework to teach factual knowledge.

6.4.1.2 Conceptual knowledge

With respect to educators' conceptual knowledge, it was found that the knowledge of classifications and categories were taught in line with the framework suggested by Anderson et al. (2001:49). The teaching of conceptual knowledge articulated the core concepts and their relatedness. For example, in teaching the cash payments journal (CPJ) and cash receipts journal (CRJ), learners were told that payments incurred in the business related to CPJ and all income received by the business related to CRJ. This related to the classification of financial transactions taking place in a business. The core concepts in facilitating the recording of transactions in appropriate subsidiary journals were communicated and explained to the learners. Learners were therefore able to classify transactions during the analysis of transactions for CPJ and CRJ.

In one lesson, the participant provided learners with key words to use in identifying and classifying transactions according to payments and receipts. The key words provided learners with hints during the analysis, classification, and recording of transactions. The categories of CPJ and CRJ were shared with learners. This was done by drawing and demonstrating the components of the two subsidiary journals (*cf.* figure 5.1 and 5.2). However, it was noted that in teaching conceptual knowledge, some participants tended to teach concepts in isolation. This is contrary to Shakhman and Barak (2019:3) and Schneider and Rittle-Johnson (2011:1525) who stated that educators needed to show the relatedness of concepts and how they relate to other sections of the learning content. Lesson observations revealed that participants did not show the interrelatedness of FL concepts.

Educators displayed some limitations in teaching conceptual knowledge. Yurniwati and Yarmi (2020:188) were of the view that an educator with adequate conceptual knowledge needs to explain concepts and understand the existing relationship between them. In teaching General Ledger accounts, various T-accounts were opened which consisted of assets, owner's equity, and liabilities. The grouping of accounts according to assets, owner's equity, and liabilities was not demonstrated to learners

when opening the T-Accounts in the General Ledger Accounts. Literature revealed that conceptual knowledge is rich with relations (Khashan, 2014:182); therefore, educators need always to display this in their teaching of FL concepts. As learners analyse and classify transactions, they need to know the relationship that exists between and among FL concepts. According to Al-Mutawah et al. (2019:259), competency in a subject depends on learners' conceptual development and finding connection of concepts and procedures. Furthermore, conceptual knowledge and understanding means learners understand concepts, how they are used and their relatedness (Al-Mutawah et al., 2019:260). This is a skill that educators need to inculcate in learners for effective teaching and learning to be realised. Literature reveals that a lack of appropriate conceptual development may lead learners into using incorrect information in their endeavour to solve FL problems (Surif et al., 2012:419). Therefore, learners need to be trained to apply and relate concepts to current, past and future topics or learning content.

As noted with the teaching of factual knowledge, participants did not encourage learners to come up with examples to show their understanding of concepts. This meant that factual knowledge was not learnt meaningfully. According to Khashan (2014:216), conceptual knowledge is reflected through learners' ability to provide relevant examples to show their understanding and application of concepts. Al-Mutawah et al. (2019:259) concurred with Khashan (2014) that the learners' ability to provide examples related to concepts presented in class demonstrates their understanding of concepts. In line with Egodawatte and Stoilescu (2015:291), educators need to ensure that conceptual knowledge is learnt meaningfully as, according to VanScoy (2019:169), conceptual knowledge is acquired through meaningful learning. The use of examples serves as an indicator that learners can apply by relating the learning content to real-life situations.

Conceptual knowledge also includes the educators' knowledge of principles and simplifications (VanScoy, 2019:168). In this regard, the study found that principles to be observed when analysing and recording transactions were shared with learners. Participants shared with learners the simple methods to use when recording and balancing the General Ledger. In one class, the "DAX" (drawings, assets, and expenses) and "CIL" (capital, income, and liabilities) principles were shared with learners in ensuring that the Trial Balance was properly recorded. Learners were told

that drawings, assets, and expenses are recorded on the debit side while capital, income, and liabilities are recorded on the credit side of the Trial Balance. Provision of such a principle assisted learners in classifying and recording transactions properly in the Trial Balance. In balancing the General Ledger Accounts, the simplified methods were shared with learners.

Conceptual knowledge also includes the educators' knowledge and teaching of models and structures (Ilhan, 2019:46). The study found that, in one lesson, the accounting cycle was used to show the flow and relatedness of concepts. Learners were told always to keep the cycle in mind as they analysed, interpreted and recorded various transactions in FL. The structures of the CPJ and CRJ were also shared with learners. In one lesson, the accounting equation was used to show the grouping of transactions according to assets, owner's equity, and liabilities. The participants used their conceptual knowledge in showing the connection between and among concepts. With regard to the accounting cycle, the participant indicated how concepts presented in the current lesson related to other topics that would be presented in future lessons. This was found to be enriching and informative.

6.4.1.3 Procedural knowledge

Regarding educators' knowledge and teaching of procedural knowledge, subject specific skills and set of rules were shared with learners where they were shown the order or sequence of steps to be followed in analysing, interpreting, and recording transactions on the journals, General Ledger, and Trial Balance. In this knowledge dimension, learners were now required to apply factual and conceptual knowledge. Participants demonstrated the procedures to be followed before learners were required to complete an activity. This finding relates "knowledge of how" to do something or the procedure followed in carrying out or completing an activity (Anderson et al., 2001:52; Shakhman & Barak, 2019:3). VanScoy (2019:169) described procedural knowledge as a "step-by-step" instruction or knowledge of steps required in completing a task.

Consistent with Anderson et al. (2001:53), subject-specific techniques, methods, procedures and the set of rules to be applied in analysing, interpreting and recording transactions were shared with learners. Participants demonstrated on the chalkboard the procedures to be followed in recording transactions. This was done by using a

question-and-answer method of teaching. As noted with the teaching of factual and conceptual knowledge, participants tended to allow learners to respond in a chorus form; this was also observed in the teaching of procedural knowledge. It was therefore not possible to ascertain if all learners were conversant with the rules, methods, principles and procedures to follow in analysing, interpreting and recording transactions in the subsidiary journals. Learners were also not afforded the opportunity to show their understanding of content by writing or drawing on the chalkboard.

It was also noted that participants tended to assume that learners understood what was being taught. For example, they did not ask learners why certain transactions were recorded in the sundry accounts section. There were no follow-ups made to ascertain whether learners knew the purpose of the sundry accounts section. Asking follow-up questions would have promoted active participation in the lesson. Misconceptions would have been corrected. Learners would learn from their peers' responses.

6.4.1.4 Metacognitive knowledge

With respect to educators' knowledge and implementation of metacognitive knowledge during instruction, the study found that this knowledge dimension was not applied in all the lessons observed. It can be concluded that participants were not familiar with the concept of metacognitive knowledge. Lesson objectives were not formulated and communicated to learners so that they could monitor, evaluate and reflect on their learning progress. Learners could not be strategic in their approach because there were no benchmarks set and communicated to them. This means that teaching and learning happened in a vacuum. Learners cannot listen and participate without knowing the lesson objectives.

Teaching and learning activities were not interactive in all the lessons observed. It was therefore impossible to observe how learners monitored their performance in completing activities given to them. Group work and peer teaching was not implemented; therefore, it was not possible to observe how learners reflected on their own work and evaluated themselves based on the instructions given in completing a task. Educators need to have an in-depth knowledge and understanding of the metacognitive knowledge for them to apply this knowledge dimension in their daily teaching of FL. This implies that there is a strong need to promote the teaching of

metacognitive knowledge so that this type of knowledge dimension can be infused into the daily teaching of FL.

The study found that there were limitations in the participants' knowledge and teaching of the different types of knowledge dimensions and the framework within which to teach each knowledge dimension. It was evident that factual, conceptual and procedural knowledge were taught by default because participants were not familiar with the types of knowledge taught during instruction. With respect to metacognitive knowledge, it came to the researchers' attention that it was not implemented at all in all the lessons observed. Thus, it can be concluded that all the participants observed were not familiar with this type of knowledge dimension.

6.4.2 Conclusions in relation to the Second Objective

The second objective was to explore the views of EMS educators regarding the challenges faced by Financial Literacy educators who do not have an Accounting background.

The findings revealed that the observed EMS educators had the competency to teach FL. These participants have accounting backgrounds at various levels; some have secondary education, others have Accounting at first and second-year university level while others had previously specialised in Accounting. The biographical information of participants revealed that EMS educators had a wealth of teaching experience in the subject, except for two participants. In response to the question relating to the challenges faced by EMS educators without a background in Accounting, but are teaching FL, participants believed that it would be difficult for such educators to teach the subject well. They were of the view that educators who do not have an accounting background would struggle to teach concepts in an integrated manner. This finding concurs with Ngwenya (2014:175) who asserted that educators that have inadequate knowledge on learning content tend to teach concepts in isolation and find it difficult to find the connection among the concepts. Participants felt that FL concepts were interrelated and should not be taught in isolation; therefore, they were of the view that educators who did not have an accounting background might not be able to show the connection between concepts. Conversely, participants possessed the required minimum qualifications in Accounting; however, observations revealed that they also taught concepts in isolation. This clearly showed that knowledge of the learning

content alone is not adequate in promoting an understanding of concepts – what is required is knowing how to teach the content in a way that learners will understand and acquire knowledge. This means that educators need to be conversant with appropriate teaching methods and strategies to teach concepts for the benefit of learners' understanding.

Participants believed that non-Accounting educators would convey inaccurate information and ideas to learners. They believed that such educators would be learning with the learners. They might not use appropriate examples to extend learners' knowledge. Ngwenya (2014:175) also believed that teachers who were lacking in learning content knowledge were ill-equipped to be able to explain and present topics in a logical and coherent manner that would make learners grasp the concepts easily. Participants believed that such educators would provide limited information (because of being familiar only with theory) and might not relate the concepts to real-life experiences.

Participants believed that educators who lacked adequate knowledge in Accounting might not offer learners different approaches and strategies to help them understand the subject better. This finding confirms the study conducted by Mizzi (2013:3) who believed that educators with a strong knowledge of the learning content tended to apply different teaching methods and strategies. Ezeudu and Utazi (2014:79) and Jadama (2014:26-27) also believed that the educators' knowledge of the learning content allowed them to apply various teaching methodologies. Mizzi (2013:3) maintained that educators who have in-depth knowledge of the learning content were likely to offer learners different approaches and explanations to help them understand complex concepts within a subject. The biographical information of participants revealed that 15 out 16 had adequate knowledge of Accounting; however, they also did not display appropriate knowledge of teaching methods. According to Ardzejewska, McMaugh and Coutts (2010: 204), a specialist in the field of inquiry brings numerous dimensions to the teaching of a subject. Lesson observations revealed a lack of the application of social interactive and inquiry methods of teaching. The questioning technique used did not stimulate interaction between educators and learners or among learners – it did not promote critical thinking. All the participants observed relied heavily on lectures, demonstrations and a questioning technique that

promoted a yes or no responses. Participants did not promote meaningful learner involvement.

Participants believed that the non-specialist educators would struggle to answer difficult questions posed by learners due to their limited knowledge of the learning content. This assertion is supported by Ezeudu and Utazi (2014:79) who believed that subject specialisation empowered educators to handle learners' questions and to adequately promote divergent questions during instruction which displayed their knowledge and understanding of concepts. Furthermore, the study conducted by Jadama (2014:25) revealed that an educator who had little knowledge about the learning content might find it extremely difficult to answer varied questions from learners. The researcher could not observe how participants responded to questions posed by learners since they did not create opportunities for learners to engage meaningfully during instruction. Learners responded only to questions posed by educators – two-way communication was not promoted. Literature revealed that the provision of diverse and alternative answers to questions probed by learners was determined by the educators' in-depth knowledge of the learning content (Jadama, 2014:26). Educators need to create a learning environment where learners meaningfully engage in new knowledge creation. Learners need to be encouraged to be responsible for their own learning.

Participants also believed that educators who did not have adequate learning content background in Accounting might only teach content that was viewed as simple. They might neglect important topics, thereby not building a proper foundation in the subject. Yildirim and Yazici (2017:115) concurred with participants that educators' deficiencies in the knowledge of the learning content would result in weak learning as some of the important topics might be ignored because of lack of competency in teaching them. According to Jadama (2014:27), educators' knowledge and understanding of the subject content means that an educator can teach the main points of the learning content. Yildirim and Yazici (2017:113) were of the view that such an educator had good knowledge and in-depth understanding of concepts and could convey them to learners in the classroom. Despite the challenges noted in the teaching of FL concepts, participants taught different FL concepts – there were no signs of avoiding certain topics.

Participants highlighted challenges that educators who lacked adequate knowledge in Accounting would face in teaching FL; however, these participants did not ensure that the aspects mentioned were considered and implemented in their teaching of FL. This means that participants knew the kind of knowledge required to teach FL but they themselves did not implement some of the factors mentioned. FL is a practical subject which require learners to learn by doing. Educators should have created opportunities for learners to interact and learn from one another. Even though participants mentioned the challenges that educators who did not have a background in Accounting would face in teaching FL, in one school, one participant highlighted the importance of a school-based mentorship programme where subject specialists mentored non-specialists in the subject. The specialists in the subject would show other educators how a particular topic or concept could be taught using different teaching strategies. This system was viewed in a positive light as educators would get in-house assistance as opposed to waiting for external intervention. The role of subject specialisation was regarded by Mizzi (2013:3) as beneficial to educators who were not specialists in the field because such educators could seek help and guidance from specialists within the school. Mizzi advocated for a school-based mentoring system. Mizzi (2013:3-4) viewed such support base as the most efficient strategy to help educators deal with their weaknesses in the subject discipline. In the same vein, Mokotedi (2013:91) also viewed the establishment of a mentoring system as helpful since professional relationships were enhanced with the aim of assisting fellow educators in developing adequate PCK.

6.4.3 Conclusions in relation to the Third Objective

The third objective was to determine the curriculum knowledge of EMS educators in the teaching of Financial Literacy.

The study found that participants were knowledgeable about the curriculum; however, it transpired that they did not formulate lesson objectives to ensure that their teaching was guided by them. There was no communication of lesson objectives to learners in the beginning and during instruction. This meant that learners did not engage in learning activities with the objectives in their minds. This finding is not consistent with Reed (2012:16) and Gagné, Briggs and Wager (1992:1) who maintained that educators need to inform learners at the beginning of the lesson about the knowledge

and skills that they wanted them to achieve by the end of the lesson. Fives, Barnes, Dacey and Gillis (2016:71) concurred that educators needed to formulate and communicate the lesson objectives to learners. The non-communication of lesson objectives meant that the teaching and learning activities were not guided by what learners should aspire to achieve during and at the end of the lesson or topic. This was a concern since the CAPS document for EMS includes knowledge, skills and values, suggesting that there should be formulation of lesson objectives in line with the three dimensions to ensure that teaching of FL occurs in a balanced way. There is no doubt that knowledge and skills were taught; however, this was not done in a structured way. The examination of the available lesson plans revealed that the lesson plan template did not make provision for lesson objectives. The lack of formulation of lesson objectives in line with knowledge, skills and values is believed to have an impact on the quality of assessment because some of the topics and concepts might not be assessed at the appropriate level. Learners would also not be able to assess their progress against the pre-determined lesson objectives.

It was found that most participants were conversant with what they wanted their learners to be able to do during and at the end of the lesson. This means that they knew the lesson objectives. However, it was noted that there were participants who did not know what their learners were expected to be able to do at the end of the lesson/topic. These participants did not know the objectives of their lessons suggesting that the lessons were presented in a vacuum. The lack of the formulation of the lesson objectives means that educators did not put any measures in place to reflect on the success of the lessons presented.

It was evident from the interviews that most participants knew the purpose of formulating lesson objectives. According to them, lesson objectives enabled them to stay focused on the topic to be presented and not to be side-tracked. This finding supported the assertion by Acito (2002:1) who maintained that the formulation of lesson objectives provided a clear framework of how the learning content needed to be presented and what action learners should be able to perform at the end of the topic/lesson. Lesson objectives provide learners with clarity, precision and transparency pertaining to the content to be presented to learners (Ambrose et al., 2010:244; Popenici & Millar, 2015:2).

Literature showed that formulating lesson objectives helps educators to organise their thoughts regarding the lesson to be presented (Fielder, 2014:19). Lesson objectives articulate the content and cognitive verbs specifying the level at which the content needs to be taught. They also provide guidance on how knowledge and skills need to be assessed. This view was supported by Zhang and Patrick (2012:167) who stated that a verb contained in the lesson objective needed to describe how the content should be taught and assessed. The role of lesson objectives was to enable educators to reflect and gauge the success of the lesson. However, this is not possible if they are not formulated and communicated to learners. The absence of lesson objectives was very disturbing. Participants defended this by arguing that planning was provided by the subject facilitators and their role was to implement the teaching plan provided. This meant that participants did not modify the plans to suit their teaching and learning needs in class nor did they interact with the plan provided and use it to benefit their learners during instruction. This clearly indicated lack of autonomy in planning.

Sharing lesson objectives with learners is likely to produce good results because they will learn and listen with the objectives in their minds. The feedback obtained from learners regarding the successful or unsuccessful achievement of lesson objectives should inform educators' planning and teaching methods and strategies. This shows that the formulation of lesson objectives would help educators to measure the effectiveness of the events implemented during instruction (Gagné et al., 1992:3).

The lack of formulation and communication of the lesson objectives made it impossible for the researcher to assess the synergy between learners' assessment and lesson objectives. Assessment tasks was provided to learners during and at the end of the lesson presentation; however, they were not driven by pre-determined lesson objectives. This means that teaching and learning does not occur in an "aligned system of instruction" (Biggs, 1999:64). Participants did not ensure that there is synergy between lesson objectives and assessment. Literature revealed that there ought to be a link between the learning and assessment activities as well as the lesson objectives (Reed, 2012:22). This would guide learners in doing their work, in turn enhancing their learning. Reed was supported by Acito (2002:1) who articulated that assessment activities, whether formative or summative, should be formulated directly from learning objectives to ensure that learning activities directly addressed what learners are meant to benefit from instruction.

Even though lesson objectives were not formulated and communicated to learners, participants felt that lesson objectives were achieved. This could not be measured because there was no benchmark set. It was not possible for the researcher to assess the knowledge, skills, and values acquired by learners during instruction in line with the objectives. Gagné et al. (1992:3) were of the view that learner performance needs to be measured in line with the pre-determined lesson objectives. However, there was no specific measurable indicator to determine the success and quality of the lesson presented (Reed, 2012:17).

With respect to educators' knowledge of resources to use in teaching FL, the study found that participants limited their knowledge to the resources listed in the CAPS document for EMS. They did not display knowledge of the teaching and learning material to promote effective knowledge and understanding of concepts. Good subject posters, as viewed by Shabiralyani et al. (2015:228), could help with language barriers. They promote ongoing and incidental learning. The study found that walls in most classrooms were not print-rich with FL posters. Participants did not ensure that there is continued and incidental learning of concepts even in the absence of an educator. During interviews, participants did not mention teaching and learning resources such as posters, Google and YouTube videos as useful resources. Participants displayed limited knowledge of material to use to enhance the implementation of the curriculum.

6.4.4 Conclusions in relation to the Fourth Objective

The fourth objective was to examine EMS educators' knowledge in administering assessment in Financial Literacy.

The study found that most participants were conversant with the two methods of assessment, namely formative and summative assessment. During lesson observations, emphasis was placed on the application of formative assessment at the beginning, during and at the end of the lessons. There was evidence that factual, conceptual and procedural knowledge dimensions were assessed during and at the end of the lesson or topic, although metacognitive knowledge was not taught in all the lessons observed and it can be concluded that it was not assessed.

There was evidence that skills were assessed during teaching. It was clear; however, that the CAPS document for EMS does not articulate subject-specific skills that educators need to assess. However, the way skills were assessed was consistent with the skills outlined in the CAPS document for Accounting Grades 10-12 (DBE, 2011b:9). Participants were aware of the subject-specific skills that learners needed to acquire in FL. For example, participants mentioned that they expected learners to know the definitions of concepts, analyse and interpret transactions, and record them in appropriate journals, the General Ledger and the Trial Balance.

In lessons where journals were taught, learners were presented with transactions to analyse, interpret and record in subsidiary journals. The Generally Accepted Accounting Principles (GAAP) were used to present and communicate financial information. The ability of learners to analyse, interpret, and record transactions on the journals, accounting equation, general ledger accounts, and trial balance demonstrated their understanding of fundamental accounting concepts. In other lessons observed, some examples provided displayed that learners related concepts into real-life situations – their ability to record transactions in different subsidiary journals demonstrated that they could apply knowledge gained to complement theory with practice. Educators need to encourage learners always to provide examples to show their understanding.

With respect to values, the literature review revealed that the CAPS document for EMS does not articulate the values that educators need to promote in the teaching of FL. Again, the review of the CAPS document for Accounting Grades 10-12 revealed that values to be promoted in the teaching of FL are clearly stated in it (DBE, 2011b:8-9). Participants did not mention the values that they wanted to promote in teaching FL. The reason for this is that values are not mentioned anywhere in the CAPS document for EMS, yet the general aims give expression to values as well. The CAPS document requires educators to teach values that are not spelt out. It was therefore not surprising to note that there were no values promoted in most lessons observed.

The purpose of formative assessment is to improve teaching. There was evidence that formative assessment was applied to improve teaching. The study revealed through interviews that the control tests administered at the end of each term were also used to improve teaching. Participants mentioned that after the administration of a control

test, diagnostic analysis is conducted to identify strengths and weaknesses of learners within the subject and the information is used to develop intervention strategies. This was found to be consistent with Popham (2014) cited in Haley-Speca (2016:15) who asserted that tests may be formative or summative depending on the reasons why a test is administered. In this case, tests were used as a diagnostic tool to obtain data to use in developing intervention strategies aimed at improving teaching.

6.4.4.1 Application of formative assessment

The study found that most participants had the perception that formative assessment takes place when learners are provided with a class or homework activity and control tests. The questioning technique used at the beginning and during lesson presentation was not mentioned as part of formative assessment. This continuous assessment method of teaching applied was not viewed as formative assessment. This was found to be contradictory to the literature, which states that formative assessment can take place at the beginning, during and at the end of lesson presentation (Natalia et al., 2018:49; Riley-Ayers, 2014:4; Shuichi, 2016:85). Participants displayed a lack of adequate knowledge regarding the implementation of formative assessment at various points during instruction.

Assessment is about collecting evidence regarding learning progress; therefore, it can take place at different intervals during lesson presentation. The misinterpretation of formative assessment means that participants do not use the benefits of this type of assessment to collect evidence about the learning progress during instruction. The study also found that there were some participants who confused formative assessment with formal assessment. This was concerning because participants might not use the benefits that come with the application of formative assessment aimed at improving teaching. This misinterpretation of the application of formative assessment may lead to misrepresentation of this type of assessment, which in turn will negatively impact its purpose.

Some weaknesses of formative assessment were observed. Learners were not given enough time to think in responding to questions posed by educators. According to Qu and Zhang (2013:338), opinions are not objective; therefore, more time is needed for learners to respond to questions asked. The study found that the control of assessment activities by participants revealed that they do not take daily assessment

seriously – this is said to be due to little value placed on this type of assessment. This was concerning because if learners realised that educators also did not take formative assessment seriously, learners would be discouraged, and it could impact negatively on their performance as incorrect information would not be corrected.

This means learners would enter the examination room with misleading and incorrect information. It was clear that educators did not realise the long-term value of formative assessment in teaching and knowledge acquisition. If this kind of practice is not corrected, it will have a negative impact on summative assessment, grading, and progression. The study also found that maximum participation was not promoted in responding to questions posed by educators during instruction. The study also found that convergent types of questions were used during instruction. These types of questions did not promote critical thinking; instead, learners were required to regurgitate information. There was heavy reliance on the use of pencil-and-paper assessment during instruction. Discussion and cooperative learning were not implemented where educators would use an observation checklist in assessing learner participation during group discussions.

Participants tended to focus on learners seated in front while ignoring those seated at the back of the classroom. They also allowed learners to respond in a chorus form making it difficult for them to identify learners who may have learning barriers related to language, reading, eyesight or hearing problems. A lack of respect amongst learners was noted during the question-and-answer sessions – some learners did not show respect for fellow learners. They laughed at them when incorrect answers were given. The absence of the display of classroom rules might have contributed to this. Educators need to ensure the implementation of the code of conduct by formulating classroom rules articulating the expected conduct and behaviour in the classroom.

6.4.4.2 Assessment in financial literacy

The study found that the amount of FL activities available in the learners' books was insufficient. It remained unclear whether the schools' subject policies indicated the number of activities to be given to learners per week. The policy could not be scrutinised since it was not part of the scope of work to be carried out for the study. If the subject policies of the school do not address the amount of work to be given per week, then it is not easy to say whether the work is sufficient or insufficient since there

is no benchmark set. Question papers were examined to ascertain whether Paper 1 was for FL and Paper 2 for Economy and Entrepreneurship, as required by the GET CAPS Amendment 2019 (DBE, 2019:40). It came to light that participants do not divide the tests into two: Paper 1 and 2 (to familiarise learners with the format of the final examination paper).

6.4.4.3 Learners attitude in self-assessment

The study found that learners did not show a good attitude towards their schoolwork. They did not mark their work or do the corrections. This showed a poor culture of learning and lack of commitment, as well as interest in their schoolwork. It remained unclear whether the code of conduct for learners gave expression to schedules of misconduct articulating the offences. If not, failure to complete class or homework activities should be regarded as misconduct and this needs to be clearly articulated in the code of conduct for learners. There were no classroom rules displayed on the walls; therefore, the researcher could not ascertain whether the management of schoolwork by learners was catered for in the rules.

6.4.4.4 The quality of marking of financial literacy activities

The study found that the quality of marking for FL (Accounting) activities had limitations – the marking of formative assessment activities was not done in the same manner as it was done for formal assessments. For example, the memorandum in the participants' files indicated that there were marks allocated in different sections of the questions. It clearly indicated how learners would earn marks for each question. In contrast, the marking of informal activities was found to be unconstructive. The marking was not guided because there were no ticks indicating how marks would be earned. The marking did not confirm whether a learner was correct or wrong; instead, participants appended their signature as evidence that they had seen the work. Higgins, Grant, Thompson and Montarzino (2010:5) viewed the application of formative assessment as a short-term strategy used to collect evidence on learner performance and to improve and guide teaching and learning; hence, feedback is crucial. Gagné et al. (1992:196-197) maintained strongly that learners need to be provided with feedback confirming the correctness of their performance.

Scrutiny of learners' exercise books revealed that learners were, therefore, not provided with constructive, encouraging and developmental feedback that guided them on how to improve their performance. The marking criteria for an assessment were not seen as transparent and clear since they did not indicate what was required of learners to obtain good marks. This kind of feedback did not show learners where they did well and areas that required improvement. Additionally, it was believed that this kind of feedback did not assist learners in learning and the assessment processes; instead, the feedback provided was ambiguous. The control of learners' books by participants was therefore concerning because it gave the impression that learners' work was correct (this was based on the ticks for correct answers and signature appended). The participants' knowledge of assessment was therefore found to have some limitations.

On the other hand, the study found that the style of marking used by some participants was guiding, constructive and developmental in that it indicated how learners earned marks in different sections of the work. It clearly indicated sections where learners did well and where they needed to improve. In this way, misconceptions were corrected in preparing learners for summative assessment.

6.4.4.5 The quality and type of questions asked during instruction

The types of questions used during instruction did not empower learners with critical thinking and analytical skills since participants tended to use convergent types of questions that required learners to provide yes or no answers. This finding confirmed the assertion made by Browne (2016:3) who perceived formative assessment as deficient due to poorly focused questions used by educators which require short answers that promote factual knowledge involving regurgitation rather than reflection. Mikre (2010:107) concurred with Browne that classroom questions usually focus on low cognitive levels of knowledge because educators do not ask thought-provoking questions that require learners to apply concepts, analyse and synthesise them. The why, what, and how questions were not asked. Learners were not encouraged to ask thought-provoking questions because participants themselves did not use this kind of question. This means that participants did not plan effective questions to ask in stimulating learners' critical thinking skills and to provoke discussion during instruction. This was inconsistent with CAPS which advocates for learners to be able to collect,

analyse and evaluate information (DBE, 2011a:5). This means that the kind of learner envisaged by CAPS will not be realised if participants promote rote learning in the classroom by asking closed-ended type of questions. Participants did not use their probing skills to elicit more information from learners. The questioning technique was not used to promote and encourage meaningful learner involvement. Participants did not encourage learners to provide reasons for their answers to show their understanding of concepts.

With respect to summative assessment, it has been mentioned in this study that tests may be formative or summative depending on the reasons why such a test is administered (Haley-Speca, 2016:15). This means that, in the South African context, tests are administered on a termly basis. The performance of learners is analysed to identify strengths and weaknesses within the subject and this diagnostic analysis of results is used to inform the intervention strategies. This means that the summative assessment for the term is also used to improve learning. Poor performance means that educators need to review their teaching methods and strategies. The literature also concurs with this assertion by stating that summative assessment provides educators with culminating evidence that helps them decide if learners have mastered certain content and skills, achieved specific standards, and are ready to move on to the next level of learning (Haley-Speca, 2016:14). This means that conducting summative assessment enables educators to grade learners based on evidence. Shuichi (2016:81) and Alahmadi et al. (2019:261) also agreed that summative assessment is used to make a judgement about what a learner has achieved at the end of a topic or syllabus. Crisp (2012:33), Anderson (2007:471), Agbulu and Idu (2008:246), Haley-Speca (2016:15), DBE (2011c:5) and Logaw (2017:40) shared the same sentiments that this type of assessment helps educators to make a judgement about the progress of learners at the end of a term and academic year.

Participants knew the purpose of summative assessment. Their articulation in this regard showed that they understood the use of this type of assessment in the South African curriculum since they indicated that it was used to check if learners understood the work for the term and that they were ready for the next term. They also showed understanding that this assessment is ultimately used for grading purposes at the end of the last term.

6.4.5 Conclusions in relation to the Fifth Objective

The fifth objective was to explore and identify the teaching and learning activities employed by educators in the teaching of Financial Literacy.

6.4.5.1 The lecture method

In terms of teacher-centred activities, Stripling et al. (2010:152) identified lecture and demonstration as strategies used by educators. The lecture method was used to explain concepts, principles and rules and to communicate the structures of the journals, accounting cycle, the format of the general ledger and trial balance. This method was used to provide learners with factual, conceptual and procedural knowledge. The study found that participants used a combination of a lecture together with question-and-answer method of teaching in the teaching of factual knowledge.

Consistent with Umoru and Haruna (2018:455), authors such as Kaur (2011:9), van Wyk and Reis (2016:105) and El-Sayed et al. (2017:62) agreed that the shortcomings of the lecture method are ameliorated by the merits of the question-and-answer method. This means that the lecture method was not used as a one-way communication channel. Most of the talking was done by educators; however, questions were asked to involve learners even though this was not done in a meaningful manner. Questions were asked just for the sake of involving learners in the lesson. They were not asked to promote effective teaching and to foster educator and learner interaction (Naz et al., 2013:149). In line with Gavric (2015:15), the learning and teaching activities were teacher-centred in that educators made the decisions and taught according to their predetermined plan. The role of learners was to answer questions posed by educators. This means that teaching was not interactive (Mwathwana et al., 2014:83).

Participants did not vary their methods of teaching to create room for differentiation. They did not consider that learners learn in different ways and needed to use teaching aids and different teaching methods to accommodate different learning abilities. CAPS envisages learners who can think critically but participants did not strike a balance in the application of teaching methods and strategies that promote critical thinking. The use of social interactive methods of teaching in the teaching and learning activities was not implemented in the teaching of FL.

In teaching procedural knowledge, participants used a combination of lectures, demonstrations and questioning techniques. The use of the lecture method in procedural knowledge was viewed to be consistent with Rahman et al. (2011:86) who asserted that no matter how practical the subject was, the facts, rules, principles, procedures, theories, and framework still needed to be explained to learners before they could be engaged in any activity. In teaching journals, participants started by explaining the facts, rules, principles, procedures and the structure of journals before learners were required to answer questions posed by educators. Participants illustrated the procedures to follow in recording transactions on the journals. This was done by applying the questioning technique; however, it was not used to promote critical thinking and meaningful learner involvement.

6.4.5.2 Types of questions

The types of questions used were closed-ended in that they required a yes or no answer. This means that learners were treated as passive thinkers because they were required to respond to only yes or no type of questions. The questions used also promoted surface learning because they promoted memorisation of information. Divergent types of questions were not used to encourage learners to think broadly about the learning content. Learners were not asked to elaborate, suggesting that active participation was not promoted. Participants did not ask questions that enabled learners to show their understanding of concepts and applicability of the knowledge gained, again suggesting that participants did not plan questions that cater for higher cognitive levels. Cotton (2001:3) found that a teaching method which included posing questions during lessons was more effective in producing achievement gains than teaching carried out without questioning learners. The questioning technique was applied during instruction; however, the questions asked were closed-ended and did not encourage meaningful interaction. To achieve what Cotton (2001) was alluding to, educators need to plan higher-order questions that stimulate critical thinking. A critical thinker, in this regard, is a learner who can analyse, organise, process, apply, evaluate information and ask challenging questions (Duron et al., 2006:160; Heng & Ziguang, 2015:67).

6.4.5.3 Demonstrations

The use of demonstrations enabled learners to record transactions in the journals according to payments and receipts. In other lessons, learners were able to balance the General Ledger Accounts and Trial Balance. Learners were able to see and hear the explanation of concepts through demonstration. This provided learners with practical knowledge (Dorgu, 2015:83; Umoru & Haruna, 2018:448). It also assisted in bridging the gap between theory and practice (Dorgu, 2015:83). Learners were able to follow the steps demonstrated by educators to record transactions on the CPJ and CRJ (Umoru & Haruna, 2018:448; Dorgu, 2015:83; Inuwa et al., 2018:579).

6.4.5.4 The lack of social interactive methods

The study found that only one strategy from the social interactive methods was used in all the lessons observed and this was the questioning technique. Discussion, cooperative and inquiry learning were not used at all. Participants did not create a learning atmosphere that promoted the interaction during teaching. There was no meaningful two-way communication between the educators and learners or among learners themselves. Learners were not actively involved in new knowledge creation. Teaching and learning activities were not structured to encourage learners to learn from their peers and develop social and critical thinking skills (Charity & Igwe, 2016:220).

CAPS envisages a learner who can "work successfully alone and as a group member" (DBE, 2011a:5). It was therefore concerning to note that participants did not create the learning atmosphere for learners to encourage and help each other in facilitating the completion of tasks (Ilić & Rešić, 2017:120). They did not create a learning environment where learners exchanged information and ideas among themselves and educators (Mwathwana et al., 2014:84). Active learner participation was not encouraged. Learners were not empowered to develop critical thinking or the ability to communicate amongst themselves in coming up with solutions to problems (Dorgu, 2015:82).

Participants did not create a learning environment wherein learners learn from each through face-to-face interaction. This type of teaching and learning activity according to Ilić and Rešić (2017:119) has "social and academic benefits" for learners. Teaching

and learning activities were not structured to permit learners to work and interact in pairs or in groups in analysing, interpreting, and recording transactions (Ilić & Rešić, 2017:119; Vrhovec, 2015:133; Herrmann, 2013:175; Macpherson, 2015:1). It remained unclear why cooperative learning was not applied during teaching in all the lessons observed. It could be construed that participants avoided a "free-rider problem" where some learners benefitted at the expense and hard work of other learners. The literature revealed that there are measures that could be put in place to circumvent this challenge.

Hennessey and Dionigi (2013:53) advised educators to implement measures such as a cooperative task and a cooperative incentive structure. In the former, learners work in groups towards the attainment of the set goals and the rewards are equally enjoyed by all members. However, in the latter, success in attaining the goal depends on the success of all group members and vice versa. Herrmann (2013:176) alluded to a "positive interdependence and individual accountability". The former means that the success of the group in attaining its goals is reliant on the collective effort and cooperation of all group members (Hennessey & Dionigi, 2013:53; Herrmann, 2013:176; Macpherson, 2015:1). This means that learners are linked to one another in such a way that one cannot succeed without the help of other learners (Macpherson, 2015:3). Learners need to be made aware of any measures put in place to ensure the effectiveness of the implementation of cooperative learning. The educator and learners need to agree on these measures so that there is ownership thereof.

The discovery and individualised learning from the learner-centred approach of teaching was also not applied. With respect to discovery learning, learners were not given space to discover things for themselves. According to Dorgu (2015:83), learners learn by experimenting, investigating and exploring strategies that can be helpful in solving problems. The literature revealed a structured method and the open discovery method as two types of discovery methods that can be implemented by educators. In a structured method, an educator gives a clear set of instructions that learners are to follow to "discover a fact, idea or skill for themselves" (Dorgu, 2015:83). In the context of FL, an educator could give learners a set of transactions to analyse, interpret and record in subsidiary journals. In the open discovery method, an educator could present a problem, give questions and directions that require learners to find answers (Dorgu, 2015:83). In the context of FL, an educator could formulate questions and leave some

blank spaces to be filled in by learners after working out solutions in recording transactions on the Accounting Equation, General Ledger, and Trial Balance, Debtors or Creditors Journals.

With regard to individualised learning, this strategy was also not applied in all the lessons observed. The teaching and learning activities did not cater for differentiation in the classroom. Malinović-Jovanović et al. (2018:14) posited that the starting point for the individualisation of instruction is the curriculum which consists of the objectives to be achieved in a particular subject. It has been mentioned earlier in the study that educators did not formulate and communicate lesson objectives to learners. Learners were not informed of the actions that they needed to be able to perform during instruction. In other words, learners were learning in a vacuum because they were not aware of the objectives that they needed to achieve.

According to Malinović-Jovanović et al. (2018:14) and Chamberlin and Powers (2010:114), individualised learning is based on an individual approach; therefore, educators need to prepare learning material in line with the cognitive learning abilities of learners. There was no evidence during lesson observations and the scrutiny of educators' planning that learning material was prepared according to learners' different learning abilities. Participants were rigid and not flexible in their teaching approach. The teaching and learning activities were limited to lectures, demonstrations and question-and-answer methods. Other teaching strategies were not explored to ensure meaningful learner involvement and active participation. Participants did not plan for differentiation and ensure that diversity was accommodated in the classroom. They did not create a conducive learning environment that advanced different learning abilities. Subject posters were not displayed to promote ongoing learning.

6.4.6 Conclusions in relation to the Sixth Objective

The sixth objective was to ascertain the views of EMS educators regarding learners' learning difficulties in Financial Literacy.

6.4.6.1 Rote learning

The study found that participants promoted rote learning rather than deep learning. Learners were expected to regurgitate information and not provide reasons for their answers. The study further found that participants had the perception that learners

were lazy to practise on their own. Observations revealed that this culture of practising was not promoted in class. Learners were not kept busy during instruction by being actively involved in analysing, interpreting, recording and solving problems so that even at home there could be a continuation of the culture promoted during lessons. Participants expected learners to do something that was not promoted in class. They complained about the prevalence of a poor ethos of learning that was engulfed by the culture of dependency. Participants complained that learners did not practise the concepts that were presented in class at home to ensure reinforcement.

6.4.6.2 Negative attitudes caused by boredom

Participants had the perception that learners did not have interest in FL and had negative attitudes about the subject. It was not surprising to hear such statements because the teaching methods used by participants did not make the subject appealing to learners. FL is a practical subject that requires a practical and theoretical educator, not a theory-only educator. Participants mentioned that most learners had already taken the decision that they would not pursue the subject after Grade 9. The literature concurred with this assertion that if learners felt that the subject discipline was difficult and boring, they were likely to take a decision not to pursue further studies in it (Türkarslan & Akdemir, 2019:152). This shows that attitudes are influential in the individuals' choices, behaviours and actions (Xiong et al., 2014:2).

This was viewed to be an indictment on participants because of the teaching methods and strategies used to teach a practical subject. The study further revealed that FL was not taught in an appealing way to learners. Group discussions, peer teaching, peer discussions, cooperative and inquiry learning were not promoted during teaching. Instead, participants relied heavily on lectures, demonstrations and questioning techniques in all the lessons observed. The teaching methods and strategies that encourage active learner participation in new knowledge creation were not promoted during instruction. Learners are passive participants. The teaching of FL was not taught in a creative and enjoyable manner.

6.4.6.2 Lack of continuity in the curriculum

The lack of continuity in the teaching of FL due to gaps caused by the teaching of other subject disciplines within EMS was cited as a major concern. This affects the

continuation and linking of topics from previous lessons to current and future lessons because of a break in between. Participants mentioned that learners tended to forget the concepts taught in previous lessons. The sequencing confused learners because FL topics, as indicated in the annual teaching plan, "exhibit a going back-and-forth approach". There were weeks where FL topics were not taught. CAPS documents stipulate that FL needs to be taught every week during the one-hour allocated; however, the current structure of the ATP does not allow this to happen. Participants mentioned that they were following the ATP as required by the district; therefore, it was impossible to ensure that FL topics were taught every week. Nevertheless, FL carries a 50% weighting in the EMS curriculum; therefore, it is justifiable for this subject discipline to be taught weekly.

6.4.6.4 Financial language

Financial language was cited as a barrier to the teaching and learning of FL concepts. It was mentioned that learners became overwhelmed by a plethora of concepts that they needed to master. The display of subject posters was found to play a significant role in improving language barrier because images make learning easier for learners (Shabiralyani et al., 2015:228).

6.5 RECOMMENDATIONS AND IMPLICATIONS

The study was conducted by collecting data through lesson observations, interviews and document analysis. The findings revealed that intervention is urgently needed in the implementation of CAPS in ensuring that there is effective teaching and learning of FL concepts in Grades 8 and 9. This section of the study therefore provides recommendations to improve the PCK of EMS educators in teaching FL. The recommendations are presented in line with the limitations noted through the empirical study conducted and they are addressed to the Department of Basic Education (DBE), EMS subject facilitators, EMS educators, the School Management Teams (SMTs), and the School Development Team (SDT).

6.5.1 Recommendations relating to the First Objective

6.5.5.1 EMS Subject facilitators

EMS subject facilitators need to expose EMS educators to different types of knowledge dimensions and the framework within which to teach them. This will ensure that an appropriate framework is used to teach a knowledge dimension. For example, in teaching conceptual knowledge, educators need to refrain from teaching concepts in isolation; instead, they need to show the interrelatedness of concepts in FL. They need to show learners how the concepts are applicable in other sections of the subject content and ensure that they infuse the implementation of metacognitive knowledge in the daily planning and teaching of concepts. The implementation of this kind of knowledge dimension will ensure that learners are trained to monitor, evaluate and reflect on their learning progress. It will also teach learners to be strategic in their approach to learning and doing activities.

6.5.5.2 EMS educators

EMS educators need to teach FL concepts by means of appropriate examples. They need to encourage learners to provide more examples or scenarios to show their understanding of concepts in relation to their daily life experiences. Learners are likely to see value in doing FL if they can relate the subject content to real-life situations. Asking for more examples from learners will activate prior learning so that it is easy for them to integrate old information with new knowledge. This would enable educators to make additions to pre-existing knowledge and enhance learning. It will also help educators to identify misconceptions and correct incorrect information in learners' minds. This is also likely to improve learner performance because they will write tests and enter the examination room with correct information.

Educators need to refrain from allowing learners to respond in a chorus form. Affording learners an opportunity to respond individually to questions posed by educators will help to identify learners who cannot read, hear or see properly. Teaching should not only be about imparting knowledge and skills but should be used to identify barriers to learning. Learners with learning barriers need to be identified and referred to the school-based support team (SBST) for assistance. Identification will be difficult if educators continue to allow learners to respond in a chorus form.

The questioning technique should be used to promote critical thinking. Educators need to prepare higher-order questions and use their probing skills to stimulate critical thinking. They need to ask the "why, what, and how" questions and follow-up questions and promote meaningful learner involvement. Educators need to refrain from asking questions that promote only rote learning. Open-ended types of questions need to be used to promote learner involvement, discussion and cooperative learning.

Educators need to desist from being textbook-bound; instead, they need to relate the learning content to the current practices in the financial sector. Cheque books are currently being phased out by the banking sector; therefore, educators need to familiarise learners about the type of source documents used in the administration of electronic fund transfers (EFT) in a business.

In line with CAPS, educators need to ensure that learners are conversant with the signs, symbols, acronyms and labels as a language of communicating financial information in the subject discipline. They need to make use of the questioning technique to ascertain if learners know the reasons for using signs, symbols and acronyms. This should not be treated as an event, but it should be a process throughout the teaching of FL concepts. Therefore, educators need to desist from speculating that learners know why certain things are done in a particular way in the subject discipline. Educators need to use questioning techniques to delve deeper into the concepts with the aim of ascertaining any misconceptions.

6.5.2 Recommendations relating to the Second Objective

The School Management Teams need to ensure that FL is taught by educators who have an accounting background and encourage the establishment of a school-based mentorship programme to provide continued support and guidance to non-specialist subject educators. Such a programme will ensure that there is always support available for educators within the school, unlike waiting for help from the subject advisor from the district office.

6.5.3 Recommendations relating to the Third Objective

6.5.3.1 EMS educators

EMS educators need to ensure that lesson objectives are formulated to guide their teaching and learning activities. These objectives need to be formulated in relation to knowledge, skills and values. This will ensure that teaching in class occurs in a balanced way and that it addresses the general aims as stipulated in the CAPS. Formulating lesson objectives in line with the three dimensions mentioned will ensure that assessment addresses knowledge, skills and values. The lesson objectives need to articulate the cognitive and psychomotor skills that learners need to display after the topic has been completed. This will ensure that there is synergy between the learning content and assessment.

Educators need to ensure that the objectives of the lessons are communicated to learners at the beginning of the lesson. This will ensure that learners learn with the objectives in mind. Learners will be able to assess their progress against the set objectives.

Educators need to explore other teaching resources that can be helpful in promoting an understanding of concepts. They need to integrate the use of ICT such as YouTube videos in their daily teaching to make lessons more enjoyable. Classroom walls need to be print-rich with FL posters. This will promote ongoing learning of concepts and incidental learning. It will also come in handy for learners with a good photographic memory.

6.5.3.2 EMS subject facilitators

EMS subject facilitators need to ensure that the lesson planning template makes provisions for lesson objectives and to train educators on how to formulate lesson objectives. They need to promote and train educators on the use of ICT in the teaching of FL and to provide educators with FL posters and monitor that they are displayed in their classes to promote ongoing and incidental learning.

6.5.3.3 The Department of Basic Education

The Department of Basic Education needs to consider formulating a lesson plan template which gives expression to the lesson objectives in line with knowledge, skills,

and values that learners need to take away from the lessons presented to them. This could be done in the following way:

➢ Knowledge: By the end of the lesson, learners should be able to classify the recording of transactions in journals according to payments and receipts.
➢ Skills: Learners need to be able to analyse and record transactions in cash payment journals (CPJ) and cash receipt journals (CRJ).
➢ Values: Learners are accurate, orderly, honest, accountable, trustworthy, etc. in recording financial transactions.

This would ensure that the three dimensions envisioned by CAPS were addressed in the teaching and assessment of FL.

6.5.4 Recommendations relating to the Fourth Objective

6.5.4.1 The school management team

The School Management Teams (SMTs) need to:

- work closely with the School Development Team (SDT) in ensuring that educators are familiarised with the application of formative assessment during teaching. Educators need to know that the questioning technique used during teaching forms part of formative assessment. They need to know that the purpose of using questions at the beginning of the lesson is: (a) to establish the level of readiness in terms of concepts that learners already know; (b) to stimulate learners' interest and curiosity about the subject topic; and (c) to invite and encourage learners to become actively involved in lessons. They need to know that the purpose of using questions during lesson presentation is: (a) to steer the learners towards the realisation of the lesson objectives; (b) to determine how well learners understand the learning content presented so that any misconceptions can be rectified; and (c) to assess if learners are following the educators' line of thinking as the content of the lesson demands. Lastly, they need to know that the purpose of using questions at the end of the lesson presentation is to assess the realisation of lesson objectives with the aim of gauging the success of the lesson.
- ensure that daily assessment is taken seriously and that it is managed properly. Educators need to refrain from signing books that are not properly marked; instead, they can write comments such as "incomplete work", "please mark your work"; this

will provide evidence that the educator has seen the work and is not happy about it. Ticking or signing learners' incomplete or incorrect work is misleading.

- monitor that work is properly marked, and that incorrect information is corrected so that learners are adequately prepared for summative assessment. They need to ensure that there is consistency in the style of marking used by educators in informal and formal activities. The same style of marking used for formal activities should also be used for informal activities. Educators should be discouraged from using global marking which does not indicate how learners earn marks in an activity. The marking needs to indicate the correct and incorrect answers. It should develop a learner and it should be constructive.

- encourage educators to formulate classroom rules and ensure that they are implemented in the classroom. These rules need to be formulated in line with the code of conduct for learners. The rules need to assist learners and educators in maintaining order, discipline, tolerance, and respect in the classroom.

- ensure that school-based subject policies articulate the number of activities to be given to learners per week. During curriculum monitoring, management should indicate if work given to learners is sufficient or not based on the benchmarks set in the subject policy.

- work collaboratively with the School Governing Bodies (SGBs) in ensuring that the code of conduct for learners is clear about what constitutes misconduct, and it should articulate the consequences for misconduct. Failure to complete the work, write homework, mark the work, and write corrections should be regarded as misconduct so that educators can be assisted with the discipline of learners that fail to comply. Learners need to know the consequences of not doing their schoolwork.

- ensure that the FL test and examination papers indicate paper one and two so that learners become accustomed to writing paper one and two in EMS. This will allow educators to conduct both the statistical and diagnostic analysis of results and be able to track and monitor learner performance in FL.

6.5.4.2 EMS subject facilitators

EMS subject facilitators need to:

- monitor the marking of informal activities and provide the necessary support to educators.
- ensure that learners' books are properly controlled by educators. Discourage global style of marking. Educators need to ensure that ticks are indicated where learners need to earn marks.
- assist educators with the formulation of school-based subject policy which provides clear guidelines regarding the number of class activities to be given to learners per week – this will assist even during the monitoring process as a benchmark will be set.
- make sure that the EMS test paper consists of paper one which focuses on FL and paper two which focuses on Economy and Entrepreneurship. This will ensure that learners become accustomed to the format of the EMS final examination question paper. This will also help educators to conduct a statistical and diagnostic analysis of results that will show learner progress in the subject discipline.
- address the confusion between the following concepts: formative, formal and informal assessment.

6.4.5.3 School development teams

The school development teams need to:

- ensure that educators are acquainted with the difference between formative assessment and formal assessment. Knowing the difference between the two will ensure that each type of assessment is used effectively and appropriately.
- encourage educators to plan and ask open-ended questions during instruction, with the aim of promoting critical thinking. Educators need to be encouraged to ask the "why, what and how" questions.
- train educators on probing skills to encourage meaningful learner involvement and to encourage critical thinking as required by CAPS. Educators need to encourage learners to substantiate their answers.

6.4.5.4 The Department of Basic Education

It has been noted that the CAPS document for EMS does not articulate subject-specific skills and values to be inculcated in learners in the teaching of FL. Therefore, Department of Basic Education needs to:

- consider borrowing skills and values from the CAPS document for Accounting Grades 10-12 in ensuring that FL in Grades 8 and 9 is taught in line with the subject-specific skills and values that learners need to take away from the subject. This will ensure that there is uniformity in the teaching and assessment of skills and values in the subject.
- consider splitting the reporting in the three subjects embedded in EMS since the GET CAPS amendment revealed that assessment in EMS is now conducted according to Paper 1, which is FL and Paper 2 which is Economy and Entrepreneurship. This will assist educators with the analysis of learners' performance in FL. This can be done by splitting the reporting in the subject discipline as follows:

Economic and Management Sciences	
Financial Literacy	%
Economy and Entrepreneurship	%
Average for Economic and Management Sciences	

6.5.5 Recommendations relating to the Fifth Objective

The School Management and School Development Teams need to:

- train educators to use the questioning technique to promote meaningful learner involvement. The questioning technique needs to promote critical thinking and encourage discussion during teaching.
- discourage educators from relying on yes or no questions; instead, a balance should be maintained between low, middle, and higher cognitive type of questions.
- ensure that teaching strategies such as discussion, co-operative, and inquiry learning are implemented during teaching.
- train educators to implement teaching strategies that encourage learners to work in pairs and with others in groups.

- develop educators in putting measures in place to prevent the free-rider problem and social loafing during the application of discussion and co-operative learning. In this regard, educators are advised to put measures in place such as "positive interdependence and individual accountability," which promotes group collective efforts in the achievement and completion of tasks.

6.5.6 Recommendations relating to the Sixth Objective

6.5.6.1 EMS educators

EMS Educators need to:

- promote a learning environment where learners are kept busy during classroom instruction.
- prepare activities that promote interaction during instruction. The culture of practising during instruction needs to be promoted so that learners become accustomed to learning by doing. The teaching methods and strategies implemented need to stimulate learners' interest and make the learning of FL appealing and enjoyable for learners.
- apply teaching methods and strategies that makes the learning of FL easy so that learners' perceptions about FL can change.

6.5.6.2 School management teams

The School Management Teams need to ensure that the one hour allocated per week for FL is used effectively. The timetables for educators and learners need to reflect the period/s allocated for FL.

6.5.6.3 The Department of Basic Education

The Department of Basic Education needs to consider reviewing the CAPS to ensure that the annual teaching plan (ATP) is structured in such a way that FL topics are taught every week during the allocated one hour as stipulated in the CAPS document. This will ensure that there is continuity in the teaching of FL topics. This will also eliminate the current "going back-and-forth" approach.

6.6 LIMITATIONS OF THE STUDY

The GDE consists of 15 districts. However, the study was limited to Ekurhuleni North District situated in Ekudubeng Cluster. It could not be extended to other districts because of logistical challenges. The sample is therefore too small to generalise the findings. The district consists of 48 public ordinary secondary schools, 6 independent subsidised schools and 4 non-subsidised secondary schools, as well as learners with specialised educational needs (LSEN) schools. However, only public ordinary secondary schools were selected to participate in the study. As mentioned in the problem statement, the researcher reviewed the DDD to ascertain the performance and learner enrolment of Grade 10 Accounting learners. The information in the DDD is populated from the South African School Administration Management System commonly known as SA-SAMS, a computer program that is compulsory for public schools. Thus, the researcher was confident that the only information that would be available on the program was for public schools. Some public schools are using third-party computer programs; however, they still need to populate the information on SA-SAMS so that it is readily available on the GDE database. This was, however, not the case with the independent subsidised and non-subsidised schools as their information was not available on the computer program. It is for these reasons that these schools were not considered for participation in the study.

FL is offered in Grades 7, 8 and 9; however, Grade 7 was omitted from the study as most of their schools are located in primary schools, which were not part of the study. This grade is also located in middle schools, which consist of a Senior Phase – it was noted from the GED school master list that there are no middle schools in Ekurhuleni North District. The findings of this study therefore exclude Grade 7, and only include Grades 8 and 9. The Grade 7 curriculum does not contain the most challenging topics in the subject discipline; instead, it is laden with the definition of concepts. Moreover, there are no practical concepts which require the analysis, interpretation and recording of transactions in subsidiary journals such as Cash Payment and Receipt Journals, General Ledger, Accounting Equation, Trial Balance, and posting from journals to the General Ledger or from Ledger to Trial Balance. The continuation of the analysis, interpretation and recording of transactions is found in Grades 8 and 9. Therefore, these grades were considered suitable for the study since the curriculum in these

grades displayed the definition of concepts, analysis of transactions, interpretation and recording of transactions taking place in a service business and trading business.

The researcher relied on the qualitative research methodology in collecting data. The study did not include learners' views, experiences, and perceptions about the teaching of FL. Educators were observed in practice as one of the methods of data collection. Tomal (2010:38) noted that if participants know that they are being observed, their pattern of behaviour changes in most cases. This kind of behaviour according to Oswald, Sherratt and Smith's (2014:53), is described as the "Hawthorne effect". To mitigate this limitation, the researcher employed triangulation to crosscheck the data obtained from schools. The EMS subject facilitators were also not included in the study.

6.7 CONTRIBUTIONS OF THE STUDY

The study aimed at exploring the PCK of EMS educators in teaching Financial Literacy in Grades 8 and 9. The EMS CAPS document expresses the importance of teaching "knowledge, skills and values" in South African schools. Educators have the responsibility to impart these three dimensions to learners. Therefore, this study provides the framework to teach different knowledge dimensions, it makes recommendations for the formulation of the subject specific skills to be inculcated in learners and it makes recommendations for the types of values to be promoted in the teaching of FL.

PCK was used as a theoretical framework and its components were used to develop the conceptual framework which informed data collection and analysis processes. The literature review and the empirical study conducted revealed some challenges regarding the educators' knowledge in the following aspects: learning content, curriculum, assessment, teaching and learning activities within teaching methods as well as educators' knowledge of learners' learning difficulties. Specific recommendations have been made to various stakeholders with the aims of alerting them about the challenges regarding the implementation of CAPS inside the classroom. It is believed that the findings and recommendations made would be of great benefit to EMS educators, EMS subject facilitators, School Management Teams, School Development Teams, and the Department of Basic Education (DBE) as the policy maker.

It is therefore, believed that the recommendations of the study will:

- make EMS subject facilitators and DBE aware of the challenges confronted by EMS educators in teaching FL and provide training and development that will improve the teaching of FL in grades 8 and 9.
- improve the assessment practices in FL.
- provide EMS subject facilitators with valuable information to inform their intervention strategies in improving teaching and learning in FL.
- help EMS educators to teach FL in a way that stimulate learners' interest in considering taking Accounting in Grade 10 and to even pursue careers in the field of Accounting.
- provide valuable information for policy makers to address the limitations of the current structure of the annual teaching plan (ATP) which makes it impossible for educators to ensure that FL is taught every week as stipulated in CAPS.

6.8 SUGGESTIONS FOR FURTHER RESEARCH

As mentioned in section 6.6 above, the study was conducted in one district in Gauteng, and the results and findings obtained cannot be generalised. Hence, it is recommended that the same study needs to be extended to other districts and provinces. The study was conducted by following a qualitative research methodology; thus, a recommendation is that other researchers use the quantitative or mixed-methods approach. This study did not include EMS subject facilitators or the views and perceptions of Grades 8 and 9 learners about the teaching of FL as it only considered the views of EMS educators.

A further study is recommended wherein views, experiences and perceptions of learners and EMS subject facilitators are explored to delve deeper into the PCK of EMS educators in teaching FL. Therefore, this study presented a one-sided account regarding the PCK of EMS educators in teaching FL. The study found that some of the Grade 9 learners had already decided not to pursue further studies in Accounting in Grade 10 due to a lack of interest in the subject. According to participants, learners view Accounting as a difficult subject. It is therefore believed that the current grade 10 non-Accounting learners' views, experiences, and perceptions about FL would shed

light on their lack of interest in pursuing further studies in the subject discipline. A further study in this regard is highly recommended.

6.9 CONCLUSION

The purpose of the current study was to explore the PCK of EMS educators in teaching FL in Grades 8 and 9. The findings of the study revealed that there are limitations in the PCK of EMS educators in teaching FL. Different types of knowledge dimensions were taught during instruction except meta-cognitive knowledge. It was established, however, that EMS educators were not conversant with various types of knowledge dimensions and the framework within which to teach them. The knowledge dimensions were taught by default – educators were not aware of the types of knowledge they taught. The study also uncovered that educators who do not have background in accounting content knowledge will have challenges in teaching FL effectively. These educators will not only have a challenge with knowledge of the learning content but will also struggle in applying suitable teaching methods and strategies to teach FL – making the understanding of concepts difficult for learners. It transpired that the teaching of FL learning content was not driven by lesson objectives. Educators did not formulate lesson objectives – this meant that the teaching of knowledge, skills and values was not aligned to any lesson objectives. The findings revealed some challenges with formative assessment practices. The quality of marking and book control by educators was not constructive and supportive. The type of questions used during instruction did not promote critical thinking as required by CAPS. Educators tended to rely heavily on closed-ended types of questions. Social interactive methods of teaching and learning strategies were not used to promote meaningful learner involvement during instruction. The study has made recommendations for practice by EMS educators, school management and EMS subject facilitators. There are also limitations in the EMS CAPS documents; hence, the study made recommendations to the Department of Basic Education (DBE) as a policy maker. Recommendations were made with the aim of providing remedial actions in addressing the anomalies in the implementation of EMS CAPS documents.

REFERENCES

Abell, S.K., Rogers, M.A.P., Hanuscin, D.L., Lee, M.H and Gagnon, M.J. (2009). Preparing the Next Generation of Science Teacher Educators: A Model for Developing PCK for Teaching Science Teachers. *Journal of Science Teacher Education*, 20(1), pp. 77-93.

Abid, N., Hussain, T., Ch, T.M., Saeed, A. and Shoaib, A. (2017). Subject Matter Knowledge Competence: An Empirical Evidence of Elementary School Teachers. *Bulletin of Education and Research*, 39(1), pp. 245-250.

Acito, A. (2002). *Learning Objectives – A Practical Overview*: Praxis Learning Networks.

Addae, D. and Quan-Baffour, K.P. (2015). The Place of Mixed Methods Research in the Field of Adult Education: Design Options, Prospects and Challenges. *International Journal of Education and Research,* 3(7), pp. 151-162.

Adom, D., Hussein, E.K. and Agyem, J.A (2018). Theoretical and Conceptual Framework: Mandatory Ingredients of a Quality Research. *International Journal of Scientific Research*. Volume 7. Issue 1.

Agarwal, P.K. (2018). Retrieval Practice and Bloom's Taxonomy: Do Students Need Fact Knowledge before Higher Order Learning? *Journal of Educational Psychology,* 111(2), pp.189-209.

Agbulu, O.N. and Idu, E.E. (2008). The Impact of Participatory and Expository Approaches on Learning of Agricultural Science in Senior Secondary Schools in Benue State. *Journal of Social Sciences*, 16(3), pp. 245-249.

Akintade, C.A., Ogbonnaya, U.I. and Mogari, D. (2013). Is Teachers' Knowledge a Reason for Students' Poor Performance in Latitude and Longitude in Nigeria Secondary Schools? ISTE International Conference on Mathematics, Science and Technology Education 21-24 October 2013. Mopani Camp in Kruger National Park, Limpopo, South Africa, pp. 468-478.

Aksu, Z. and Kul, U. (2016). Exploring Mathematics Teachers' Pedagogical Content Knowledge in the Context of Knowledge of Students. *Journal of Education and Practice,* 7(30), pp. 35-42.

Alahmadi, N., Alrahaili, M. and Alshraideh, D. (2019). The Impact of the Formative Assessment in Speaking Test on Saudi Students' Performance. *Arab World English Journal, 10*(1), pp. 259-270.

Alghamdi, S. (2015). Analysing Paradigmatic Influences in a Particular Research. *International Journal of Humanities and Social Science,* 5(8), pp. 78-83.

Al-Jaro, M.S., Asmawi, A. and Hasim, Z. (2017). Content Analysis of the Pedagogical Content Knowledge in the Curriculum of Yemeni EFL Teacher Education Programme. *Arab World English,* 8(1), pp. 26-39.

Almeida, P.A. (2010). Questioning Patterns, Questioning Profiles and Teaching Strategies in Secondary Education. *The International Journal of Learning*, 17(1).

Al-Mutawah, M.A., Thomas, R., Eid, A., Mahmoud, E.Y. and Fateel, M.J. (2019). Conceptual Understanding, Procedural Knowledge and Problem-Solving Skills in mathematics: High school graduates work analysis and standpoints. *International Journal of Education and Practice.* 2019 Vol. 7, No. 3, pp. 258-273.

Alshenqeeti, H. (2014). Interviewing as Data Collection Method: A Critical Review. *English Linguistics Research, 3*(1), pp. 39-45.

Al-Taweel, L.M. (2015). Developing Rest's Model to Examine the Relationship between Ethical Accounting Education and International Education Standard 4(IES 4) Principles. *International Journal of Business and Social Science,* 6(11).

Alvi, M.H. (2016). A Manual for Selecting Sampling Techniques in Research. *Munich Personal RePEc Archive*, 70218, pp. 1-56.

Ambrose, S.A., Bridges, M.W., DiPietro, M., Lovett, M.C. and Norman, M.K. (2010). *How Learning Works. Seven Research-Based Principles for Smart Teaching.* The Jossey-Bass Higher and Adult Education Series.

Andersson, C. and Palm, T. (2018). Reasons for Teachers' Successful Development of a Formative Assessment Practice Through Professional Development – A Motivation Perspective. *Assessment in Education: Principles, Policy & Practice*, 25(6), pp. 576-597.

Anderson, C. (2010). Presenting and Evaluating Qualitative Research. *American Journal of Pharmaceutical Education,* 74(8), pp. 141.

Anderson, L.W., Krathwohl, D.R., Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.R., Raths, J. and Wittrock, M.C. (2001*). A Taxonomy for Learning, Teaching, and Assessing. A Revision of Bloom's Taxonomy of Educational Objectives Abridged Edition.* Pearson Education.

Anderson, T.R. (2007). Bridging the Educational Research-Teaching Practice Gap. Biochemistry and Molecular Biology Education, 35(6), pp. 471-477.

Anney, V.N. (2014). Ensuring the Quality of the Findings of Qualitative Research: Looking at Trustworthiness Criteria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 5(2), pp. 272-281.

Antwi, S.K. and Hamza, K. (2015). Qualitative and Quantitative Research Paradigms in Business Research: A Philosophical Reflection. *European Journal of Business and Management,* 7(3), pp. 217-225.

Ardzejewska, K., McMaugh, A. and Coutts, P. (2010). Delivering the primary curriculum: The use of subject specialist and generalist teachers in NSW. *Issues in Educational Research*, 20(3), 2010.

Ariav, T. (1991). Growth in Teachers' Curriculum Knowledge through the Process of Curriculum Analysis. Journal of Curriculum and Supervision, 6(3), pp. 183-200.

Asia Pacific Economic Cooperation. (2014). *Guidebook on Financial and Economic Literacy in Basic Education: Human Resources Development Working Group.* Ministry of Education of the People's Republic of China.

Atibuni, D.Z. and Olema, D.K. (2017). Incorporating Assessment of Learning in Assessment for Learning: Shifting from Foundational Competences to Practical

and Reflexive Competences in Learning Institutions. *Journal of Educational Assessment in Africa, 12.*

Bailey, C.A. (2018). *A Guide to Qualitative Field Research (3rd Edition).* SAGE, Washington DC.

Barnard, M., Voges, A. and de Nobrega, C. (2013). *Economic and Management Sciences: Study and Master. Grade 9 Exercise Book.* Cambridge University Press. Cape Town. South Africa.

Barnard, M., Voges, A. and de Nobrega, C. (2013). *Economic and Management Sciences: Study and Master. Grade 8 Exercise Book.* Cambridge University Press. Cape Town. South Africa.

Barnard, M. and Voges, A. (2015). *Economic and Management Sciences: Study and Master. Study Guide.* Cambridge University Press. Cape Town. South Africa.

Basheer, A., Hugerat, M., Kortam, N. and Hofstein, A. (2017). *The Effectiveness of Teachers' Use of Demonstrations for Enhancing Students' Understanding of and Attitudes to Learning the Oxidation-Reduction Concept.* The Academic Arab College for Education in Israel – Haifa. Israel.

Bashir, M., Afzal, M.T. and Azeem, M. (2008). Reliability and Validity of Qualitative and Operational Research Paradigm. *Pakistan Journal of Statistics and Operation Research*, 4(1), pp. 35-45.

Basturk, S. and Donmez, G. (2011). Examining Pre-Service Teachers' Pedagogical Content Knowledge with regard to Curriculum Knowledge. *International Online Journal of Educational Sciences*, 3(2), pp. 743-775.

Beattie, V., Collins, B. and McInnis, B. (1997). Deep and Surface Learning: A Simple or Simplistic Dichotomy? *Accounting Education,* 6(1), pp. 1-12.

Benjamin, O. and Wakhungu, N.L. (2014). Determining Methods used in Teaching Geography in Secondary Schools in Rongo District, Kenya. *International Journal of Academic Research in Progressive Education and Development,* 3(1), pp. 220-232.

Ben-Peretz, M. (2011). Teacher Knowledge: What is it? How do we Uncover it? What are its Implications for Schooling? Teaching and Teacher Education, 27, pp. 3-9.

Berková, K., Krejčová, K. and Novák, J. (2020). Students' Attitudes to Selected Subjects in Secondary Economic Education. *Problems of Education in the 21st Century,* 78(1), pp. 9-23.

Bhattacherjee, A. (2012). Social Science Research: Principles, Methods, and Practices. *Textbooks Collection,* Book 3.

Bhushan, P. and Medury, Y. (2013). Financial Literacy and its Determinants. International Journal of Engineering, Business and Enterprise Applications (IJEBEA), pp. 155-160.

Biggs, J. (1999). What the Student Does: teaching for enhanced learning, Higher Education Research & Development, 18:1, 57-75.

Biggs, J. and Tang, C. (1999). *Teaching for Quality Learning at University. What the Student Does (3rd Edition).* Open University Press. McGraw-Hill Education, England.

Blankman, M., Schoonenboom, J., van der Schee, J., Boogaard, M. and Volman, M. (2016). Learning to Teach Geography for Primary Education: Results of an Experimental Programme. *Journal of Geography in Higher Education*, 40(3), pp. 425-441.

Blue, L., Grootenboer, P. and Brimble, M. (2014). Financial Literacy Education in the Curriculum: Making the Grade or Missing the Mark? *International Review of Economics Education,* 16, pp. 51-62.

Bonsaksen, T. (2018). Deep, Surface, or Both? A Study of Occupational Therapy Students' Learning Concepts. *Occupational Therapy International*, pp. 1-8.

Boumediene, A. and Hamzaoui-Elachachi, H. (2017). The Effects of Formative Assessment on Algerian Secondary School Pupils' Text Comprehension. *Arab World English Journal, 8*(3), pp. 172-190.

Braun, V. and Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology,* 3(2), pp. 77-101.

Brooke, M. (2013). Which Research Paradigm for Teaching English to Speakers of Other Languages (TESOL)? *Theory and Practice in Language Studies*, 3(3), pp. 430-436.

Browne, E. (2016). *Evidence on Formative Classroom Assessment for Learning. Knowledge, Evidence and Learning for Development.* United Kingdom Government: Help Desk Report.

Butina, M. (2015). Conducting Qualitative Research: A Narrative Approach to Qualitative Inquiry. *Clinical Laboratory Science*, 28(3).

Cauley, K.M. and McMillan, J.H. (2010). *Formative Assessment Techniques to Support Student Motivation and Achievement.* Heldref Publications.

Chamberlin, M. and Powers, R. (2010). The Promise of Differentiated Instruction for Enhancing the Mathematical Understandings of College Students. Teaching Mathematics and Its Applications, 29, pp. 113-139.

Charity, E.N. and Igwe, J.N.V. (2016). Business Studies Teachers' Perception of Effective Strategies for Teaching Business Studies in Promoting National Sustainable Development. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS),* 7(3), pp. 217-225.

Chin, C. (1999). *Deep and Surface Learning Approaches in Science: A Comparison.* MERA-ERA Joint Conference, Malacca, Malaysia, 1-3 December 1999.

Cohen, L., Manion, L. and Morrison, K. (2007). *Research Methods in Education (6th Edition).* Routledge Taylor and Francis Group: London.

Costa, C., Breda, Z., Pinho, I., Bakas, F. and Durão, M. (2016). Performing a Thematic Analysis: An Exploratory Study about Managers' Perceptions on Gender Equality. *The Qualitative Report*, *21*(13), pp. 34-47.

Cotton, K. (2001). *Classroom Questioning.* North West Regional Educational Laboratory.

Creswell, J.W. (2013). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches (3rd Edition).* SAGE. Washington DC.

Creswell, J.W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research (4th Edition).* Pearson Education, Inc: Boston.

Creswell, J.W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th Edition).* SAGE Publications, Inc: United Kingdom.

Crisp, G.T. (2012). Integrative Assessment: Reframing Assessment Practice for Current and Future Learning. *Assessment & Evaluation in Higher Education,* 37(1), pp. 33-43.

Ćurčić, M., Milinković, D. and Radivojević, D. (2018). Educational Computer Software in the Function of Integrating and Individualization in Teaching of Mathematics and Knowledge of Nature. *EURASIA Journal of Mathematics, Science and Technology Education*, 14(12).

Danişman. Ş. and Tanişli, D. (2017). Examination of Mathematics Teachers' Pedagogical Content Knowledge of Probability. *Malaysian Online Journal of Educational Sciences,* 5(2), pp. 16-34.

Darmayanti, D., Simatupang, T.M. and Rudito, P. (2018). Lessons Learned for Novice Researcher from a Qualitative Study of a Case on Continuous Ambulatory Peritoneal Dialysis. *International Journal of Medical Research and Health Sciences*, 7(5), pp. 106-111.

Das, S., Alsalhanie, K.M., Nauhria, S., Joshi, S.V.R., Khan, S. and Surender, V. (2017). Impact of Formative Assessment on the Outcome of Summative Assessment – A Feedback Based Cross Sectional Study Conducted Among Basic Science Medical Students Enrolled in MD Program. *Asian Journal of Medical Sciences,* 8(4), pp. 38-43.

Davadas, S.D. and Lay, Y.F. (2020). Contributing Factors of Secondary Students' Attitude towards Mathematics. *European Journal of Educational Research,* 9(2), pp. 489-498.

de Araujo, A.M.P. and Slomski, V.G. (2013). Active Learning Methods—An Analysis of Applications and Experiences in Brazilian Accounting Teaching. *Creative Education,* 4(12B), pp. 20-27.

de Villiers, R.R. and Fouché, J.P. (2015). Philosophical Paradigms and Other Underpinnings of the Qualitative and Quantitative Research Methods: An Accounting Education Perspective. *Journal of Social Sciences*, 43(2), pp. 125-142.

Delamont, S. (2012). *Handbook of Qualitative Research in Education.* Edward Elgar Publishing Limited. United Kingdom.

Deng, H., Chi, L., Teng, N., Tang, T. and Chen, C. (2013). Influence of Financial Literacy of Teachers on Financial Education Teaching in Elementary Schools. *International Journal of e-Education*, e-Business, e-Management and e-Learning, 3(1), pp. 68-73.

Denton, J.J. Armstrong, D.G. and Savage, T.V. (2001). *Matching Events of Instruction to Objectives: Theory into Practice,* 19(1).

Department of Basic Education. (2011a). *Curriculum and Assessment Policy Statement Grades 7-9, Economic and Management Sciences.* Government Printing Works: Pretoria.

Department of Basic Education. (2011b). *Curriculum and Assessment Policy Statement Grades 10-12, Accounting.* Government Printing Works: Pretoria.

Department of Basic Education. (2019). Data Driven Districts (DDD) Dashboard Software Programme accessed on 2019/02/21.

Department for Basic Education. (2011c). *National Protocol on Assessment Policy Statement (NPA), Grade R-12.* Government Printing Works: Pretoria.

Department of Basic Education. (2012). *National Protocol for Assessment Grades R – 12, Government Notice No. 1115 and No. 1116, Government Gazette No. 36042 of 28 December 2012.* Government Printing Works: Pretoria.

Department of Basic Education. (2019). *The Abridged Version of Section 4 of Curriculum and Assessment Policy Statement (CAPS): General Education and Training (GET) CAPS Amendments.* Government Printing Works: Pretoria.

Department of Education. (2008). *Upper Secondary Accounting Teacher Guide.* Papua New Guinea.

Dikko, M. (2016). Establishing Construct Validity and Reliability: Pilot Testing of a Qualitative Interview for Research in Takaful (Islamic Insurance). *The Qualitative Report,* 21(3), pp. 521-528.

Ding, L., He, J. and Leung, F.K.S. (2014). Relations Between Subject Matter Knowledge and Pedagogical Content Knowledge: A Study of Chinese Pre-Service Teachers on the Topic of Three-Term Ratio. *The Mathematics Educator*, 15(2), pp. 50-76.

Dolmans, D.H.J.M., Loyens, S.M.M., Marcq, H. and Gijbels, D. (2015). Deep and Surface Learning in Problem-Based Learning: A Review of the Literature. *Advance in Health Science Education,* 21, pp. 1087-1112.

Donnison, S. and Penn-Edwards, S. (2012). Focusing on First Year Assessment: Surface or Deep Approaches to Learning? *The International Journal of the First Year in Higher Education, 3*(2), pp. 9-20.

Dorgu, T.E. (2015). Different Teaching Methods: A Panacea for Effective Curriculum Implementation in the Classroom. *International Journal of Secondary Education, Special Issue: Teaching Methods and Learning Styles in Education,* 3(6-1), pp. 77-87.

Döş, B., Bay, E., Aslansoy, C., Tiryaki, B., Çetin, N. and Duman, C. (2016). An Analysis of Teachers' Questioning Strategies. *Educational Research and Reviews,* 11(22), pp. 2065-2078.

Duron, R., Limbach, B. and Waugh, W. (2006). Critical Thinking Framework for Any Discipline. *International Journal of Teaching and Learning in Higher Education,* 17(2), pp. 160-166.

du Toit, S. and Kotze, G. (2009). Metacognitive Strategies in the Teaching and Learning of Mathematics. *Pythagoras*, 70, pp. 57-67.

Education Labour Relations Council (ELRC). (2003). Collective Agreement Number 8 of 2003. Pretoria: Government Printers.

Edwards, E. and Holland, J. (2013). *What is Qualitative Interviewing?* Bloomsbury Academic. New York.

Egodawatte, G. and Stoilescu, D. (2015). Grade 11 students' Interconnected Use of Conceptual Knowledge, Procedural Skills, and Strategic Competence in Algebra: A Mixed Method Study of Error Analysis. *European Journal of Science and Mathematics Education*, 3(3), pp. 289-305.

Ekeyi, D.N. (2013). Effect of Demonstration Method of Teaching on Students' Achievement in Agricultural Science. *World Journal of Education,* 3(6), pp. 1-7.

El-Sayed, H.E.M., Elmashad, H.A.M. and Ibrahim, A.A. (2017). The Effectiveness of Utilizing Video – Assisted and Lecture Cum Demonstration Method on the Nursing Students' Knowledge and Skills in Using Partograph. *IOSR Journal of Nursing and Health Science (IOSR-JNHS),* 6(5), pp. 61-70.

Emmanue, I.A. and Ambe, B.A. (2014). *Influence of Teachers, Professional Qualification and Area of Specialization on the Implementation of Environmental Education Curriculum in Cross River State*. Nigeria International Conference on Chemical, Environment and Biological Sciences, pp 17-18.

Eskola, A. (2011). *Good Learning in Accounting. Phenomenographic Study on Experiences of Finnish Higher Education Students*. Jyväskylä: University of Jyväskylä.

Etemadzadeh, A. Seifi, S. and Far, H.R. (2012). The Role of Questioning Technique in Developing Thinking Skills: The Ongoing Effect on Writing Skill. *Procedia - Social and Behavioural Sciences,* 70, pp 1024-1031.

Etikan, I., Musa, S.A. and Alkassim, R.S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics,* 5(1), pp. 1-4.

Etikan, I. and Babatope, O. (2019). A Basic Approach in Sampling Methodology and Sample Size Calculation. MedLife Clinics. 1(1006), pp. 50-54.

Ezenwafor, J.I. and Akpobome, C.E. (2017). Strategies Considered Effective for Teaching Accounting Courses by Business Educators in Tertiary Institutions in Delta State Nigeria. *International Journal of Innovative Social and Science Education Research,* 5(3), pp. 36-44.

Ezeudu, S.A and Utazi, O.L. (2014). Influence of Area of Specialization and Years of Teaching Experience of Geography Teachers on Their Level of Competency Performance in Teaching Map Work in Secondary Schools in Kogi State. *Research on Humanities and Social Sciences*, 4(18).

Fan, F.A., Levi, M. and Shammah, A. (2014). Classroom Questioning as an Invaluable Teaching Strategy in Social Studies. *Global Advanced Research Journal of Educational Research and Review,* 3(1), pp. 7-11.

Fazlıoğulları, O. (2012). Scientific Research Paradigms in Social Sciences. *International Journal of Educational Policies, 6*(1), pp. 41-55.

Fernandez, C. (2014). Knowledge Base for Teaching and Pedagogical Content Knowledge: Some Useful Models and Implications for Teachers' Training. *Problems of Education in the 21st Century,* 60, pp. 79-100.

Fielder, C. (2014). Are Detailed Objectives Really Necessary in Lesson Planning? The Teacher Trainer Journal, 28(2), pp.18-20.

Fives, H., Barnes, N., Dacey, C. and Gillis, A. (2016). Assessing Assessment Texts: Where Is Planning? The Teacher Educator, 51:1, 70-89.

Fraser, J., Fahlman, D., Arscott, J. and Guillot, I. (2018). Pilot Testing for Feasibility in a Study of Student Retention and Attrition in Online Undergraduate Programs. *International Review of Research in Open and Distributed Learning*, 19(1).

Flores, M.K. (2015). *Using Bloom's Taxonomy to Promote Higher Level Thinking and Learning in Introductory Accounting Courses.* School of Accountancy Sorrell College of Business Troy University, Troy.

Fry, H., Ketteridge, S. and Marshall, S. (2009). *A Handbook for Teaching and Learning in Higher Education. Enhancing Academic Practice (3rd Edition).* Routledge. New York. Taylor and Francis Group.

Fusch, P.I. and Ness, L.R. (2015). Are We There Yet? Data Saturation in Qualitative Research. *The Qualitative Report,* 20(9), pp. 1408-1416.

Gagné, R.M., Briggs, L.J. and Wager, W.W. (1992). *Principles of Instructional Design (4th Edition.).* Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.

Gauteng Department of Education. (2007). Framework for a District-Wide Continuous School Improvement Strategy. Circular 38/2007. Johannesburg.

Gauteng Provincial Government. (2009). *A Framework Outlining the Strategic Priorities and Programmes for Government to Give Effect to the Electoral Mandate in Gauteng in the Period 2009-2014.* Republic of South Africa.

Gavric, G. (2015). *Theoretical and Practical Aspects of Teaching Methods from the Faculty of Fine and Applied Arts.* Belgrade, European University – New Academy of Art.

Gay, L.R, Mills, G.E and Airasian, P.W. (2011). *Educational Research. Competencies for Analysis and Applications (10th Edition).* Pearson Education International, United States of America.

Gentles, S.J., Charles, C., Ploeg, J. and McKibbon, K.A. (2015). Sampling in Qualitative Research: Insights from an Overview of the Methods Literature. *The Qualitative Report,* 20(11), pp. 1772-1789.

Gess-Newsome, J. and Lederman, N.G. (1999). *PCK and Science Education.* Kluwer Academic Publishers. Printed in the Netherlands.

Ghazi, S.R., Shahzada, G., Shah, M.T. and Shauib, M. (2013). Teacher's Professional Competencies in Knowledge of Subject Matter at Secondary Level in Southern Districts of Khyber Pakhtunkhwa, Pakistan. *Journal of Educational and Social Research*, 3(2), pp. 453.

Giridharan, K. and Raju, R. (2016). Impact of Teaching Strategies: Demonstration and Lecture Strategies and Impact of Teacher Effect on Academic Achievement in

Engineering Education. *International Journal of Educational Sciences,* 14(3), pp. 174-186.

Graham, A. and Phelps, R. (2003). Being a Teacher: Developing Teacher Identity and Enhancing Practice Through Metacognitive and Reflective Learning Processes. *Australian Journal of Teacher Education*, 27(2), pp. 11-24.

Grant, C. and Osanloo A. (2014). Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation Research: Developing a Blueprint for your "House". *Administrative Issues Journal*: Connecting Education, Practice and Research, 4(2).

Gringeri, C., Barusch, A. and Cambron, C. (2013). Examining Foundations of Qualitative Research: A Review of Social Work Dissertations, 2008–2010. *Journal of Social Work Education*, 49, pp. 760-773.

Grossman, P.L. (1990). *The Making of a Teacher: Teacher knowledge and Teacher Education.* London, Teachers' College Press.

Growth, R.E. (2014). Prospective Teachers' Procedural and Conceptual Knowledge of Mean Absolute Deviation. Investigations in Mathematics Learning. *The Research Council on Mathematics Learning,* 6(3), pp. 51-69.

Guest, G., Namey, E.E. and Mitchell, M. (2013). *Qualitative Research: Defining and Designing*, pp. 1-40.

Guetterman, T.C. (2015). Descriptions of Sampling Practices within Five Approaches to Qualitative Research in Education and the Health Sciences. Forum: Qualitative Social Research. Volume 16 No 2.

Gumbo, M.T. (2014). An Action Research Pilot Study on the Integration of Indigenous Technology in Technology Education. *Mediterranean Journal of Social Sciences,* 5(10).

Gunawan J. (2015). Ensuring Trustworthiness in Qualitative Research. *Belitung Nursing Journal, 1(1), pp.* 10-11.

Haley-Speca, M.A. (2016). *Using Data and Formative Assessment to Drive Instruction.* Research for Better Teaching, Inc.

Hammarberg, K., Kirkman, M. and de Lacey, S. (2016). *Qualitative Research Methods: When to Use Them and How to Judge Them*. Human Reproduction, 31(3), pp. 498-501.

Hanlon, B. and Larget, B. (2011). *Samples and Populations*. Department of Statistics. University of Wisconsin, Madison.

Hanover Research. (2014). *The Impact of Formative Assessment and Learning Intentions on Student Achievement.* Hanover Research, Washington, DC.

Heng, C.S. and Ziguang, Y. (2015). Framework of Assessment for the Evaluation of Thinking Skills of Tertiary Level Students. *Advances in Language and Literary Studies.* Australian International Academic Centre, 6(5).

Hennessey, A. and Dionigi, R.A. (2013). Implementing Cooperative Learning in Australian Primary Schools: Generalist Teachers' Perspectives. *Issues in Educational Research,* 23(1), pp. 52-68.

Hennink, M., Hutter, I. and Bailey, A. (2011). *Qualitative Research Methods*. Washington DC. SAGE.

Hennink, M.M., Kaiser, B.N. and Weber, M.B. (2019). What Influences Saturation? Estimating Sample Sizes in Focus Group Research. *Qualitative Health Research,* 1-14.

Herrmann, K. J. (2013). The Impact of Cooperative Learning on Student Engagement: Results from An Intervention. *Active Learning in Higher Education*, 14(3), pp. 175- 187.

Higgins, M., Grant, F., Thompson, P. and Montarzino, A. (2010). *Effective and Efficient Methods of Formative Assessment.* CEBE Innovative Project in Learning and Teaching. Heriot-Watt University.

Hill, H.C. and Charalambous, C.Y. (2012). Teacher Knowledge, Curriculum Materials, and Quality of Instruction: Lessons Learned and Open Issues. *Journal of Curriculum Studies*, 44(4), pp. 559-576.

Holbeck, R., Bergquist, E. and Lees, S. (2014). Classroom Assessment Techniques: Checking for Student Understanding in an Introductory University Success Course. *Journal of Instructional Research,* 3, pp. 3-7.

Hollingworth, R.W. and McLoughlin, C. (2001). Developing Science Students' Metacognitive Problem-Solving Skills Online. *Australian Journal of Educational Technology*, 17(1), pp. 50-63.

Huisman, M. (2018). *Formative Assessment and the Impact on Student Learning.* Master's Theses and Capstone Projects. Iowa. North-western College.

Ibrahim, A.M. (2012). Thematic Analysis: A Critical Review of its Process and Evaluation. *West East Journal of Social Sciences,* 1(1), pp. 39-47.

Ibrahim, M.E. and Alqaydi, F.R. (2013). Financial Literacy, Personal Financial Attitude, and Forms of Personal Debt Among Residents of the UAE. *International Journal of Economics and Finance,* 5(7), pp. 126-138.

Idika, D.O. and Eke, V.U. (2017). Assessment of Teachers' Knowledge and Application of Differential Assessment Techniques in All-Inclusive Classroom in Universities in South-South Zone, Nigeria. *Global Journal of Educational Research,* 16, pp. 1-8.

Ilhan, A. (2019). Evaluating Student Answers to Geography Questions Framed According to the Factual and Conceptual Knowledge Levels of the Revised Bloom's Taxonomy. *European Journal of Education Studies,* 6(9), pp. 43-68.

Ilić, D and Rešić, S. (2017). Methods of Cooperative Learning and their Application in the Development of Competitive Themes in Teaching Mathematics, 7(2).

Imenda, S. (2014). Is There a Conceptual Difference between Theoretical and Conceptual Frameworks? *Journal of Social Sciences*, 38(2), pp. 185-195.

Ingersoll, R. (1998). *The Problem of Out-of-Field Teaching.* University of Pennsylvania Scholarly Commons. Graduate School of Education.

Inuwa, U., Abdullah, Z. and Hassan, H. (2018). A Mixed-Method Study of the Effect of the Demonstration Method on Students' Achievement in Financial Accounting. *International Journal of Instruction*, 11(4), pp. 577-592.

Jadama, L.M. (2014). Impact of Subject Matter Knowledge of a Teacher in Teaching and Learning Process. *Middle Eastern and African Journal of Educational Research*, 7(3-2), pp. 671-680.

Jadhav, M.S. and Patankar, P.S. (2013). *Role of Teachers' in Curriculum Development for Teacher Education.* Department of Education and Physical Education Mahavir Mahavidyalaya, Kolhapur. Conference Paper presented in October 2013.

Jing-Jing, H. (2014). A Critical Review of Pedagogical Content Knowledge' Components: Nature, Principle and Trend. *International Journal of Education and Research,* 2(4), pp. 411-424.

Joffe, H. (2012). In Qualitative Research Methods in Mental Health and Psychotherapy: A Guide for Students and Practitioners. Wiley-Blackwell, pp. 209-223.

Johnson, R.B and Christensen, L. (2014). *Educational Research: Quantitative, Qualitative, and Mixed Approaches (5th Edition).* SAGE Publications, United Kingdom.

Jones, A. and Moreland, J. (2015). *Considering Pedagogical Content Knowledge in the Context of Research on Teaching: An Example from Technology.* Waikato Journal of Education. Centre for Science and Technology Education Research. The University of Waikato.

Jones, M.G. and Brader-Araje, L. (2002). The Impact of Constructivism on Education: Language, Discourse, and Meaning. *American Communication Journal,* 5(3), pp. 1-10.

Judd, T. and Keith, B. (2011). Student Learning Outcomes Assessment at the Program and Institutional Levels. Handbook on Measurement, Assessment, and Evaluation in Higher Education Routledge.

Kagaba, P. and Kibanja, G.M. (2017). Teaching Approaches, Interest and Performance of Students in Physics at Uganda Certificate of Education: The Relevance of Constructivism Teaching Learning Theory. *Journal of Educational Assessment in Africa,* 12, pp. 43-54.

Kambouri, M. (2016) Investigating Early Years Teachers' Understanding and Response to Children's Preconceptions. *European Early Childhood Education Research Journal*, 24(6). pp. 907-927.

Karaibrahimoğlu, Y.Z., Erdener, E. and Var, T. (2009). Ethical Behaviour in Accounting: Some Evidence from Turkey. *African Journal of Business Management,* 3(10), pp. 540-547.

Karami, A. (2016). What Makes A Good Teacher? Needs and Necessities. A Survey of Recent Literature on Teacher's Subject Matter Knowledge, Pedagogical Knowledge, and Pedagogical Content Knowledge. *Journal of Studies in Education,* 6(2), pp. 241-150.

Kaur, G. (2011). Study and Analysis of Lecture Model of Teaching. *International Journal of Educational Planning and Administration* 1(1), pp. 9-13.

Ketabi, S. and Ketabi, S. (2014). Classroom and Formative Assessment in Second/Foreign Language Teaching and Learning. *Theory and Practice in Language Studies*, 4(2), pp. 435-440.

Khashan, K.H. (2014). Conceptual and Procedural Knowledge of Rational Numbers for Riyadh Elementary School Teachers. *Journal of Education and Human Development*, 3(4), pp. 181-197.

Khwaja, C.C. (2006). The Role of Subject Knowledge in the Effective Teaching of Primary Science: Critical reviews of an area of literature. *Educate: The Journal of Doctoral Research in Education.*

Kilgour, P., Reynaud, D., Northcote, M.T. and Shields, M. (2015). Role-playing as a Tool to Facilitate Learning, Self-Reflection and Social Awareness in Teacher Education. *International Journal of Innovative Interdisciplinary Research, 2*(4), pp. 8-20.

Kind, V. and Wallace, R. (2008). Train, Teach; Taught? How the Content of Specific Science Subject Matter Knowledge Sessions Impacts on Trainee Teachers' Classroom Practice and Children's Learning. NorDina, 4(2).

Kindsiko, E. and Poltimäe, H. (2019). The Poor and Embarrassing Cousin to the Gentrified Quantitative Academics: What Determines the Sample Size in Qualitative Interview-Based Organization Studies? *Forum: Qualitative Social Research*, 20(3).

Kira, E., Komba, S., Kafanabo, E., and Tilya, F. (2013). Teachers' Questioning Techniques in Advanced Level Chemistry Lessons: A Tanzanian Perspective. *Australian Journal of Teacher Education, 38*(12).

Kivunja, C. and Kuyini, A.B. (2017). Understanding and Applying Research Paradigms in Educational Contexts. *International Journal of Higher Education,* 6(5), pp. 26-41.

Klapper, L., Lusardi, A. and van Oudheusden, P. (2015). Financial Literacy Around the World: Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey. *World Bank Development Research Group,* 1-28.

Kleickmann, T., Richter, D., Kunter, M., Elsner, J., Besser, M., Krauss, S. and Baumert, J. (2013). Teachers' Content Knowledge and Pedagogical Content Knowledge: The Role of Structural Differences in Teacher Education. *Journal of Teacher Education*, 64(1) 90–106.

Krathwohl, D.R. (2002). A Revision of Bloom's Taxonomy: An Overview. *Theory into Practice*, 41(4), pp. 212-218.

Krauss, S., Brunner, M., Kunter, M., Baumert, J., Blum, W., Jordan, A. and Neubrand, M. (2008). Pedagogical Content Knowledge and Content Knowledge of Secondary Mathematics Teachers. *Journal of Educational Psychology,* 100(3), pp. 716-725.

Krč, M. (2015). Codes of Ethics and Their Place in Education. *Acta Technologica Dubnicae*, 5(3), pp. 1-10.

Lai, E.R. (2011). *Always Learning.* Metacognition. Pearson.

Lederman, N.G. and Lederman, J.S. (2015). What Is A Theoretical Framework? A Practical Answer. *Journal of Science Teacher Education,* 26, 593-597.

Lepădatu, G.V. and Pîrnău, M. (2009). Transparency in Financial Statements (IAS/IFRS). *European Research Studies, 12*(1), pp. 101-108.

Lloyd, C.B. and Abbey, A.A. (2009). Teaching Elementary Accounting to Non-Accounting Majors. *American Journal of Business Education,* 2(2).

Logaw, M. (2017). Practices of Student Assessment in Competency based Modular Instruction for Quality Education in Ethiopia: The Case of College of Education in Amhara Region Universities. Association for educational Assessment in Africa (AEAA). *Journal of Educational Assessment in Africa,* 12.

Long, H. (2014). An Empirical Review of Research Methodologies and Methods in Creativity Studies (2003–2012). *Creativity Research Journal*, 26(4), pp. 427-438.

Lumadi, M.W. (2013). Teachers in the National Curriculum Assessment Policy: What Powers Do They Hold? *Journal of Social Sciences*, 35(1), pp. 43-49.

Lusk, A. (2016). Metacognitive Strategies in the Introduction to Political Science Classroom. *Journal of Political Science Education,* 12(2), pp. 141-150.

Mabil, A.N. (2019). Investigating Effects of Accounting Ethics on Quality of Financial Reporting of an Organization: Case of Selected Commercial Banks in South Sudan. *Mediterranean Journal of Social Sciences,* 10(1), pp. 177-191.

Macpherson, A. (2015). *Cooperative Learning Group Activities for College Courses.* Surrey, BC Canada: Kwantlen Polytechnic University.

Magnusson, S., Krajick, J., and Borko, H. (1999). Nature, Sources, and Development of Pedagogical Content Knowledge for Science Teaching. In: J. Gess-Newsome, N.G. Lederman (Eds.) *Examining Pedagogical Content Knowledge: The Construct and its Implications for Science Education (pp. 211-223).* Dordrecht: Kluwer Academic Publishers.

Mahdzan, N.S. and Tabiani, S. (2013). The Impact of Financial Literacy on Individual Saving: An Exploratory Study in the Malaysian Context. *Transformations in Business and Economics Volume 12,* 1(28), pp 41-55.

Maison, M., Haryanto, H., Ernawati, M.D.W., Ningsih, Y., Jannah, N., Puspitasari, T.O and Putra, D.S. (2020). Comparison of Student Attitudes Towards Natural Sciences. *International Journal of Evaluation and Research in Education (IJERE)*, 9(1), pp. 54-61.

Majid, M.A.A., Othman, M., Mohamad, S.F., Lim, S.A.H. and Yusof, A. (2017). Piloting for Interviews in Qualitative Research: Operationalization and Lessons Learnt. *International Journal of Academic Research in Business and Social Sciences,* 7(4).

Malinovic-Jovanovic, N.T. Zdravkovic, V.S. and Malinovic, J.V. (2018). Models of Individualized Instruction and Possibilities for their Application in Initial Mathematics Teaching – Teacher Perceptions. *International Journal of Humanities and Social Science,* 8(7), pp. 13-25.

Malmqvist, J., Hellberg, K., Mollas, G., Rose, R. and Shevlin, M. (2019). Conducting the Pilot Study: A Neglected Part of the Research Process? Methodological Findings Supporting the Importance of Piloting in Qualitative Research Studies. *International Journal of Qualitative Methods,* 18, pp. 1-11.

Map of Gauteng Province. (2018). *Retrieved from: https://www.images.co.za* (Accessed 09/11/2018).

Mathumbu, D., Rauscher, W. and Braun, M. (2014). Knowledge and Cognitive Process Dimensions of Technology Teachers' Lesson Objectives. *South African Journal of Education,* 34(3).

McMillan, J.H. (1996). *Educational Research: Fundamentals for the Consumer (2nd Edition).* Harper Collins College Publishers.

McMillan, W. (2010). Moving Beyond Description: Research that Helps Improve Teaching and Learning. AJHPE, 2(1).

McNeill, K.L., Gonzalez-Howard, M., Katsh-Singer, R. and Loper, S. (2016). Pedagogical Content Knowledge of Argumentation: Using Classroom Contexts to Assess High-Quality PCK Rather than Pseudo argumentation. *Journal of Research in Science Teaching,* 53(2), pp. 261-290.

Merriam, S.B. and Tisdell, E.J. (2016). Qualitative Research: A Guide to Design and Implementation (4th Edition). Jossey-Bass, A Willey Brand.

Middle State Commission on Higher Education. (2007). *Student Learning Assessment: Options and Resources (2nd Edition).* United States of America.

Mikre, F. (2010). The Roles of Assessment in Curriculum Practice and Enhancement of Learning. *Ethiopian Journal of Education and Science,* 5(2), pp. 101-114.

Miles, M. B. and Huberman, A.M. (1994). *Qualitative Data Analysis: An Expanded Source Book.* California: Sage Publications.

Mills, J. (2019). Making Multiplication Meaningful: Teaching for Conceptual Understanding. *Teachers and Curriculum*, 19(1), pp. 17-25.

Mizzi, D. (2013). The Challenges Faced by Science Teachers when Teaching Outside their Specific Science Specialism. *Acta Didactica Napocensia*, 6(4), pp. 1-6.

Mkhize, M.V. (2017). Accounting Firms' Managers' and Trainees' Perceptions of Managerial Competencies Required to Manage Diversity in KwaZulu-Natal, South Africa. *South African Journal of Economic and Management Sciences,* 20(1), pp. 11.

Moate, R.M. and Cox, J.A. (2015). Learner-Centred Pedagogy: Considerations for Application in a Didactic Course. *The Professional Counsellor,* 5(3), pp. 379-389.

Mohajan, H.K. (2018). Qualitative Research Methodology in Social Sciences and Related Subjects. *Journal of Economic Development, Environment and People*, 7(1), pp. 23-48.

Mokotedi, R.T. (2013). Beginning Primary School Teachers' Perspectives on the Role of Subject Specialization in Botswana Colleges of Education: Implications for the Professional Development of Those who did not Specialize in Languages (English and Setswana) *International Journal of Scientific Research in Education*, 6(1), pp. 88-99.

Mudavanhu, Y. (2015). Differences in Perceptions of the Importance of Subject Matter Knowledge and How These Shaped Supervision and Assessment of Student

Teachers on Teaching Practice. *Journal of Education and Training Studies,* 3(1), 98-107.

Mwathwana, M.I., Mungai, C., Gathumbi, A.W. and Gongera E.G. (2014). An Analysis of History Teaching Methodology in High schools: A Case of Tigania and Igembe Districts, Meru County, Kenya. *Journal of Education and Practice,* 5(2), pp. 83-88.

Nasab, F.G. (2015). Alternative versus Traditional Assessment. *Journal of Applied Linguistics and Language Research*, 2(6), pp. 165-178.

Natalia, D.E., Asib, A. and Kristina, D. (2018). The Application of Authentic Assessment for Students Writing Skill. *Journal of Education and Human Development*, 7(2), 49-53.

National Planning Commission. (2011). *National Development Plan Vision for 2030.* Republic of South Africa.

Naz, A., Khan, W., Khan, Q., Daraz, U., Mujtaba, B. G. (2013). Teacher's Questioning Effects on Students Communication in Classroom Performance. *Journal of Education and Practice*. Vol.4, No.7.

Ngwenya, J.C. (2014). Accounting Teachers' Understanding and Practices of Teaching and Assessment in a Context of Curriculum Change. Alternation 21(1), pp. 171-189.

Ningsih, N. (2017). Small Group Discussion Method in Teaching Reading Comprehension in Eight Grade Students of SMP n 3 Bantul in Academic Year 2017/2018. English Language Education Study Program, Faculty of Teacher Training and Education, University of PGRI Yogyakarta.

Noddings, N. (2007). Aims, Goals, and Objectives. *Encounters on Education,* 8, pp. 7-15.

Norman, A.S. (2010). Importance of Financial Education in Making Informed Decision on Spending. *Journal of Economics and International Finance,* 2(10), pp. 199-207.

Nunes, M.B., Martins, J.T., Zhou, L., Alajamy, M. and Al-Mamari, S. (2010). Contextual Sensitivity in Grounded Theory: The Role of Pilot Studies. *The Electronic Journal of Business Research Methods,* 8(2), pp. 73-84.

Organisation for Economic Co-operation and Development. (2013). *Financial Education for Youth and in Schools. Organisation for Economic Co-operation and Development (OECD)/International Network on Financial Education Policy Guidance, Challenges, and Case Sudies.* Russian/World Bank/OECD Trust Fund on Financial Literacy and Education.

Oswald, D., Sherratt, F. and Smith, S. (2014). Handling the Hawthorne Effect: The Challenges Surrounding a Participant Observer. Review of Social Studies, 1(1).

Otter, D. (2010). The Teacher Financial Literacy Project: Teacher Attitudes and Beliefs about Teaching Financial Literacy. A Survey of California K-12 Teachers. *Pollinate Project,* pp. 1-24.

Ozan, C. and Kıncal, R.Y. (2018). The Effects of Formative Assessment on Academic Achievement, Attitudes Toward the Lesson, and Self-Regulation Skills. *Educational Sciences: Theory & Practice,* 18, pp. 85-118.

Papaleontiou-Louca, E. (2003). The Concept and Instruction of Metacognition. *Teacher Development*, 7(1), pp. 9-30.

Peklaj, C. (2015). Teacher Competencies through the Prism of Educational Research. *CEPS Journal,* 5(3), pp. 159-180.

Pickard, M.J. (2007). The New Bloom's Taxonomy: An Overview for Family and Consumer Sciences. *Journal of Family and Consumer Sciences Education,* 25(1), pp. 45-55.

Popenici, S. and Millar, V. (2015). *Writing Learning Outcomes: A Practical Guide for Academics. Melbourne Centre for the Study of Higher Education*. The University of Melbourne.

Portilho, E.M.L., and Medina, G.B.K. (2016). Metacognition as Methodology for Continuing Education of Teachers. *Creative Education,* 7, pp. 1-12.

Prince, M. and Felder, R. (2007). The Many Faces of Inductive Teaching and Learning. *Journal of College Science Teaching.*

Qu, W. and Zhang, C. (2013). The Analysis of Summative Assessment and Formative Assessment and Their Roles in College English Assessment System. *Journal of Language Teaching and Research*, 4(2), pp. 335-339.

Rabtsinski, D. (2015). *Improving Financial Literacy Case Study of Financial Education in Schools in Estonia.* Helsinki Metropolia University of Applied Sciences.

Rahman, F., Jumani, N.B., Satti, M.G. and Malik, M.I. (2010). Do Metacognitively Aware Teachers Make any Difference in Students' MetacognitIon? *International Journal of Academic Research,* 2(6), pp. 219-223.

Rahman, F., Khalil, J.K., Jumani, N.B., Ajmal, M., Malik, S. and Sharif, M. (2011). Impact of Discussion Method on Students Performance. International Journal of Business and Social Science. Vol. 2 No. 7.

Raluca, S. (2016). Using Interactive Methods in Teaching Accounting. *Studies in Business and Economics,* 11(2), pp. 130-139.

Ramnarain, U. and Fortus, D. (2013). South African Physical Sciences Teachers' Perceptions of New Content in a Revised Curriculum. *South African Journal of Education,* 33(1), pp. 1-15.

Rashid, S. and Qaisar, S. (2016). Developing Critical Thinking through Questioning Strategy among Fourth Grade Students. *Bulletin of Education and Research,* 38(2), pp. 153-168.

Reed, D.K. (2012). Clearly Communicating the Learning Objective Matters! Clearly Communicating Lesson Objectives Supports Student Learning and Positive Behaviour. *Middle School Journal*, 43(5), pp. 16-24.

Research Council of Norway. (2011). Norwegian Educational Research Towards 2020-UTDANNING. The Role of Theory in Educational Research. Report from the March Seminar 2011.

Riley-Ayers, S. (2014). *Formative Assessment: Guidance for Early Childhood Policymakers (CEELO Policy Report).* New Brunswick, NJ: Centre on Enhancing Early Learning Outcomes.

Ritchie, J., Lewis, J., McNaughton-Nicholls, C. and Ormston, R. (2014). *Qualitative Research Practice: A Guide for Social Science Students and Researchers.* SAGE: Washington DC.

Rollnick, M. (2016). Learning about Semi-Conductors for Teaching—The Role Played by Content Knowledge in Pedagogical Content Knowledge (PCK) Development. *Res Science Education,* 47, pp. 833-868.

Rosacker, K.M. and Rosacker, R.E. (2016). An Exploratory Study of Financial Literacy Training for Accounting and Business Majors. *The International Journal of Management Education,* 14, pp. 1-7.

Rosenshine, B. (2012). Principles of Instruction. Research-Based Strategies that all teachers should know. American Educator, 36(1), pp. 12-19.

Rosenthal, M. (2016). Qualitative Research Methods: Why, When, and How to Conduct Interviews and Focus Groups in Pharmacy Research. *Currents in Pharmacy Teaching and Learning,* 8, pp. 509-516.

Rowland, T. (2013). The Knowledge Quartet: The Genesis and Application of a Framework for Analysing Mathematics Teaching and Deepening Teachers' Mathematics Knowledge. *Journal of education,* 1(3), pp. 15-43.

Sadler, P.M., Sonnert, G., Coyle, H.P., Cook-Smith, N. and Miller, J.L. (2013). The Influence of Teachers' Knowledge on Student Learning in Middle School Physical Science Classrooms. *American Educational Research Journal*, 50(5), pp. 1020-1049.

SAGE Research Methods Datasets. (2018). Analysing Semi-Structured Interviews Using Thematic Analysis: Exploring Voluntary Civic Participation Among Adults. SAGE Publications, Ltd.

Samkin, G., Low, M. and Taylor, J. (2012). Incorporating Financial Literacy into the Secondary School Accounting Curriculum: A New Zealand Perspective, *Australian Accounting, Business and Finance Journal*, 6(4), pp. 5-30.

Scheiner, T. (2016). Lessons We Have (not) Learned From Past and Current Conceptualizations of Mathematics Teachers' Knowledge. Konrad Krainer; Naďa Vondrová. CERME 9 – Ninth Congress of the European Society for Research in Mathematics Education, Feb 2015, Prague, Czech Republic, pp. 3248-3253.

Schmelzing, S., Van Driel, J.H., Jüttner, M., Brandenbusch, S., Sandmann, A. and Neuhaus, B.J. (2012). Development, Evaluation, and Validation of a Paper-and-Pencil test for Measuring Two Components of Biology Teachers' Pedagogical Content Knowledge Concerning the "Cardiovascular System". *International Journal of Science and Mathematics Education,* 11, pp. 1369-1390.

Schneider, M., Rittle-Johnson, B. and Star, J.R. (2011). Relations among Conceptual Knowledge, Procedural Knowledge, and Procedural Flexibility in Two Samples Differing in Prior Knowledge. *Developmental Psychology,* 47(6), pp. 1525-1538.

Schreuder, G.R. (2009). *The Role of Economic Management Sciences in Preparing Learners for Accounting in Grade 10*. Unpublished MEd Thesis. Cape Peninsula University of Technology: Cape Town.

Seraphin, K.D., Philippoff, J., Kaupp, L. and Vallin, L.M. (2012). Metacognition as Means to Increase the Effectiveness of Inquiry-Based Science Education. *Science Education International,* 23(4), pp. 366-382.

Shabiralyani, G., Hasan, K.S., Hamad, N. and Iqbal, N. (2015). Impact of Visual Aids in Enhancing the Learning Process Case Research: District Dera Ghazi Khan. *Journal of Education and Practice,* 6(19), 226-233.

Shah, S.R. and Al-Bargi, A. (2013). Research Paradigms: Researchers' Worldviews, Theoretical Frameworks and Study Designs. *Arab World English Journal*, 4(4), 252-264.

Shakhman, L. and Barak, M. (2019). The Physics Problem-Solving Taxonomy (PPST): Development and Application for Evaluating Student Learning. *EURASIA Journal of Mathematics, Science and Technology Education*, 15(11), pp. 1-16.

Shakoor, A. and Azeem, M. (2011). A Conceptual Framework of Acquisition of Mathematical Knowledge to Teach Algebra. *British Journal of Humanities and Social Sciences*, 2(1), pp. 154-168.

Shakouri, N. (2014). Qualitative Research: Incredulity toward Metanarrativeness. *Journal of Education and Human Development*, 3(2), pp. 671-680.

Shannon-Baker, P. (2016). Making Paradigms Meaningful in Mixed Methods *Research. Journal of Mixed Methods Research*, 10(4), pp. 319-334.

Shuichi, N. (2016). The Possibilities and Limitations of Assessment for Learning: Exploring the Theory of Formative Assessment and the Notion of "Closing the Learning Gap". *Educational Studies in Japan: International Yearbook*, 10, pp. 79-91.

Shulman, L.S. (1986). Those Who Understand: Knowledge Growth in Teaching. *American Educational Research Association,* 15(2), pp. 4-14.

Shulman, L.S. (1987). Knowledge and Teaching: Foundations of the New Reform. Harvard Educational Review, 57(1), pp. 1-23.

Şimşek, N., and Boz, N. (2016). Analysis of Pedagogical Content Knowledge Studies in the Context of Mathematics Education in Turkey: A Meta-Synthesis Study. *Educational Sciences*: *Theory and Practice*, 16, pp. 799-826.

Skagerlund, K., Lind, T., Strömbäck, C., Tinghög, G. and Daniel Västfjäll, D. (2018). Financial Literacy and the Role of Numeracy–How Individuals' Attitude and Affinity with Numbers Influence Financial Literacy. *Journal of Behavioural and Experimental Economics,* 74, pp. 18-25.

Slekar, T.D. and Haefner, L.A. (2010). Syntactic Knowledge in History and Science Education: Teacher Education and Neglect in the Academy. *Journal of Thought*, 45(1-2), pp. 7+.

Solomon, G.E., Nhete, T. and Sithole, B.M. (2018). The Case for the Need for Personal Financial Literacy Education in Botswana Secondary Schools. *SAGE Open*, 8(1), pp. 1-9.

Stillman, G. and Mavarech, Z. (2010). Metacognition Research in Mathematics Education: From Hot Topic to Mature Field. *ZDM Mathematics Education*, 42, pp. 145-148.

Stripling, C.T., Thoron, A.C. and Estepp, C.M. (2014). Learning Activities Utilized and Readiness for the Student Teaching Internship. *Journal of Agricultural Education,* 55(4), pp. 148-161.

Suri, H. (2011). Purposeful Sampling in Qualitative Research Synthesis. *Qualitative Research Journal*, 11(2), pp. 63-75.

Surif, J., Ibrahim, N.H. and Mokhtar, M. (2012). Conceptual and Procedural Knowledge in Problem Solving. *Procedia - Social and Behavioural Sciences,* 56, pp. 416-425.

Taft, M.K., Hosein, Z.Z., Mehrizi, S.M.T. and Roshan, A. (2013). The Relation between Financial Literacy, Financial Wellbeing and Financial Concerns. *International Journal of Business and Management,* 8(11), pp. 63-75.

Tavallaei, M. and Abu Talib, M. (2010). A General Perspective on Role of Theory in Qualitative Research. *The Journal of International Social Research,* 3(11), pp. 570-577.

Taylor, P.C. and Medina, M. (2011) Educational Research Paradigms: From Positivism to Pluralism. *College Research Journal*, 1(1), pp. 1-16.

Taylor, S.M. and Wagland, S. (2013). The Solution to the Financial Literacy Problem: What is the Answer? *Australasian Accounting, Business and Finance Journal*, 7(3), pp. 69-90.

Teddlie, C. and Yu, F. (2007). Mixed Methods Sampling a Typology with Examples. *Journal of Mixed Methods Research*, 1(1), pp. 77-100.

Thomas, M. (2012). Teachers' Beliefs about Classroom Assessment and their Selection of Classroom Assessment Strategies. *Journal of Research and Reflections in Education*, 6(2), pp. 103-112.

Todorović, Z. (2018). Application of Ethics in the Accounting Profession with An Overview of the Banking Sector. *Journal of Central Banking Theory and Practice*, 3, pp. 139-158.

Tomal, D.R. (2010). Action Research for Educators (2nd Edition). Rowman and Littlefield Publishers Inc: United Kingdom.

Tomal, D.R. (2003). Action Research for Educators. San Francisco: Library of Congress Cataloguing-in-Publication Data.

Tomášková, H., Mohelská, H. and Němcová, Z. (2011). Issues of Financial Literacy Education. *Procedia – Social and Behavioural Sciences*, 28, pp. 365-369.

Tracy, S.J. (2013). Qualitative Research Methods: Collecting Evidence, Crafting Analysis, Communicating Impact. Wiley-Blackwell. A John Wiley and Sons, Ltd, Publication.

Türkarslan, D. and Akdemir, E. (2019). Input for Curriculum Design: Determining the Attitudes of Students Towards English Courses. *Turkish Online Journal of Educational Technology*, Special Issue for INTE-ITICAM, 1, pp. 151-163.

Turner, D.W. (2010). Qualitative Interview Design: A Practical Guide for Novice Investigators. *The Qualitative Report,* 15(3), pp. 754-760.

Umoru, T.A.U. and Haruna, B. (2018). Effect of Demonstration and Lecture Teaching Methods on Academic Performance of Secondary School Students in Financial Accounting in Adamawa State, Nigeria. *Nigerian Journal of Business Education (NIGJBED),* 5(2).

Vaismoradi, M., Jones, J., Turunen, H. and Snelgrove, S. (2016). Theme Development in Qualitative Content Analysis and Thematic Analysis. *Journal of Nursing Education and Practice,* 6(5), pp. 100-110.

VanScoy, A. (2019). Conceptual and Procedural Knowledge: A Framework for Analysing Point-of-Need Information Literacy Instruction. *Communications in Information Literacy*, 13(2), pp. 164-180.

Van Rijnsoever, F.J. (2017). I Can't Get No Saturation: A Simulation and Guidelines for Sample Sizes in Qualitative Research. PLoS ONE 12(7): e0181689.

Van Teijlingen, E.R. and Hundley, V. (2001). The Importance of Pilot Studies. *Social Research Update,* 35.

Van Wyk, M. and Reis, K.D. (2016). *Teaching Economic and Management Sciences in the Senior Phase.* South Africa: Oxford University Press.

Vasileiou, K., Barnett, J., Thorpe, S. and Young, T. (2018). Characterising and Justifying Sample Size Sufficiency in Interview-Based Studies: Systematic Analysis of Qualitative Health Research Over a 15-year Period. BMC Medical Research Methodology, 18(1), pp. 148.

Vendruscolo M.I. and Behar P.A. (2016). *Accounting Professor Competencies: Identification of Educational Elements in the Education Process of Accounting Professors in Distance Education.* IFIP Conference on Information Technology in Educational Management (ITEM) and IFIP Conference on Key Competencies for Educating ICT Professionals (KCICTP), Jul 2014, Potsdam, Germany. pp. 94-105.

Vingsle, C. (2014). Formative Assessment: Teacher Knowledge and Skills to Make it Happen. *Licentiand Thesis, Educational Works*, 15(8), pp. 7-15.

Vrhovec, A.R. (2015). Forms of Cooperative Learning in Language Teaching in Slovenian Language Classes at the Primary School Level. *CEPS Journal,* 5(3), pp. 129-156.

Vula, E., Avdyli, R., Berisha, V., Saqipi, B. and Elezi, S. (2017). The Impact of Metacognitive Strategies and Self-Regulating Processes of Solving Math Word Problems. *International Electronic Journal of Elementary Education*, 10(1), pp. 49-59.

Wahyuni, D. (2012). The Research Design Maze: Understanding Paradigms, Cases, Methods and Methodologies. *JAMAR,* 10(1), pp. 69-80.

Walker, D. (2012). Classroom Assessment Techniques: An Assessment and Student Evaluation Method. *Creative Education*, 3, pp. 903-907.

Wang, S., Wang, H. and Khalil, N. (2018). A Thematic Analysis of Interdisciplinary Journal of Information, Knowledge, and Management (IJIKM). *Interdisciplinary Journal of Information, Knowledge, and Management,* 13, p. 201-231.

Wasiu, O.I. and Abiola, O.A. (2019). Enhancing the Conceptual, Procedural and Flexible Procedural Knowledge of Pre-Service Mathematics Teachers in Algebra. *Journal of Research and Advances in Mathematics Education,* 4(2), pp. 66-78.

Wiliam, D. (2011). What is Assessment for Learning? *Studies in Educational Evaluation,* 37, pp. 3-14.

William, P.J. and Gumbo, M. (2012). Discovering Technology Teachers' Pedagogical Content Knowledge: A Comparative Study between South Africa and New Zealand, pp. 478-487.

Williams, C. (2007). Research Methods. *Journal of Business and Economic Research,* 5(3), 65-72.

Williams-McBean, C.T. (2019). The Value of a Qualitative Pilot Study in a Multi-Phase Mixed Methods Research. *The Qualitative Report,* 24(5), pp. 1055-1064.

Windschitl, M. (2004). What Types of Knowledge do Teachers Use to Engage Learners in "Doing Science"? Rethinking the Continuum of Preparation and Professional Development for Secondary Science Educators. A Paper Commissioned by the National Academy of Sciences.

Wumi, O.A. (2015). Strategies for Improving Teachers' Performance in Secondary Schools of Ondo State (A Case Study of Ode – Irele Local Government Area). *Afro Asian Journal of Social Sciences,* 6(4), pp. 1-14.

Xiong, Y., Zhou, H. and Ogilby, S.M. (2014). Experimental Investigation of the Effects of Cognitive Elaboration on Accounting Learning Outcomes. *Journal of Education and Learning,* 3(4), pp. 1-16.

Yamauchi, L.A., Ponte, E., Ratliffe, K.T. and Traynor, K. (2017). Theoretical and Conceptual Frameworks Used in Research on Family–School Partnerships School Community Journal, 27(2), pp. 9-34.

Yang, L. and Liang, X. (2017). Exploration and Research of Accounting Demonstration Experiment. *Advances in Economics, Business and Management Research,* 50.

Yeasmin, S. and Rahman, K.F. (2012). Triangulation Research Method as the Tool of Social Science Research. *BUP Journal*, 1(1), 154-163.

Yıldırım, T. and Yazıcı, F. (2017). Preservice History Teachers' Perceptions of Subject Matter Competency. *Journal of Education and Training Studies*, 5(10), pp. 113.

Young, M.R., Caudill, E.M. and Murphy, J.W. (2008). Evaluating Experiential Learning Activities. *Journal for Advancement of Marketing Education,* 13, pp. 28-40.

Yurniwati, Y. and Yarmi, G. (2020). Promoting Prospective Teachers' Conceptual Knowledge Through Web-Based Blended Learning. *Journal of Research and Advances in Mathematics Education,* 5(2), pp. 187-201.

Zepeda, C.D., Hlutkowsky, C.O., Partika, A.C. and Nokes-Malach, T.J. (2018). Identifying Teachers' Supports of Metacognition Through Classroom Talk and Its Relation to Growth in Conceptual Learning. *Journal of Educational Psychology*, 111(3), pp. 522-541.

Zhang, Y. (2015). Pedagogical Content Knowledge in Early Mathematics: What Teachers Know and How it Associates with Teaching and Learning. *Dissertations.* Paper 1499.

Zhang, Y. and Patrick, P.P. (2012). Introducing Questioning Techniques to Pre-Service Teachers. *Journal of Teacher Education and Educators,* 1(2), pp. 159-184.

Zhao, X., Van den Heuvel-Panhuizen, M. and Veldhuis, M. (2016). Teachers' Use of Classroom Assessment Techniques in Primary Mathematics Education—An Explorative Study with Six Chinese Teachers. *International Journal of STEM Education,* 3(19).

Zohrabi, M. (2013). Mixed Method Research: Instruments for Validity, Reliability, and Reporting Findings. *Theory and Practice in Language Studies*, 3(2), pp. 254-262.

LIST OF APPENDICES

APPENDIX A: ETHICAL CLEARANCE LETTER FROM THE UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

UNISA | university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2019/08/14

Ref: **2019/08/14/64034305/17/MC**

Name: Mr AP Nkabinde

Student No.: 64034305

Dear Mr Nkabinde

Decision: Ethics Approval from 2019/08/14 to 2024/08/14

Researcher(s): Name: Mr AP Nkabinde
E-mail address: 64034305@mylife.unisa.ac.za
Telephone: +27 82 754 0590

Supervisor(s): Name: Prof MW Lumadi
E-mail address: lumadmw@unisa.ac.za
Telephone: +27 83 736 2231

Title of research:

Exploring the Pedagogical Content Knowledge of Economic and Management Sciences educators in teaching Financial Literacy in Secondary Schools of Ekurhuleni North District

Qualification: PhD in Curriculum Studies and Instruction

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2019/08/14 to 2024/08/14.

*The **low risk** application was reviewed by the Ethics Review Committee on 2019/08/14 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.

3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.

4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.

6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.

7. No field work activities may continue after the expiry date **2024/08/14**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2019/08/14/64034305/17/MC** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,

Prof AT Motlhabane
CHAIRPERSON: CEDU RERC
motlhat@unisa.ac.za

Prof PM Sebate
ACTING EXECUTIVE DEAN
Sebatpm@unisa.ac.za

APPENDIX B: GAUTENG DEPARTMENT OF EDUCATION AMENDED RESEARCH APPROVAL LETTER FROM THE EDUCATION RESEARCH AND KNOWLEDGE MANAGEMENT

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

8/4/4/1/2

GDE AMENDED RESEARCH APPROVAL LETTER

Date:	21 January 2020
Validity of Research Approval:	04 February 2020 – 30 September 2020 2019/117A
Name of Researcher:	Nkabinde A.P
Address of Researcher:	4 Villino Berto
	32 Second Avenue, Ravenswood
	Boksburg, 1459
Telephone Number:	011 892 2100/ 082 754 0590
Email address:	Aaron.Nkabinde@gauteng.gov.za
Research Topic:	Exploring the pedagogical content knowledge of Economic and Management science educators in teaching Financial Literacy in Secondary Schools of Ekurhuleni North District.
Type of qualification	PhD
Number and type of schools:	Twenty Four Secondary Schools
District/s/HO	Ekurhuleni North

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

21/01/2020

The following conditions apply to GDE Research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1

Making education a societal priority

Office of the Director: Education Research and Knowledge Management
7ᵗʰ Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 355 0488
Email: Faith.Tshabalala@gauteng.gov.za
Website: www.education.gpg.gov.za

1. Letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.

2. The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.

3. A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.

4. A letter / document that outline the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.

5. The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.

6. Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.

7. Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.

8. Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.

9. It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.

10. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.

11. The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.

12. On completion of the study the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.

13. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.

14. Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

Mr Gumani Mukatuni
Acting CES: Education Research and Knowledge Management

DATE: 24\01\2020

APPENDIX C: AMENDED APPROVAL LETTER FROM EKURHULENI NORTH DISTRICT DIRECTOR

GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

EKURHULENI NORTH DISTRICT

Enquiries: Kagiso Magarwane   (T) 011 746 – 8295   (E) Ramabove.Magarwane@gauteng.gov.za
Sub-Directorate: Information Systems and Strategic Planning

TO   : NKABINDE A.P.

FROM   : MRS N.P. NTUTA
            DISTRICT DIRECTOR

DATE   : 12th FEBRUARY 2020

SUBJECT : LETTER OF ENDORSEMENT TO CONDUCT PH.D RESEARCH IN TWENTY FOUR SCHOOLS
           UNDER EKURHULENI NORTH DISTRICT OFFICE OF EDUCATION

The Ekurhuleni North District is situated at 78 Howard Avenue, Munpen Building under the Gauteng Department of Education. The district office is servicing a total 266 both public ordinary and independent (some state subsidised) schools.

This letter serves as an endorsement for the approval by Gauteng Department of Education to Mr AP Nkabinde to conduct research. The validity of the research will be between the 04th February 2020 to the 30th September 2020.

The Ekurhuleni North District office hereby endorses permission granted by GDE for the said research to be conducted as per the pre-scripts of Gauteng Department of Education: Education Research and Knowledge Management Directorate. The research will be conducted in 24 schools within the Ekurhuleni North District office i.e. Dawnview High, Edenglen High, Edenvale High, Petit High, Sir Pierre van Rynveld, Liverpool High, Willowmoore Secondary, Wordsworth High, Unity Secondary, Lesiba Secondary, Masisebenze Sec, Masiqhakaze Sec, Phomolong Sec, Jiyana Sec, Boitumelong Sec and Ingqayizivele Secondary, Hulwazi Sec, Dowerglen High, Tembisa High, Norkem Park High, Winnie Mandela High, Bedfordvie High, Kingsway High and Ephes Mamkeli High Schools.

The research is for a PhD degree and the topic is "**Exploring the pedagogical content knowledge of Economic and Management Science educators in teaching Financial Literacy in Secondary Schools of Ekurhuleni North District**".

Kind regards.

MRS NP NTUTA
DISTRICT DIRECTOR: EKURHULENI NORTH

Making education a societal priority
Office of the District Director: Ekurhuleni North
Munpen Building, 78 Howard Avenue, Benoni, 1500
Private Bag X 059, Benoni, 1500
Tel: (011) 746-8000 Fax: (011) 746-8027/78
Website: www.education.gpg.gov.za

APPENDIX D: LETTER TO THE DISTRICT DIRECTOR

Request for permission to conduct research in Ekurhuleni North District (EN)

Title of the title of the research study: **Exploring the Pedagogical Content Knowledge of Economics and Management Sciences Educators in Teaching Financial Literacy in Secondary Schools of Ekurhuleni North District**

Date: 02/08/2019

District Director: Ekurhuleni North District

Gauteng Department of Education

P. O. Box

Benoni

1501

Dear Director,

I, Aaron Phillip Nkabinde am doing research under supervision of Professor M.W. Lumadi, a Professor in the Department of Curriculum Studies and Instruction towards a PhD at the University of South Africa.

The purpose of the research study is to: Explore the Pedagogical Content Knowledge of Economics and Management Sciences educators in teaching Financial Literacy. Identify limitations, make findings and recommendations that will help improve learner performance and stimulate their interest in the subject.

The District where the study will be conducted has been selected because the researcher resides in Boksburg therefore the District was selected because of its proximity.

The study will entail collecting data from Economic and Management Sciences (EMS) educators; therefore, these educators will be observed in practise and interviewed. Records of planning and learners' books will also be scrutinised. Educators will be observed in line with their personal timetable emanating from the schools' composite timetable. Interviews will be arranged in line with the availability of participants e.g.,

during break, free periods and after school. This is to ensure that the research processes does not interfere with the smooth running of the school. The duration of the interview will be +/- 40 minutes.

Participation in the study is voluntary therefore educators reserve a right to withdraw their participation at any stage when they feel uncomfortable. Confidentiality and non-disclosure of personal information, as well as educators' identities will be always protected during and after the research has been completed. In this regard, pseudonyms will be employed to ensure anonymity of all participants. Data will be collected during the third term from August to September 2019. The target population are EMS educators in Grades 8 and 9.

In terms of the benefits of the study, I promise to share the outcome of the research study in terms of the findings and recommendations. It is believed that the research study will be of great value to the Curriculum Unit at Head Office, Subject Advisors at District Offices, Educators in secondary schools, and the EMS subject as a whole. It is also believed that the outcome of the study will help improve the teaching of Financial Literacy in Grades 8 and 9.

As far as I am concerned, there are no potential risks involved in the process of conducting the study as everything will be conducted in line with the ethical research considerations stipulated in Chapter 4 of the current study. The UNISA code of ethics will also be strictly adhered to in that these letters have been prepared in line with the guidelines provided by the University.

I need to point out that there will be no reimbursement or any incentives for participation in the research. The feedback procedure will entail providing the participants with a PDF soft copy of the final research. This will be emailed to them as contact details will be exchanged during visits to schools.

Yours sincerely

_____

A. P. Nkabinde

Researcher **Ref 2019/08/14/64034305/17/MC**

APPENDIX E: LETTER TO SCHOOLS

4 Villino Berto, 32 Second Avenue

Ravenswood, Boksburg

1459

11 February 2020

To : Name of the School

From : A P Nkabinde (Researcher)

Dear Sir/Madam

Re: Request to be granted permission to conduct a research study in Secondary Schools of Ekurhuleni North District

I am a student currently registered for a PhD degree in Curriculum Studies with the University of South Africa. I am conducting a research study on the following topic: **"Exploring the Pedagogical Content Knowledge of Economic and Management Sciences Educators in Teaching Financial Literacy in Secondary Schools of Ekurhuleni North District".** The research study is aimed at improving teaching and learning in Economic and Management Sciences (EMS), particularly Financial Literacy.

The purpose of the research study is to: Explore the Pedagogical Content Knowledge of Economic and Management Sciences Educators in Teaching Financial Literacy through identifying limitations and gather findings and recommendations that will help improve learner performance and stimulate their interest in the subject.

A qualitative research method will be employed in conducting the study; therefore, data will be collected through interviews, lesson observations and documents analysis. Lesson observations will be conducted in line with the schools' composite timetable, as well as an individual educators' timetable therefore the duration of the lesson observations will be determined by the duration of periods as per the schools' timetable. Interviews will be arranged in line with the availability of educators e.g., during break, free periods and after school. The collection of data will therefore not

affect the smooth running of the school as well as the normal teaching time. The duration of the interview will be +/- 40 minutes.

Participation in the study is voluntary therefore educators reserve the right to withdraw their participation at any stage if they feel uncomfortable. Confidentiality and non-disclosure of personal information as well as educators' identities will be protected at all times during and after the research has been completed. In this regard, pseudonyms will be employed in order to ensure anonymity of all participants.

Data will be collected during the first term from February to September 2020. The target population are EMS educators in Grades 8 and 9.

It is believed that the research study will be of great value to the Curriculum Unit at Head Office, Subject advisors at District Offices, Educators in secondary schools and, the Economic and Management Sciences (EMS) subject as a whole.

I would greatly appreciate it if I could grant me permission to conduct the research in your school.

……………………………………………….

A. P. Nkabinde

Researcher **Ref 2019/08/14/64034305/17/MC**

APPENDIX F: INVITATION LETTER TO PARTICIPANTS

To   :   Participants

From   :   A P Nkabinde

Subject: <u>Request to conduct interviews and lesson observations for PhD research</u>

Research topic: Exploring the Pedagogical Content Knowledge of Economics and Management Sciences Educators in Teaching Financial Literacy in Secondary Schools of Ekurhuleni North District

I am a student registered for a PhD degree in Curriculum Studies with the University of South Africa. I am therefore conducting research on the topic indicated above. I am therefore kindly inviting you to participate in the research study aimed at improving teaching and learning in Economic and Management Sciences (EMS), particularly Financial Literacy.

The purpose of the research study is to: Explore the Pedagogical Content Knowledge of Economics and Management Sciences Educators in Teaching Financial Literacy through identifying limitations and gather findings and recommendations that will help improve learner performance and stimulate their interest in the subject.

Data will be collected through interviews, lesson observations and documents analysis therefore if you agree to participate in the study, it means I will observe you in practise, conduct interviews and analyse educators' records as well as learners' books. I am therefore requesting for your support in this regard. I must point out that lesson observations will be conducted in line with the schools' composite timetable as well as your individual period timetable, therefore, the duration of the lesson observations will be determined by the duration of periods as per the schools' timetable. Interviews will be arranged in line with your availability e.g., during break, free periods and after school. The duration of the interview will be +/- 40 minutes.

I know that you might find this exercise uncomfortable and intimidating but I need to assure you that everything will be treated with confidentiality. To ensure confidentiality and to protect your identity, your name will not be mentioned or used anywhere in the study instead pseudonyms will be used in this regard. There will be no information that

will be kept under your name. The information that will be collected will be used to make findings and recommendations of the study and it might also be used for journal publications.

Participation in the study is voluntary; therefore. you reserve a right to withdraw your participation at any stage when you feel uncomfortable. I also want to assure you that confidentiality and non-disclosure of personal information as well as your identity will be always protected during and after the research has been completed, hence pseudonyms will be employed to ensure anonymity of all participants.

I promise to provide you with the outcome of the research study in terms of the findings and recommendations once the project is completed.

Your participation in this research study will be of great value to the EMS subject.

Should you wish to participate in the study, please complete the consent form attached to this email.

Thanking you in advance for your support.

………………………………………………

A. P. Nkabinde

Researcher **Ref 2019/08/14/64034305/17/MC**

APPENDIX G: PARTICIPANTS' INFORMATION LETTER

Date:

Title: **Exploring the Pedagogical Content Knowledge of Economics and Management Sciences Educators in Teaching Financial Literacy in Secondary Schools of Ekurhuleni North District**

DEAR PROSPECTIVE PARTICIPANT

I, Aaron Phillip Nkabinde am doing research towards a **PhD** at the University of South Africa under the supervision of **Professor M. W. Lumadi**, a **Professor** in the **Department of Curriculum Studies and Instruction**.

I am inviting you to participate in a study entitled: **Exploring the Pedagogical Content Knowledge of Economics and Management Sciences Educators in Teaching Financial Literacy in Secondary Schools of Ekurhuleni North District.**

This study is expected to collect important information, make findings and recommendations that could be of great value to the Curriculum Unit at Head Office, Subject advisors at District Offices, Educators in secondary schools and the subject EMS. It is also believed that the outcome of the study will help improve the teaching of Financial Literacy in Grades 8 and 9.

The focus of the study is on Financial Literacy which is embedded within Economic and Management Sciences (EMS). It is for this reason that participation in the study is limited to EMS educators only hence purposeful sampling was employed with a believe that you will provide relevant and credible data for the study hence the invitation to participate in the project.

I do not have your details instead I requested permission from the principal to arrange a meeting for me with all teachers teaching EMS. I would greatly appreciate if a representative from each grade (i.e., Grades 8 and 9) to participate in the study which mean two educators from a school. I must point out that the study is conducted in your district only, there 24 public ordinary secondary schools that have been sampled and this include 12 former model C schools and 12 township schools. This means that there will be 48 educators. I also wish to indicate that I have requested permission to

conduct the study from the Gauteng Department of Education and I am pleased to inform you that permission has been granted.

Data will be collected through interviews, lesson observation and documents analysis therefore if you agree to participate in the study, it means I will observe you in practise, conduct interviews and analyse your planning records as well as learners' books. I am therefore requesting for your support in this regard. I must point out that lesson observations will be conducted in line with the schools' composite timetable as well as your individual period timetable therefore the duration of the lesson observations will be determined by the duration of periods as per the schools' timetable. Interviews will be arranged in line with your availability e.g., during break, free periods and after school. The duration of the interview will be +/- 40 minutes. Audio-recording will be used for data analysis purposes. The presentation of the lesson will not be video recorded instead an observation schedule will be completed.

I must point out that participation in the study is voluntary therefore you reserve a right to withdraw your participation at any stage when you feel uncomfortable. I also want to assure you that confidentiality and non-disclosure of personal information as well as your identity will be always protected during and after the research has been completed hence pseudonyms will be employed in order to ensure anonymity of all participants.

It is also believed that the outcome of the study will help improve the teaching of Financial Literacy in Grades 8 and 9.

As far as I am concerned as a researcher, there are no potential risks involved in the process of conducting the study since everything will be conducted in line with the ethical research considerations stipulated in Chapter 4 of the current study. The UNISA ethics will also be strictly adhered to.

Your name will not be recorded anywhere, and no one will be able to connect you to the answers you give instead responses from you will be given a code. A separate interview schedule for each participant will be used and these sheets will be dated and coded as School A, Teacher A1, A2 and A3, School B, Teacher B1, B2 and B3, etc. During recording of an interview session, participants will be labelled as such in order to easily identify various respondents recorded. This will be done to make things easy

for the researcher to verify and review the field notes against the interview recorded following the notes taken during lesson observations. These pseudonyms will be referred to in this way in the data and for any publications in educational journal articles, or other research reporting methods such as conference proceedings. This is to ensure that your identity is always kept confidential.

As a researcher, I promise to protect the security of data collected. Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet at home in Boksburg for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. After 5 years, information will be destroyed if necessary. The hard copies of interview and lesson observations transcripts will be shredded while electronic copies will be permanently deleted from the hard drive of the computer using a relevant software programme.

I need to point out that there will be no reimbursement or any incentives for participation in the research.

I am pleased to inform you that this study has received written approval from the Research Ethics Review Committee of the University of South Africa. A copy of the approval letter is available from the researcher for your perusal.

If you would like to be informed of the final research findings, please provide me with your contact details, including an email address.

My contact details are as follows in case you want to make a follow up on the findings of the research:

Aaron Phillip Nkabinde on 0827540590/0824610420 my email address is aaron.nkabinde@gauteng.gov.za alternatively a soft copy of the research can be obtained on google by typing Aaron Phillip Nkabinde.

Should you have concerns about the way in which the research has been conducted, you may contact Prof M.W. Lumadi in the College of Education: Department of Curriculum Studies and Instruction on the following contact details: Telephone (W) 012 429 4033 email address lumadmw@unisa.ac.za.

Thank you for taking time to read this information sheet and for participating in this study.

_____

A. P. Nkabinde

Researcher **Ref 2019/08/14/64034305/17/MC**

APPENDIX H: CONSENT PARTICIPATION LETTER

CONSENT/ASSENT TO PARTICIPATE IN THIS STUDY (Return slip)

I, _____ (participant name), confirm that the person requesting my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications, and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the interview between me and the researcher.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname (please print) :

Participant Signature   Date

Researcher's Name & Surname (please print) Mr. A P NKABINDE:

Researcher's signature   Date

Ref 2019/08/14/64034305/17/MC

APPENDIX I: PARTICIPATION FORM

PARTICIPATION FORM

I,……………………………………………………………….hereby agree to participate in the research study that seeks to explore the Pedagogical Content Knowledge of Economic and Management Sciences (EMS) in Teaching Financial Literacy.

As a prospective participant, I fully understand the purpose and benefits of the research study. I therefore grant you consent to observe me in practise, to conduct an interview with me and to analyse the lesson plans/preparation and learners' books. I also grant you permission to use the information obtained to inform the findings so that the necessary recommendations can be made to improve teaching and learning in Economics and Management Sciences, particularly Financial Literacy.

I fully understand that I can withdraw my participation should I feel uncomfortable at any stage in taking part in the research study.

Signed at…………………………………………………………..on this

day…………….of…………………………………2020

………………………………………………………….

Participant

Thank you for your support.

………………………………………………………

A. P. Nkabinde

Researcher **Ref 2019/08/14/64034305/17/MC**

APPENDIX J: LESSON OBSERVATION SCHEDULE

LESSON OBSERVATION SCHEDULE

TEACHER: **GRADE:**   **SCHOOL:**

GENERAL OBSERVATIONS INSIDE THE CLASSROOM **ASPECTS TO OBSERVE**	
Are there any Financial Literacy posters displayed on the walls with the aim of promoting incidental learning?	
Do learners have the necessary learning material pertaining to the topic for the day?	
EDUCATORS' KNOWLEDGE OF THE LEARNING CONTENT	
Is the educator conversant with facts, procedures, rules, concepts, and principles of Financial Literacy?	
Is the educator able to a find connection between the Financial Literacy concepts presented?	
Does the educator know which important Financial Literacy concepts and facts to present to learners?	
Does the teaching strategy used by an educator help learners to learn and understand the concepts presented during instruction?	
Is the educator knowledgeable about the structure of Financial Literacy?	

Is the educators' knowledge of the structure of Financial Literacy evident in the planning and preparation of the lesson?	

EDUCATORS' CURRICULUM KNOWLEDGE

Are lesson objectives stated clearly in the lesson planning?	
How are lesson objectives communicated to learners?	
What resources were planned for the lesson?	
Were planned resources used during lesson presentation?	
Were planned resources relevant to the topic?	
How does the educator link the current topic with previous or future topics in the subject?	
Does the educator provide additional content information to learners? If yes, how?	
Does the educator relate the learning content to real-life situations? How?	

EDUCATORS' KNOWLEDGE OF TEACHING METHODS AND STRATEGIES

Comment on the introduction of the lesson: How was the topic introduced?	

What teaching method/s did the educator use? (***Teacher-centred, Social interactive or Learner-centred***?)	
Is there evidence of the integration of different teaching methods?	
What type of **knowledge** was taught?	
What types of **skills** were taught?	
What types of **values** were instilled in learners?	
Did the educator follow the method chosen as indicated in the lesson planning/preparation?	
Did the chosen method make provisions for meaningful learner involvement created?	
Are the activities implemented during lesson presentation in line with the method of teaching chosen (***Teacher-centred, Social interactive or Learner-centred***?)	
TEACHING STRATEGIES	
What teaching strategies did the educator use to complement the method of teaching chosen (e.g., question and answer – and its purpose)?	

Did the chosen teaching strategy help the educator to achieve lesson objectives?	
If questioning technique is used, what types of questions were used to eliciting responses from learners? (Convergent, Divergent and Evaluative questions).	
Was the questioning technique used to promote critical thinking?	
Is the questioning technique used to provide regular feedback to learners?	
Is the questioning technique used to improve teaching and learning?	
Is the questioning technique used to activate prior knowledge?	
Did the chosen teaching strategy make provisions for meaningful learner involvement created?	
EDUCATORS' KNOWLEDGE OF LEARNERS' UNDERSTANDING AND KNOWLEDGE	
What type of learning is promoted by an educator during lesson presentation? (deep, surface learning or strategic)	
How is prior knowledge used in promoting learners' learning and understanding?	
How does the educator deal with misconceptions?	

EDUCATORS' KNOWLEDGE OF ASSESSMENT

NB. Some of these questions will be answered through the analysis of learners' books, tests, examination, programme of assessment, lesson plan/preparation

How was baseline assessment used (prior knowledge) during instruction?	
How was formative assessment used to gauge the success of the lesson? (What type of assessment strategy did the educator use?)	
Is the assessment in line with what was taught during lesson presentation? (Is assessment directly linked with lesson objectives?)	
Do the assessment activities conducted during instruction address the dimensions of assessment (cognitive/**knowledge**, affective/**values,** and psychomotor/**skills** knowledge)?	
Is the assessment criterion clear and communicated well to learners?	
Is assessment used to identify strengths and weaknesses and to improve teaching?	

Ref 2019/08/14/64034305/17/MC

APPENDIX K: INTERVIEW SCHEDULE

INTERVIEW SCHEDULE

TEACHER: **GRADE:**   **SCHOOL:**

Welcome

Greetings - Good morning/Good day. Before we start, I just want to thank you for your willingness to participate in the research study. Without your support, it would not be possible for me to provide anecdotal data on the phenomenon under investigation so thank you so much.

Introduction

As indicated in the consent letter, my name is Aaron Phillip Nkabinde, I am a student registered for a PhD degree in Curriculum Studies and Instruction with the College of Education at the University of South Africa. I am conducting research on the topic: **Exploring the Pedagogical Content Knowledge of Economics and Management Sciences Educators in Teaching Financial Literacy in Secondary Schools of Ekurhuleni North District.**

Purpose

The purpose of the research study is to explore the Pedagogical Content Knowledge (PCK) of Economic and Management Sciences (EMS) educators in the teaching of Financial Literacy in Grades 8 and 9 and make findings and recommendations that will help improve teaching and learning in the subject. I hope you have noted in the consent letter that data will be collected through lesson observations, individual interviews, and document analysis. It will not be possible for me to capture everything in writing and I do not want to quote you out of context hence I request for your permission to record the interview session solely for data analysis purpose. I will also be taking notes during the interview session as a backup. Are you comfortable with that?

Background

This study is about Financial Literacy that is embedded within EMS therefore the study will only be conducted with EMS educators for Grades 8 and 9. I would like to indicate

that there are no right or wrong answers but what is required from you is your point of view, ideas, experiences, and knowledge. Are you satisfied with the information contained in the consent letter and form? Are there any questions before we start with the session?

QUESTIONS

Q1. What type of knowledge should EMS educators have in order to be able to teach Financial Literacy?	
Q2. What qualification or background do you have in Accounting? **Age group**: **Teaching experience in EMS**: **Gender**:	
Q3. In your view, do you think you have adequate knowledge to teach Financial Literacy? **Provide reasons for your answer**	
Q4. In your view, what do you think are the challenges faced by EMS educators who do not have an Accounting background but are teaching Financial Literacy?	
Q5. Based on the lesson presented, 5.1 What type of **knowledge** were you intending to teach?	

5.1 What type of **skills** were you intending to teach? 5.2 What type of **values** were you intending to instil in learners?	
Q6. In your own view, what is the purpose of formative assessment?	
Q7. When does formative assessment take place?	
Q8. In your own view, what is the purpose of summative assessment? Q9. When does summative assessment take place?	
Q10. Which learning material should learners have in Financial Literacy?	
Q11. What were your lesson objectives for the lesson presented?	
Q12. In your view, should lesson objectives be shared with (or communicated to) learners? **Provide reasons for your answer**	
Q13. Based on the lesson presented, do you feel that you have achieved the lesson objectives? **Provide reasons for your answer**	
Q14. In your view, what is the purpose of formulating lesson objectives?	

Q15. Based on the lesson presented, which method/s of teaching did you use and why did you choose this method?	
Q16. In your view, what are learners' learning difficulties in Financial Literacy?	

APPENDIX L: DOCUMENT ANALYSIS TOOL

TEACHER: **GRADE:**   **SCHOOL:**

ASPECTS TO ANALYSE	YES	NO	SOURCE	COMMENTS
• Lesson objectives are stated in the lesson planning.			Lesson plan	
• The formulation of lesson objectives is addressing the content in terms of knowledge, skills, and values to be taught and assessed in the subject.			Lesson plan	
• Evidence of planned teaching resources			Lesson plan	
• The assessment activities available in the learners' books are in line with the lesson objectives.			Learners' exercise books and lesson plans	
• The quality of marking of formative assessment is constructive, guiding, and developmental.			Learners' exercise books	
• The type and quality of work available in the learners' books is in line with the content taught.			Learners' exercise books and the annual teaching plan (ATP)	

• Assessment is in line with the topics outlined in the annual teaching plan (ATP).			Lesson plans and ATP	
• The assessment activities administered during lesson presentation are in line with the assessment activities in the lesson plan.			Lesson plan and observations during instruction	
• Lesson was presented in line with the teaching methods used during lesson presentation.			Lesson plan and observations	

Ref 2019/08/14/64034305/17/MC

APPENDIX M: EDITING CERTIFICATE

30 January 2021

Editorial Certificate

To Whom It May Concern,

This document certifies that the thesis entitled **EXPLORING THE PEDAGOGICAL CONTENT KNOWLEDGE OF ECONOMIC AND MANAGEMENT SCIENCES EDUCATORS IN TEACHING FINANCIAL LITERACY IN SECONDARY SCHOOLS OF EKURHULENI NORTH DISTRICT**, by Aaron Phillip Nkabinde was proofread for language, grammar, punctuation, spelling, and overall style by NIM Editorial.

Signed on behalf of NIM Editorial by:

....

Dr N.I Mabidi
Founder & Chief Editor

NIM Editorial

APPENDIX N: TURNITIN REPORT

64034305 PhD2 Thesis for Examination

18%	16%	4%	9%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	uir.unisa.ac.za Internet Source	3%
2	hdl.handle.net Internet Source	1%
3	repository.up.ac.za Internet Source	<1%
4	scholar.ufs.ac.za:8080 Internet Source	<1%
5	researchspace.ukzn.ac.za Internet Source	<1%
6	mafiadoc.com Internet Source	<1%
7	repository.nwu.ac.za Internet Source	<1%
8	docplayer.net Internet Source	<1%
9	article.sciencepublishinggroup.com Internet Source	<1%