

**EXPLORING TEACHER EDUCATION INITIATIVES IN PREPARING TRAINEE
TEACHERS FOR HANDLING GIFTED LEARNERS AS A WAY OF ENSURING
EDUCATION FOR ALL IN ZIMBABWEAN PRIMARY SCHOOLS**

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SUMMARY

The primary education system in Zimbabwe tends to ignore the needs of the gifted learners. This suggests that teachers would not have been equipped with knowledge and skills to handle gifted learners. Such a situation gives rise to questions about how teacher training colleges prepare trainee teachers for handling learners of diverse needs. This prompted the researcher to explore the initiatives undertaken by teacher training colleges to prepare trainee teachers for handling gifted learners. The Multiple Intelligences Theory was used as a theoretical framework to guide the researcher in reviewing related literature concerning gifted education models and strategies that can enhance trainee teachers to handle gifted learners. Through the constructivist paradigm, the qualitative approach was employed to select the phenomenological research design. Purposive sampling technique was used to select participant lecturers from two teachers colleges and mentors and trainee teachers from two primary schools. Interviews, observation and focus group discussions were used to collect data from participants about initiatives by teachers colleges in preparing trainee teachers to handle gifted learners. Research findings indicated that college teacher preparation programmes lacked gifted education hence did not adequately equip trainee teachers with knowledge and skills to handle gifted learners. This was evidenced by mentors and trainee teachers' lack of theoretical grounding on how to meet the needs of gifted learners. Furthermore, respondent college lecturers and trainee teachers reflected lack of knowledge of inclusivity and gifted education. The participant lecturers also indicated that trainee teachers lacked technological knowledge and skills to use the internet to assist gifted learners. Judging from the research findings, the researcher concluded that there were no initiatives by teacher training colleges in preparing trainee teachers in handling gifted learners. Gifted education was not a priority in the teacher preparation programmes hence trainee teachers were not empowered to handle learners with diverse needs. Basing on the above conclusion, the researcher recommended the need for a national policy to provide guidelines on gifted education. It was also recommended that teacher training programmes be reviewed in order to include a component of gifted education to enable trainee teachers to handle gifted learners.

DECLARATION

I declare that "EXPLORING TEACHER EDUCATION INITIATIVES IN PREPARING TRAINEE TEACHERS FOR HANDLING GIFTED LEARNERS AS A WAY OF ENSURING EDUCATION FOR ALL IN ZIMBABWEAN PRIMARY SCHOOLS" is my own work and all the sources used have been acknowledged.

F. DUBE

DATE

DEDICATION

*This work is dedicated to my daughter Moreen Mary Dube, my
Granddaughters, Lesedi and Khayaletu.*

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ABSTRACT

Primary school teachers in Zimbabwe tend to face a number of challenges that need to be overcome if they are to handle learners with diverse needs effectively. The main problem has been failure by teachers to deal with gifted learners. The objective of this qualitative study focused on answering the key research question, 'What are the teacher education initiatives undertaken by Teachers Colleges to prepare trainee teachers in handling gifted learners in primary schools in Zimbabwe?' The problem is mainly attributed to preparation of teachers during pre-service training. Primary school education in Zimbabwe has tended to ignore gifted learners as compared to learners who experience academic barriers. It has been observed that records kept by trainee teachers on teaching practice reflect some serious planning considerations given to remedial cases in which gifted learners are completely ignored. This suggests that the trainee teachers are not deliberately ignoring gifted learners but have an inherent assumption that they do not need extra attention. The research was grounded in the constructivist paradigm to gain a full understanding of the social life-world of the initiatives by teacher education in the preparation of trainee teachers to handle gifted learners. A phenomenological design was employed to collect data through qualitative methods, namely semi-structured interviews, observation and focus group discussion. The respondents to these data collection methods were lecturers from two teachers colleges, qualified teachers and trainee teachers from two primary schools. The main finding was that gifted education was missing in the teacher preparation to enable trainee teachers to handle gifted learners. The researcher made some recommendations from the conclusions drawn from the research findings. The recommendations included that there is need for a national policy on gifted education to provide guidelines for teacher education programmes and that teacher training colleges should review their curriculum specifically in Theory of Education and Professional Studies to include gifted education.

Key words: Multiple Intelligences Theory, gifted learners, trainee teacher, teacher education, mentor, inclusive education, gifted education.

LIST OF ABBREVIATIONS AND ACRONYMS

LA:	Lecturer from College A
LB:	Lecturer from College B
TFG:	Trainee Teachers used for Focus Group Discussion
TTI:	Trainee Teachers used for the interviews and lesson observation
LQ:	Lecturer Question
TTQ:	Trainee Teacher Question
MQ:	Mentor Question
FGQ:	Focus Group Question
MI:	Multiple Intelligences
UNESCO:	United Nations Educational Scientific and Cultural Organisation
ZINTEC:	Zimbabwe Integrated Teacher Education Course
ECD:	Early Childhood Development
IQ:	Intelligence Quotient
SEM:	School Enrichment Model
TTFGQ:	Trainee Teacher Focus Group Question

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CHAPTER ONE

INTRODUCTION OF THE STUDY

1.1 INTRODUCTION

Issues raised in this chapter include background to the study, problem statement, and major research question, purpose of the study, aims, significance and motivation for this research study. An outline of the literature review which forms chapter two is given, followed by methodology, delimitation and limitations of the study, contribution that the research will add to existing knowledge, definition of concepts and finally the structure of the thesis.

1.2 BACKGROUND

The ultimate goal of education is to provide each learner with an opportunity to obtain maximum benefit from the school curriculum according to his/her potential by focussing on the individual and national values (Education Secretary's Circular, 2002, Constitution of Zimbabwe, 2013, Unesco,2015). The provision of educational opportunities to diverse learners at classroom-level is unattainable due to pedagogical challenges faced by teachers in the classroom. In Zimbabwean primary schools these challenges need to be overcome if teachers are to teach learners with diverse needs effectively. The perennial problem has been with gifted learners whom teachers find it difficult to teach, stemming from a number of factors such as lack of preparation during pre-service training (Mafa & Makuba, 2013; Manyowa & Ncube, 2013).

Primary school education in Zimbabwe has tended to ignore gifted learners more than those with academic barriers, as evidenced by various programmes that target them. For example, there are teacher education initiatives that give them more attention in special classes and remedial exercises to match their aptitude. It has been observed that, in Zimbabwe, records kept by trainee teachers on teaching practice reflect some serious planning considerations given to remedial cases in which gifted learners are completely ignored (Department of Teacher Education, 2014). This suggests that the trainee teachers are not deliberately

ignoring gifted learners but have an inherent assumption that they do not need extra attention. It is sometimes argued that there is no need to make any special provisions for the gifted learners in a class, because they will do well and therefore the teacher should concentrate his/her attention on those at the other end of the scale who find difficulty with their work (Winebrenner, 2013; Ngara, 2013). However observations from other sources indicate that educators in most school systems around the world would be eager to assist their potentially high achieving gifted students (Margrain, Lee & Farquhar, 2013). Paradoxically, while providing special education for learners experiencing barriers to learning is not controversial, the provision of gifted education to trainee teachers at tertiary level is still controversial. Resistance to providing suitable education for students who need much more intellectual stimulation than the average student is not uncommon (Borland, 2004, in Callahan & Hertberg-Davis 2013; Winebrenner, 2013).

Literature on Teacher Education in Zimbabwe highlights problems associated with how teachers are prepared (Kudlicki, 2008; Dyanda & Gatsi, 2010). For instance, in a workshop report on inclusive education Da Costa Baeza (2002) reflects that trainee teachers receive a substantial amount of theory, which is no less important, but less training in relation to what constitutes teaching and learning in schools in the sub-region. The same author suggests that emphasis be directed to developing skills to effectively teach the wide diversity of learners.

Regardless of a number of models on gifted education that exist, the extent to which teacher education programmes implement these models during pre-service training needs to be investigated. The implication is that the goal of education as expounded by the Education Secretary's Circular (2002), Unesco (2015) in Zimbabwe might be difficult to attain if the situation is not addressed. It is also imperative to ascertain initiatives put in place by teacher education programmes equipping trainee teachers with relevant skills and knowledge in handling gifted learners in Zimbabwean primary schools. In this regard literature from various countries was reviewed.

The United Kingdom (UK) is believed by Persson (2009) to be the leading country in Europe in the promotion of gifted education, and government authorities have made efforts to train teachers, advise parents and make special provision for gifted students. Meanwhile, the government of South Australia (2012) has a policy

that gives guidance on the identification of gifted learners and the provision of appropriate curriculum and pedagogy. In order to implement this policy, the government has stipulated 'National Professional Standards for Teachers' for improved quality teaching for all learners, including the gifted (Yamin, 2011, p. 8).

According to the *Digest of Gifted Research* (2008), no systematic policies or practices for gifted learners have been formulated and implemented from research in the United States of America, as one of the problems of democratic society is that education policy matters, at both local and state levels, typically respond to current pressing issues rather than focusing on long-term planning, a practice which usually does not succeed.

South African policy documents, such as the Education White Paper 6 (2001), have identified inclusive education as a way forward to ensure that quality education and achievement of all learners are catered for. Giftedness has been recognised in the country's curriculum documentation as one form of exceptionality that has not yet been implemented in mainstream classrooms (Marietjie & de Villiers, 2013). The country seems to have recognised and accepted the need for gifted education.

Nigeria, in its 1981 National Policy on Education directed that all children, including the gifted, were to be taken of under its educational system (Sanchez – Escobedo, 2013). The education of the gifted learner is enclosed in a statement on Special Needs Education where commitment is placed on all children, including those with disabilities (Akinsola, 2010). Botswana has no policy prescription regarding gifted learners in its education system.

Zimbabwe groups learners of the same age together in classrooms, presenting them with learning experiences that are designed to progress them through the same curriculum until the end of seven years of primary schooling (Nziramasa, 1999). Learners of the same chronological age differ from each other in so many ways, including academic performance. This presents challenges to teachers who are faced with groups of diverse learners. The teachers are expected to facilitate each learner's development by providing a range of educational provisions appropriate to their differentiated and diverse needs. Among the diverse learners, are gifted learners, learners who display greater abilities, more creativity and

motivation to learn than others in similar age groups (Osborn, 1999). In the Zimbabwean primary schools, gifted learners are found in mixed ability classes. A research study by Dyanda and Gatsi (2010) on gifted learners in Zimbabwean Infant schools established that bright learners tended to monopolise the performance of tasks while the less competent partners followed passively. This is a clear indication that teachers do not have the skills of handling the gifted learners, which gives rise to the need for pre-service teacher education to equip trainee teachers with prerequisite skills. While gifted education ought to be treated as a special area, the education system in Zimbabwe appears not to be giving this aspect much attention.

The Secretary's Circular (1990), Deputy Director's Guidelines (1999), Deputy Director's Circular (2001) and Director's Circular (2001) in Zimbabwe make reference to special education as that which covers learners with disabilities, but it is evident that gifted education, while acknowledged to be a special need, does not receive much concern from education authorities. Issues raised above give rise for the need to carry out a study on gifted learners as their needs are neglected at primary school level in Zimbabwe:

“Gifted education is still a grey area in research and curriculum development in Zimbabwe. While other nations in the world are ahead in programming for gifted students, gifted education remains a neglected area in Zimbabwe's education system. At the least, formal gifted programming is non-existence for the average Zimbabwean student whose fate is largely relegated to individual schools' limited efforts and initiatives” (Ngara, 2013, p. 173).

Findings from research by Mafa (2012) reveals that teachers in Zimbabwe lamented lack of policy of gifted education, while much has been said about inclusion which in practice should embrace gifted learners. However, in spite of the concern with relevance and quality in education there is a curious silence pertaining to the education of gifted children, Secretary's Circular Minute No. P.36 (1990), the official instrument mandating educational provision for children with various exceptionalities is silent on education of the gifted (Manyowa & Ncube, 2013). Special education, under which gifted education falls in Zimbabwe, is still lagging behind other developments taking place in the country's education

system. Issues of identifying and programming for the gifted students with which other nations are grappling in the 21st century are not yet topical in the educational circles preoccupying the policy planners and implementers in Zimbabwe (Ngara, 2013). Current practice in teacher education in Zimbabwe reflects that mainstreaming inclusion is not part of the curriculum and practising primary school teachers have difficulties in handling inclusive classes (Mafa & Makuba, 2013, Ngara, 2013). This observation is not clear on the initiatives of teacher education in addressing needs of the gifted learners.

In the above context, this research study seeks to fill the void by exploring initiatives that have been taken by teacher education institutions in addressing the needs of the gifted learner.

1.3 MOTIVATION FOR THE STUDY

Having been in teacher education for 27 years the researcher observed that preparation in the employing college had gaps in special education, particularly the treatment of gifted learners. From recent workshop discussions in the Ministry of Education, Sport, Arts and Culture and Ministry of Higher and Tertiary Education (2014) on inclusive education, the researcher felt more motivated to explore initiatives being taken by teacher education to equip pre-service teachers with knowledge and skills to handle gifted learners. The researcher intended to gather more information in order to explain and share the experiences with colleagues and trainee teachers the factors that could assist learners and schools as a result of improved pedagogical skills in handling gifted learners. Having been involved in teacher education for a long time the researcher had realised that the issue of gifted learners was not being addressed. In preparing trainee teachers for teaching practice the researcher noted that concentration was on remedial work for those experiencing barriers to learning. Skills for handling learners with barriers to learning were usually covered in detail while the issue of gifted learners received a cursory approach. Aniftos and McLuskie (2004, p. 1) found that:

“While teacher education programs engage participants in knowledge construction and for classroom teaching and learning, it is essential that teacher training institutions provide relevant opportunities for pre-service teachers to develop personal philosophies that promote classroom

environments that are supportive of participation and achievement of all learners”.

It is anticipated that the research findings will be used to help focus teacher education on the needs of all learners, including gifted ones.

1.4 PROBLEM STATEMENT

Teacher education programmes in Zimbabwe explicitly address special education issues related to disabled learners, but the area of gifted learners remains remote and peripheral. There is limited literature on gifted education programmes in Zimbabwean primary schools, compared to other countries, therefore they do not receive adequate attention to fully stretch their abilities and hence the need to carry out research in this area. The general notion on gifted learners is that they can do well in academic areas with minimum or no help from teachers. This assertion is misleading in that there are other factors that impinge negatively on the learning of an individual, regardless of mental capabilities. For example, social, physiological and psychological factors have been proven instrumental in the learning process.

Based on the strong link between teachers' knowledge of learners who experience academic barriers to learning and the training they have received regarding such learners, it becomes clear that primary school teachers tend to be more knowledgeable about the needs of these learners than the gifted. In this context, primary school teachers in Zimbabwe are more prepared to handle learners with barriers to learning in regular classes than the gifted in the same class. The current primary school teachers are more likely to adapt their teaching strategies to suit the learners who experience academic barriers to learning than the gifted. Such a situation may result in many gifted learners being at risk of underachieving and other emotional and behavioural effects unless teachers provide an appropriate curriculum to challenge and maximise their abilities.

Gifted and talented learners can make a significant contribution to their schools, prior to school settings and wider community. However, they may also be at significant risk of underachieving and/or not completing secondary education, unless an appropriate curriculum is provided to engage and challenge their abilities and develop their talents (Government of South Australia, 2012).The

knowledge and skills that teachers require in order to successfully handle gifted learners are acquired not by chance but through rigorous teacher preparation. One of the major challenges, in the new millennium, is the policy shift from integration to inclusion, in line with international developments in special education (Weishaar, Weishaar & Borsa, 2014). Gifted learners need more challenging tasks than their counterparts (Porter, 2005), but often those learners on the lower end of the intelligence scale get provision in the form of special education, while gifted learners do not get special instruction to the same extent. This is clear evidence that gifted learners are not receiving due attention and as a result not being stretched to their full potential.

1.5 RESEARCH QUESTIONS

This study explored teacher education initiatives in preparing trainee teachers for handling gifted learners as a way of ensuring education for all in some Zimbabwean primary schools. The major research question formulated to answer the research problem is:

- What are the teacher education initiatives undertaken by teachers colleges to prepare trainee teachers in handling gifted learners in primary schools in Zimbabwe?

The following sub-questions were derived from the major research question:

- How do trainee teachers view their teacher education programs in relation to gifted learners?
- What strategies could be used to enhance the training of teachers in handling gifted learners?

1.6 AIMS OF THE STUDY

The aims of this study are to explore teacher education initiatives in preparing trainee teachers for handling gifted learners as a way of ensuring education for all in some Zimbabwean primary schools.

Flowing from this aim the study pursues the following objectives:

- To find out teacher education initiatives undertaken by teachers 'colleges to prepare trainee teachers in handling gifted learners in primary schools in Zimbabwe.
- To investigate how trainee teachers view teacher education programs in relation to gifted learners.
- To explore the strategies that could be used to enhance the training of teachers in handling gifted learners.

1.7. SIGNIFICANCE OF THE STUDY

The lack of literature on teacher education initiatives in preparation of teachers in handling gifted learners indicates lack of research in the context of Zimbabwe. This study will therefore provide knowledge on how teachers should be prepared to handle different learners based on their needs. It will also establish whether gifted education exists in teacher education programmes in Zimbabwe. The study is aimed at adding value to the domain of gifted education and recommending valuable guidelines to policymakers, teacher educators and educational programme planners to develop and/or improve the situations. This research will form a springboard on which teaching of gifted learners could be modelled and other research studies draw.

1.8. THEORETICAL FRAMEWORK

With the prevalence of gifted learners in the mainstream classrooms, all teachers should be responsible for providing appropriate instruction. Gifted learners come with a diverse and unique range of characteristics and abilities across a wide range of domains (Seeto, 2013, p. 29). In order for teachers to cater for these wide range of domains it is critical that they have a sound theoretical base that deals with the children's unique abilities. One such current theory in practice is Gardner's Multiple Intelligence (MI), which posits that individuals possess eight or more relatively autonomous intelligences, detailed in Chapter Two.

In this research study, MI theory was selected because it provided the researcher with theoretical information for reflecting on teacher education practices on gifted education (Smith, 2008). It helped the researcher to design appropriate research instruments to find out how colleges were preparing trainee teachers to meet the

needs of learners with diverse abilities. An analysis of the theory shows that it influences Gifted Education pedagogy through Differentiated Instruction, which is viewed as a philosophy of teaching premised on optimal learning in which teachers accommodate variations in ability, interest, learning style and readiness level (Tomlinson, 1999, Chamberlin & Powers, 2010; Hall, Strangman & Meyer, 2003).

According to Fischman (2011, p. 1) if differentiation and multiple intelligence are put together, “then one should be able to differentiate instruction to the strengths of different students’ intelligences such that those are better able to understand the content and be overall more successful in the class.”

When aligning MI theory and Differentiated Instruction, the gifted learners’ interests, abilities, creativity and productivity are maximised (Tomlinson & McTighe, 2006; Fenner, Mansour & Sydor, 2010). This implies that MI theory and Differentiated Instruction if incorporated in teacher training curriculum, gifted learners are likely to benefit from the teaching and learning process because their different multiple intelligences would be taken into consideration.

1.9. RESEARCH METHODOLOGY

According to Denzin & Lincoln (2000), qualitative research approach involves an interpretive and naturalistic paradigm in which researchers study phenomena in their natural settings, attempting to make sense of or to interpret them in terms of the meaning given by research participants. Basing on this notion, the researcher used a qualitative approach which is naturalistic and interpretive in nature, because she wished to understand how trainee teachers were being prepared to handle gifted learners from the participants’ perspective. Qualitative methodology facilitates the researcher to document participant and stakeholder perspectives, engage them in the process, and represent different interests and values in the programme (Simons, 2008).

The researcher used the interpretative phenomenological methodology to elicit information from the research population, namely lecturers, qualified teachers and trainee teachers in their natural operational environments (Ary, Jacobs, Sorensen & Razavieh, 2009). According to Smith & Osborn (2007), the interpretive methodological alternative is a qualitative research strategy that focuses on

exploring in detail how participants are making sense of their personal and social world. It explores the participants' personal perceptions or accounts of a phenomenon (object or event), focusing on studying the meanings, particular experiences or events hold for the participants. The researcher would try to get as close as possible to the participants' personal worlds so as to arrive at an 'insider's perspective'. De Vos (2002) notes that a phenomenological study is a research strategy that attempts to understand people's perceptions, perspectives and understandings of a particular situation. One other important feature of all phenomenological studies is that they are conducted on small sample sizes for the aim would be to say something in detail about the perceptions and understandings of these particular groups and not to make more general claims (Smith & Osborn, 2007). This study was phenomenological oriented in the sense that it specifically focussed on initiatives by teachers colleges in preparing trainee teachers for handling gifted learners in realistic classroom situations. The research study particularly focussed more on exploring the participants' perceptions and experiences on the issue of handling gifted learners than other learners. Teacher education at primary level is run in ten colleges, of which nine are run by the government and the remaining three by churches. There are 13 teacher training colleges in Zimbabwe, two of which formed part of the study because the sample of participants from the two was sufficiently large to account for the credibility of the research findings. The two colleges were 'Teachers College A', located in Masvingo Province, and 'Teachers College B', in the Midlands Province. College A was run by the Reformed Church in Zimbabwe while College B was government owned. While both colleges were autonomous, their curriculum was coordinated by the University of Zimbabwe's Department of Teacher Education. Each produced its own syllabi, which were approved by the University, resulting in the content of Professional Studies being more or less similar (see appendix A).

The duration of the three year teacher training course is controlled by the Ministry of Higher and Tertiary Education, Science and Technology Development and therefore the stipulated period for training is the same for all primary colleges. The research participants from the colleges were three lecturers in the Professional Studies Department, because they trained pre-service teachers on teaching methods and classroom management skills. Two primary schools were selected because they fitted well with the sampling procedures followed in the research

study: “The sample size is more of function of available resources, time constraints and objectives of the researcher’s study” (Oppong, 2013, p. 203). Purposive sampling was used to select participants who were knowledgeable about the phenomenon under study and were willing to provide relevant information about the topic. Oppong (2013, p,203) defines purposive sampling as “a method of sampling in which the researcher selects subjects who have experience or knowledge of the issue/s being addressed in the research”. On the same note, Fraenkel & Wallen (2009) argue that when it is difficult to employ random and systematic sampling in relation to collecting data from the research population convenience and purposive sampling are employed. In this research study, financial, distance and time constraints influenced the researcher to use purposive sampling without compromising trustworthiness and credibility of research findings.

Nine qualified Grade 6 teachers and 40 trainee teachers from two neighbouring primary schools were the target population, with qualified teachers included to reveal whether their training had prepared them to handle gifted learners and how the schools in which they were working were accommodating gifted learners. Trainee teachers were interviewed to find out how their training had prepared them to handle gifted learners during teaching practice.

Data in qualitative research involves eliciting information from the research participants. When employing qualitative case study methodology, a researcher may use interviews, observation and focus discussions to collect data (Runesou &Host, 2009). In this research study non-structured interviews, focus group discussions and observations were used to collect data from all the participants. The researcher conducted face-to-face interviews on a one-to-one basis, ranging from 45 minutes to one hour. They were interviewed in order to verify and augment information obtained from the lesson observations. The observations were carried out on three trainee teachers while they were on teaching practice at sampled primary schools. The researcher focused on how the trainee teachers were handling gifted learners in relation to the training they had received at the college before going for teaching practice. The researcher used an unstructured observation schedule focussing on teaching methods and learning tasks and use of media to cater for gifted learners. Focus group discussions consisting of eight

female and eight male trainee teachers who had completed their teaching practice were held to find out how their training had equipped them with knowledge and instructional skills in handling gifted learners. Data collected from interviews and focus group discussions was audio-taped and transcribed, while data from observations was recorded in narrative reports.

Information obtained from the participants was then subjected to data analysis, drawing inductive inferences. In this case study the data was analysed using qualitative techniques as recommended by Creswell (2005).

1.10. DELIMITATIONS OF THE STUDY

The study's focus is on how primary school teachers are prepared in order to handle gifted learners. Due to similarities in content and training period the researcher only interviewed lecturers of Colleges A and B, all three having requisite qualifications at Master of Education level. The researcher was based at College B and to minimise costs and counter time constraints, the bulk of data was collected from two groups of College B trainee teachers, those who had completed their teaching practice attachment and those who were still on teaching practice and three mentors with a wide teaching experience from two primary schools in Mkoba Township. Economic hardships prohibited the researcher from carrying out observations or interviews with trainee teachers from the Masvingo College.

1.11. ETHICAL CONSIDERATION

Research ethics requires conducting research in a way that goes beyond merely adopting the most appropriate research methodology, to conducting research in a responsible and morally defensive way (Gray, 2009). While carrying out research, all the participants were covered by the system of ethical protection that guards against violation of their rights, including the principle of voluntary participation, informed consent, guaranteed confidentiality and anonymity (Trochim, 2006; Ritchie & Lewis, 2005, Gray, 2009). These considerations should be at the heart of research from the early design stages through to reporting and beyond. Bryman (2012) in Stephen, Lewis and Brown (2014, p. 78) tabulates ethical research as follows:

- It should be worthwhile and not make unreasonable demands on participants
- Participants should be voluntary and free from coercion or pressure
- Adverse consequences of participation should be avoided and risks of harm known
- Confidentiality and anonymity should be respected.

In carrying out this research study, special respect and adherence to research ethics were observed. The participants were all adults from two ministries, namely Sports, Arts and Culture, and Higher and Tertiary Education. The participants were lecturers, qualified teachers and trainee teachers. In order to gain access to their institutions and to involve them in the research, authority was sought and officially granted by the two ministries in writing.

1.12. DEFINITION OF KEY TERMS

The following section clarifies the terms and concepts central to understanding the purpose and objectives of the study.

Teacher education involves preparation of teachers for entry into the teaching profession. In the Zimbabwean context the primary teacher education programme is covered over a period of three years, of which two terms of four months in the initial stage are spent at college, five terms of four months on teaching practice (school based experience) and two four- month final terms at college. Face-to-face tuition is the common mode of delivery, although recently communication through the web has become more common. During the teaching practice period trainee teachers attend short residential courses back at college. While trainee teachers are in the schools they are placed under the care of mentors who are qualified teachers (Department of Teacher Education, 2013).

In the Zimbabwean context, Ngara (2013) says that giftedness is an exceptionally advanced subject – specific ability at a particular point in time such that a student`s learning needs cannot be well met without significant adaptations to the curriculum. Giftedness refers to potentially outstanding abilities which manifest in high levels of achievement and creativity when an individual interacts with the environment. It is attributed to possession of natural abilities in one or more

domains. In education, it consists of many qualities among learners, some of which may not be intellectual but psychomotor abilities. Gifted learners are those who exhibit exceptional learning ability when compared to their peers (Deiner, 2013, p.336).

According to Gardner (1983, 2002, 2008), the theory of Multiple Intelligences (MI) posits that individuals possess eight or more relatively autonomous intelligences. Gardner (2008) cited in Fischman (2011, p. 1) states that, “intelligence refers to a bio psychological potential of our species to process certain kinds of information in certain kinds of ways”. Each form of intelligence is separate and distinct from the others, rather than the traditional single intelligence measured as IQ. Different people show greater strengths in some intelligence as opposed to others. The intelligences as proposed by Gardner (2008) are verbal-linguistic, musical, logical-mathematical, visual-spatial, bodily-kinaesthetic, interpersonal, intrapersonal, naturalist and existential. These intelligences, described in detailing Chapter Two, account for different abilities among learners.

Differentiated instruction that is based on the premise that learners learn best when their teachers accommodate difference in abilities, interest, learning styles and readiness levels (Tomlinson, 2001). Learners should be taught differently and effective learning will be accrued if teaching is tailored to the individual learner’s abilities. Thus, teachers should respond to the variances that exist among the learners by focusing on their different abilities when planning and delivering instruction. By so doing, the gifted learner is taken care of.

A **primary school** in Zimbabwe provides formal education from Grades zero to seven, covering a period of eight years. Most of the children enrol for zero grades at the age of four and begin Grade 1 at the age of six or seven. The curriculum is nationalised through the Curriculum Development Unit, which designs the different subject syllabi. English is the medium of instruction from Grade 4 upwards. Indigenous languages are components of the curriculum and taught in areas in which they are spoken as first language. Other subjects of the curriculum include Mathematics, Environmental Science, Religious and Moral Education, Music, Art, Home Economics, Physical Education, Social Studies and Health and Life Skills Education, which is taught from Grade 4. The primary school course culminates in four nationally-set Grade 7 examinations, in Mathematics, English, Shona or

Ndebele and Content, which combine the sciences and the social sciences (Nziramasa, 1999, p. 288)

Professional Syllabus A is a programme that covers methodology as both theory and practice. Trainee teachers are equipped with teaching skills that enable them to apply theory of education in real teaching and learning situations inside and outside the classroom. The course focuses on trainee teachers' becoming and being professionally competent and effective teachers, by placing them in the reality of the classroom with its demands and experiences. At the same time, the course also equips trainee teachers with basic primary school administrative skills (Department of Teacher Education, 2013, Professional Studies Syllabus A, 2011).

Teachers colleges are institutions of higher learning in which teachers are trained, and comprise the largest sector of higher and tertiary education. Mostly situated in urban areas, they offer instruction mainly in the Theory of Education, Professional Studies, research and main subjects selected from those in the primary school curriculum. Each college operates under the associate ship of the University of Zimbabwe's Department of Teacher Education, which approves and standardises the course syllabi. Although each college has a unique curriculum, most aspects are similar, with the diplomas attained being the same and awarded by the University.

A **mentor** is a qualified and experienced teacher who guides the development and professional growth of a trainee teacher.

1.13. OUTLINE OF THE STUDY

The study is organised into five chapters, with each covering a specific aspect.

Chapter One has given a brief description of the problem by outlining the background, problem statement and key research questions. It covered the justification, aims, definition of terms and limitations of the study. **Chapter Two** defines the training of teachers to enable them to handle gifted children in class and the theoretical framework that underpins the study. **Chapter Three** outlines the methodology, research design and research methods used in the study. **Chapter Four** analyses the data collected and present the findings supporting and answering the research question. **Chapter Five** is a summary of the findings.

1.14. CONCLUSION

The purpose of this chapter was to provide the necessary background information about the present study. In doing so the areas that were covered included the statement of the problem, what motivated the researcher, aims of the study, its theoretical framework, the significance of the study and how it will contribute to knowledge production in gifted education. The next chapter will review literature relevant to the various concepts which are in line with the topic and discuss the theoretical framework that underpins the study.

CHAPTER TWO

THEORETICAL FRAMEWORK AND PREPARING TRAINEE TEACHERS FOR THE HANDLING GIFTED LEARNERS

2.1. INTRODUCTION

A possible explanation of why things happen is provided by theories, which position the research in the discipline or subject in which the researcher is working (Henning, Van Rensburg & Smit, 2004, p. 25). They enable the researcher to theorise about research and make explicit any assumptions about the interconnectedness of the way things are related to the world. No study can be designed without some questions being asked, and as Merriam (1998) argues, a theoretical framework forms the “scaffolding” or the underlying structure of study and assists the researcher in answering the research questions. The theoretical framework can be defined as a set of ideas, assumptions and concepts ordered in a way that tells us about the world, ourselves or an aspect of reality (Landsberg, Kruger & Nel, 2005). In relation to research, a theoretical framework provides the researcher the lens to view the world and gives explanations about phenomena (Merriam, 2001, Camp, 2001). In this study, the exploration of teacher education initiatives in preparing trainee teachers for handling gifted learners as a way of ensuring education for all in Zimbabwean primary schools is grounded on Gardner’s (1993) Multiple Intelligences (MI) theory.

To answer the research questions posed in Chapter One, an extensive literature review is presented in this chapter.

2.2. HOW ARE TRAINEE TEACHERS TRAINED IN HANDLING GIFTED LEARNERS IN PRIMARY SCHOOLS

The inability of current educational practices to prepare trainee teachers to succeed in handling gifted learners in Zimbabwean primary schools has become a matter of concern that needs to be addressed. One way is for teacher training institutions to incorporate gifted education in their curriculum, but there are several frameworks that guide them. For instance, the constructivist theory by Vygotsky, Piaget and Bruner cited in (Gross, 2010) maintains that learners create their own new knowledge through the interaction of what they already believe and the ideas, events, and activities with which they come into contact. The teacher’s role thus

becomes one of a guide, facilitator, and co-explorer who activate learners to question, challenge and formulate their own ideas, views and conclusions (Ciot, 2009; Ismat, 1998). Bandura's Social Learning Theory (2001), meanwhile, hinges on the premise that individuals learn by observing others and centres on personality that develops as a result of interaction between the environment, behaviour and one's own psychological processes (Driggers, 2004, Mwamwenda, 2010, Santrock, 2004). However, in this study the MI Theory of Gardner (1993) was used to guide the researcher in searching for relevant literature associated with the preparation of pre-service teachers for teaching gifted learners.

2.2.1. Gardner's Multiple Intelligence Theory as a guide for training teachers for gifted learners

The Multiple Intelligence (MI) theory of Howard Gardner initially distinguished eight different intelligences in every individual, each manifesting in different capabilities:

1. Linguistic: Includes skills involved in reading, writing, listening and talking
2. Logical-mathematical: Involved in numerical computation, deriving proofs, solving logical puzzles and most scientific thinking
3. Spatial: Used in marine navigation, piloting a plane, driving a car, working out how to get from A to B, figuring out one's orientation in space. Also, important individual arts, playing chess, and recognising faces and scenes
4. Musical: Includes singing, playing an instrument, conducting, composing and, to some extent, musical appreciation
5. Bodily-kinaesthetic: Involves the use of one's whole body or parts of it, to solve problems, construct products and displays. Used in dance, athletics, acting and surgery
6. Interpersonal: Includes understanding and acting upon one's understanding of others-noticing differences between people, reading their moods, temperaments, intentions, and so on. Especially important in politics, sales, psychotherapy and teaching
7. Intrapersonal: Self-understanding, symbolised in the world of dreams

8. Naturalistic: Permits the recognition and categorisation of natural objects (e.g., as in biology, zoology)

A ninth was later added:

9. Existential: Thinking-smart - the ability to pose and ponder questions about life, death, and ultimate realities like 'Who are we?' and 'What is the meaning of life?'

(Adapted from Gardner, 1999, Stanford, 2003, Gouws, 2007, Gross, 2010)

Propounded by Howard Gardner in 1983 (Leornard, 2002, p.223), as a means to understanding the many ways in which human beings are intelligent, that is, how we process, learn, and remember information (Maftoon & Sarem, 2012), MI theory has revealed that all learners can learn successfully when they have the opportunities to process information in their own way, and provides relevant information regarding uniqueness of individuals.

The various intelligences explain why different learners have different abilities in different subjects of the curriculum. McKenzie (2002) cited in Maftoon & Sarem (2012) summarises these intelligences into three main domains, namely: *analytic*, *introspective* and *interactive*, each of which serves as an organisational basis for teachers to understand the relationship between the intelligences and how they work with one another. The understanding of this theory would guide the researcher to investigate how trainee teachers were prepared to handle learners with diverse abilities.

Figure 2.1 (below) illustrates the three domains.

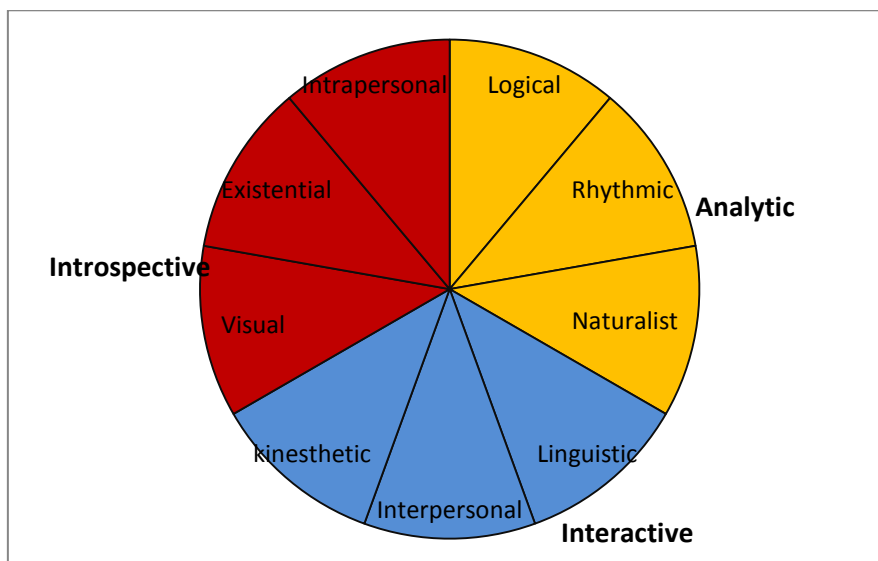


Figure 2.1: Three domains of multiple intelligence (adapted from Gardner, 1999; Gouws 2007, Maftoon & Sarem 2012)

Acknowledging Calik and Birgili's (2013, p. 2) extension of the theory to be "concerned with studies not only of normal children and adults but also on studies of gifted individuals ...", this research study considered it an appropriate framework, and the perceptions of the researcher combined with those of the respondents would help give a clear picture on how both qualified and trainee teachers were catering for gifted learners.

According to Wientjes and Tanner (2005), MI can help teachers create more accessible and rich classroom materials, as they personalise or differentiate materials for gifted learners. It allowed the researcher to explore how teacher education prepares trainee teachers in handling gifted learners and during lesson observation, knowledge of the theory assisted the researcher in assessing if the trainee teachers were meeting the needs of the gifted learners in the execution of their lessons. In the same process the application of the theory guided the researcher in establishing the extent to which the classroom environments met the needs of the gifted learners. It also made it easier to identify weak areas that needed attention during teacher training, as well as strengths on which to build.

Llor, Ferrando, Ferrándiz, Hernández, Sáinz, Prieto, & Fernández, (2012) have argued that MI theory provides valuable insights for understanding the cognitive

configuration of high ability learners. The intelligences are the descriptors of the success and challenges in gifted education, used by the researcher as a basis to assess if trainee teachers had the knowledge of them and how they were catered for during lesson presentation. The explanations of the intelligences given by Gross (2010) and Gouws (2007) provide an underpinning theoretical knowledge which guides the researcher to establish the pedagogical practices used by trainee teachers. During lesson observation the researcher could easily assess how the gifted learners were catered for and identify areas of concern. This gave the researcher an insight into the training the trainee teachers had received in order to handle gifted learners. At the same time, the researcher would find out from lecturers the pedagogical initiatives in the teacher training programmes.

Current research has shown that special teacher professional competencies are important for recognising and development of giftedness, and using appropriate teaching methods will enable the gifted learners to fulfil their potential. According to Trnova, Trna & Skrabankova (2013), innovative educational methods for motivation and development of gifted learners should be implemented in all aspects of teacher professional training. This is embedded in MI, for designing research instruments used for collecting data on these dimensions from lecturers, qualified teachers and trainee teachers. It is the most viable and effective platform for the 21st century educational and instructional methodologies based on the understanding of the value of diversity in today's classrooms and educational institutions, the unique qualities and characteristics of individual learners (McFarlane, 2011). This would bring out a clear picture of initiatives undertaken in training teachers to address different intelligences among gifted learners. McFarlane (2011) further suggests that, educators should develop and utilise pedagogies that consciously attempt to engage learners in a variety of ways based on intelligences learners possess. This highlights the need for teachers to employ differentiated instruction to cater for different intelligences in the mainstream.

From the above justification on the use of MI as a theoretical framework in the research study, Figure 2.2(below) is a proposal of how it influenced key research components.

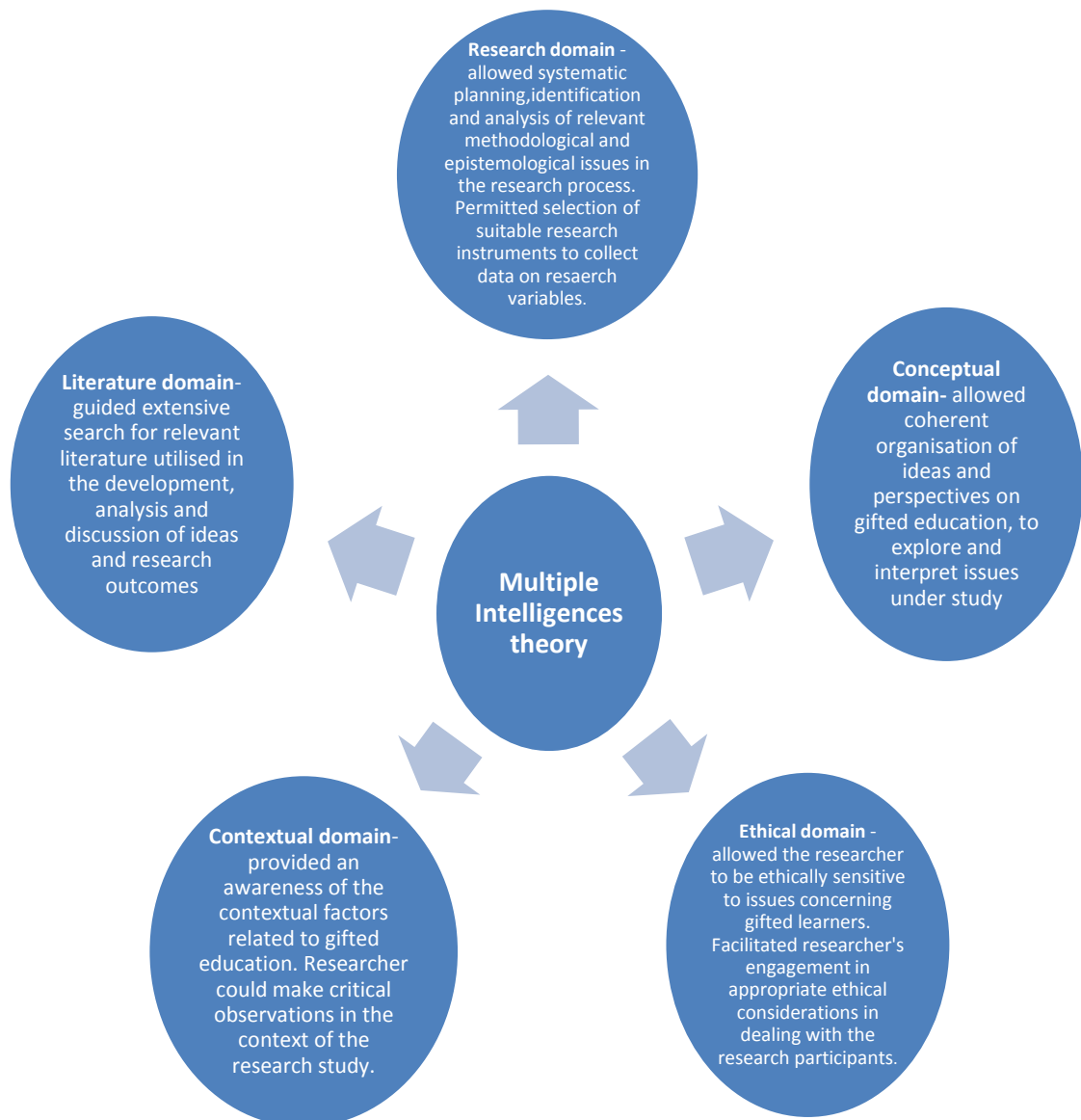


Figure 2.2: Summary of the MI Theory Framework

2.2.2. Theory on gifted education and inherent problems for teacher training

A fundamental goal of gifted education is:

... to fully explore and develop the potentials of gifted learners systematically and strategically by providing them with opportunities to receive education at appropriate levels in a flexible teaching and learning environment (Education Bureau, 2013). Such opportunities could include meeting learners' assessed

needs in their abilities; providing continuous and sequential differentiated instruction; and developing in learners critical thinking skills.

Human capital development is an important part of a national innovation system and high ability learners present a unique opportunity for maximum return on investment, (Ibata – Arens, 2012). Two major reasons for being concerned about helping learners to realise their high-level potential are individually observed , so that each human being may reach personal fulfilment (Freeman, 2002); and to serve the wider needs of the community. Although gifts are personal, they are also a national resource, and the future course of every society depends on developing the potential of its young. No country can afford to lose it (Freeman, 2002).

Gifted child education has traditionally been seen as divorced from the general education system, yet if a country's education system seeks to provide appropriate education for all its learners the education of the gifted child should be seen as just one part of a large whole (Knobel &Shaughnessey,2002). The purpose of gifted education is to provide learners with maximum opportunities for self-fulfilment through the development and expression of one or a combination of performance areas in which superior potential may be present (Renzulli, 2002). While most writers normally deal with learners who experience problems in the classroom, this study placed emphasis on gifted learners and how teachers were prepared to accommodate them in the classroom.

Table 2.1: Possible concomitant problems resulting from behavioural characteristics of the gifted child

Differentiating characteristics of the gifted learner	Possible problems
Huge store of facts and superb long-term memory	Boredom and impatience in class
Very fast thinker	May become frustrated with others who think slowly in comparison
Very advanced comprehension	Hates rote learning and may be irritated by the level of presentation of school work
Creative thinker	May be seen by teachers and peers as disruptive
Long attention span on things of interest	Resents being interrupted and may not even listen
Highly curious and has many interests	Starts many projects, perhaps does not finish them when concepts have been drained and the work becomes tedious. May not work well in a group.
Great verbal ability	Dominates discussions and may use this skill to avoid difficult tasks.
Advanced use of language	This may alienate the learner from age peers.
Generates original thought	May be argumentative, oppositional to others' set ways of thinking and resents conformity.
Persistent and goal directed	May be viewed as stubborn and uncooperative
Deep thinker	Hates deadlines and therefore might avoid doing work at all rather than do half a job

(Adapted from Heyighen F. 1991:10, Gifted People and Their Problems)

Underachievement may be an issue in gifted learners who perform well at school, with teachers at times failing to realise that such learners have the capacity to complete work at much higher levels than the work they are assigned at school (Education and Training Committee, 2012).

On achieving independence, Zimbabwe adopted the principle of equal access to education for all but although some strides have been taken there is a curious silence pertaining to the education of gifted learners. Secretary's Circular Minute No. P.36 (1990) mandating educational provision for children with various exceptionalities is silent on the education of the gifted learners (Manyowa

&Ncube, 2013). Gifted learners, though known to possess higher levels of intelligence than their peers, are disadvantaged because they frequently do not have an opportunity to reach their potential (Farmer, 1993). Schools and teachers are normally unaware of how to cater appropriately for this special group of learners (Diezmann, Watters & English, 2001).

2.2.3. Teacher preparation

Some of the elements that can be included in the teacher preparation programme are basic general education in the liberal education, a thorough grasp of one or more academic disciplines taught in schools and intellectual and practical introduction to a career in education which includes an internship or apprenticeship (Lovat, Toomey & Clement, 2010, Lim, Cock, Lock, & Brook, 2009). Boyd et al. (2009) suggest that primary teacher education in some countries, including China and Australia, involves an undergraduate degree before one can enrol for a Diploma in Education. In Vietnam, teachers are trained for levels of education and subjects they will teach, with those for primary level being trained to teach all subjects offered by primary schools (Hoan, 2006). This is similar to the Zimbabwean primary teacher education programme.

“The primary aim of teacher training is to develop skills that are compatible with education policies and to enable teachers to deliver policies” Fo Karpati, in Falus (2002, p. 210). It requires trainee teachers to understand content and ways of presenting it to learners, as such that they know what they teach and how to teach it (Norton, 2010). The first formal curriculum for teacher training that used the monitoring system was introduced in 18th century Germany, spreading to the United States of America in the early nineteenth century and eventually becoming an important foundation for the initial development of programmes, including Australia (Elligate, 2007).

Teaching as a profession is facing many demands that require reflection on teacher education programmes. Today’s classroom is dynamic and complex, with learners coming to school neglected, abused, hungry and therefore ill-prepared to learn and work productively. In order to combat such challenges new teachers entering the profession will necessarily have to find ways to create authentic learning communities by adjusting the power dynamics in favour of the learners

(Larrivee, 2000). One of the major changes in the preparation of teachers for mainstream schools has been the need to prepare them for the diverse student populations they will be required to teach, either during their teaching practice or when they are qualified (Zundans-Fraser & Lancaster, 2012).

Pre-service teachers require direction on how to cater for diversity by building knowledge from direct gifted education experiences. Although education has improved academically for gifted learners since the late 1980s, Keen (2005) found that pre-service teacher education in New Zealand had not successfully integrated principles of gifted education into the teacher education curriculum.

2.2.4. Teacher preparation in Zimbabwe

The demand for teachers has seen many countries in Sub-Saharan Africa adopt innovations that call for a paradigm shift in the traditional models of teacher education. One of these, aimed at improving the quantity and quality of teachers, is to use open and distance learning in teacher development. It is generally accepted that distance education can increase the quantity of trained teachers (Kangai & Bukaliya, 2011).

During the colonial era there was a bottleneck in the African system of education which specified the number of pupils to be enrolled in primary schools. As a result there was no high demand for qualified teachers (Gatawa, 1986, Zvobgo, 1986). At independence the introduction of mass primary education resulted in an urgent need to provide a significant number of qualified teachers, especially in remote rural areas. This was echoed by Chivore, Matimati & Chimwayi (2010), who wrote that, on attaining independence in 1980, Zimbabwe faced political, economic, and social challenges that normally accompany attempts to build a new nation. In the social arena the government undertook massive and unprecedented expansion of education at both the primary and secondary school levels. As a result of this demand, the Zimbabwe Integrated Teacher Education Course (ZINTEC) was introduced. The programme was structured in such a way that trainee teachers had to spend more time on teaching practice in the schools. This was a deliberate move to alleviate the shortage of teachers in the schools.

The aims and objectives of the ZINTEC programme that began in 1981 were to:

- meet primary teacher shortage through an in-service type of teacher education;
- develop a teacher education system relevant to the specific problems facing the Zimbabwean people in their everyday lives in the community;
- develop teacher education programme which was better placed in terms of dissemination of knowledge guided by socialism as a principle or ideology for Zimbabwe;
- effect development changes through teacher education, the practical operations of which should highlight learning. By so doing they would merge theory with practice;
- develop a professional teacher with skills needed in appropriate teaching techniques capable of providing active learning experiences to pupils, for example, learning by or through doing that is the concept of education with production; and
- develop an all-round primary school teacher with positive attitudes and values that would promote meaningful involvement in community development.

The above aims and objectives are still enshrined in the primary teacher education training programme (Chivore, Matimati & Chimwayi, 2010).

Zimbabwean teacher education is run on models denoted by figures according to the terms trainee teachers spent at college and in schools for teaching practice. In previous years, two models, namely the three terms in college, three terms on teaching practice and three terms back in college and two terms in college, five terms on teaching practice and two terms back in college, have been operational up to 2011. In the three terms in college, three terms on teaching practice and three terms back in college programme, trainee teachers would be in college for the first three terms, i.e. one year, then go out for teaching practice for another three terms and return to college to complete the three-year diploma course in the last three terms. The two terms in college, five terms on teaching practice and two terms back in college, programme had a longer period of teaching practice as

opposed to the three terms in college, three terms on teaching practice and three terms back in college in that trainee teachers were in college for the first two terms, then went out for teaching practice for five terms and finally returned to college for two terms to complete the course. During the teaching practice period trainee teachers attend short residential courses back in college. The three terms in college, three terms on teaching practice and three terms back in college model was followed by primary trainee teachers who specialised in Early Childhood Development (ECD), while the two terms in college, five terms on teaching practice and two terms back in college model was followed by general course trainee teachers who would teach from Grades three to seven (Chivore, Matimati & Chimwayi, 2010). As from 2012 all trainee teachers on both the Early Childhood Development (ECD) and general programme have followed the two terms in college, five terms on teaching practice and two terms back in college model which Zimbabwe is using in an attempt to strike a balance between theory and practice (Mswazie & Gamira, 2011, Samkange, 2013).

While student teachers are in the schools they are placed under mentors who are qualified teachers. Mentoring can be defined as a sustained relationship between a novice and an expert: "In a clearly defined teacher-mentoring relationship, the expert provides help, support and guidance that helps the novice develop the necessary skills to enter or continue on his/her career path" (Podsen & Denmark, 2007:10). The mentor is seen as a trusted friend, counsellor, guide advocate and role model, information-provider and provider for learning opportunities (McKimm, Jollie & Hatterr, 1999). Some of the roles of the mentor include assisting with induction and introducing the mentee to the department processes and procedures. Mentoring as a concept can be traced to Greek mythology when Odysseus entrusted his son Telemachus to the Goddess Athena, disguised in human form as a Mentor, an old friend of Odysseus (Nickols, 2003). Her function, according to Homer, was to act as a wise counsellor and helper to the youth. Mentoring then became common practice in the time of the guilds and trade apprenticeships, when young people, having acquired technical skills, often benefitted from the patronage of more experienced and established professionals (Owen, 2011).

In teacher education, especially in Zimbabwe, mentoring has become part of the pre-service training of teachers, viewed as a formative period in which the knowledge, skills and attitudes acquired during a programme of education are put into practice. It is a transition period which can be stressful as well as challenging as new demands are made upon trainees who are seeking to consolidate their skills. It is a period when the trainee needs guidance and support from the practising professionals in order to develop confidence and competence (McKimm, Jollie & Hatter, 2007).

Pre-service teacher education in many countries, including the UK, the United States of America (USA) and Australia, went through change in that the process of the supervision of trainee teachers when they entered the schools for a practicum was transformed. Trainee teachers are attached to highly skilled and supportive teachers who are experienced and trained to play the pivotal role of mentoring (Hall, 2013). Qualified teachers' task of supervision changed and they became partners with departments of education in pre-service teacher education (Field & Field, 1994). With reference to the Zimbabwean context this would provide the basis for the recent shift from the three terms in college, three terms on teaching practice and three terms back in college model to the two terms in college, five terms on teaching practice and two terms back in college model of teacher training, in which it is a requirement that every trainee teacher is attached to a qualified teacher for 20 months, unlike in the past when the trainee teacher would run a class on his/her own. The primary teacher education system in Zimbabwe has evolved in such a way that trainee teachers are spending more time in schools under the guidance of mentors, and that calls for close liaison between schools and teachers colleges (Chivore, Matimati & Chimwayi, 2010). In this arrangement, as advocated by Field and Field (1994), the qualified teacher is now more involved and thus, becoming an active partner in teacher training.

2.2.5. Teacher education initiatives for preparing pre-service teachers for gifted learners

The New Mexico Association for the Gifted (2005) suggests that gifted learners present a particular challenge and experience an adequate and appropriate education when their teachers are highly qualified to teach the gifted. The

Association gives a guide for the following competences that teachers should possess:

- knowledge and valuing of the origins and nature of high levels of intelligence, including creative expressions of intelligence;
- knowledge and understanding of the cognitive, social, and emotional characteristics, needs, and potential problems experienced by gifted learners from diverse populations;
- knowledge of and access to advanced content and ideas;
- ability to develop a differentiated curriculum appropriate to meeting the unique intellectual and emotional needs and interests of gifted learners;
- ability to create an environment in which gifted learners can feel challenged and safe to explore, take risks, and express their uniqueness.

Gifted learners have special learning needs that require a differentiated curriculum with an optimal learning environment which would normally be influenced by teachers who should possess the characteristic skills, knowledge and training in order to implement gifted programmes (Chan, 2001). The competencies, according to Chan (2001), include skills in teaching thinking skills, problem-solving and creativity, using appropriate motivational techniques, conducting learner-directed activities and facilitation of independent research.

The pedagogical aspects that need to be emphasised in teacher preparation are the learning strategies required in the education of gifted children. These are more varied and differentiated than one might expect at first sight. Although gifted learners are believed to have the capacity for better understanding and information processing, not all are autonomous or have optimal and fully developed learning strategies. It is therefore important for the teacher to direct attention to educational strategies that stimulate the abilities of gifted learners by considering the following aspects (Renzulli & Reis, 1985):

- continuous cognitive development;
- permanent affective-emotional support;

- formation of efficient learning abilities;
- formation of research skills and of those of using reference material;
- formation of abilities of communication in oral, written and visual forms.

This would culminate in the production of teachers who are able to offer inclusive education, a system that acknowledges diversity of learners' needs and provides appropriate support characterised by a shared responsibility among all the stakeholders in an effort to meet different needs of all learners (Machi, 2007).

Inclusive education is not only concerned with disabled learners or with finding an alternative to segregated special schooling, but it also encourages policymakers and managers to look at the barriers within the education system, how they arise and how they can be minimised. These barriers usually include:

- inappropriately-designed curricula;
- teachers who are not trained to work with learners who have a wide range of needs;
- inappropriate media for teaching;
- inaccessible buildings (UNESCO, 2003).

Inclusive education means

...schools should accommodate *all learners*, regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted learners, street and working learners, learners from remote or nomadic populations, learners from linguistic, ethnic or cultural minorities and learners from other disadvantaged or marginalised areas or groups (Salamanca 1994: paragraph 3).

The UNESCO Salamanca *Statement and Framework for Action on Special Needs Education* (1994) also articulated the underlying principles on which inclusive education is based:

- every child has a fundamental right to education;

- every child has unique characteristics, interests, abilities and learning needs;
- education systems need to accommodate this diversity in the student population;
- those with special education needs must have access to regular schools which should accommodate them within a child centred pedagogy capable of meeting these needs;
- regular schools with an inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all.

Given the above expectations, teachers colleges are challenged by the emerging demands of inclusive education to transform their organisational structures, the curriculum they teach and their pedagogical practices to ensure that trainee teachers are equipped with knowledge and skills to handle learners with diverse abilities.

Chireshe (2011), in his study on special needs education in Zimbabwe, revealed that the present curriculum did not meet the needs of special needs education learners and that inclusive education affected the teaching methods used, only specialist teachers could handle included learners, and that regular class teachers could not easily adapt their teaching programmes to accommodate included learners. The observation that the curriculum did not meet the needs of the diverse learners prevails in Zimbabwean primary schools; however, gifted learners are a special group found in the mainstream classes handled by non-specialist teachers. Use of gifted education specialist teachers is expensive and therefore not feasible in the Zimbabwean context. Inclusive education looks at both the rights of learners and how education systems can be transformed to respond to diverse groups of learners (Winter & O'Raw, 2010), which therefore calls for teacher education programmes that would equip both practising and trainee teachers with knowledge and skills to handle learners with multiple intelligences. O`Gorman (2010) argues that if the quality of learning for learners with special

education needs is to be enhanced then the quality of teacher education must be continuously upgraded.

Regular schools practicing inclusive orientation employ the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all (Salamanca Statement, 1994). The World Conference on Education (1990) had earlier urged governments to intensify efforts to address basic learning needs for all. Zimbabwe, as a signatory to these declarations, has an obligation to ensure that every child receives an education that takes care of individual needs. Peterson (2007) observes that it is now time to accept that most teachers work in environments in which learners with diverse needs are present and that there is a need to examine how best they can support them in order to provide meaningful education for all learners. Donmoyer (2009) asserts that at times teachers feel powerless to effect change but have much power to make learners feel safe and ensure they are included and cared for in school. He further alludes that many teachers do not realise they have this power, or if they do they choose not to exercise it. Mushoriwa (2001), in his study on the attitudes of primary school teachers in Zimbabwe to the inclusion of blind learners in regular classes, concluded that they maintained generic teaching practices and this resulted in them failing to satisfy the needs of learners with disabilities. Gifted learners are a special group that require teachers to be equipped with knowledge and skills in order for them to cater for this group. Making education available to all is seen as one of the most powerful levers to making society more equitable as it enhances social cohesion and trust. Inclusion is now considered a much broader philosophy that seeks to address inequality and fairness by focussing on the inclusion of all learners, regardless of disability, gender, ethnicity or other disadvantage (Forlin & Sin, 2010).

Internationally, there has been a strong movement away from providing segregated education facilities for those with different learning needs to enabling all learners to be educated within the same regular school system (Unicef, 2007). Inevitably, this has challenged the curriculum and pedagogical approaches that have been traditionally employed in formal schools. The focus of a 'one school for all' approach, therefore, requires schools to create effective learning environments

that are conducive to learning and growth for all learners within the same classrooms (Forlin & Sin, 2010).

Le Page, Courey, Fearn, Benson, Cook, Hartmann & Nielsen (2010) reported on the American Association of Colleges of Teacher Education's presentation of an inclusive model that described a broad view of diversity. The model recognised that learners have multiple and complex experiences, social status, family experiences, and learning differences. These complex sets of experiences require that they be taught as individuals by teachers who are observant, analytic and aware of typical learning patterns. This is further elaborated in the next sections.

2.2.6. Teacher Preparation for gifted learners

Columbus Group (1991) cited in Neville, Piechowski & Tolan (2012) claims that giftedness is asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. This asynchrony increases with higher intellectual capacity (ibid). The uniqueness of the gifted renders them particularly vulnerable and requires modifications in parenting, teaching and counselling in order for them to develop optimally (Columbus Group, 1991). Giftedness designates the possession and use of untrained and spontaneously expressed superior natural abilities (called aptitudes or gifts), in at least one ability domain, to a degree that places an individual at least among the top 10% of his or her age peers (Gagne, 2004).

The giftedness spectrum is illustrated diagrammatically in Figure 2.3. (below).

Definition of giftedness illustrated

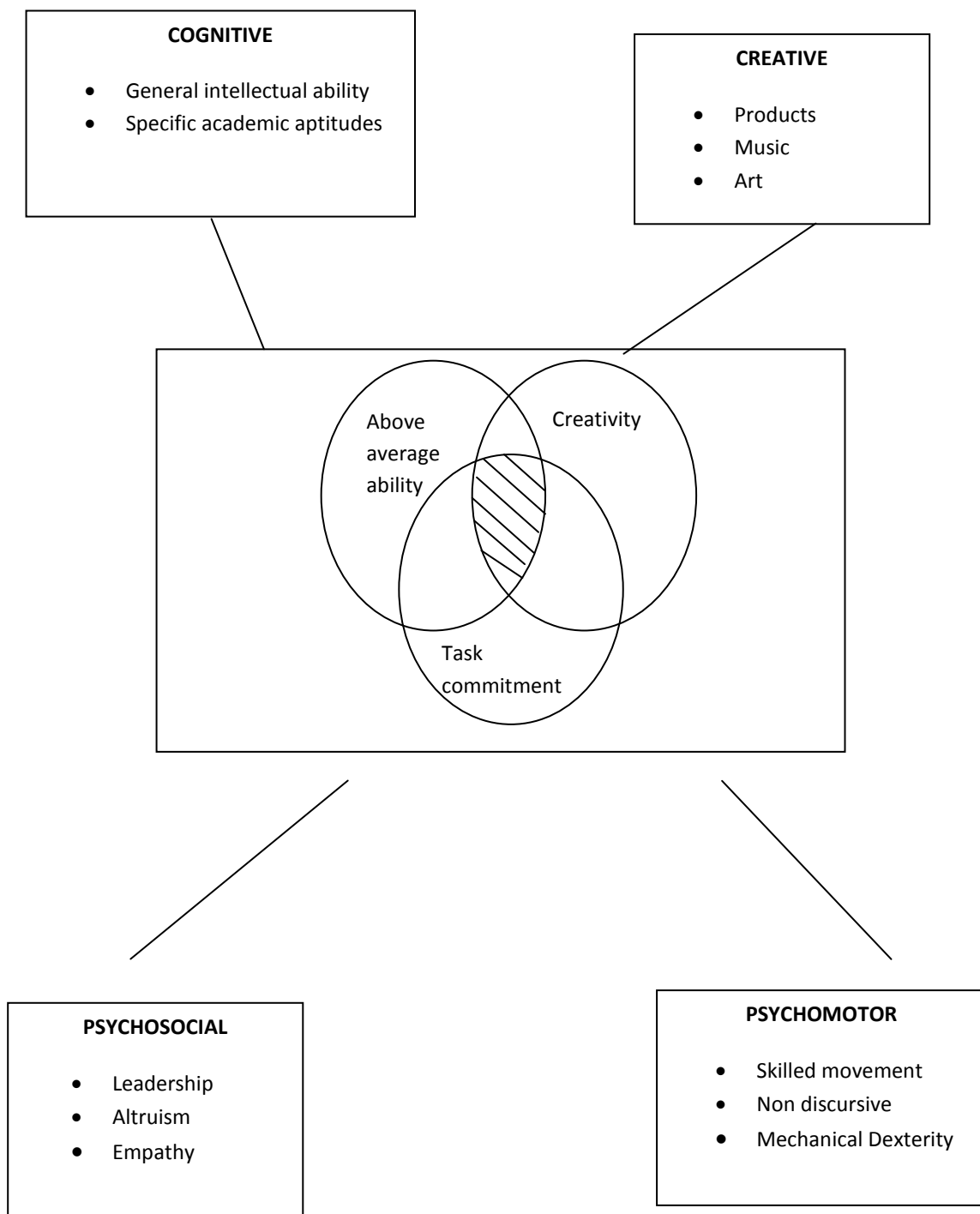


Figure 2.3: (Renzulli's Three-Ring Model 1986, adapted from Hennessey, 2005)

Gifted learners are those who show advanced development or have the capacity for advancement in any valued area relative to their age peer, to an extent that it becomes necessary to modify their education programme (Tasmania Policy

Statement, 2000). On the other hand, the Department of Education in most states of the United States, presents a multi-faceted approach to giftedness, as encompassing learners and youth with outstanding talent performance or showing the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience or environment, (Assouline, Nicpon, Colangelo & O'Brien, 2008). The learners and youth exhibit high performance, capability in intellectual, creative and artistic areas and possess unusual leadership capacity. They require services or activities not ordinarily provided by the school, can learn easily provided the work given is challenging, and provided that they are not put off by boring, repetitive drills or by being forced to keep in step with slower learners (Renzulli, 2002). Learners who are gifted learn content easily, and therefore need a novel and challenging curriculum to reach their potential (Maccagnano, 2007).

The term "gifted child" was coined in the early 20th century by Stanford University's Lewis Terman (1916), who developed the first test to measure intelligence. The Terman test and most other standard IQ exams focus primarily on memory and analytical skills. The average score is 100 and a score of 110 means the person is in the top 25 percent of the population; a score of 120 in the top 7 percent; and a score of 130 or higher in the top 2 percent (Carpenter, 2001). 'Gifted' refers to intellectually exceptionally able learners who score an IQ of 130 or above on the Wechsler Intelligence Scale for learners (Painter, 1984). According to Marland (1971) in Carolyn (2014), gifted learners are those identified by professionally qualified persons as capable of high performance by virtue of outstanding abilities. Professionally qualified individuals possess the required knowledge and skills to assess the identified target learners, who require differentiated educational programmes beyond those normally provided by the regular school curriculum.

Learners who are gifted comprehend complex ideas quickly, learn more rapidly and in greater depth than their age peers, and may exhibit interests that differ from those of their peers. They need time for in-depth exploration, manipulate ideas and draw generalisations about seemingly unconnected concepts, and ask provocative questions (Berger, 1996). Highly gifted learners can have ethical comprehension that is many years beyond their peer group (Thompson, 1999).

According to the US Department of Education (1993) cited in Peters, Mathews, McBee & McCoach (2014) giftedness refers to learners and youth with outstanding talent who perform or show the potential for performing at much higher levels of accomplishment than others of their age and experience of the environment. The National Association for gifted and talented learners (2005) describes those learners who are achieving or who have the potential to achieve a level substantially beyond the rest of the peer group inside their particular educational setting. The Virginia Department of Education (2012, p. 4) defines 'gifted learners' as those who "demonstrate or have the potential to demonstrate superior reasoning; persistent intellectual curiosity; advanced use of language; exceptional problem solving; rapid acquisition and mastery of facts, concepts, and principles..." "Giftedness' is defined in terms of a type and degree of exceptional ability that is coupled with high levels of motivation and creativity (Rivard, 2009). Gifted learners are those individuals who have IQs of 130 or more, and learn up to eight times as quickly as low IQ learners, and when provided with the right kinds of teaching can master several years' materials in one year (Ibata – Arens, 2012).

Giftedness is not elitist but cuts across all socio-economic, ethnic and national groups. In most cultures there are developmentally advanced learners who have greater abstract reasoning and develop at a faster rate than their age peers. Even though the percentage of gifted learners among the wealthier classes may be higher, there are a much greater number of gifted learners among the poorer classes, because the latter far outnumber the former. When provisions are denied to the gifted learner on the basis that they are 'elitist', it is the poor who suffer more than the rich who have other learning options (Silverman, 2007).

2.2.6.1 Characteristics of gifted learners

A gifted child shows superior reasoning powers and marked ability to handle ideas they can generalise readily from specific facts and see subtle relationships, and has outstanding problem-solving ability (Codd, 2010). Easthampton Community School views characteristics of a gifted learner as an individual, who shows superior reasoning powers and marked ability to handle ideas, generalise readily from specific facts and see subtle relationships (Delisle & Galbraith 2002). It also

sees a gifted learner as someone who sustains concentration for lengthy periods and shows outstanding responsibility and independence in classroom work.

Some of the characteristic traits of giftedness identified by Jeannine and Studer (2011) include the following: general intellectual ability, specific academic aptitude, creative thinking and production, leadership, psychomotor ability, aptitude for visual and performing arts.

Bainbridge (2007, on line) gives three broad categories of characteristics of gifted learners as follows:

Cognitive Traits

- Very observant
- Extremely curious
- Intense interest
- Excellent memory
- Long attention span
- Excellent reasoning skills
- Elaborate and original thinking
- Learns quickly and with less practice and repetition.

Social and Emotional Traits

- Very sensitive, emotionally and even physically
- Perfectionist
- Energetic
- Usually intrinsically motivated
- Relates well to parents, teachers and other adults; and

Language Traits

- Extensive vocabulary
- May read early
- Reads rapidly and widely

- Asks “what if” questions.

Some of the characteristics of gifted learners include mental flexibility, openness to information, capacity to systematise knowledge, positive thinking and intellectual courage which translates as high persistence and motivation (Balter, 2000, Deiner 2013).

Gifted learners are precocious. They begin to take the first steps in the mastery of some domain at an earlier-than-average age. They also make more rapid progress in this domain than do ordinary learners, because learning in the domain comes easily to them. The second characteristic is that gifted learners not only learn faster than average, but also learn in a qualitatively different way. The third characteristic is that gifted learners are intrinsically motivated (Winner 1996 cited in Dudeney 2003, p.13-14).

Characteristics of gifted learners can be based on their interpersonal or intrapersonal strengths. These are cited as:

“Characteristics peculiar to individuals with interpersonal strengths

- Being concerned about right and wrong; having empathy for others
- Being intense when truly involved in an activity
- Enjoying socializing with others
- Working well with others
- Giving advice to others who have problems
- Being sought out by others for their company
- Being self-confident and well organized
- Being highly verbal
- Being a keen observer; not missing anything

Characteristics peculiar to individuals with intrapersonal strengths

- Having a great imagination; being a daydreamer
- Having interests that they don't want to share with others
- Having perfectionist tendencies; setting high goals for self

- Recognizing own strengths and weaknesses
- Having high self- esteem
- Being self-directed, independent
- Being intense when truly involved in an activity
- Learning from their failures and success” (Maccagnano, 2007, P. 51-52).

Gifted learners display characteristics that include being observant, noticing details other learners of the same age would miss, having great intellectual curiosity, absorbing information rapidly, enjoying learning new things, having excellent reasoning and problem solving skills and being perfectionist (Bevan-Brown & Taylor, 2008, p.17). Gifted learners learn easily, provided work is challenging. They are quick to comprehend and see new relations and need much less explanation of new topics or skills than average members of their class (Peters, Mathews, McBee & McCoach (2014).

Some of the characteristics exhibited by gifted learners are perfectionism, as they often develop unrealistic expectations for their own performance and have advanced cognitive understanding of the world before having the emotional maturity to handle it. They display intensity of interest and can also be over-excitabile (Hyde, 2008). Some of the behaviours of gifted learners is above average ability, high levels of task commitment and high levels of creativity (Reis & Sullivan, 2008). They have advanced understanding and use of language, display critical, creative and analytical thinking, are curious about events and how things work and demonstrate mastery and an ability to learn and understand material and concepts beyond the typical expected for that age group (Hodge, & Kemp, 2000).

2.2.6.2 Assessment of gifted learners

The criteria for entrance into gifted programmes has been aligned to general intellectual and specific academic areas and usually include testing designed to measure these areas. Although programmes for gifted learners emphasise intellectual ability and academics, recent studies support that acceleration and curriculum should match abilities of learners (Kulik, 1992).

The major cultural dichotomy affecting educational provision for the gifted and talented is between the largely Eastern perception of all learners having gifted potential, and the largely Western one of only some learners having gifted potential (Freeman, 2002, P. 10). This brings about extreme differences of approach and practice. In the East, for example, widespread Chinese self-selection for extra enrichment assumes that learners' interests, allied with opportunities, will give them the chance to excel. In Japan, all learners are seen as similar in potential, with hard work making the essential difference to their achievement. In the West, however, talent searches assume that only a small proportion of learners are innately more able than others and so can be diagnosed and treated separately (Freeman, 2002).

Terman (1916) believed that intelligence was biologically based, fixed and unchanging, and held a position that high intelligence was only a necessary but not a sufficient condition for highly able behaviour (National Association for Gifted Learners, 2006). While traditional educational psychologists or psychometricians might still hold on to the view that an IQ score above a certain cut-off point defines giftedness, there is a greater acceptance of multiple modes of assessment and multiple criteria for giftedness beyond the traditional IQ score. Although the IQ tests have a long history in schools, their application continues to be relevant in assisting teachers to identify and draw up instructional design to meet cognitive strengths of diverse learners (Reynolds, Livingston & Willson, 2006). Despite the accumulating number of studies on domain-specific assessment of giftedness and talents, the emphasis has often been on studies based on self-reported instruments or the development of self-reported assessment tools rather than ability measures or performance tasks for assessment. With the broadened notion of giftedness, global and domain-specific assessment should go hand-in-hand. The concept of identifying gifted learners perhaps should be replaced by one of assessing the specific giftedness in learners. Ideally, there should be a sequential strategy in assessing giftedness and talents from nominations, behavioural checklists, and self-reported instruments, to ability and performance measures. The development of an assessment or profiling system should constitute an important challenge in application, (Chan, Chan & Zhao, 2009). According to Maccagnano (2007), forms of identifying giftedness through assessment of types

of intelligence can be either interpersonal or intrapersonal, that is, respectively, the ability to interact with and read people or intelligence dealing with oneself.

Assessments provide one method that educators can utilise when meeting the needs of gifted learners. Tomlinson & Doughty (2006) observe that the use of pre- and post-assessments is effective in that it provides an accurate picture of, and presents opportunities for differentiation within the content area. Teachers can develop them to determine what information a student already knows and has retained on a topic. Pre-assessments typically precede instruction and are used to check students' prior knowledge and skill levels, and to identify misconceptions, interests, or learning style preferences (Wiggins & McTighe, 2012, P. 98). Such assessments provide the teacher with information that could help in identifying gifted learners and plan differentiated instruction to meet their needs. Another form of assessment used by educators of gifted learners is authentic assessment, focus on broader ideas and concepts that allow learners to utilise multiple methods to demonstrate learning. Assessment tasks range from demonstrations, projects, simulations, writings, debates, presentations, and performances to other sorts of open-ended tasks (Moon, Brighton, Callahan & Robinson, 2005).

2.3. STRATEGIES TO ENHANCE TRAINING OF TEACHERS IN HANDLING GIFTED LEARNERS

As every individual differs from the next person, so does the gifted child, therefore the uniqueness of gifted learners demands that they be provided with personalised educational approaches (Education & Training Committee 2012, in Australia). These approaches could be incorporated into gifted education models.

These models would be the basis for designing teacher education programmes to prepare trainee teachers to handle gifted learners.

2.3.1. Models for gifted education

Reviewed literature indicates a plethora of models for identifying and nurturing gifted learners. David (2012) observes a number of models for identifying and nurturing of the gifted learners and dwells on three most well-known ones, namely, the Renzulli's Schoolwide Enrichment Model (SEM) (2014); Renzulli's Three Ring Model (2000); and Tannenbaum's 'sea star' model of giftedness (2003). These

models are still applicable to gifted education programmes worldwide as will be substantiated from their outlines below.

The School wide Enrichment Model (SEM) is a detailed blueprint for total school improvement that allows each school the flexibility to develop its own unique programmes based on local resources, student demographics, and school dynamics, as well as faculty strengths and creativity (Renzulli, 2014). This research-based model is founded on highly successful practices that originated in special programmes for the gifted and talented learners. Its major goal is to promote both challenging and enjoyable high-end learning across a wide range of school environments, levels and demographic differences. The idea is to create a repertoire of services that can be integrated so as to create "a rising tide lifts all ships" approach (Heller, Monks, Sternberg & Subotnik 2000, p. 367). This allows schools to develop a collaborative school culture that takes advantage of resources and appropriate decision-making opportunities to create meaningful, high-level and potentially creative opportunities for learners to develop their talents (Renzulli & Reis, 2007). The SEM focuses on the development of gifted behaviours in a specific area of learning and human expression, suggesting a behavioural definition of giftedness and placing greater emphasis on applying gifted programme knowledge to larger segments of the population. It is a systematic set of specific strategies for increasing student effort, enjoyment, and performance by integrating a broad range of advanced level learning experiences and higher order thinking skills into any curricular area, course of study, or pattern of school organisation (Gibson & Efinger, 2001). The Schoolwide Enrichment Model have been successfully implemented in schools, producing achievement gains.

The model implies that every trainee teacher should be totally trained in gifted education in order to be able to handle gifted learners. Since gifted education is realised in variable conditions and situations, teacher education programmes should include gifted-learner specific motivational methods (Trnova & Trnova 2014). Therefore teacher education colleges need to develop and model trainee teachers in gifted education.

Renzulli's Three Ring Model as illustrated below consists of an interaction among three basic clusters of human traits which are above average general abilities, high levels of task commitment and high levels of creativity (David, 2012).



Figure 2.4 Renzulli's Three Ring Model adapted from Sternberg & Davidson (2005)

The model affirms that giftedness is multi-dimensional and could be sited in different areas of human ability in the three clusters.

- i) **Above average abilities** – involves integrating experiences and abstract thinking and the capacity to acquire knowledge to perform specific skills.
- ii) **Creativity** – the gifted learner manifests flexibility, originality, sensitivity to challenging issues and willingness to explore into the unknown
- iii) **Task commitment** – the gifted learner exhibits perseverance, endurance, hard work and self-confidence. (Sternberg & Davidson 2005).

The model requires that the teacher should possess pedagogical knowledge and skills to cater for the multi-dimensional abilities of gifted learners. This implies that the teacher education programmes should incorporate the model if trainee teachers are to effectively handle gifted learners.

Tannenbaum's 'sea star' model of giftedness (2003) addresses the relationships between ability and achievement, 'the links between promise and fulfilment' and clearly identifies the roles of both the child's personality and the environment in which he or she is brought up and educated(Carteny 2002:15, Gross 2005, p. 16). The model is presented by a five arm star as illustrated below.

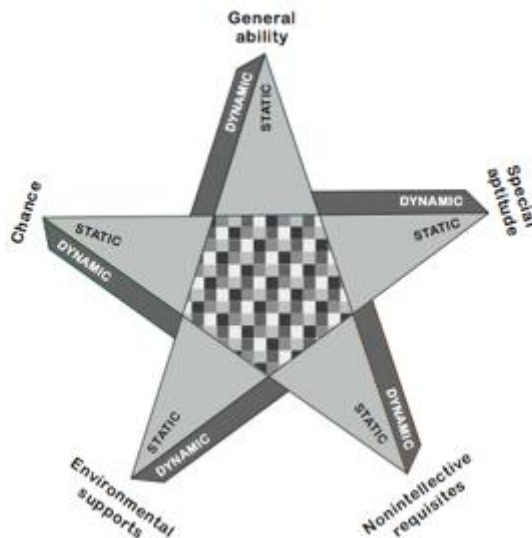


Figure 2.5 Tannenbaum's 'sea star' model Adapted from Tannenbaum (2003)

Each arm of the sea star represents variable characteristics of the gifted learner which are general ability, special aptitude, no intellective requisites, environmental supports and chance (Tannenbaum, 2003). The five variables do not exist independent of each other hence all the five should be present in order to develop the potential abilities of the gifted learner. The model presents a wide range of academic diversity which includes learners of high ability. Such diversity of learners is found in the Zimbabwean regular classes at primary school level (David, 2011). There is evidence that trainee teachers would require knowledge of the model in order to transfer such knowledge to practice during their teaching practice. It is therefore incumbent upon primary teachers colleges to include the model in their teacher preparation programmes so that all trainee teachers have advanced knowledge and skills to handle gifted learners.

Other models identified by David (2012) include Gagne's Differentiated Model of Giftedness and Talent of Canada, which differentiates between giftedness and talent and views giftedness as the possession and use of inborn abilities, in at

least one ability domain, which places a child at percentile 85 of his or her age peers (Gagne 2004, p.1). The inclusion of the model in the teacher training programme provides theoretical basis for differentiated instruction which would enable the trainee teacher to meet the needs of the gifted learners. Talent is the superior mastery of developed abilities and knowledge, in at least one field, that places a child's achievement at percentile 85 of his or her age peers. These natural abilities are easily observed in young learners, and are needed for all tasks learners have to accomplish, whether academic and creative, technological, artistic, social and emotional or athletic. The Gagné model has won wide acceptance internationally as practical, research-based and teacher-friendly (Gross, 2005). It recognises giftedness as a broad concept that encompasses various abilities, including intellectual, creative, leadership, social and physical skills. These natural abilities can be observed in the school setting, where appropriate identification strategies will distinguish gifted and talented learners (State of New South Wales Directorate, 2004). This model emphasises that talent development is not automatic and that, unfortunately, many gifted learners fail to develop their high ability into high achievement (Gross, 2005).

2.3.1.1. The English model

The approach used to deliver gifted education in England is an integrated approach with a variety of strands. It is integrated in two ways, (i) gifted education is an integral part of general education policy; and (ii) the actual approach used integrates learners with their peers as much as is possible. This approach to gifted education builds on general education rather than placing it outside the general education structure. However, integrated education does not suggest that all provision for gifted learners should be delivered in the regular classroom or indeed in the regular school. When specialist provision is needed it must be made available, and lack of availability in school should not be a barrier to the progress of the individual (Eyre, 2004).

2.3.1.2. Independent study models

In the independent learning stage, gifted learners are involved in research projects that focus on defining problems, gathering data, interpreting findings, and

communicating results. At the teacher-directed level the teacher prescribes all the activities for individual learners. At Level 1, he or she creates the learning activities and the student chooses the ones he or she wants to do. At Level 2, the student participates in decisions about the learning activities, goals, and evaluation, whilst at Level 3 the student creates the choices, makes the selection, and carries out the activity. The student also evaluates his or her own progress (Johnsen & Goree, 1986).

2.3.1.3. Revolving door identification model (1981)

This model is a systematic set of specific strategies for increasing student effort, enjoyment, and performance by integrating a broad range of advanced level learning experiences and higher order thinking skills into any curricular area, course of study, or pattern of school organisation (Gibson & Efinger, 2001).

2.3.1.4. Bloom's cognitive domain taxonomy model (1956)

Many writers and researchers, including Renzulli (2000), have observed that there are many thinking skills that are usually displayed by the gifted and they do not necessarily only cover those that are taught. The most famous and commonly referred to model which has been used to develop thinking skills in learners is Bloom's (1956) cognitive domain taxonomy (Maker & Nielson, 1995), with six categories of thinking skills:

1. Knowledge – the ability to recall specific facts, key terms, and basic principles.
2. Comprehension – the ability to state ideas in one's own terms, and to interpret and extrapolate a set of data
3. Application – the ability to apply principles in novel situations.
4. Analysis – the ability to identify assumptions, spot logical errors and to distinguish facts from values.
5. Synthesis – the ability to combine extant elements into new forms and patterns, i.e., creativity
6. Evaluation – the ability to judge by internal and external criteria.

These thinking skills were covering abilities and skills. As this topic continued to draw interest from many scholars and researchers, such as Anderson & Krathwohl (2001), Bloom`s cognitive domain taxonomy was modified as presented in the table below.

Table 2.2: The Taxonomy Table

Knowledge Dimension	Cognitive Dimension	Process
1. Remember – retrieving relevant knowledge from long term memory.	1.1 Recognising 1.2 Recalling	
2. Understand – Determining the meaning of instructional messages, including oral, written and graphic communication.	2.1 Interpreting 2.2 Exemplifying 2.3 Classifying 2.4 Summarizing 2.5 Inferring 2.6 Comparing 2.7 Explaining	
1. Apply – Carrying out or using a procedure in a given situation.	3.1 Executing 3.2 Implementing	
4 Analyse – Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose.	4.1 Differentiating 4.2 Organizing 4.3 Attributing	
5 Evaluate – Making judgements based on criteria and standards.	5.1 Checking 5.2 Critiquing	
6 Create – Putting elements together to form a novel, coherent whole or make an original product.	6.1 Generating 6.2 Planning 6.3 Producing	

Sourced from Krathwohl, (2002:21)

The model is based on “a six level hierarchical progression for the categorisation of human cognitive behaviours from the most basic to higher order level of cognitive processing” (Kurebwa, 2012, p.7).The Zimbabwean curriculum at all levels is designed, developed and assessed on Bloom’s Cognitive Domain Taxonomy Model (Dziwa, 2013).The model recognises and promotes the different abilities and needs of all earners. Thus, inclusion of this model in the teacher education curriculum guides the trainee teacher to identify the cognition levels of

learners. The trainee teacher acquires a full range of knowledge and skills needed to teach and assess all gifted learners in different situations.

2.3.2. Requirements for implementing gifted education

The needs of gifted learners are not being specifically addressed; therefore educators and researchers should undertake more studies on the causative factors and not just consider the needs, interests, tendencies and concerns of average learners (Alarfaj, 2011).

2.3.2.1. Differentiated instruction

Differentiated instruction involves instructional practices and teaching strategies that are inclusive in nature, practices that enable all learners, including those with disabilities, to access and succeed in the general education classroom and curriculum (Santamaria & Thousand, 2004). The authors cited above view differentiated instruction as a compilation of good educational practices with roots in theoretical research and the successful outcomes programmes such as gifted education. At the basic level, differentiation consists of efforts of teachers to respond to variance among learners in the classroom. When a teacher reaches out to an individual or small group to vary his/her teaching in order to create the best learning experience possible that teacher is differentiating instruction (Tomlinson, 2000, 2001).

Differentiation means tailoring instruction to meet individual needs. Whether the teachers differentiate content, process, products or the learning environment, the use of continuing assessment and flexible grouping makes this a successful approach to instruction. Differentiated instruction is based on the premise that, since learners differ significantly in their interests, learning styles, abilities and prior experiences, the teaching strategies, materials and pace should vary accordingly (Tomlinson, 2000). It is a set of strategies that allows a classroom teacher to meet the needs of learners with varying levels of readiness, learning ability, interest and educational background in the same class at the same time. This process requires pre-assessment to identify each child's instructional level, flexible grouping, variation in content, process and product, depending on each child's learning profile and an assessment plan to determine if the instructional goals have been met (Peters, Mathews, McBee & McCoach, 2014).

Teachers using differentiated instruction can utilise the Renzulli Learning System, which is a comprehensive programme that begins by providing a computer-generated profile of each student's academic strengths, interests, learning styles, and preferred modes of expression (Renzulli & Reis, 2007). A search engine then matches Internet resources to the student's profile from 14 carefully screened data-bases that are categorized by subject area, grade level, state curricular standards, and degree of complexity. A management system known as the *Wizard Project Maker* guides learners in the application of knowledge to teacher or student selected assignments, independent research studies, or creative projects that individuals or small groups would like to pursue (Shavinina, 2013, p. 62). Learners and teachers can evaluate the quality of learners' products using a rubric known as the 'Student Product Assessment Form' (Renzulli & Reis, 2007, p. 2). Learners can rate each site visited, conduct a self-assessment of what they have gained from the site, and place resources in their own 'Total Talent Portfolio' for future use (Renzulli & Reis, 2007, p. 63).

Learners have unique learning styles; hence teachers need to take time to find these out, particularly when working with gifted ones. After establishing how gifted learners learn it becomes necessary to find specific differentiated strategies that can be incorporated in any learning environment (Raymond, 2011). In an effort to address unique gifted learners' learning styles Tomlinson (2000) in Tomlinson (2001) recommended support for diverse learners by instruction in ways that recognise them:

- learn best when they are actively involved in and physically interactive with their environment;
- develop a deeper understanding when they are encouraged to construct their own knowledge;
- benefit from choice, both as a motivator and as a mechanism to ensure that they are working at an optimal level of understanding and development;
- need time and encouragement to reflect on and communicate their understanding;

- Need considerable and varying amounts of time and experience to construct scientific and mathematical knowledge.

The above recommendations suggest that trainee teachers need professional competencies that would enable them to recognise and develop giftedness (Trnova, Trna & Skrabankova, 2013). This implies that innovative educational methods for motivation and development of gifted learners are to be incorporated in teacher preparation programmes in order to equip trainee teachers with appropriate knowledge and skills.

Tomlinson (2000) suggests that teachers using differentiated instruction should develop teaching strategies that are responsive to all learners' needs, whilst the strategies should use a variety of groupings and challenge learners at an appropriate level in light of their readiness, interests and learning profiles.

In differentiated classrooms, teachers provide specific ways for each individual to learn as deeply and as quickly as possible without assuming one student's way of learning is identical to another's. Teachers in differentiated classes use time flexibly, call upon a range of instructional strategies, and become partners with their learners to see that both what is learned and the learning environment are shaped to the learner (Tomlinson, 1999).

If the differentiated instructional strategies are not implemented, Raymond (2011) argues that gifted learners may be at risk of underachieving or may not complete their primary education unless an appropriate curriculum is provided to engage and challenge their abilities and develop their talents. There are also concerns about how gifted education will affect a student socially. In the majority of cases placing a child with his or her intellectual peers allows a gifted child to understand his or her uniqueness better and usually become less disruptive in the classroom as the mind remains occupied (Raymond, 2011).

2.3.2.2. Acceleration

Acceleration refers to educational provisions whereby learners meet curricular goals at an earlier age or at a faster pace than is typical. Well known forms of acceleration include grade skipping; early entrance to kindergarten or college; ungraded schools; and special-progress classes, in which a class of learners

completes, for example, three years' worth of work in two years (Rogers, 2007). For example, a girl completed her advanced level in Zimbabwe at the age of 14 and had already enrolled at the university, which under normal circumstances she would have done so at the age of 18 (*The Herald*, May 31, 2012).

As a programme that can be used to cater for gifted learners, acceleration is ideally suited to academically gifted learners, that is, young people who have an enhanced capacity to learn. Acceleration does not mean pushing or forcing a child to learn advanced material, nor to socialize with older learners before he or she is ready (Colangelo, Assouline, & Gross, 2004). Rather, it is the direct opposite, and about appropriate educational planning, matching the level and complexity of the curriculum with readiness and motivation. It has been defined as “respecting individual differences and the fact that some of these differences merit educational flexibility”(Colangelo, Assouline, & Gross, 2004, p. 1). Accelerated learners should be expected to achieve, relative to their new grade peers, at a high level that is generally comparable to their performance in the previous grade:

...typically among the top 10% in a class, and they should be expected to remain in the top 10% throughout their academic careers. To be clear, there is no evidence that acceleration has a negative effect on a student's social-emotional development (Colangelo, Assouline, Marron, Castellano, Clinkenbeard, Rogers, & Smith, 2010, p. 182).

Generally, acceleration can be divided into two types, (i) grade skipping or double promotion, which allows the student to bypass an entire grade and be accelerated to the next; and (ii) curriculum compacting, which allows the student to complete the normal amount of work in less than the normal amount of time (Baxter, 2009). Colangelo, Assouline, & Gross (2004, p.12) identify different forms of acceleration as follows:

- Early entrance to school
- Grade-skipping (whole-grade acceleration)
- Subject matter acceleration (e.g., maths only)
- Self-paced instruction
- Mentoring

- Curriculum compacting
- Advanced placement
- Early entrance to college.

Colangelo, Assouline, & Gross, (2004, p. 96) provide several acceleration options that schools can utilise:

- **Early admittance to school:** The student is allowed to enter school prior to the age specified by the district for entry into kindergarten. The suggestion is that the option is the best for meeting the needs of gifted learners whose advanced abilities are evident at an early stage. The advantage is that it allows them to enter school with a peer group with who they will remain.
- **Grade skipping:** The student is allowed to move ahead of normal grade placement by one or more years. This is especially recommended for highly gifted learners who are advanced in all subjects relative to their classmates or for those who missed the age cut-off for school entrance or were held back by their parents for a year because they were close to it.
- **Entering college early with or without a high school diploma:** The student is allowed to leave school one year early in full standing to an advanced level of instruction at a local college or university.
- **Entering a college early – entrance programme:** This is offered at special universities in the USA. Although the institutions are said to vary in their philosophy and approach, the programmes are designed to meet the needs of learners who are ready for college work but would like to be part of a peer group who have made the same decision to leave high school early.
- **The international baccalaureate programme:** The programme is designed to bring a common curriculum to multinational learners living in various countries around the world. Its philosophy is to develop the whole student with challenging and in-depth learning experiences through a general and comprehensive curriculum at a pre-collegiate level pitched at first-year university learning.

- **Content acceleration:** It involves taking a course 1 to 2 years earlier than is typical. If a student is reading at the level of the fourth graders in his or her school, but is placed chronologically in the second grade, the student should be allowed to take reading with the fourth graders.
- **Dual enrolment:** Learners take advantage of college curricula at a local college, community college or university while still enrolled in secondary school. The curriculum is compressed or compacted in such a way that gifted learners can complete it in less time. Learners are allowed to skip those units in which they have already attained mastery and to streamline the follow-up content material.

Some of the merits of acceleration are that it can reduce educational costs for school systems and parents. It is virtually a cost-free intervention in which learners spend fewer years in school (Colangelo, Assouline & Gross, 2004, P. 5). Colangelo, Assouline, and Gross (2004) view it as the best educational intervention for high-ability learners and as usually effective in terms of socio-emotional adjustment.

2.3.2.3. Curriculum compacting

Curriculum compacting is another way to meet the needs of and educate the individual middle school gifted student, moving away from the “one-size-fits-all” method of instruction (Tomlinson, 2001). It is an instructional pacing and weeding tool that maximises time for learning new material that allows educators the opportunity to restructure grade-level curriculum in order to provide for appropriate challenge and interest within the curriculum. The process of compacting curriculum should involve “defining the goals and outcomes of a particular block of instruction; determining and documenting the learners who have already mastered most or all of a specified set of learning outcomes; and providing replacement strategies for material already mastered through the use of instructional options that enable a more challenging, interesting, and productive use of the student’s time” (Reis & Renzulli 2005, p.5).

2.3.2.4. Creating a conducive environment for gifted learners

The Salamanca Statement (1994) purports that if success in schooling is to be recognised, by every learner through instructional accommodation, the major task of the schools is the creation of learning environments that uphold a standard of equity in educational outcomes for all learners (Gillies & Carrington, 2004). The nurturing of giftedness is dependent upon appropriate intervention and learners develop their innate gifts through interaction between their natural ability and environmental factors. Schools are an important part of the process that develops giftedness and lack of appropriate provision in schools is likely to result in learners' giftedness being underdeveloped, (Tasmania Department of Education, 2000). The socio-emotional problems that may affect gifted learners present unique challenges to the classroom teacher and suggest that developing a secure relationship is critical, albeit more difficult than with their non-gifted counterparts (Kesner, 2005).

If after giving a test in a particular topic of the curriculum there are learners who demonstrate a competency at 80% or higher it is essential to save them an entire year of frustration and boredom. Having determined their ability they can be offered curriculum that allows them to move forward (Davidson Institute for Talent Development, 2003). There is need to understand and analyse their personality traits, strengths, interests and learning styles and provide them with appropriate learning opportunities geared to meeting individual needs and that can facilitate further exploration and development of their potential. A warm, safe, accepting and democratic environment that stimulates learning should be created (Hong Kong Education Department, 2002). Regular classroom teachers often become frustrated when high-ability learners complete learning tasks faster than other learners and may have nothing constructive to do. Therefore, in order to provide academic and intellectual depth for these learners, teachers should design learning tasks suit such learners. Teachers may start by creating differentiated activities in either reading or mathematics then slowly expand on these ideas as time goes on. The structure of the learning tasks is based on Bloom's Taxonomy of thinking (Kroninger, 2002).

Some schools opt to place learners in cluster groups because this grouping pays attention to the needs of gifted learners without ignoring average and low-

achieving learners. The benefit of cluster grouping is that gifted learners can interact with gifted peers, thus benefitting and encouraging them to learn (Tonarey, 1999). Another form of catering for gifted learners in the classroom is by employing independent study, which is mostly a recommended instructional strategy in gifted education programmes and is included in the majority of introductory texts as a means for differentiation and individualised instruction. Independent study refers to “a process that one applies when researching on a new topic by oneself or with others and it is self-directed, it is facilitated and monitored by the teacher, it focuses on lifelike problems that go beyond the regular class setting” (Krystal & Johnsen 2005, p. 5). The role of the teacher however remains critical in developing these gifted learners’ necessary skills that are essential for the self-directed learning.

The use of a variety of questioning strategies is recommended, focusing primarily on the higher end of Bloom's taxonomy to engage learners in advanced-level thinking. “In order to prepare gifted learners for leadership roles and success in the work place, educators should help them to generate alternative ways to solve real-world problems by regularly incorporating divergent questions, ”Shaunessy (2005, p. 4). On another note, gifted learners often learn and grasp basic concepts faster than their counterparts and therefore there is need for challenging tasks in the form of enrichment opportunities for those who have already mastered the basic material (Roberts, 2005). If all the above conditions are provided, the classroom becomes conducive to learning for gifted learners.

2.3.3. Teacher preparation

The quality of teachers to some extent determines the developmental ambitions of a nation, for all types of educational provision and programme (Akinsola, 2010). Studies recommend that training focuses on enhancing the skills of classroom teachers in areas of pedagogy, curriculum development and adaptation, whilst being intentional and classroom-based, intensive and continuous in order to promote sustainable effective practice (Peters, 2003). Parents in New Zealand saw the effective teacher of gifted learners as possessing not necessarily exceptional academic qualifications but exceptional attitudes. They alleged the system had deficiencies in teacher preparation which left the classroom practitioner with a conceptual void in a crucial area (Keen, 2005).

In order to build human resources in the field of education, training must be done both at the pre-service and in-service levels. Pre-service training refers to training individuals before they become teachers. Ideally, inclusive education should be a compulsory subject for all teacher candidates and an integral part of teacher curricula (Nguyet & Thu Ha, 2010). Research by Pottas (2005) in South Africa revealed that teachers lacked adequate knowledge, skills and training for effective implementation of inclusive education and so felt unprepared or unequipped. Pre-service teacher training courses aim to provide teachers with competencies in the teaching of learners who are gifted (Tasmania Department of Education, 2000), whilst training to handle gifted learners can simply be an added component to other training already in place. Lichtenwalter (2011) believes that teacher training can take different forms other than a standard college course, especially if serving teachers are also to be involved in gifted education. This implies that qualified teachers should be in-serviced in gifted education if they are to effectively mentor trainee teachers in handling gifted learners. Currently in Zimbabwe, there is no in-service training programme on gifted education. Educational strategies and methods to handle gifted learners have to be included in the pre-service and in-service teacher training programmes (Trnova, Trna & Skrabankova, 2013).

Leech and Bianco (2010) found that teachers without minimal training in the nature and needs of gifted learners tend to believe that they are globally gifted, that is they perform at high levels in all academic and social areas, test well and need little support to succeed. Teachers of gifted learners must meet eight standards in both knowledge and performance covering the philosophical, historical and legal foundations of gifted education (Klay, 2010). Research conducted at the University of Virginia on the pre-service awareness of their needs revealed that pre-service teachers expressed limited knowledge concerning differentiating instruction and demonstrated limited strategies for differential learning (Tomlinson, Callahan, Moon, Tomchin, Landrum, Imbean, Hunsaker & Eiss, 1995). These researchers recommended that pre-service preparation that focuses attention on academic diversity, student-centred views of instruction and strategies to address student differences may be necessary to break the uniform concept of teaching. Studies by Reis et al. (2004) and Reis & Renzulli (2010) on the provision of differentiated instruction for gifted learners indicated that 75% of

the classes received no differentiated instruction and had no access to rigorous and challenging tasks (Munro, 2012).

Knowledge of subject matter positively affects teaching performance; however, it is not sufficient in itself. Teacher training programmes that emphasise content knowledge acquisition and neglect pedagogical coursework are less effective in preparing prospective teachers than programmes that offer both content and pedagogical knowledge (Stronge, 2007). Teacher education must be adapted to promote inclusive education and to facilitate collaboration between regular and special education teachers. This is a concern both for general pre-service and in-service teacher education and for specialist in-service education (Salamanca Statement, 1994), suggesting that for the teacher to be effective she/he should have in-depth knowledge of gifted education.

2.3.4. Policy for implementing gifted education

Although education systems tend to promote inclusion as a panacea for overcoming problems within education there continues to be limited discussion at policy level about how schools can develop and implement effective inclusive practices (Forlin, & Kuen-fung, 2010). Gifted and talented learners, referred to as the "invisible learners" in British Columbia's K12 educational system, are often forgotten in legislative policymaking (Coulthard, 2001). While officially recognised under the province's 'special education' banner, these learners are frequently ignored when analysing educational needs, formulating policy and allocating funding (Coulthard, 2008).

Preparing teachers with essential knowledge and skills for inclusive education also requires the commitment of all actors. When desired policies are not yet in place in a country these actors should explore different and alternative approaches to achieve the ultimate goal of providing quality education for all learners (Nguyet & Thu Ha, 2010). In China, gifted education is run by a Gifted Education Institution known as the 'Supernormal Class' which enrolls learners at the age of six through to high school (Heller, Monks, Sternberg & Subotnik, 2000). Hong Kong, which initiated gifted education in 1990, has one of the most developed policies and provides highly attenuated levels of provision of gifted services while attempting to expose all learners (Tommis 2011, Ibata- Arens, 2012). This is achieved through

differentiated instruction which is tailored to involve all learners in learning tasks that are based on core tenets of gifted education namely high order thinking skills, creativity and personal-social competence. Taiwan initiated gifted education in 1962 after a group of primary school administrators proposed new approaches to enrich the education of their brightest learners, while Korea began gifted education in 1983, more slow in developing than other East Asian countries (Ibata-Arens, 2012).

In teacher preparation programmes, greater emphasis needs to be placed on preparing both general and special educators to be competent and efficient at managing today's classroom with their diverse range of learners (Oliver, 2007). According to Mathews & Smyth (2000), although legislation that should ensure that exceptional learners, including gifted, receive an education commensurate with their abilities, their research study revealed that Ontario did not have a system in place to enforce the legislation. They further revealed that while teacher education programmes in Ontario recognised education of gifted learners within Special Education, the Faculties of Education reflected scarcity of course offerings directed specifically at the curricular of gifted learners. All gifted and talented learners/learners need a learning environment that fosters wellbeing and learning outcomes consistent with their abilities. It should provide educational pathways and appropriately challenging enrichment extension and acceleration experiences (Government of South Australia 2012; Leonard Cheshire Zimbabwe Trust, 2011).

The gifted education policy for New Zealand is based on a recognition that gifted learners are found in every classroom and across all cultures and socio-economic groups, so in line with the policy directions, emphasis is placed on teaching practices that meet the learning needs of these learners within their regular classroom (Riley, 2005). Learners who are gifted should be provided with an appropriate range of flexible provisions in Tasmanian government schools to enable and support their development. While all learners have strengths that should be valued and promoted there is a small group of gifted learners who require specifically targeted identification processes and programmes in schools. Some provision may be made in regular classrooms, but additional programmes could be needed (Tasmania Department of Education, 2000). While the need for specialised teachers for gifted learners has been noted as essential, no policy is in place in Botswana presently (Akinsola, 2010). On a different note, Zimbabwe has

enacted policies such as the Education Act of 1996 and Disabled Persons Act of 1996 to enforce the education of learners with disabilities. Perusal of these policies reflects the education of learners with disabilities but there is no mention of gifted learners (The National Plan, 2005, Unesco 2006).

In the pre-text of the above, it is important for various governments to craft education policies that ensure the creation of enabling environments for the implementation of gifted education.

2.4. FINDINGS FROM OTHER RELATED STUDIES

Available literature in the field of gifted education shows that much has been achieved in creating clear and acceptable definitions of giftedness, identifying characteristics of gifted learners and developed methodologies for teaching them, but little research into understanding those who teach in the field (Hodge, & Kemp, 2006). According to Callahan & Hertberg-Davis (2013) most gifted learners who spend time in standard classrooms do not have their needs met due to lack of training of their teachers. Gifted learners' prevalence in general education classrooms is common and this calls for all teachers who will be responsible for providing appropriate programmes to receive education of the gifted at pre-service level (Bangel et al., 2010). According to Gallagher, (2007) teacher education should ensure that trainee teachers are equipped with skills in handling gifted learners during their teaching practice because these skills are further developed through direct interaction with learners.

Observations show that some governments do not have compelling policies on gifted education and pre-service teacher education programmes do not have gifted education components. Research has also revealed that qualified teachers lack knowledge and skills in handling gifted learners.

2.5. CONCLUSION

The purpose of this chapter was to reflect upon literature related to how teacher education institutions prepared trainee teachers to handle gifted learners. Gardner's (1993) Multiple Intelligence (MI) was used as the research study's theoretical framework. The literature review has unveiled valuable information on the theoretical framework and the state on how trainee teachers are prepared to

handle gifted learners worldwide and in Zimbabwe. The MI was a suitable theoretical framework as it explains the different human potential areas in which learners can be gifted.

Traditionally intelligence has been viewed through a scientific way of testing IQ which could give the researcher a narrow scope of how trainee teachers were prepared to handle gifted children. On the contrary, MI encompasses a broader view of what counts as intelligence which helped to assess the extent to which teacher education programmes prepared trainee teachers to cater for the diverse intelligences among learners.

The literature has revealed that traditionally gifted education was divorced from the general education system, hence, not part of teacher education. As a consequence by then, the teachers produced lacked knowledge and skills to handle gifted learners. With the advent of inclusive education, reflections on literature review indicate that gifted education is invariably important in teacher education programmes. Thus, the role of the teacher in the development of gifted learners is essentially crucial. Trainee teachers need to be equipped with knowledge and professional competencies whilst at college in order to handle gifted learners during teaching practice. In view of this, it is evidently necessary to incorporate gifted education in teacher training programmes. Therefore, teacher educators need to take initiatives to infuse gifted education in teacher trainee preparation programmes for trainee teachers to realise and appreciate the value of the diverse abilities they need to cater for in today's classrooms. Important gifted education aspects like giftedness, characteristics of gifted learners and their assessment should be inevitable components of the teacher education curriculum. Some research studies highlighted in the literature revealed that trainee teachers had little knowledge on differentiated instruction and differentiated learning. Thus, the teacher training should have a new dimension on treating methodologies which trainee teachers have to use in inclusive classrooms. Teacher preparation programmes should include innovative teaching methods and strategies that would enable trainee teachers to handle gifted learners. These provide trainee teachers with a theoretical base for designing differentiated instruction in order to handle gifted learners.

The training of teachers to handle gifted learners needs supportive strategies enshrined in gifted education models. From the researched literature, a number of models which are still currently applicable in the Zimbabwean context have emerged. Teacher training programmes should incorporate the models to enable trainee teachers to develop a sound theoretical base for handling gifted learners.

The implementation of gifted education should be guided by specifically crafted and related policy. In turn, such policy informs teacher education colleges the aspects of gifted education to include in their curriculum that would enable trainee teachers to handle gifted learners. The researched literature has revealed that few countries like China, Taiwan, Australia and New Zealand have clauses in their education policies that recognise the gifted learner. The Zimbabwean education policy is silent about gifted learners.

On the whole, the literature has revealed that all trainee teachers need training in gifted education in order to handle gifted learners, and therefore, teacher education has the role to take proactive initiatives. The succeeding chapter, Chapter Three, focuses on the research design and methodology.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

The purpose of this chapter is to offer an explication of the paradigm on which this study is based, and the research design and methodology used in collecting data on initiatives in teacher education in preparing pre-service primary school teachers to handle gifted learners. The other research aspects described are the chosen research approach, sampling of the participants and how the pertinent issue of trustworthiness in qualitative research was attended to. Ethical issues pertaining to the entire research project are also discussed before the chapter is concluded.

3.2 THE RESEARCH PARADIGM

A research study is based on assumptions about what constitutes knowledge and its reality, and the appropriate methods of building it. When summed up, these assumptions fall under the term 'paradigm' (Punch 2014:14). A paradigm can be defined as "a worldview-a way of thinking about and making sense of the complexities of the real world. As such, paradigms are deeply embedded in the socialization of adherence and practitioners" (Patton, 2015, p.89). The implication is that researchers should be well versed with the needs and demands of the selected paradigms. According to Guba (1990, p.17), a paradigm is "a basic set of beliefs that guide action, whether of everyday... variety or action taken in connection with a disciplined enquiry". It is one's abstract framework, model of reality or worldview. Jonker & Penning (2010) in Wahyuni (2012, p. 69) define a paradigm as "a set of fundamental assumptions and beliefs as to how the world is perceived which then serves as a thinking framework that guides the behaviour of the researcher." A research paradigm would serve to define what should be studied, the type of questions to be asked and what rules to be followed in interpreting the answers obtained (Collins, Kinzig, Grimm, Fagan, Hope, & Borer, 2000, p. 19).

A particular paradigm determines the scope of the necessary philosophical grounding of any given study because it subsumes the ontological, epistemological and methodological dimensions of a particular research effort (Denzin & Lincoln 2003:33). These help in defining the researcher's assumptions

about the nature of reality and knowledge, as ontology is concerned with the search for the essence of reality or being and epistemology the sources, nature, possibility and limits of knowledge (Lemmer & Badenhorst, 1997, p. 99). While the ontological and the epistemological domains of research would be concerned with reality which is investigated and the status of the statements being made, the methodological dimension concerns the how, that is how the study should be planned, structured and executed in order to gain knowledge (Mouton & Marais, 1990, p.14-15).

Of the different ways of categorising research paradigms, in contemporary literature four broad paradigm categories are usually designated, namely the positivist, post-positivist, constructivist and the critical research (Dison, 1998, p. 169), elaborated upon by Hatch (2002) in the table below.

Table 3.1: Research paradigm adapted from Hatch (2002, p, 13)

	Ontology (Nature of reality)	Epistemology (What can be known; Relationship of knower and known)	Methodology (How knowledge is acquired)	Products (Forms of knowledge produced)
Positivist	Reality is out there to be studied, captured and understood	How the world is really ordered; knower is distinct from the known.	Experiments, quasi-experiments, surveys, correlations studies	Facts, theories, laws and predictions
Post-positivist	Reality exists but is never fully apprehended, only approximated	Approximation of reality, researcher is data collection instrument	Rigorously defined qualitative methods, frequency counts, low-level statistics	Generalisations, descriptions, patterns, grounded theory
Constructivist	Multiple realities are constructed	Knowledge as a human construction, researcher and participant constructions	Naturalistic qualitative methods	Case studies, narratives, interpretations, reconstructions

Critical/ feminist	The apprehended world makes a material difference in terms of race, gender and class	Knowledge as subjective and political. Researchers' values frame inquiry	Transformative inquiry	Value mediated critiques that challenge existing power structures and promote resistance.
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From the above paradigmatic options, the constructivist paradigm was deemed the most appropriate theoretical framework to guide this study since its main goal was to gain a full understanding of the social life-world of those involved in preparing Zimbabwean pre-service trainee teachers to handle gifted learners. According to Mason (1996, p. 4-6) social reality can only be fully understood when approached from the perspective of the people who actively construct it. This is what constructivism is all about. Further features of this paradigm and the reasons why the researcher found it to be much more preferable in providing the context for this study are discussed in the following section.

3.2.1 The constructivist paradigm

The constructivist paradigm is also called the interpretive, symbolic or hermeneutic paradigm (Dison, 1998, p.170). Its proponents believe that knowledge is a human construction, a mental representation and that there are multiple constructions of any situation. Thus to Guba (1990, p.27), constructivism, "intends neither to predict nor control the 'real' world, nor to transform it but to reconstruct the 'world' at the only point at which it exists: in the mind of constructors. It emphasises the importance of the insiders' viewpoints in understanding social reality.

“Constructivism is the view that all knowledge, and therefore all meaningful reality, is contingent on human practices being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context (Golafshani,2003, p.603).The basic assumptions guiding the constructivist paradigm are that knowledge is socially constructed by people active in the research process, and that researchers should attempt to understand the world of lived experience from the point of view of those who live in it (Mertens

(2007). In this study the researcher focused on the knowledge constructed by the trainee teachers as pertaining to handling gifted learners as a result of their training and teaching practice experience.

The constructivist paradigm has embedded in it ontological, epistemological and methodological characteristics, as illustrated below.

Table 3.2: The constructivist paradigm

Feature	Description
Purpose of research	Understand and interpret students' and teachers' perspectives on the factors that could impact on instructional approaches
Ontology	<ul style="list-style-type: none"> • There are multiple realities • Reality can be explored, and constructed through human interactions, and meaningful actions • Discover how people make sense of their social worlds in the natural setting by means of daily routines, conversations and writings while interacting with others around them • Many social realities exist due to varying human experience, including people's knowledge, views, interpretations and experiences
Epistemology	<ul style="list-style-type: none"> • Events are understood through the mental processes of interpretation that is influenced by interaction with social context • Those active in the research process socially construct knowledge by experiencing the real life or natural settings • Inquirer and the inquired-into are interlocked in an interactive process of talking and listening, reading and writing • More personal, interactive mode of data collection
Methodology	<ul style="list-style-type: none"> • Processes of data collected by text messages, interviews, and reflective sessions • Research is a product of the values of the researcher

(Adapted from Cantrell 2001)

Informed by the above assertions, this study was approached from the point of view of the participants' social context. Acknowledging the fact that reality is socially and mutually constructed, the required data were gathered in an

understanding that it was possible to have a diversity of the interpretations of social reality. Thus, each participant's perceptions were taken as important and valid. Most importantly each participant was regarded as a knower and whose knowledge was only to be shared by way of exploring his or her experiences, actions, viewpoints and meanings (Mahlo, 2011).

Constructivism stresses the need for the researcher's sensitivity to the insiders' viewpoints and the whole social context in which meanings are produced (Denzin, 1989, p. 5). Accordingly, in this study, an attempt to understand the dynamics of preparing pre-service primary school teachers to handle gifted learners in the Zimbabwean context, it was considered crucial to do so from the participants' points of view. Actually, constructivists believe that reality, truth and knowledge are not only constructed from observable phenomena but by also the descriptions of people's beliefs, values and reasons, intentions, self-understanding and meaning making (Henning, Van Rensburg & Smit, 2004,p. 20). Essentially, the researcher wanted to find out how the participants in each research setting constructed reality about the handling of gifted learners. In other words, what their perceptions, truths, explanations, world views and beliefs were and the consequences of their constructions to those with whom they interacted.

Guba and Lincoln (1989, p. 44-45) give the following as the primary assumptions of constructivism for research:

- "Truth is a matter of consensus among informed and sophisticated constructors, not of correspondence with objective reality
- Facts have no meaning except within some value frameworks, hence they cannot be an objective assessment of any proposition
- Causes and effects do not exist except by imputation
- Phenomena can only be understood within the context in which they are studied, findings from one context cannot be generalised to another, neither problems nor solutions can be generalised from one setting to another
- Data derived from constructivist inquiry have neither special status nor legitimation; they represent simply another construction to be taken into account in the move toward consensus."

The use of the above constructivist principles helped the researcher to investigate the constructions and meanings profiled by sampled college lecturers, mentors and trainee teachers about their views on the handling of gifted learners in Zimbabwe. In addition to that, the researcher visited selected schools so as to be immersed into the real social context and observe the actions of trainee teachers in order to explore their behaviour, perceptions and experiences.

Although the constructivist paradigm was helpful in shaping the scope and direction of this study it also has some shortcomings. Carr & Kemmis (1986, p. 181) have criticised it for failing to account for the external conditions which may constrain the participants' understandings of social reality. Again the selected participants may only have partial knowledge of the aspects of social reality being researched on and hence, false results can be arrived at. Surely there may be an objective perspective which may be different from that of the selected individual participants (Cohen& Manion 2014, p. 34-35).

In spite of the above cited limitations of constructivism, its underlying assumptions were found to be quite useful in grappling with the set research questions. Most importantly it greatly influenced the researcher on deciding which research approach to use. The next section discusses the research approach used in this study.

3.3 RESEARCH APPROACH

For Creswell (2007, p. 3), "Research approaches are plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation." The two main seemingly contesting approaches are quantitative and qualitative, not discrete entities which are antagonistic but rather representative of different ends on a research continuum. The researcher's philosophical assumptions, personal experiences and the nature of the research problem determine the choice of a suitable approach for a research study.

Table 3.3: Key characteristics of qualitative and quantitative approaches

Aspect	Qualitative	Quantitative
Aspiration	In-depth, holistic, contextually sensitive understandings of phenomena	Empirical generalisations across time and space
Philosophical roots	Social constructivism, phenomenology, hermeneutics	Positivism and logical positivism, scientific empiricism and realism
Inquiry approach	Entering real-world settings to observe, interact, and understand what emerges; naturalistic inquiry	Specifying independent and dependent variables to test casual hypotheses: hypothetical-deductive inquiry
Data collection	Qualitative data through fieldwork observations, participant observation, and in-depth interviewing	Quantitative data through valid and reliable surveys, tests, and statistical indicators
Researcher stance	Engaged, subjectivity acknowledged, value laden reflexive	Objective, independent, detached, and value free
Sampling strategy	Strategic case selection and purposeful sampling of rich information for in-depth study	Random, probabilistic samples to achieve representativeness and high internal validity
Data analysis	Looks for themes and patterns across case studies, theory emerges from cases	Uses standardised instruments to measure central tendencies and variation statistically, test hypothesis

Modified from Patton (2015, p. 91)

The qualitative approach was chosen for this study because it is an effective method of investigating human experiences. It focuses on understanding the whole, which is quite consistent with the dynamic, unique and holistic nature of human beings and their actions (Burns & Grove, 2003). Further details about the qualitative approach are examined below.

3.3.1. The qualitative approach

The research study was based on a constructivist paradigm which is a theoretical framework for most qualitative research (Tuli, 2010). On the basis of this paradigm, the research has employed a qualitative approach, which “involves the

study of subjects in their natural settings whereby the researcher conducts a systematic enquiry into meanings, attempting to interpret and make sense of phenomena and the meanings that people attribute to them”, (Shank, 2002, in Parker, 2003. P. 16). According to Burns and Grove (2003, p. 19), a qualitative approach is “a systematic subjective approach used to describe life experiences and situations to give them meaning,” while for Holloway and Wheeler (2002, p. 30) asserts that it is “a form of social enquiry that focuses on the way people interpret and make sense of their experience and the world in which they live.” This research sought to study trainee teachers in the school settings in order to explore their experiences in applying theory related to gifted learners. The qualitative approach in this context was viewed as the most appropriate approach to observe them in the classroom, on the basis of the following characteristics of qualitative research, adapted from Creswell (2013, p. 40):

- Is conducted in a natural setting, a source of data for close interaction
- relies on the researcher as key instrument in data collection
- involves using multiple methods
- involves complex reasoning going between inductive and deductive
- focuses on participants’ perspectives, their meanings, their multiple subjective views
- is situated within the context or setting of participants/sites
- involves an emergent and evolving design rather than tightly prefigured design
- is reflective and interpretive (i.e., sensitive to researcher’s biographies and social identities)
- presents a holistic, complex picture

In the context of this study, the above insights helped the researcher to gain an in-depth understanding of the various factors that are at play in preparing Zimbabwean trainee teachers for handling gifted learners. Unlike the quantitative research approach, which is conscience, narrow and reductionist, qualitative studies are complex and broad, so that it is possible to give meaning to the whole phenomenon that is being studied (Krauss, 2005).

According to Creswell (2007, p. 40), qualitative research is carried out “because we want to understand the context or settings in which participants in a study address a problem or issue.” Thus, the aim was to establish how the teacher colleges are preparing trainee teachers in handling gifted learners during their teaching practice in real classroom contexts. Vasilachis de Gialdino (2009) argues that qualitative methods entail and manifest the assumptions of interpretive paradigm, the grounds of which lie in the need to grasp meaning of social action in the context of the life world and from the participants’ perspectives. From this point of view, the researcher was compelled to use data collection techniques that would capture participants’ perspectives about how the training at the college prepared them in handling of gifted learners.

The qualitative approach makes use of flexible analysis and explanation methods, sensitive to both the studied people’s special features and social context in which data is produced, (Mason, 1996). Based on this theoretical assertion the researcher used qualitative data collection techniques that included observation of classroom teaching, interviews with college lecturers, qualified primary school teachers and trainee teachers, and focus group discussions with trainee teachers. These techniques allowed the researcher to enter into an active interaction process with the participants on an equal footing and so created a rapport that enabled the participants and researcher to work collaboratively.

Bryman (2004) in Devetak, Glazar & Vogrinc (2010, p. 78) writes,

Qualitative research is an exploratory approach emphasizing words rather than quantification in gathering and analysing the data. It is a matter of the inductive, constructivist and interpretative exploratory approach with the following main stresses: to view the world with the eyes of the examinees, to describe and take into account the context, to emphasize the process and not only the final results, to be flexible and develop the concepts and theories as outcomes of the research process.

In line with this, the researcher relied greatly on the views of the trainee teachers and qualified teachers in the school contexts, with the certainty that what they conveyed during interviews and focus group discussion as their truths added credibility to the research findings. Meeting the participants at their workplace

opened up communication, thus, both were engaged in dialogical discussions that broadened and deepened their knowledge of the theory and practice of handling gifted learners. Accordingly all the participants that took part in this study were not treated as objects but as human beings who could think and speak for themselves and define things from their points of view. Thus the knowledge generated in this shared capacity is trustworthy, authentic and has a high degree of transferability. The different features of the qualitative research approach that were discussed in this section went a long way in assisting the researcher in selecting an appropriate research design that was to be used in this study.

3.4 RESEARCH DESIGN

Burns and Grove (2003, p. 195) define research design as “a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings”. On a similar note, it is “the researcher’s overall for answering the research question or testing the research hypothesis” (Polit & Hungler, 2001, p. 167). According to Punch(2014, p. 206),it is “the overall plan for a piece of research, including four main ideas – the strategy, the conceptual framework, the question of who or what will be studied, and the tools to be used for collecting and analysing data.” Based on these definitions, the researcher considers it as a plan which describes the sources and kinds of information related to the research problem and methods used to collect and analyse data. In essence, it should have the following key features (Punch, 2014, p. 207):

- A clear statement of the research problem
- Methods to be utilised for collecting data
- The participants involved
- Techniques to be employed in processing and examining data.

According to Mahlo (2011), in qualitative studies there are several designs that can be used. The most commonly used ones are the phenomenological, ethnographical, and ethnological and ethno scientific designs. However, in real practice, these different perspectives and sets of designs can complement each other. In addition, each research design flows directly from the type of the research questions stated and the purpose of the study. Again, it is the chosen

research design option that determines the data collection and analysis methods to be employed (Roberts & Burke, 1989, p. 146-70).

Given that the main purpose of the present study was to examine the experiences of different stake holders in the preparation of trainee teachers to handle gifted learners in Zimbabwe, the phenomenological design was opted for. As observed by Holloway (2005) phenomenological studies examine human experiences through the descriptions that are provided by the people involved. These experiences are usually referred to as 'lived experiences'.

In their analysis Field & Morse (1985) observed that phenomenology is a philosophy as well as a research approach. When seen as a research strategy, what can be said to be its main assumptions are explicated in the following section.

3.4.1. Phenomenology

The term 'phenomenology' is derived from the Greek words *phainomai* and *logos*, meaning, respectively, 'I appear' or 'I show myself' and 'word, method, methodological, ordered, arranged, unveiling or disclosure. The idea is actually of letting the phenomenon speak for itself. Van Manen (1990) in Alisat (2013, P. 63) defines phenomenology as "the study of the lived experience of the life world, providing insightful descriptions of the way the world is experienced pre-reflectively in an attempt to uncover meaning." A research design used when searching for in-depth descriptions of lived experiential meanings (Wilding & Whiteford, 2005), it "is the study of lived, human phenomena within everyday social contexts in which the phenomena occur from the perspective of those who experience them. Phenomena comprise anything that human beings live/experience." (Titchen & Hobson, 2005, in Haralambos, Holborn, Chapman & Moore, 2013, p. 886). The phenomenological design to research allows reality to appear as it truly or essentially is, and to describe itself as it would have done, had it been able to. Phenomenology is a way the researcher follows to disclose or verbalise the essentials of a particular phenomenon or appearance as it essentially is in itself.

Accordingly, a phenomenological researcher in Education would aim to:

- achieve an ontological understanding of education;

- bring to light pedagogical essences;
- reveal the way of life which characterise the participants in a particular educational situation, in this case, the education of the gifted learner;
- unlock the ontic or concretely significant features of education, in the topic under consideration, the features of the gifted learner.

The purpose of phenomenology is to describe and understand the essence of real-life experiences of individuals who have experienced a particular phenomenon (Lichtman, 2010). It is a method of study that aims to bring forth a general description of what is being studied and as seen through the eyes of the people who have experienced it at first-hand (De Vos, 2002). To that end, phenomenology as a research design allowed the researcher to understand and interpret the meaning of the experiences of lecturers, mentors and trainee teachers in dealing with gifted learners.

There was need for the researcher to give the central meaning of these participants' perceptions about the handling of gifted learners in Zimbabwe. In order to accomplish this, the researcher was able to indulge in the research participants' life world and place, and, figuratively, standing the shoes of these participants. This was achieved by means of an analysis of the conversations and interactions that the researcher had with participants.

Based on the foregone discussions, observations and interviews with the participants were considered to be the most productive methods of gathering the required data. Multiple research participants who had relevant experience in a particular phenomenon were identified and given sufficient opportunities to exhibit and describe their real-life experiences.

There were three ways in which the phenomenological assumptions were used in this study:

- **As a foundational paradigm:** It provided the basis for all forms of flexibility that could be mooted.

- **As the basis for the thematic strategy:** It allowed for the breaking down of data into analytical units in the form of themes. Data gathered became easier to assemble, describe and analyse.
- **As a basis for thematic sub-titles:** It was possible to have several sub-themes around the different aspects of interest that helped to point out a holistic understanding of initiatives taken by teacher training colleges in preparing trainee teachers to handle gifted learners.

3.5 POPULATION AND SAMPLING

A research study utilises a group of subjects selected from a particular target population, that is, a group of elements or cases, whether individuals, objects or events, that conform to specific criteria or to which one intends to generalise the results of the research (McMillan, 1996, Polit & Hungler, 2001). This group is also referred to as the 'target population' or 'universe', or the people about whom one wishes to learn something (Ary, Jacobs, Sorensen & Razavieh, 2009).

The research target population was made up of Professional Studies lecturers from two teachers colleges, mentors and trainee teachers from two primary schools in the City of Gweru as listed in the table below.

Table 3.4: Research target population

College	Male	Female	Total
A	2	0	2
B	4	0	4
Schools			
Mentors	3	6	9
Trainee Teachers	20	20	40
Total	29	26	55

As indicated on the table above, the target population was comprised of six (6) Professional Studies lecturers, nine (9) mentors and forty trainee teachers making a total of fifty five (55) potential participants.

After identifying the target population it was necessary to select a sample from which the data was to be collected. A sample is a group of elements or a single element from which data are obtained (Creswell, 2009). Qualitative research is based on non-probability sampling as it does not aim to produce a statistically representative sample or draw a statistical inference (Wilmot, 2005). In this study, purposive sampling strategies were used, sometimes referred to as 'purposeful sampling', when the researcher selects particular elements from the population that will be representative or informative about the topic. This sampling technique is based on the researcher's knowledge of the population and judgement is made about which cases should be selected to provide the best information to address the purpose of the research (McMillan, 1996; Opong, 2013). The technique is widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2002). The table below shows the selected sample from the target population.

Table 3.5: Selected sample

College	Male	Female	Total
A	1	0	1
B	2	0	2
Schools			
Mentors	1	2	3
Trainee Teachers	10	8	18
Totals	14	10	24

As shown above the sampled participants were selected considering how useful they were going to be in the envisaged study. Out of the potential six (6) college lecturers, three of them were selected on the basis their assumed knowledge and experience. It turned out that all the selected participating lecturers were male as there were no female lecturers in the two target colleges' Professional Studies departments. As for the mentors three were identified by virtue of them being mentors of the participating trainee teachers who had been deployed in the schools for their teaching practice. In relation to the selection of trainee teachers the researcher settled for eighteen of them. Out of the eighteen selected trainee teachers, sixteen of them were considered because they had completed their

teaching practice session as prescribed by the awarding university's regulations. These were deemed to have been exposed to wider didactic experiences in handling gifted learners than the others. The remaining two participating trainee teachers were still on their teaching practice and they were selected as a result of convenience and proximity considerations.

According to Patton (1990, p. 169) "qualitative inquiry typically focuses in depth on relatively small samples, even single cases, selected purposefully." This kind of sampling entails the identification and selection of individual participants or groups of people who are especially knowledgeable about or experienced with a phenomenon under study. In addition to these criteria, the researcher should take note of the importance of the participants' availability, willingness to participate and ability to communicate experiences and opinions in an articulate, expressive, and reflective manner, (Bernard, 2002; Spradley, 1979). In the pretext of the above assumptions, sampling of lecturers was based on work experience in primary teacher education. To be knowledgeable about the teacher education programmes a lecturer needs at least one year, therefore the sampled three lecturers from both colleges were those who had over one year of lecturing experience. They were seasoned in the preparation of trainee teachers in Professional Studies, in supervising trainee teachers on teaching practice and, it was assumed, knowledgeable about any initiatives taken by their colleges in preparing trainee teachers in handling gifted learners.

The target population for the mentors were Grade 6 teachers and this was not by design but was as a result of them being mentors to the selected trainee teachers. In addition to that their post-qualification teaching experience, experience in mentoring trainee teachers and the duration of their stay at the chosen schools were also considered. These qualified teachers and mentors were selected in order to find out whether their training had adequately prepared them to handle gifted learners. Since these teachers were mentoring the trainee teachers it was also necessary to find out how much they were of help in guiding trainee teachers in handling gifted learners.

The trainee teachers, sampled from the same schools as the mentors, comprised the core participants and therefore were supposed to be observed and interviewed to find out how their course was adequately preparing them to handle gifted

learners: “The subjects sampled must be able to inform important facets and perspectives related to the phenomenon being studied” (Sargeant, 2012, p. 2). The selected trainee teachers were under training and therefore deemed to have current information about teacher preparation as well as what was happening in the school as far as handling of gifted learners was concerned. In the view of the researcher, the trainee teachers were most likely to give accurate information on the research topic.

3.6 DATA COLLECTION

Best and Khan (1993, p. 25) define data collection as “the process of disciplined inquiry through gathering and analysis of empirical data.” Knowledge of its methods and instruments is used in the process of obtaining relevant information from all respondents in the sample of the study. The most widely used data collection methods in qualitative research are interviews, observations, and focus group discussions and document analysis (de Vos, 2013). In this research study, observations, semi-structured interviews and focus group discussions were used. A detailed exposition of each method is presented below.

3.6.1 Interviews

According to Best and Khan (1993), Cohen, Manion, & Morrison (2006) and Creswell (2007), an interview is a two-way conversation initiated by the researcher for the specific purpose of obtaining research linked data and to learn about the ideas, beliefs, views, perceptions and opinions of respondents. Interviews allow people to convey to others a situation from their own perspective and in their own words (Kvale, 1996). The purpose of the semi-structured interviews for lecturers was to find out initiatives their colleges were implementing in preparing trainee teachers to handle gifted learners. Semi-structured Interviews for trainee teachers and qualified teachers were to elicit their opinions, perceptions and experiences about handling of gifted learners. Face-to-face interviews on a one-to-one basis with lecturers were conducted at their respective colleges, all of whom were involved in one-hour interview sessions during their free periods until all questions were exhausted. The responses were audio-taped and transcribed by the researcher in order to guard against loss of important information.

Lassig (2003) argues that if positive attitudes towards giftedness are developed by teachers it is more likely that they will be supportive of gifted education and effective in identifying and catering for gifted learners. The researcher presumed that qualified teachers had experience in handling gifted learners and mentoring trainee teachers on teaching practice to handle them. A semi-structured face-to-face interview was conducted with each participant separately for 45 minutes after working hours. The purpose was to establish how the teachers and the trainee teachers they mentored handled gifted learners in their schools.

Trainee teachers receive theoretical knowledge presented to them at college, constructing meanings and understandings which they should put into practice to handle gifted learners during teaching practise as they reflect on and make sense of what they have experienced, and thereby create new knowledge. The trainee teachers were involved in semi-structured interviews in order to ascertain their training on and experience in handling gifted learners during teaching practise. The 45-minute interviews sessions were carried out during off-session time, which enabled them to express themselves freely and at length, and provide in-depth information about their experiences and perspectives.

This research study was based on the phenomenological design, used when searching for in-depth descriptions of lived experiential meanings as they are lived, (Wilding & Whiteford, 2005). As such, phenomenological semi-structured interviews were used to understand the experiences and perspectives of the participants on the research topic. The interviews were flexible and allowed free interaction between the researcher and the participants, and enabled the researcher to probe for clarification and greater detail on their responses.

3.6.2 Observations

When investigating a phenomenon that is directly observed, observational techniques are suitable for collecting qualitative data (Nachmias & Nachmias, 1989). The observations that were carried out were intended to find out whether the trainee teachers were being sufficiently equipped with the necessary skills to handle gifted learners. The teacher training and teaching practice programme they were following required that trainee teachers take a number of lessons in different subjects each day to enable them to develop a variety of techniques to handle

different categories of the learners. Besides this, it is during teaching practice that they are expected to apply the theory they would have acquired on handling gifted learners. To make sure that enough data were gathered at this stage, the researcher carried out five (5) thirty minute lesson observations for each of the two selected trainee teachers who were still on teaching practice over a period of one week. The researcher recorded proceedings manually by making notes on what was going on during the lessons in relation to the handling of gifted learners.

3.6.3 Focus group discussions

According to Kitzinger (2005, p. 1):

Focus groups are group discussions organised to explore a particular set of issues. The group is focused in the sense that it involves some kind of collective activity, such as debating a particular set of questions, reflecting on common experiences or examining a single health education campaign.

Nichols (1991) suggests that when one chooses to use focus groups the members of the group should comprise participants who share similar backgrounds and experiences in order to rule out any confounding variables. The group of trainee teachers who were selected came from the same cohort.

As noted by Cargan (2007, p. 110) focus group discussions, "... are an efficient and economical way to collect data from several people at the same time". The flexibility of group dynamics encourages participation and one person's comments may stimulate ideas in others. Based on these views, the researcher used two separate focus group discussion sessions with trainee teachers from two primary schools used in the research study. They allowed the researcher to listen and capture the participants' teaching practice experiences and perspectives on the issue of the handling of gifted learners. The proceedings were moderated by the researcher and these were tape recorded which were later on transcribed.

Working in a group situation requires considerable management in order to control power struggles and to encourage participation so that the biased, extreme views of a few will not dominate the proceedings (Cargan, 2007). The focus group discussions were held in two separate groups, each with eight members in the boardroom, allowing for some privacy from the rest of the student body. From

each group the members selected a chairperson to lead the discussions, the researcher's function being to trigger the discussion through prepared discussion questions. Data was recorded manually by taking notes of responses that were relevant in addressing the research questions.

3.7 DATA ANALYSIS

Data analysis is the process that enables the researcher to make sense of the data by consolidating, reducing and interpreting what research would have said and what the researcher would have observed and recorded (Merriam, 2009). A thorough analysis of research data would bring a clear understanding of the issues arising from these data. According to Nienaber (2008), during this process, data are inspected to determine relationship among constructs, concepts or variables. Accordingly, the major objective in analysing qualitative research data is to identify any clear patterns, trends or themes in the collected data.

The process of analysing the data that were gathered for the purpose of this study was approached from the point of view of the steps and procedures for phenomenological data analysis suggested by Cooper, Fleischer & Cotton, (2012), Van Manen (1990), Moustakas (1994) & Henning (2004). As observed by Marshall & Rossman, (2006), the use of a specific theoretical framework in conducting a research project will allow for the generation and analysis of data which can answer stated research questions.

The most crucial activity in analysing research data is that of coding or organising related segments of data into thematic categories (Henning, 2004). Moustakas (1994, p. 120-121) points out that the process of transforming initial or raw qualitative research data into themes does not involve a single step but the following several specific procedures:

- Listing and preliminary grouping (horizontalization)
- Reduction and elimination
- Clustering and thematising the invariant constituency
- Final identification of the invariant constituency and themes
- Individual textual description
- Individual structural description

- Textual-structural description
- Composite description.

McMillan & Schumacher (2001) emphasise that the final analysis will have to reflect the participants' real perceptions and must lead into a meaningful descriptive synthesis of themes or a theory.

The verbatim accounts of the interviews were transcribed, different categories relating to the research topic formed and information from interviews, observation and focus groups analysed according to themes. The aim of data analysis is to yield significant and valid answers to the research question. Units of meaning were then identified relating to teacher education initiatives undertaken by Teachers Colleges in preparing trainee teachers to handle gifted learners in primary schools in Zimbabwe. Data was transcribed by the researcher through making a text from taped interviews and typing them as word processing documents. The researcher started by reading all the data and then dividing it into smaller meaningful units. Data segments or units were organised into a system derived from the data and comparisons were used to build and refine categories which were then modified. The researcher followed the steps below in the analysis of data:

- Data is read by the researcher, large bodies of text are broken down into smaller meaningful units in the form of sentences or individual words.
- The researcher peruses the whole data several times repeatedly to get a sense of what the data is saying, while writing on the borders for possible groupings.
- Possible groupings are identified and then each piece of data is categorised accordingly.
- At the end the researcher integrates and summarises the data (Creswell 2002).

The above insights were quite helpful in the analysis of the data collected for the purpose of this study. They were used to identify themes and related patterns emerging from the participants' responses to the research instruments used and the observations made by the researcher. The identified themes and patterns were classified in accordance to the guiding research questions. The overarching

question was on the initiatives being undertaken by Zimbabwean teachers colleges to prepare trainee teachers in handling primary school gifted learners. The other two sub-questions were about the usefulness of current teacher education programmes in preparing trainee teachers for the handling of gifted learners and what strategies could be used to enhance the quality of the these training programmes respectively.

At each and every stage of the data analysis process the researcher was also guided by the Interactive Model of qualitative data analysis suggested by Miles & Huberman (1994). The said model is illustrated in the figure below:

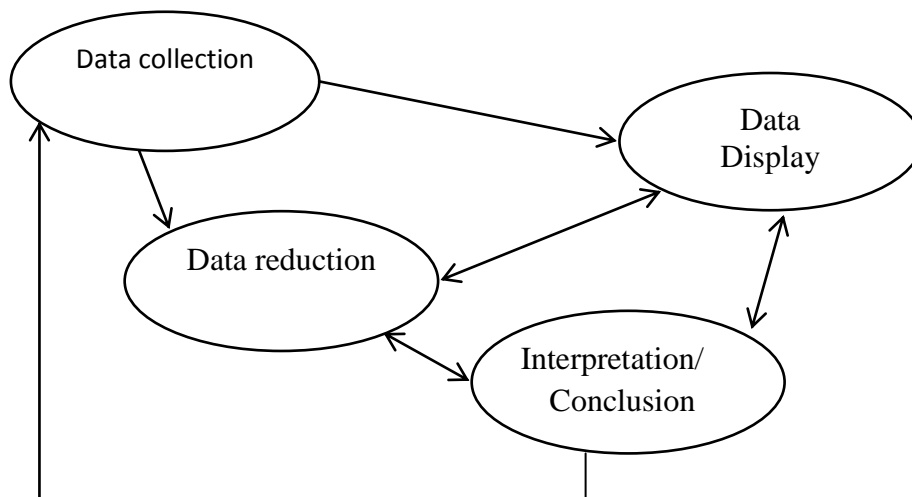


Figure 3.1. Miles & Huberman's qualitative model

In terms of Miles & Huberman's model, qualitative data analysis consists of three concurrent flows of activities namely, data reduction, data display and interpretation or conclusion drawing. The three activities are interwoven before, during and after data collection and preparation (Gerber, 2006).

The principles of this model were of great use to the researcher in making decisions about how to establish interconnections among the themes that were identified for the final analysis of the gathered research data.

In order to ensure that the entire research project is credible, at all stages, attention was paid to the issue of trustworthiness in qualitative research.

3.8 TRUSTWORTHINESS OF QUALITATIVE RESEARCH RESULTS

Social constructivists and many other interpretive research theorists have generated new language and concepts that best capture the way the issues of rigour and quality are addressed in qualitative research (Patton, 2015). To that end, the concept of trustworthiness has emerged as the most important and overarching idea.

Generally speaking the idea of trustworthiness can be taken as an analogue of the concept of 'rigour' in traditional research pathways (Patton, 2015). As explained by Creswell (2009), trustworthiness is about making sure that research findings are accurate and detailed as seen from the stand point of the researcher himself or herself, the participants and the readers.

In order to achieve the demands of trustworthiness in this study, the researcher made sure that she was balanced and fair in handling all the research tasks that were carried out as well as taking into account all the multiple ontological perspectives of the participants. The gathered data were also read over and over in order to ascertain whether the captured constructs, explanations, categories and interpretations that were generated were making sense and really reflecting the nature of the phenomenon that was being studied.

The process of achieving research trustworthiness also requires one to employ the principles of credibility, transferability, dependability, conformability and authenticity (Marshall & Rossman, 2006, Trochim, 2006)

3.8.1 Credibility

According to Yin (2003), the term 'credibility' refers to the accurate identification and description of the phenomenon under study. It involves a determination of whether the results of qualitative research are believable from the point of view of the participants in the research process being carried out (Trochim, 2006). In this research study, credibility was addressed through employing the different data collection methods namely observation, focus group discussion and interviews. Triangulation was achieved through the different methods, participants and sites. By using different methods the aim was to compensate for the individual limitations and to exploit their respective strengths (Shenton, 2004).

3.8.2 Transferability

In qualitative research the concept of transferability refers to the degree to which the results can be generalised or transferred to other contexts or settings that may be problematic (Marshall & Rossman, 2001, Dooley, 2002). It is achieved by providing thick descriptions to readers on research contexts, processes, participants and researcher participant relationships. In this study the aspect of transferability was taken care of by way of providing detailed descriptions of the research delimitation, participants, data collection methods and research results. That way the researcher was confident that the ultimate research findings could be applied to other similar contexts and situations in Zimbabwe and beyond.

3.8.3 Dependability

According to Trochim (2006), 'dependability' refers to the ability of a research study to account for the ever-changing context within which the research occurs. The core issue is "the way in which a study is conducted should be consistent across time, researchers, and analysis techniques" (Gasson, 2004:94). To accomplish dependability, the researcher used overlapping methods to collect data, namely observation, focus group discussion and interviews.

3.8.4 Conformability

"Conformability means that the data and the interpretation are not figments of the researcher's imagination" (Mertens, 2005:257), and addresses the issue that "findings should represent, as far as is (humanly) possible, the situation being researched rather than the beliefs, pet theories, or biases of the researcher" (Gasson, 2004:93). In order to verify conformability, one can easily track the qualitative data back to its original source from participants' responses, in this study to interview questions, focus group discussions and observations recorded verbatim.

3.8.5 Authenticity

For a research to be authentic it should involve appropriate strategies that truly report the participants' ideas (Daymon & Holloway, 2010). For Mahlo (2011:99), authenticity "refers to the true descriptions of people, events and places." The data

collection strategies used in the research study was carefully chosen in such a way that the actual perceptions and experiences of the participants could be revealed. In order to accomplish authenticity, the researcher presented participants' responses to interview questions and focus group discussions verbatim. The quality and amount of data that were gathered clearly demonstrated that the employed strategies yielded the intended results. The data gathering strategies that were used created a context in which the participants could freely air their views and opinions with regards to the issues that were under consideration.

3.9 ETHICS IN RESEARCH

According to the Economic and Social Research Council (2005:7), research ethics are "the moral principles guiding research, from its inception through to completion and publication of results and beyond." This refers to the norms of conduct of the researcher with the participants. The following ethical considerations were abided by throughout the research process:

- The researcher was granted permission by both the Ministry of Higher and Tertiary Education to work with lecturers and trainee teachers in colleges and Ministry of Sports, Arts and Culture to enter primary schools and work with qualified teachers and trainee teachers.
- Participants in the research study voluntarily took part and had freedom of withdrawal at any time without recrimination.
- Throughout the research data collection process, care was taken to ensure that confidentiality and privacy of participants were upheld. The participants were reassured that the data collected was going to be used for research purposes only.
- In order to protect the participants' privacy the researcher avoided identifying them by names but instead used name codes such as Lecturer A, Mentor B, Focus group B and Trainee Teacher A.
- The researcher obtained consent of the participants to take part in the research through a written agreement.

- The researcher observed the norm of professional conduct by assuming equal status with participants during the research while conducting observation, focus group discussions and interviews.
- The researcher obtained written permission from the Ministry of Primary and Secondary Education to visit the participating schools.

3.10 CONCLUSION

This chapter has discussed the research methodology to clarify the reasons the qualitative research design was deemed the most appropriate approach in executing all the research processes involved. It was highlighted that the main intention of carrying out this study was to gain an in-depth, synthetic and holistic understanding of the preparation of trainee teachers in handling gifted learners. To achieve this, the qualitative research alternative would be the most suitable approach indeed. In order to place the whole research effort into its proper perspective, reference was also made to certain philosophical categories.

The next chapter will deal with data presentation, interpretation, analysis and discussion of research findings.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF THE FINDINGS

4.1. INTRODUCTION

The research study poses a number of questions in relation to teacher education initiatives undertaken by teachers Colleges in preparing trainee teachers for the teaching and learning of the gifted child in Zimbabwe. The data presented answers the main research question as well as the sub-questions that guided the study. Data was collected from observations of classroom teaching by trainee teachers, interviews with college lecturers, trained primary school teachers (mentors) and trainee teacher and focus group discussions with trainee teachers.

The observation method was intended to find out whether the trainee teachers were being adequately prepared to handle gifted learners. Interviews carried out were a way of soliciting more information on how teachers colleges were preparing trainee teachers to handle gifted learners, also the level of awareness mentors had of the need to afford them special attention. Trainee teachers were also interviewed as part of a follow-up to what had been observed during observation class visits. Focus group discussions with trainee teachers who had completed five school-calendar terms of teaching practice were based on their perceptions about gifted education as it relates to gifted learners in the classes they taught. The area covered provision of services in the general education classes during their teaching practice attachment. During the discussions the researcher recorded notes on issues raised and the general conversation. The presentation of data was followed by a brief analysis by the researcher.

4.2. DATA ANALYSIS METHOD

Research has revealed that qualitative data analysis method ensues throughout the data collection process while the researcher reveals frequently on impressions, relationships and connections. Qualitative data analysis is an inductive process of organising data into categories and identifies patterns amongst them (McMillan &Schumacher 2001). The verbatim accounts of the interviews were transcribed, different categories relating to the research topic formed and information from interviews, observation and focus groups analysed

according to themes. The aim of data analysis is to yield significant and valid answers to the research question. Units of meaning were then identified relating to teacher education initiatives undertaken by Teachers Colleges in preparing trainee teachers to handle gifted learners in primary schools in Zimbabwe. Data was transcribed by the researcher through making a text from taped interviews and typing them as word processing documents. The researcher started by reading all the data and then dividing it into smaller meaningful units. Data segments or units were organised into a system derived from the data and comparisons were used to build and refine categories which were then modified. The researcher followed the steps below in the analysis of data:

- Data is read by the researcher, large bodies of text are broken down into smaller meaningful units in the form of sentences or individual words.
- The researcher peruses the whole data several times repeatedly to get a sense of what the data is saying, while writing on the borders for possible groupings.
- Possible groupings are identified and then each piece of data is categorised accordingly.
- At the end the researcher integrates and summarises the data (Creswell 2002)

The researcher attempted to gain a deeper understanding of teacher education initiatives undertaken by Teachers Colleges in preparing trainee teachers to handle gifted learners in primary schools in Zimbabwe. Profiles and information pertaining to lecturers, trainee teachers and members of the focus groups are discussed in the next section.

Table 4.1. PROFILES OF LECTURERS

Lecturer	Qualifications	Work experience
Lecturer from college A	Masters in Education (Med), Bachelors Degree in Education (B Ed) and Diploma in Education (Dip Ed).	5 years
Lecturer 1 from college B	B Ed and Dip Ed	6 years
Lecturer 2 from college B	M. Ed., B. Ed and Dip. Ed.	3 years

Lecturer from college A was 51 years old during the time of study, presently teaching Professional Studies Syllabus A at college A. He is a holder of a Master of Education degree in Educational Administration, a Bachelor of Education degree in Educational Administration and a Diploma in Education (Primary). At the time of the study he had five (5) years of lecturing experience.

Lecturer 1 from college B was 39 years old at the time of the study and lecturing in Professional Studies Syllabus A. He has a Bachelor of Education degree (Primary) and a Diploma in Education (Primary). By then he had six (6) years lecturing experience.

Lecturer 2 from college B was 45 years old when the study was carried out. He holds a Masters of Education in Curriculum Studies, a Bachelor of Education degree (Primary) and a Diploma in Education (Primary). At the time of the study he had three (3) years' experience as a lecturer in Professional Studies Syllabus A.

TABLE 4.2. INFORMATION OF TRAINEE TEACHERS

Trainee Teacher	Background	Teaching Practice Experience
A	Post Ordinary Entry Level	One (1) year
B	Post Ordinary Entry Level	One (1) year

Trainee Teacher A was 26 years old during the time of study. His place of residence was four (4) kilometres from his teaching practice school and three and half (3.5) kilometres from the college. Trainee Teacher B twenty three (23) years old at the time of the study. He resided at the college campus during his teaching practice which is two hundred metres away from the school where he was practising.

4.3. INFORMATION OF FOCUS GROUP INTERVIEW MEMBERS

There were two focus groups that is Trainee Focus Group number 1 (TTFG1) and Trainee Focus Group number 2 (TTFG2). Information about focus group interview members was attained during the interview session. Trainee teachers who had completed teaching practice were asked in the first ten minutes before the interview to tell the researcher briefly about themselves and their teaching practice experience and their responses were written down as field notes. Trainee teachers who participated in focus group number 1 were identified as TTFG1 and those from focus group number 2 as TTFG2. Their identities were only known by the researcher.

Trainee Teacher number 1 from focus group number 1 was 35 years old during the time of the study. She was in her final year and had already completed her teaching practice. She enjoyed teaching primary school learners but she mentioned how she became frustrated when handling gifted learners because no course at the college prepared her in handling such learners. She wished the programme could be designed in teaching trainee teachers how to handle gifted learners in real classrooms.

Trainee Teacher number 2 from focus group 1 was 22 years old during the time of the study. She was in the final year of the programme having completed her teaching practice. She reflected on how gifted learners were treated by teachers when she was still at primary school. She said sometimes gifted learners were the teacher's pet and they could get away with murder on the other hand she mentioned that those kind of learners used to frustrate the teachers as the teachers that time did not know how to handle them. They finish tasks quickly and start to disturb other learners. She alluded to the fact that if teacher programmes taught trainee teachers how to handle learners with different abilities it would help.

Trainee Teacher number 3 from focus group number 1 was 30 years old during the time of the study and she had also completed her teaching practice. She once taught as an unqualified teacher before coming to college she was amazed on how gifted learners responded to all the questions she asked and sometimes they asked the teacher difficult questions that she was unable to answer. She became frustrated as she did not know what to do with those learners during that time. She mentioned that after joining college, although lecturers taught them about different learners that they were going to find in classes, they did not tell them how to handle such learners. She then took the initiative of looking it up on the internet so that next time she would know how to handle them.

Trainee teacher number 4 from focus group number 1 was 40 years old during the time of the study and had completed teaching practice. Before coming to college he mentioned that he had once taught for ten years as an unqualified teacher. During that period he never came across situations in which there was a discussion about gifted learners. While at college before going for teaching practice he felt he had not been fully exposed to knowledge about handling of gifted learners.

Trainee teacher number 5 from focus group 1 was 24 years old and had completed teaching practice. Prior to joining college he had been a vendor selling different wares in his rural area. He indicated that his rural background could have been a disadvantage in that during much of his primary education he had been taught by unqualified teachers who could not properly handle gifted learners. He pointed out that trainee teachers like him needed a lot of assistance in handling gifted learners.

Trainee teacher number 1 from focus group 2 was 26 years old and had also completed teaching practice. Judging by his Ordinary level results and the fact that he was always at the top of his class, he felt that he was one of the gifted learners who was not given any form of help by all his teachers. Furthermore he felt that colleges were not doing enough in preparing trainee teachers to handle gifted learners.

Trainee teacher number 2 from focus group 2 was 29 years old and had completed his teaching practice and was back in college for the final year. He had once worked as an unqualified teacher during which he found out that in most schools where he had taught there was more focus on the learners with academic barriers than the gifted ones. When he joined teacher training, his expectation was that there was going to be enough coverage of issues related to the handling of gifted learners but that was not the case.

Trainee teacher number 3 from focus group 2 was 31 years old and had completed teaching practice. Formerly she had worked as a bursar at a government high school. She acknowledged that there are gifted learners in our schools and that at the present moment these are not given enough attention by the teachers. She was also of the opinion that teachers colleges are better placed to equip teachers with required skills and techniques to handle gifted learners.

Trainee teacher number 4 from focus group 2 was 20 years old at the time of this study and she had completed teaching practice. She said during her school days she never heard of anything to do with gifted learners but remembered that there was talk of remediation of learners with academic barriers to learning. Her observation on the present college curriculum was that trainee teachers are not adequately prepared to handle gifted learners before they go on teaching practice.

Trainee teacher number 5 from focus group number 2 was 45 years old and was a retired police man. He was in his final year having completed teaching practice. He appreciated that there were gifted children in schools but there were no programmes in place to guide them. He also felt that the college had not equipped them with knowledge and skills to handle gifted learners before going on teaching practice.

4.4. INFORMATION ON MENTORS

Three mentors were involved in the study that was carried out.

Mentor 1 was female and 54 years old during the time of the study. She was a qualified primary school teacher starting her teaching career in the late 80's. When she was trained as a teacher, she was never taught how to handle gifted learners but as she went to school to teach she realised that there were different learning styles and the learners learn well when they are taught appropriately. When mentoring trainee teachers who came to her school for teaching practice she realised that the students did not have the knowledge and the skills to teach diverse learners. In her mentoring capacity she tries to empower trainee teachers on how to handle such learners.

Mentor 2 who was also female was 48 years old during the time of the study. She had been a primary school teacher for 25 years. She said that during her training nothing on gifted education was covered. However, through the years she has been a teacher she came to realise that gifted children were not given more challenging work as would have been expected. Out of interest she had read around the area of gifted education and noted that gifted learners were being disadvantaged by the current education system in Zimbabwe. In addition she indicated that she was willing to learn more in order to be in a position to assist trainee teachers in handling gifted learners.

Mentor 3 who was female again was 45 years old during the time the study was carried out. She had 15 years teaching experience at junior school level. She mentioned that at the school where she was teaching, they were practising ability grouping. Although ability grouping was being used, the content taught was the same for the streams. She admitted that what could have been the rightful thing to do was to give different content according to the children's abilities.

Table 4.3: A breakdown of the participants from which the qualitative data was collected. The study collected data from a sample 25 participants.

Table 4.3: List of participants involved in the research study

Group	Category	Number	Code	Data Collection Method
Lecturers	Primary Teachers College A	1	Lecturer from College (LA) A	Interviews
Lecturers	Primary Teachers College B	2	Lecturer from College (LB) B	Interviews
Trained Teachers	Primary School	3	Mentors	Interviews
Trainee Teachers Focus Group	Primary teaching	16	Trainee Teacher Focus Group (TTFG)	Focus group discussions
Trainee Teachers Individual	Primary teaching	2	Trainee Teacher Individual (TTI)	Interviews and Lesson observation

4.5 PRESENTATION OF THE FINDINGS

The collected data addressed the main research question, “ What are Teacher Education Initiatives undertaken by Teachers Colleges to prepare trainee teachers in handling gifted learners in primary schools in Zimbabwe?”. Qualitative methods of collecting data were used in order to answer the main research question, the main respondents were lecturers at teachers training colleges and the following methods were used, one to one interviews and focus group interviews. Additional information was obtained through observation where possible. The results and analysis of data are presented and discussed according to the themes of Teacher Education Initiatives undertaken by Teachers Colleges to prepare trainee teachers in handling gifted learners in primary schools in Zimbabwe. The following themes emerged:

- Inadequacy in preparation of trainee teachers in handling gifted learners
- Empowerment of trainee teachers to handle gifted learners

- Accommodating learning styles of gifted learners
- Support for lecturers in preparing trainee teachers for handling gifted learners

4.6 INADEQUACY IN PREPARATION OF TRAINEE TEACHERS IN HANDLING GIFTED LEARNERS

4.6.1. Introduction

Main Research question was focussing on how trainee teachers were being prepared to handle gifted learners in Zimbabwean primary schools. The following were the responses from different participants.

4.6.2. The quality of training offered to trainee teachers by teachers colleges in Zimbabwe to handle gifted learners

The quality of teacher education depends upon the level of knowledge possessed by the lecturers manning the teacher training institutions. In order to find out how much the lecturers knew about different aspects of gifted education, a number of questions were used to solicit information.

When asked about their understanding of what inclusive education is, only one (1) college lecturer had a broader understanding of what inclusive education is. This is what the lecturer said: “Inclusive education refers to the education system which caters for all children regardless of different factors which may include physical appearance, mental status in the same learning situation”.

The other two (2) lecturers interviewed appeared to have been restricting inclusive education to disabilities and the exclusion of giftedness in learners. For instance lecturer one from college A said that: “In an inclusive class, pupils of different abilities as well as able bodied and those with disabilities learn together.” The other one said that: “In inclusive education, in fact, special education, learners should be given preferential treatment. For example, partially visual impaired could be asked to sit in front nearest to the chalkboard.”

The issue of taking disability as part of inclusivity was also common in all the trainee teachers’ responses. They failed completely to articulate clearly the elements of inclusivity in relation to gifted learners. They had a vague

understanding of inclusive education and this could be an indication that it was a missing element in their training programme. Two of their verbatim responses affirm this observation as indicated below:

Trainee Teacher A “Inclusive education means educating all pupils both with disabilities and able ones who do not have any disabilities”.

Trainee Teacher B: “Inclusive education means also accommodating physically disabled and able-bodied. Special education is also inclusive education that incorporates the mental and physically disabled”.

The results from focus group discussions also show that the generality of the participating trainee teachers linked inclusive education with disabilities rather than giftedness. Participants from both focus group A and B were of the view that inclusive education refers to students with disabilities being included in the normal classroom setting.

Both the interviewed lecturers and trainee teachers exhibited limited knowledge about what inclusive education is. They seemed to confuse it with disability issues. It was expected that lecturers should at least have a better understanding of inclusive education if they were to effectively prepare trainee teachers in dealing with gifted learners.

As part of a follow up to an attempt to find out how much knowledge the lecturers had on inclusive education as it applies to gifted learners, a question on what influence inclusivity and mainstreaming had on gifted education was directed to them during the interview sessions. This information was relevant since it had a bearing on the level of the knowledge the lecturers had to pass on to the trainee teachers during the training process. The question was directed to all the three (3) participating lecturers only. The response by the lecturer from college A clearly showed a deeper understanding of the problems associated with inclusive education. However the lecturer did not outline the influence inclusivity and mainstreaming had on gifted education and this implied that the lecturer had inadequate knowledge on this important knowledge aspect in the training of trainee teachers to handle gifted learners. Part of what he said was that:

“In theory we talk about talented, creative as some of the characteristics of gifted learners as well as how to handle such pupils. While it is emphasised to teacher trainees that one does not teach a class but individuals, the teacher-pupil ratio does not allow for one-to-one monitoring. Teacher trainees are made aware that they should cater for all learners even when preparing the learning/teaching media”.

Lecturer 1 from College B was of the opinion that the gifted learner could be held back because of inclusion, articulating the point that the gifted learner was left alone in preference of the slow and average learner. It was clear that the lecturer concerned had limited understanding of how inclusivity and mainstreaming could have an effect on gifted education. For example the lecturer said: “Inclusion in a mainstream affects the gifted learner in that the rate of the lesson pace has to accommodate all learners, including those with retardation. It should be realised that only one teacher has to attend to all learners and the gifted learners would normally complete the tasks earlier and resort to playing”.

Lecturer 2 from college B saw the gifted learner as being held back by the slow and average learners, indicating that the lecturer was not in favour of inclusion and mainstreaming. By so saying the lecturer displayed limited knowledge on the principles of inclusivity and mainstreaming in relation to gifted education. This kind of a situation reflects some knowledge deficiencies that could negatively affect the quality of training of the trainee teachers to handle gifted learners.

Another question that was posed to the participating lecturers was on what could be lacking in contemporary gifted education as a crucial issue in the 21st century. In response to this issue out of the three (3) lecturers interviewed, two (2) of them seemed not to be knowledgeable about gifted education as they could not specifically itemise issues lacking in gifted education in the 21st century. Lecturer from College A did not address the demands of the question by specifying aspects lacking in gifted education, but instead, he cited lack of adequate time to cover content before trainee teachers go on teaching practice. The respondent felt that some trainee teachers were not well-versed in the use of Internet facilities. This respondent was not very clear on how lack of skills was linked to gifted education. An example he said: “The model of teacher education for primary school teachers

at the moment does not allow adequate time for Professional Studies to cover the content before the trainees go for teaching practice”.

Lecturer 1 from college B talked about why vocational subjects were not being examined at Grade 7 level, which was totally a farfetched response. The response pointed to lack of knowledge of what is currently obtaining in gifted education.

The third lecturer showed knowledge of contemporary critical issues in gifted education. He said that the gifted learner was not being given the same attention as that given to the average and slow learner. The respondent also observed that teachers were not taking advantage of Information and Communication Technologies (ICT) in teaching and learning. Some of the things that he said included what is captured in his verbatim response given below:

“In practice gifted education is not catered for but slow learners are being assisted through remedial work. My observation during teaching practice supervision is that student teachers just give extra work of the same level to the identified gifted learners. Information Communication Technology which the country is putting emphasis on could be quite useful in gifted education but teachers are not able to use it. While the twenty first century has emphasis on ICT as education we are still lagging behind....”

What came out from the lecturers’ responses clearly shows that they were not knowledgeable about gifted education. They could not clearly articulate what could be lacking in gifted education in the 21st century.

The remaining other two interview questions that were directed to the participating lecturers had to do with the knowledge expected of lecturers about preferred cognitive information styles for gifted learners and the role of IQ tests in gifted education. Their responses on these issues are outlined in what follows below.

In response to the question requiring what the lecturers knew about gifted learners’ preferred cognitive information style, none of the three participant lecturers addressed the demands of the question. What was clear was that they were all not sure of what they were saying. The lecturer from College A was honest enough that he had no idea of the gifted learners’ preferred cognitive

learning style. He could only say: “ummm, I have no idea”. Lecturer 1 from College B’s response did not reflect his knowledge of the gifted learners’ preferred cognitive information style although he said it was sequential. He, for example, said that: “. Lecturer 1 from College B’s response did not reflect his knowledge of the gifted learners’ preferred cognitive information style although he said it was sequential”. What lecturer 2 from college B said had nothing to do with what was asked? This is affirmed by the following recorded utterances that were transcribed as follows: “By the virtue of being gifted, these learners are advanced but teachers are not giving them a chance to grow.

Our graduates are coming out not quite refined in some areas. Due to shortage of time, members of the lecturing staff are giving basic skills which are not adequate to defend professional expectations by society. At Diploma of Education level, distance education is not quite working since it is the students’ first time in tertiary education. Most of the time is spent on distance education and that means the theory to be put into practice is inadequate”.

On the question about the Standard IQ tests, the participating lecturers failed to give detailed explanations about the IQ tests thereby showing that they had very limited knowledge about them. The lecturer from College A and lecturer 2 from College B were in agreement that IQ tests can be problematic to use in the Zimbabwean context because they were prepared in different social contexts. The impression created was that there were no IQ tests prepared locally. The following is part of what they said: Lecturer from College A: “IQ tests are not applicable in developing countries because the environment for which they were set is different. We should come up with our own IQ tests. Teachers in schools have no knowledge of these tests and therefore are not contributing to promotion of learning. The teachers are contributing to the destruction of gifted learners` future as they usually ignore them”. Lecturer 2 from College B: “There are problems associated with IQ tests. If one looks at the local situation, the environment resources, styles and conditions are different from those where these tests were set. Due to the different circumstances only the elite can access these tests while the rest have no idea of such tests and that means those with limited resources are disadvantaged”.

Lecturer 1 from College B was of the opinion that the use of IQ tests had a danger of limiting creativity in learners. In a way the response is quite reasonable as IQ tests do not measure multiple intelligences of the learners. When applied to gifted learners they may not give a true picture of their abilities as aspects such as creativity are not accurately measured. For example he said: "IQ tests limit creativity; teachers usually know what is to be examined and will therefore teach for the test. This weakness does not expose gifted children to other critical skills".

Generally speaking the responses from the participant lecturers to the above highlighted critical issues in gifted education reflect lack of the required practitioner knowledge base on the part of lecturers in preparing trainee teachers to handle gifted learners. Their knowledge about the learning styles of both gifted and non-gifted learners appeared to be very limited. They also displayed inadequate understanding of the gifted learner's preferred cognitive information style. Their understanding of the importance of Standardised IQ tests was also very limited.

Bearing in mind that the issue of motivation is central in gifted education, it was deemed necessary to find out whether participant lecturers were factoring it in their proposed initiatives to enhance gifted education. In relation to this, the lecturers were asked how could one accurately assess motivation and maintain it in gifted learners.

Generally, none of the respondents indicated how motivation could be assessed in gifted learners. This may imply that the lecturers were not aware of motivation assessment procedures; hence they might leave out such critical issues in their lecture programmes. All identified ways of maintaining gifted learners' motivation, which included giving learners work outside the classroom, giving feedback on their performance, providing challenging work and engaging them more in their work. These observations may be an indication that the knowledge of the lecturers was based on individual differences rather than on gifted learners. The responses were rather general than specific to gifted learners. The verbatim responses given below clearly indicate the actual respondent lecturers' line of thinking in respect to the stated question:

Lecturer from College A: "It is not easy to keep gifted pupils' motivation alive. In an effort to maintain motivation one has to come up with activities outside the

classroom. While giving homework may be a good idea, supervision usually is a challenge to most parents and guardians”.

Lecturer 1 from College B: “Gifted learners are motivated by their performance and constantly giving pupils’ feedback on their performance creates a situation that compels them to want to do more and even better”.

Lecturer 2 from College B: “In Zimbabwe, IQ tests are not being administered to identify gifted learners but all the same gifted learners are picked through given exercises and tests. Motivation is usually observed after giving feedback from tests or challenging work. Gifted learners get motivated when they realise success. Learners should be given work which gradually increases in hierarchy of difficulty. Teachers have to provide learning resources, give problems that develop interest and that work should be slightly different from what has been taught. If work is not varied it becomes monotonous and the learners become less interested and thereby becoming demotivated. It is necessary that the teacher talks less and engages learners more in their work”.

The responses from all the lecturers showed that they were not clear on how motivation can be assessed and maintained in gifted learners. What this means is that all their proposed initiatives may run the risk of not being much effective. The issue of motivation has to be taken seriously in whatever initiatives that can be thought about in enhancing gifted education.

When asked about what they saw as the most important social and emotional concerns of gifted learners which trainee teachers need to be aware of, all the participant lecturers seemed to have had limited knowledge about the social and emotional characteristics of gifted learners. They did not specify examples of such characteristics of which the trainee teacher needed to be aware. Part of the verbatim responses from the participating lecturers to this question were:

Lecturer from College A: Gifted children normally want attention and usually want to contribute during lessons. Lack of attention by the teacher would lead to withdrawal.

Lecturer 1 from College B: Most gifted learners are extroverts, they are not afraid of any situation, they can interact with visitors or strangers and only a few are of

reserved character.

Lecturer 2 from College B: There is need for student teachers to focus on the social background so that they find ways of best utilising that knowledge, e.g., where there is a realisation of a poor background then the student has to assist and if the learner is from an elite class then there is need to maximise by encouraging the use of electronic media.

As indicated in the contents of the cited verbatim responses the lecturer from college A observed that:

Lecturer from College A indicated that gifted learners wanted attention from the teacher and usually contributed in class, while Lecturer 1 from College B suggested that gifted learners were extroverts who were not afraid of any situation. Lecturer 2 from College B was not specific on the areas of concern, but just indicated that trainee teachers needed to be aware of the learners' social background. Lecturer from College A and lecturer 1 from College B highlighted important social and emotional characteristics of the gifted learners of which the trainee teacher needed to be aware. From the responses given, the knowledge on social and emotional concerns by lecturers was limited. This could be as a result of gifted education being rarely discussed, indicating its absence on the teacher training programme. The trainee teacher needed to recognise the gifted learners and their interactive styles in order to handle and facilitate their learning. The knowledge of the social background of the gifted learner was also important, as suggested by Lecturer 2 from College B. This would lead the trainee teacher to design learning activities that would engage the gifted learner in meaningful learning.

Having interviewed lecturers, it was felt that it was necessary to also engage both qualified and trainee teachers since they were the ones on the ground. It was these participants who were now putting into practice what they had learnt from the teachers colleges. The information they would supply could provide an authentic indication of how adequate the current teacher training programmes were in preparing trainee teachers to handle gifted learners.

When asked how the training they had received had prepared them to meet the needs of gifted learners the participant qualified teachers (mentors) indicated that

when they went to college the issue of handling gifted learners was not part of the curriculum, it having apparently been taken for granted that the treatment of individual differences in general would enable trainee teachers to do so. Mentor A indicated that, during her training, gifted education was only covered in theory, specifically identification of gifted learners. Part of what they said is contained in the following verbatim responses:

Mentor A: “I remember covering topics on gifted learners during my training, such as identification, but that was just in theory. Nothing was done in practice on how to handle such learners, neither in micro-teaching nor during teaching practice. However, in schools, during lessons gifted learners should be catered for. One would wish such a programme was there, but the primary school time table is crowded with subjects such that if one wanted to attend to individual learners, then they would not be able to cover the subjects per given day and let alone cover the syllabi”.

Mentor B: “During my training emphasis was on individual differences and at no time was there mention of gifted learners. I suppose it was presumed that they were included when discussing individual differences. In theory, individual differences was dealt with quite extensively, but while on teaching practice, no emphasis by both the host school and teacher educators was placed on the handling of gifted learners. The training emphasised provision of remedial work to slow learners and extension work to fast learners”.

Mentor C: “During our training the common term used was fast learners and their needs were covered under individual differences which were covered in both Theory of Education and Professional Studies Syllabuses. That was covered during theory lectures while we were still at college”. As for the trainee teachers they said that they had covered only topics on individual differences but nothing on gifted education. Of the two trainee teachers that were interviewed, part of trainee teacher A said is that: “During Psychology of Education there were lectures that covered individual differences and particularly slow learners were to be given remedial work and fast learners given extra work. I am not sure of needs of gifted learners because that was not covered in lectures”. In a more or less similar way trainee teacher B said: “In the first residential session I got training in Psychology on individual differences and I feel that prepared me to meet needs of gifted

learners such as how to motivate them by giving good comments because they improve their morale”.

This was affirmed by what was observed during one lesson, the trainee teacher was busy teaching and the learners started giggling and when she asked the learners what was funny, they responded that one of the learners was dancing, and that was one of the gifted learners. When asked why he was dancing, he said he was dancing because the topic that the teacher was teaching was done by another teacher long time ago and he knew all the answers.

Most of the focus group members agreed that, when the topic is not interesting and the teachers are not using interesting teaching aids then the learners become bored and start disturbing the other learners. Supporting the same sentiments, one mentor said: “a good teacher plans lessons that are interesting and captures the imagination of the learners, that way the learners will not have time to play or make jokes in the classroom, which will force even gifted learners to pay attention”. When analysing statements, one can conclude that, if the teachers are not prepared to teach learners with diverse needs, it will be difficult for them to manage a class that is having those kinds of learners. The importance of infusing inclusive education in the teacher education programmes in Zimbabwe cannot be overemphasized, as it will assist teachers in handling a diversity of learners in their classrooms that includes gifted children.

There was also need to check if the participating mentors and trainee teachers had some skills of identifying gifted learners or not. The findings would provide a much broader conceptualisation of the quality of service delivery in the current teacher training programmes in relation to the handling of gifted learners. On this aspect, during the interviews and focus group discussions, both the mentors and trainee teachers displayed limited knowledge of how gifted learners could be identified.

The three mentors who were interviewed thought that gifted learners could simply be identified through their outstanding performance and fastness in completing classroom work. This is clearly reflected in some of their verbatim responses as given below:

Mentor A: Gifted learners are identified through indiscipline and they would do their work very easily. As a school there is no policy of identifying gifted learners. In individual classes, different teachers identify fast learners who normally display outstanding performance as a matter of interest and not policy. Such learners are always asking questions and teachers resent them because at times they feel these learners are testing them or they believe they would be challenging them.

Mentor B: The fast learners are easy to identify as they usually complete any assigned task earlier than other pupils. Their problem is that, when they have nothing to do they disturb others and therefore, it is necessary to keep them occupied. My school has no policy for identifying fast learners.

Mentor C: My school practises streaming of learners according to ability. End-of-year tests are used to group the learners according to how they would have performed. The groupings are arrived at by adding scores from various subjects and those learners with high scores are placed in the best streams and poor performers occupy the last streams. It should be noted that the pupils may not maintain the same classes because at the end of every academic year, written tests are used to determine which class the learner will be in the following year.

The responses from trainee teacher interviews and focus group discussions revealed that gifted learners could be identified through their high performance, active participation in class and willingness to work. Some of the ideas they talked about are that: Trainee Teacher A: Ways of identifying gifted learners is that they actively participate in class, they usually answer all questions correctly, and they are good speakers and most of the times speak quite fluently.

Trainee Teacher B: A gifted learner is seen by excellent performance in work given, good responses even in oral exercises, the character portrays a liking for school work.

Focus Group A: Gifted learners can be identified by high scores, high participation in class and their willingness to work on their own.

Focus Group B: We think that IQ scores could be used although we are not sure how to use them in identifying gifted pupils.

The lack of knowledge of how gifted learners can be identified displayed by both the mentors and trainee teachers here shows that current teacher training programmes in Zimbabwe do not adequately prepare classroom teachers to handle gifted learners.

When both mentors and trainee teachers were asked how they were handling gifted learners who have discipline problems, all the respondents seemed to have had some idea of how to handle gifted learners who have discipline problems. What appeared to be controversial in their different contributions is the view that gifted learners always have discipline problems. The respondents also pointed out that the reason why gifted learners can end up in engaging in wayward way is that they were not given challenging work. The respondents went on to suggest preventive and corrective disciplinary measures which could be taken in handling the gifted learners. Such measures could include provision of challenging work, assigning responsibilities and counselling. What they exactly said included the following:

“Mentor A: A gifted child who has discipline problems requires a lot of challenging work that makes the child think. There is need to involve such a learner in project work such as Science to produce models, for example, model Blair toilets. For language development the learner(s) can be given library books and be asked to read stories and then retell them”.

“Mentor B: The gifted learner who has discipline problems should be given some class responsibility such as a class monitor. The fact that the learner has to monitor indiscipline of others would deter indiscipline behaviour”.

“Mentor C: The gifted learner who has discipline problems needs to be counselled. During counselling the child is told that bad behaviour normally leads to poor performance in class and in that way it may improve the child’s behaviour”.

“Trainee Teacher A: A child who seems gifted but has discipline problems can be given responsibilities such as making him/her a group leader or a class monitor”.

“Trainee Teacher B: The child needs to be counselled and should be shown ideal and acceptable behaviour. During counselling the child would have to be shown

that indiscipline behaviour if not stopped would negatively affect their school work”.

“Focus Group A: Such a pupil has to be assigned some task of responsibility”.

“Focus Group B: The pupil could also help slow learners or could be asked to skip grades if work appears to be simple for the child”.

It was observed that trainee teachers did not know how to handle gifted learners when three of them during three different lessons dismissed gifted learners' questions one learner asked the teacher a very sensitive question, “Teacher, where do babies come from?” Instead of answering the question the trainee teacher said “That is a topic for another day”. The second trainee teacher was asked “Where does God stay?” the teacher said that is a very interesting question, and the response was never given. On the third incidence, the trainee teacher was disabled and on a wheelchair, the learner asked “What will happen if the class that you are teaching is on the second floor, how will you go to that class and teach learners?” the trainee teacher was very touched because he did not like talking about his disability especially with young people because a horrible car crash caused him to be disabled, the researcher could see that the trainee teacher was not comfortable to talk about his disability and he was frustrated by the type of questions that the learner was asking. It was when the researcher responded after a two minute of silence that the trainee teacher became comfortable, the researcher responded by saying “ as human beings , we are not the same, we have unique qualities that defines us, but we need to accept the differences that exist in us and respect each other”. This clearly shows that teacher trainees need to be prepared to be ready to handle any situation that could be found in schools, they need to realise that learners are inquisitive and they would ask any question they want, those are the type of gifted learners who are inquisitive and ask a lot of questions and therefore trainee teachers need to be prepared thoroughly for those kind of realities. Teachers colleges are well positioned to prepare teachers to handle those kinds of learners because teachers must not think those learners are not disciplined and just want to disturb the lesson.

The captured responses indicate that the participant qualified and trainee teachers had some knowledge on how to handle gifted learners. However they seemed to

be mistaken on their view that gifted learners always have discipline problems. It is not always the case that gifted learners have discipline problems. Their suggestion on how to curb indiscipline among gifted learners can be quite useful in managing contemporary inclusive classes.

In response to a question on how school conditions could be improved to meet the needs of the gifted learner both mentors and trainee teachers appeared to be lacking knowledge of how school conditions could be improved. It appeared that the issue of gifted learners may not have been addressed by the past and present teacher education programmes.

Mentors A and B did not respond to the question, suggesting that they had no knowledge of the needs of gifted learners. Mentor C said that the school had no policy for gifted learners and that trainee teachers were giving extension work at times only as a way of satisfying college requirements. This implied that qualified teachers did not guide trainee teachers in handling gifted learners most probably due to lack of knowledge in handling gifted learners. It is apparent that no mentors had received training in handling gifted learners during their pre-service training. Mentor C went on to suggest that there was need for colleges and mentors to hold workshops on how trainee teachers would be guided in this regard. The mentors focussed on the trainee teacher rather than responding to the needs of the question and did not clarify how workshops would improve the school conditions to meet the needs of gifted learners.

Trainee Teacher A's view was that school administration needed to continuously monitor activities of gifted learners. The response was short of the specific activities and actions to be monitored. Trainee Teacher B was of the opinion that gifted learners be separated so that the teacher would prepare work suitable for them to proceed at their learning pace. While this is a good idea the implementation may not be practical since more financial resources would be required. The two focus groups advocated allocation of more resources to improve the school environment to meet the needs of gifted learners, but did not indicate how. Focus Group A's support for a deliberate effort by the school to pay attention to gifted learners is an indication that these learners did not receive due recognition. On the whole, responses from all the participants reflect that the school conditions were not favourable to gifted learners.

Of the three mentors who were interviewed, only one responded to the question. This kind of scenario could be an indication that the schools where they were operating had no policies on gifted education. The responses are provided below:

Mentor A: [No response]

Mentor B: [No response]

Mentor C: My school does nothing for gifted children. Since there is no school policy you find that trainee teachers just give extension, work at times very late in the day so that lecturers see that something is being done. Qualified teachers just sit back and there is no guidance given to student teachers in this area. There is need for a mentor's workshop with colleges so that there is a common understanding that would result in better guidance given to student teachers".

While trainee teachers attempted to respond to the question, they did not particularly address the question as indicated in their responses shown:

Trainee teacher A: "The school would have to continuously follow up activities of gifted pupils and also there would be need for school administration to supervise extension work".

Trainee teacher B: "In a class the pace is determined by the slow learners. Not always do we give extension work where concentration is on slow learner's level".

Focus group A: "It is important that more resources should be allocated and a deliberate effort to ensure the gifted children get the attention that they require".

Focus group B: "We advocate for improved resources including ICT".

The other question that was directed to mentors and trainee teachers was about how teachers could solve underachievement of gifted learners. Both mentors and trainee teachers appeared to have had a misunderstanding of underachievement as they could not give concrete solutions to solve the problem.

Mentor A, in response to the question suggested that underachievement by gifted learners could be caused by teachers' use of unsuitable strategies that did not motivate them. The suggestion to address the problem was to deliver captivating and challenging lessons and also to teach gifted learners in their own group.

Mentor B was of the opinion that gifted learners' underachievement was a result of teachers failing to handle them. The Mentor observed that even if situations in which learners are grouped according to ability, teachers still limited the work of the prescribed textbooks instead of going beyond the set textbooks. Mentor C, who worked at a school that practised ability streaming, responded by saying that when a gifted learner's performance decreased the school simply demoted the learner to a lower class. The respondent went on to say that there was no instrument in the school to find out the reasons but it was common to blame the learner for relaxing without the teachers questioning their contribution. As a solution, the Mentor suggested that teachers required training in gifted education.

Trainee Teachers A and B suggested that the teacher needed to call the learner and discuss the problem of underachieving. Trainee Teacher A indicated that establishing the cause and deliberating on it would upgrade the performance of the gifted learner. Focus Group A attributed underachievement of gifted learners to the teachers giving unchallenging work. Focus Group B, on the other hand, had a view that underachievement could be caused by laxity on the part of gifted learners and the group did not propose any remedy for the problem.

From the Mentors' contributions to the question, it appeared that all were aware that teachers lacked skills in handling gifted learners. The Trainee Teachers A and B and Focus Group A indicated unchallenging work as a cause for underachievement. However, this cause would not be peculiar to gifted learners, but even to the mainstream average learners. An inference from these responses could be that trainee teachers' responses were too general, thereby indicating lack of knowledge of how gifted learners should be handled. During lesson observation it was not possible to identify underachievement by gifted learners since the work given by the trainee teachers was for the average learner.

The responses of the participants are given below as follows:

Mentor A: "Underachievement by gifted learners could be as a result of unsuitable strategies used by teachers. To curb such a problem, teachers should use motivating teaching methods. Captivating and challenging lessons should be presented at all times. This however affects mixed classes as slow learners will not cope with the pace. Gifted learners should therefore be on their own so that

they are not drawn back by the slow learner. The fast learners need to go to the limits”.

Mentor B: “Gifted learners` underachievement can be addressed if teachers are clear on how to handle gifted learners. Currently, even teachers who group learners according to ability still do not go outside what is prescribed in the textbooks in use. It is therefore important that teachers are given skills in handling gifted learners”.

Mentor C: “In a school where streaming is practised, a pupil who performs below the level of the class automatically is demoted. The system does not have any instrument to find out the cause. It is usually blamed on the pupil, either they have relaxed or there is no situation where teachers have looked at themselves as the possible cause. In order that this issue is addressed the teachers require training in gifted education where all these issues are most likely addressed”.

Trainee teacher A: “The teacher needs to find out the root cause, highlight it to the learner about the underachievement. In an attempt of finding the root cause there is a chance of upgrading the high performance”.

Trainee teacher B: “I would call the underachieving pupil and discuss what problem the pupil would be encountering”.

Focus group A: “The group attributed under-achievement to learners being given unchallenging work. The group advocated more challenging work.”

Focus group B: “Attributed underachievement to laxity on the part of the gifted learners”.

When asked how they could handle inquisitive learners the responses from all the participant qualified and trainee teachers lacked detail on how they could handle the inquisitive learner. Mentor A, suggested that the teacher should not thwart inquisitive learners but channel them in the right direction of their questions. The role of the teacher according to the Mentor would be to guide the learners and allow them to air their views. Mentor B suggested that inquisitive learners usually have good education backgrounds, and the realisation of gaps in their learning such as being given work below their capacity triggers their inquisitiveness. The

respondent was of the opinion that the teachers needed to support such learners and encourage them to expend their inquisitiveness as a means of gaining more knowledge. Mentor C's view on inquisitive learners was that they tended to disrupt the lesson if they were entertained. The reason proffered by the respondent for not entertaining the inquisitive learners was that the teacher would not complete the syllabus. It would appear that the respondent was worried about syllabus coverage at the expense of the learners grasping concepts.

Trainee Teacher A indicated that while there could be learners who ask questions for wrong reasons, the role of the teacher should be to guide the learner. The respondent acknowledged that when a learner poses an advanced question, the response to which might not be readily available, the teacher would have to be frank and tell the learner that the concern would be addressed later. This is a good response to an inquisitive learner provided the teacher would honour the promise. Trainee Teacher B acknowledged that gifted learners were normally inquisitive as it was their normal characteristic. The respondent noted that if the teacher was not certain of the correct information then the teacher should inform the learner that both of them would need to conduct research, after which they would meet and discuss. In order not to demotivate the learner the meeting should not be prolonged as feedback is important as a motivating factor. The response is a good way of handling and exploiting the abilities of the inquisitive learner. Both Focus groups held the view that learners should be allowed to air their views and teachers should not hold them back.

Mentor A: Inquisitive learners need to be accommodated and channelled in the area of argument. As a teacher one should not shut them out. As they grow, especially at Grade Seven level, they become argumentative. It is important to allow them to air their views and the duty of the teacher becomes that of guidance instead of thwarting them.

Mentor B: Inquisitive learners need our support as teachers. Such learners usually have good education background and in most cases would have realised that there are some gaps in their learning such as being given work below their capacity. As teachers we need to support such learners by encouraging them to continue to learn more.

Mentor C: While it is important to entertain inquisitive learners, there is a tendency that it derails the learning and that may result in the teacher failing to fulfil the syllabus.

Trainee teacher A: In my class there is one average pupil who usually asks questions which have no relevance to the concept being covered and would show some unfriendly facial expressions. Such learners would want to argue for the wrong reasons, but as a teacher my role would be to guide the learner. When a child asks advanced questions if the teacher has no ready answer should be frank that I would address it later.

Trainee teacher B: Gifted learners are normally inquisitive. In fear of having wrong answers the teacher should tell the learner that both the teacher and learner would meet to research and meet in the following session when they would discuss. The meeting should not be prolonged as the learner would need feedback, which if delayed would demotivate the learner.

Focus group A: The pupils should be allowed to give their arguments without being held back by the teacher. The teacher should encourage the pupils.

Focus group B: The inquisitive learner should be afforded an opportunity to express oneself.

All in all the responses from the participant lecturers, mentors and trainee teachers seem to suggest that the type of training currently offered in Zimbabwean teachers colleges is not adequate. All these categories of respondents displayed limited knowledge of what gifted education is all about. What this shows is that the problem is emanating from the lecturers' seemingly lack of knowledge in the area. This could be as a result of the fact that the issue of gifted education is still a grey area. It is actually rarely talked about in all educational circles in Zimbabwe.

4.6.3. Primary Teacher Preparation Programme Structure in Zimbabwean Teachers Colleges

The structure of the primary teacher preparation programme in Zimbabwe is basically the same in all teacher training colleges. The researcher wanted to find

out how this structure was suitable to prepare trainee teachers to handle gifted learners.

When asked about how best trainee teachers can be trained to handle gifted learners in Zimbabwean primary schools, lecturers mentioned that there were gaps in the training. Lecturer 1 from College B suggested that colleges could deploy trainee teachers to schools for gifted learners during their teaching practice. However, such a scenario did not exist in Zimbabwe. Creation of centres for gifted learners is a good idea but it is cumbersome and not feasible in terms of space and costs. Reviewing the current teacher training programmes to include gifted education would be feasible as suggested by Lecturer 2 from College B.

The proposal by Lecturer 2 from College B for the training of specialist teachers for gifted learners was not practical, given the current economic constraints.

The above sentiments are vividly reflected in the following verbatim statements by the interviewed respondent lecturers.

Lecturer from College A: There is need to design a new programme that will deliberately include gifted education. We also need to introduce a new record on mental ability so that gifted learners could be easily identified. At the moment teacher trainees give the same level of work to all learners. While work has to be different, the numbers in each class are too large.

Lecturer 1 from College B: The major challenge nowadays is that students who are now taking teaching no longer have passion for the profession but just as a last resort since there are no jobs on the market. During training it would be necessary to deploy students for their teaching practice at schools that cater for gifted learners or schools that still practice streaming.

Lecturer 2 from College B: We need to have specialised teaching that specifically focuses on gifted children. The syllabi should have clear objectives for gifted education because this covers a special group of learners. The current primary teacher education programme, while covering treatment of individual learners, does not allow covering wide content due to lack of contact time. Where gifted education is covered it is simply referred to in passing. I would suggest that we train pre-service special needs teachers who can handle among other learners,

the gifted. This would be more effective if a separate subject would be created instead of the issues being covered under Psychology of Education or Professional Studies syllabus A.

All the respondent lecturers seemed to agree that the current teacher preparation programmes did not adequately equip trainee teachers with knowledge and skills to handle gifted learners. Therefore, there is a need to review the structure of the teacher preparation programmes so that they incorporate gifted education issues. This will make it possible to prepare trainee teachers to handle gifted learners effectively.

A question which demanded all the respondents' opinions on what educational reforms could be needed to ensure that the goal of offering education for all is achieved was also asked. The generated ideas could be used in the reconstruction of teacher training programmes in Zimbabwe that are targeted at preparing trainee teachers to handle gifted learners.

The three groups of respondents gave varying suggestions with trainee teachers completely failing to address the issue. The lecturer from College A held the view that the school system should review syllabi and textbooks in order that they cater for all learners. The respondent suggested that Teacher Education had to revamp the curriculum to ensure that it catered for all learners and also suggested that the teacher-pupil ratio needed to be revisited if ample time to assist learners, including gifted learners, could be availed. Lecturer 1 from College B's response was that there was a need for close integration of Theory of Education and Professional Studies Colleges programmes, but did not elaborate how that would address the goal of offering education for all. Another issue raised by the respondent was that the language policy needed to be reinforced. The second lecturer from College B blamed the economic collapse that had resulted in Zimbabwe reintroducing payment of school fees. The payment of fees has resulted in learners dropping out of schools and resorting to gold-panning activities. The respondent suggested that the required reforms had to deal with fees and levies that were too high thereby inhibiting some learners from accessing education. The lecturer respondents had this to say:

Mentor A: Generally in an effort to meet the needs of a gifted learner, the teacher has to give them extra work. The gifted learner can be involved in research work related to the topic being covered by the rest of the learners.

Mentor B: Since fast learners normally learn faster than other pupils, it is always necessary to plan for extension work for them. By so doing the teacher will ensure that the gifted learner is kept busy thereby making sure the other learners are not disrupted.

Mentor C: In my school learners are classified according to ability therefore it may be difficult to say there is an average lesson. In any way if one has encountered such a situation then the only way to go would be to give the gifted learner more problems to work on.

Trainee teacher A: As I will be teaching, as the learners respond, I will ask challenging questions to the gifted learner. I would pick out the gifted learner and pose a challenging question.

Trainee teacher B: In every lesson, pupils are assigned to groups and as such groups of gifted learners should be given more challenging tasks as compared to those of average performance. The gifted learner should benefit from differentiated instruction from the word go. Thus there is no need to upgrade an average lesson to target the gifted learner.

Focus group A: It requires the teacher to teach from simple to complex.

Focus group B: Teaching such a class needs the use of higher order questions to accommodate the gifted learner.

The ideas that were put forward by the respondents here indicate that they were aware of the critical issues that should be addressed in reforming teacher education programmes in order to ensure that Zimbabwe achieves the goal of offering education for all. The incorporation of such important ideas can really go a long way in preparing trainee teacher to handle gifted learners.

4.6.4. QUALITIES OF TRAINEE TEACHERS, REQUIRED FOR HANDLING GIFTED LEARNERS

In order to ascertain whether trainee teachers were being exposed to the knowledge of the expected qualities of the teacher of gifted learners, the researcher advanced a number of questions to the participant mentors and trainee teachers during interview sessions and focus group discussions. An analysis of their different responses is provided in what follows below. In interviewing all the participants in this category similar interview questions were used. This was a technique that was found to be much more helpful in affording a comprehensive comparative compilation of the required data. The following are the details of how these participants responded.

The mentors and trainee teachers were all asked a question about the qualities that are required of teachers of gifted learners during the interview and focus group discussions that were held as part of the proceeding of this study. In responding to this question both the interviewed mentors and trainee teachers displayed limited knowledge of the qualities expected of teachers of gifted learners. This was a clear indication that the current Zimbabwean teacher training programmes have short shortcomings in preparing trainee teachers to handle gifted learners. The responses from mentors show that they have some knowledge about the qualities required of teachers for gifted learners; however, they differ in specifying the qualities. Mentor A stated the qualities of a teacher for gifted learners as high level of education, diverse thinking and creativity. Mentor B highlighted that it was important for teachers to be knowledgeable about learner differences while Mentor C said such teachers would need to be hard-working and capable of reading ahead of learners. Trainee teachers pointed out those teachers of gifted learners needed to be friendly and should cheer up learners for doing good work which should be qualities of every teacher. Further ideas that came from the focus group discussions were that teachers of gifted learners should be open-minded and research issues to do with the education of gifted learners. Mentors and trainee teachers concurred on some of the prerequisite qualities of teachers of gifted learners; however, the observations of trainee teachers by the researcher did not reflect the expected qualities. The lessons that were presented did not reflect wide or extensive reading on topics taught.

The above assertions are clearly reflected and affirmed in their recorded responses some of which are hereby given.

Mentor A: “At my school we do not cater for gifted learners and as such there are no discussions in that respect. However, teachers of gifted learners should have higher levels of education. The teachers should have diversity in thinking and should be creative. I have observed that the teachers were not diverse and they then tended to ignore fast learners. Work given to the fast learners (gifted learners) was not challenging as it was mainly suited for average and slow learners. In the past, the school used to group classes according to ability but the school head later decided to stop streaming since teachers taking the last streams used to relax”.

Mentor B: “Teachers of gifted learners should be hard-working and be in a position to read ahead of the pupils”.

Mentor C: “I am teaching at a school that is streaming pupils according to ability although the school continues with ability grouping, the issue of gifted education is never talked about in staff meetings. It appears there is an assumption by administration that every teacher should know what gifted education is all about”.

Trainee Teacher A: “The teacher for gifted learners has to be friendly”.

Trainee Teacher B: “Gifted learners require friendly teachers, who motivate learners to keep their spirits high. The teacher should be one who would commend learners' good work and where possible give gifts”.

Focus Group A: “The qualities of a teacher should include hard work, wide reading and open mindedness as being the hall mark of the teacher for the gifted pupils”.

Focus Group B: “Teachers of gifted pupils should research on gifted pupils and acquire pedagogic knowledge and skills on teaching gifted pupils”.

As indicated above, both the interviewed mentors and trainee teachers exhibited limited knowledge about the qualities expected of teachers of gifted learners. What this means is that the current Zimbabwean teacher training programmes fall short in preparing trainee teachers to handle gifted learners.

Another question that was specifically targeted at trainee teachers was asked to find out how they been addressing the needs of gifted learners during their teaching practice. Trainee teachers showed lack of theoretical knowledge on the needs of gifted learners. This implied that the content could have been lacking in the teacher training programme. Both Trainee Teachers A and B were of the opinion that they would give extension work in order to meet the needs of gifted learners.

The focus Group A`s view on meeting needs of gifted learners was that there was need to find suitable methods for gifted learners but the group could not specify such methods. The focus Group B on the other had said that the needs of gifted learners could be met by giving challenging work and allowing such learners to skip the grades. Responses from both interviewed trainee teachers and those of the focus group discussion could suggest that the teacher training programme was not adequately addressing gifted education. The respondents` recorded verbatim views are given below.

Trainee teacher A: “Normally in written work gifted learners should be given challenging questions”.

Trainee teacher B: “The needs of gifted learners could be addressed by giving extra work”.

Focus group A: “The teacher should find methods that are suitable for the gifted learner”.

Focus group B: “These learners are given challenging work, and allowed to skip grades”.

The responses about addressing needs of gifted learners profiled above indicate lack of theoretical base to substantiate their suggestions. One can sense that simple general information prevailed and nothing was peculiar to gifted education, indicating absence of relevant theoretical knowledge that could have been gained at college. The responses from both interviews and focus group discussions tallied with the researcher`s observations on lessons taught by the trainee teachers. The lessons observed did not show challenging work for the gifted learners, as suggested by the trainee teachers in their responses to interview questions.

During lesson observations the trainee teachers mostly employed question and answer, demonstration and group work as teaching methods. The researcher observed that the manner in which these methods were used did not cater for gifted learners, as suggested by the trainee teachers during the focus group discussions. Responses from interviews, focus group discussions and lesson observation indicated that the various learners' multiple intelligences were not being addressed.

When asked about how they would improve an average lesson to gear it up towards the level of gifted learners during interviews and focus group discussions the mentors failed to address the demands of the question by concentrating on giving extension work. Although trainee teachers reflected some knowledge about the needs of gifted learners but they failed to demonstrate the skills in the lessons observed.

Mentor A, appeared to have misunderstood the question as she talked of giving extra work and not addressing how the lesson could be adjusted to the abilities of the gifted learners. The research work suggested by the respondent is a good strategy; however this could not necessarily apply in the duration of a 30-minute lesson at primary school level. Mentor B's response was that fast learners would require extension work to ensure that they are kept busy. Mentor C teaching at a school that practised streaming suggested that a gifted learner would be given more problems to work on. All Mentors' responses were targeted at giving gifted learners more work without spelling out the nature of such extension work. As previously suggested, the extension work consisted of more tasks of the same level of difficulty that could not meet the intellectual abilities of the gifted learners.

Trainee Teacher A's response was that challenging questions would be posed for gifted learners. Trainee Teacher B responded by saying that gifted learners in their groups would be given more challenging tasks than those of average performance. Trainee Teacher B further indicated that a gifted learner was to benefit from differentiated instruction from the very beginning. This view is beneficial for the appropriate handling of gifted learners.

The Focus Groups had similar sentiments in that group A, suggested the teacher should teach from simple to complex, while group B said that teaching such a

class needed the use of higher order questions. However, the use of higher order questions may not necessarily mean that gifted learners are specifically accommodated. The responses showed that the trainee teachers were aware of the need to handle the gifted learner in ways different from handling other learners. This was reflected in Trainee Teacher A's suggestion for challenging questions and Trainee Teacher B's for the use of differentiated instruction. On the other hand, the researcher observed contradictions to these suggestions. During lesson observations it was noted that no challenging questions were asked and no differentiated instruction was employed.

In order to confirm the assertions of the participants in the interview and focus Group discussions, the responses are given in their verbatim form below. Mentor A: "Generally in an effort to meet the needs of a gifted learner, the teacher has to give them extra work. The gifted learner can be involved in research work related to the topic being covered by the rest of the learners".

Mentor B: "Since fast learners normally learn faster than other pupils, it is always necessary to plan for extension work for them. By so doing the teacher will ensure that the gifted learner is kept busy thereby making sure the other learners are not disrupted".

Mentor C: "In my school learners are classified according to ability therefore it may be difficult to say there is an average lesson. In any way if one has encountered such a situation then the only way to go would be to give the gifted learner more problems to work on".

Trainee teacher A: "As I will be teaching, as the learners respond, I will ask challenging questions to the gifted learner. I would pick out the gifted learner and pose a challenging question".

Trainee teacher B: "In every lesson, pupils are assigned to groups and as such groups of gifted learners should be given more challenging tasks as compared to those of average performance. The gifted learner should benefit from differentiated instruction from the word go. Thus there is no need to upgrade an average lesson to target the gifted learner".

Focus group A: "It requires the teacher to teach from simple to complex.

Focus group B: “Teaching such a class needs the use of higher order questions to accommodate the gifted learner”.

Taken together, the above responses reflect that both mentors and trainee teachers failed to demonstrate meaningful knowledge about the needs of gifted learners. The implication is that the theory on the needs of gifted learners was not addressed in during the training of both the mentors and trainee teachers.

4.6.5. Concluding Remarks

In the light of all the views highlighted in this section, it can be concluded that the preparation of trainee teachers by Zimbabwean primary teachers colleges to handle gifted learners is inadequate. The structure of the primary teacher preparation programmes need to be revisited with a view to infuse aspects of gifted education that have been missing in an effort to empower trainee teachers to handle gifted learners.

4.7. EMPOWERMENT OF TRAINEE TEACHERS IN HANDLING GIFTED LEARNERS

4.7.1 Introduction

In this section there is an analysis of the responses from all the participants on how the teacher preparation programmes can empower the trainee teacher to handle gifted learners.

4.7.2 Preparing trainee teachers to meet the needs of gifted learners

When asked to spell out aspects of teacher education which they would want to be considered in preparing newly trained teachers to meet the needs of gifted learners, both the mentors and trainee teachers concurred that gifted education should be incorporated into the current and future teacher education programmes.

All the interviewed three mentors were in agreement that there was a need for teachers colleges to include gifted education in their curricula. However, the mentors did not specify aspects to be addressed in teacher education to enable trainee teachers to meet the needs of gifted learners, implying that curricula in teachers colleges would need to be revisited. The following are some of the opinions they brought forward.

Mentor A: “The current education system is producing students who lack language and as a result trainee teachers we have these days are deficient in communication skills. I have often observed that the student teachers are challenged by the gifted learners and because of that they lose confidence. The functional as opposed to the structural approach prohibits proper communication. There is a need to deliberately include gifted education in Professional Studies. If that happens then the student teachers would be able to handle gifted learners. At the moment student teachers talk a lot about slow learners by providing remedial work at the expense of the gifted learners”.

Mentor B: “Student teachers appear to have the theoretical base about individual differences but appear to lack skills in the handling of various learners. In a class where groups are arranged according to ability you still find even group tasks given are of the same difficulty across the whole class. This points to the need that colleges should revisit their syllabuses and include topics specifically addressing gifted learners”.

Mentor C: “Student teachers seem to lack handling skills of different categories of learners. It would be beneficial if schools together with colleges held workshops on how to handle children of diverse needs but more importantly the teacher training colleges should include gifted education in their syllabuses. When student teachers go out for teaching practice they should already have been exposed to the topic to enable them to put theory into practice during their five terms in the schools”.

The interviewed individual respondent trainee teachers as well as those who were involved in the focus group discussions conceded that gifted education was an essential aspect of teacher education that has to be incorporated in teacher training programmes if they are to meet the needs of gifted learners. They felt that it is an area that can be well covered in the field of Professional Studies before trainee teachers go out for teaching practice.

The participants’ verbatim responses are as follows:

Trainee Teacher A: “By the time we went for teaching practice attachment we had not covered any concepts on gifted education. Specific skills relating to gifted learners were not identified by college in the first two residential terms.

Professional Studies section should have come in to emphasise on the area of gifted learners. I lack confidence on what level I am expected to advance extension work. My appeal to the college is that there is need for more emphasis on extension in order to improve our understanding so that it is translated to better practice”.

Trainee Teacher B: “Currently there are financial constraints and that affects the issue of resource availability. Issues on gifted learners could be covered in theory but the problem comes up in the implementation. I personally have been a slave of the textbook. I should have gone outside the textbook”.

Focus Group A: “The College should deliberately teach gifted education on skills and knowledge of dealing with the gifted child”.

Focus Group B: “There is need to add the topic on gifted pupils and it should be dealt with before student teachers go for teaching practise”.

Here all the respondents saw the importance of including gifted education in the teacher training programmes. Truly that way a number of gaps and short comings in the current Zimbabwean teacher training programmes in relation to the issue of gifted learners can be closed.

4.7.3 Improvement and management of an inclusive classroom environment

Bearing in mind that the existing gaps in gifted education can also be closed through other teacher empowerment avenues. A further question that was intended to find out what other programmes mentors and trainee teachers could recommend for implementation in order to improve the inclusive classroom environment was asked during the interviews and focus group discussion sessions. In responding to that question, both mentors and trainee teachers saw the need to improve the classroom environment for inclusivity. In their view, there was a need for workshops to be mounted at school and ministry levels. The responses from the mentors indicated that inclusive education workshops were vital for teachers to improve classroom environment. Mentor C said teacher education should intensify training to include inclusive education to enable the new graduates to come out with relevant knowledge and skills. Mentors A and B concurred that workshops should be organised at Ministry level. This could be

effective if guided by a clear inclusive education policy and identification of experts in inclusive education to run the workshops.

From Mentor B's response it is evident that some schools had already embarked on inclusive education workshops, a bottom-up approach that would be more effective as workshops are organised to respond to the identified needs of both the teachers and gifted learners. For example mentor A, said, "There is need for the Ministry of Education, Sports, Arts and Culture to run short courses that could run for a day or two during school holidays for all teachers. Such courses would improve performance in handling inclusive classes for practising teachers" It was also interesting to note that mentor B was indicating that some teachers had already attended workshops on inclusive education at various schools. This is what this respondent said, "Some teachers have attended workshops on inclusive education at various schools and it should be those members who should cascade such training at school level". In addition to what mentor A and mentor B, had said, mentor C observed that: "As a stopgap measure, local workshops at school could be organised to acquaint all teachers with inclusive teaching. The long-term solution would be to staff develop practising teachers ending up with some qualification. Teacher education should be intensified in this area so that those coming out now will already have relevant knowledge and skills in handling inclusive classes".

Responses given by trainee teachers indicate the need to improve inclusive classroom environments, but on how this could be done besides the use of the workshop strategy they seemed not to have been clear of what could be other alternative programmes. Actually trainee teacher A was open enough to say that he was not sure of any programme that could be suggested. Trainee teacher B simply said, "I would want to attend a special education program whereby one is trained to handle gifted learners as well". Those who participated in focus groups A and B expressed their views in the following manner as summarised below.

Focus Group A: "Workshops on the use of ICT for the gifted child and visits to 'special schools' would be vital because that would help us in fine tuning our knowledge and skills in inclusive education".

Focus Group B: It would be necessary to visit special schools".

All in all, the responses alluded to above, show that both the qualified and trainee teachers have progressive ideas on how to enhance gifted education. The ideas raised can really go a long way in empowering trainee teachers to handle gifted learners.

4.7.4 Technological empowerment

To effectively run any form of an educational programme, the use of the internet is crucial. In order to determine the respondent lecturers' level of consciousness regarding the use of the World Wide Web in running teacher preparation programmes that benefit gifted learners, an interview question to do with the lecturers' awareness on how the World Wide Web has affected the education of gifted learners was asked. In response to that question, all the lecturers reflected a common view that gifted learners benefitted from the World Wide Web and were excelling in schoolwork. Lack of technological skills among teachers hindered them from effectively guiding the gifted learners. They were in agreement that where Internet facilities were available the gifted learners were benefiting, and this resulted in such learners excelling in their school work. The lecturer from College A however, lamented the lack of guidance of gifted learners by teachers, perhaps, suggesting that the teachers themselves may not have computer-related skills. As he puts it across, "Where computers are available and there is connectivity the gifted learners are benefitting. Some are even learning from their phones. The only challenging factor is that such learners are not getting guidance from teachers who are still lagging behind in the use of technology".

The above responses imply that in Zimbabwe the structure of the teacher preparation programmes do not fully empower trainee teachers with necessary computer skills for the teaching of gifted learners. This indicates the need to step up the use of modern technology in teacher preparation programmes so as to enhance computer based teaching skills in trainee teachers before they go on teaching practice.

4.7.5 Empowerment through research

The question on what still needs to be researched in gifted education was posed during the interviews with lecturers. All the lecturers had the view that the area of gifted education needed to be researched. The areas of research they highlighted

were relevant to gifted education. Lecturers in Professional Studies by virtue of their position as teacher educators would be expected to lead trainee teachers in carrying out research studies in order to generate knowledge that can be used to empower them to handle gifted learners.

All three lecturers from the two colleges indicated that there was need for research to be carried out on gifted education. The lecturer from College A suggested that research could be carried out on areas to which gifted learners tend to be inclined. Lecturer 1 from College B suggested, "The way gifted learners are treated in an institution", while lecturer 2 from College B indicated a research topic could be "What causes giftedness. Is it heredity or is it nurturing?" From these observations, lecturers saw research in the area of gifted education as critically important. This need for research in gifted education has also coincided with this research study. If more research in gifted education is emphasised in teachers colleges then the upcoming graduates would be in a position to efficiently handle gifted learners.

In order to confirm what the lecturers said, the details of the interview responses are given below.

Lecturer from College A: "There is need for research to be carried out on gifted education as this remains a grey area. The target should be areas which gifted learners tend to be inclined to".

Lecturer 1 from College B: "In every nation it is the gifted people who deliver the goods. The way we treat gifted learners in an institution needs to be researched".

Lecturer 2 from College B: "I think the topic "what causes giftedness: is it heredity or is it nurturing?" There is also need to find out what makes people different in order for us to be able to deal effectively with gifted learners".

The responses from the question about the need for research in gifted education given above indicate that participant lecturers were aware of the importance of research in empowering trainee teachers to handle gifted learners. At the same time, the trainee teachers would be equipped with research skills that would enable them to broaden their knowledge in gifted education even after they have graduated from college.

4.7.6 Concluding remarks

The different responses from participant lecturers, mentors and trainee teachers related to the empowerment of trainee teachers to handle gifted learners that were analysed in this section highlighted that there are several empowerment initiatives that can be implemented in teacher preparation programmes in Zimbabwe. Trainee teachers need to be empowered in order to meet the specific needs of gifted learners used the internet in teaching and to carry out research activities that geared to generate knowledge in the field of gifted education.

4.8. ACCOMODATING LEARNING STYLES OF GIFTED LEARNERS

4.8.1 Introduction

This section deals with an analysis of the responses given by participant lecturers to questions on learning styles of gifted learners and learning styles inventories for lecturers. The possession of the knowledge of different learning styles of gifted learners by lecturers as it would enable them to pass on useful information to trainee teachers during the college based training sessions. Trainee teachers would use the information when they have gone on teaching practice.

4.8.2 Learning styles for gifted learners

Gifted learners have different learning styles which lecturers need to be aware of so that they incorporate them into teacher preparation programmes. To establish the awareness of these styles by lecturers, the researcher asked them to explain how gifted learning styles differed from those of non-gifted learners.

The response given by lecturer from College A was vague in that it dwelt more on the importance of knowing the type of learner than the learning styles of gifted and non-gifted learners for example he said, "It is important to know the type of learner and that knowledge then guides one on the choice of the learning style". Responses given by all the lecturers portrayed that they had no knowledge about the learning styles of both gifted and non-gifted learners and yet they are expected to expose the trainee teachers to this kind of knowledge.

4.8.3 Lecturers' learning styles inventories

To get further information on learning styles, the participant lecturers were also asked to describe their learning styles inventories.

Generally speaking, all the three (3) lecturers that were interviewed appeared to be lacking knowledge of the different learning styles as they could not explain their learning style inventories. The lecturer from College A did not respond to the question, apparently meaning that the lecturer had no knowledge of the learning styles inventory. Lecturer 1 from College B exhibited knowledge of some learning styles but did not give a detailed account of the styles. The rest of the information given was irrelevant to the question. The response from lecturer 2 from College B showed lack of knowledge about learning styles. This was vividly depicted by the two lecturers who participated in the interviews in the following statements.

Lecturer 1 from College B: Learning styles are viewed as follows: learners learn through play and hearing among other aspects and they are individuals and cannot be blanketed. Variation is important, especially methodology and varying activities in order to cater for various learners. Micro-teaching, which is a critical component as an instrument in the preparation of student teachers, is not getting adequate attention and as a result critical areas are not covered. There is a general belief that special needs children are very few and gifted learners are not considered as special.

Lecturer 2 from College B: My learning styles inventory refers to gifted pupils as pupils who are reflective while non-reflective pupils are the non-gifted.

The interviewed lecturers could not explain their learning style inventories, which is an indication that they were lacking knowledge on the issue of gifted learners' learning styles.

4.8.4 Concluding remarks

The lack of knowledge about learning styles of gifted learners exhibited in the responses from participant college lecturers that were analysed in this section, clearly points to the fact that the styles were not accommodated in teacher preparation programmes. Subsequently, trainee teachers would also be falling

short in the knowledge of learning styles of gifted learners and their importance in managing inclusive classrooms.

4.9 SUPPORT FOR LECTURERS IN PREPARING TRAINEE TEACHERS FOR HANDLING GIFTED LEARNERS

4.9.1 Introduction

In preparing trainee teachers for handling gifted learners, college lecturers would need the support of other stakeholders, particularly the schools in which trainee teachers will be on teaching practice. This kind of a support will complement the lecturers' efforts to adequately prepare trainee teachers to handle gifted learners.

4.9.2 How schools meet the needs of gifted learners

When asked how their schools were meeting the needs of gifted learners, both mentors and trainee teachers indicated that schools were not meeting the needs of the gifted learners as there was more emphasis on extension work for fast learners than for gifted learners. Mentor A responded by saying that the school should give gifted learners extra challenging work. Mentor B said in their school that each individual teacher dealt with their classes. The gifted learners were occupied through extra work in the form of more problems on the same topic.

Mentor C indicated that their school was practising streaming, therefore gifted learners tended to complete the terminal primary syllabi early. According to Trainee Teacher A, the practising school only emphasised extension work for fast learners but was not sure how to adjust work to suit gifted learners.

Trainee Teacher B's response was that the teaching practice school did not look at the needs of gifted learners and no special consideration was made for such learners. The trainee teacher further said that blanket statements were made in passing about gifted learners.

The members of Focus Group A agreed that in the schools in which they had pursued their Teaching Practice the issue of gifted learners was mentioned in passing during staff meetings without any concrete discussions made. Focus Group B members had a consensus that in the school in which they had their teaching practice the issue of gifted learners was not mentioned. Their verbatim responses are given below.

Mentor A: “The school should address the needs of gifted learners by giving them extra challenging work. Unfortunately, teachers use these fast learners to teach others in their groups and this is a disadvantage because the learner is not benefiting. In the process, these pupils become bullies because they already know the work. In the absence of class teachers, I have observed such learners in some classes holding sticks to punish those they are assisting, as they view themselves as teaching assistants. Teachers who have been engaging in work stoppage have instilled such attitudes in the learners”.

Mentor B: “My school has left each individual teacher to deal with his/her class. Since there are no laid down regulations in relation to gifted learners, teachers are expected to deliver lessons to mixed ability classes. As individuals, teachers find ways of managing their classes. Obviously, among the group there will be some who perform better than others and these usually will be occupied through extra work”.

Mentor C: “At our school pupils are streamed according to ability and the fast learners usually have an advantage of completing the syllabi earlier than their slow learner counterparts”.

Trainee teacher A: “My Teaching Practice School only emphasised extension work for the fast learners but he I am not sure how I can adjust in order to suit those learners”.

Trainee teacher B: “At the school where I am teaching school does not necessarily look at needs of gifted learners but blanket statements were made in passing about fast learners and no special consideration was made for them”.

Focus group A: “Gifted learners were only mentioned in passing in staff meetings without anything concrete discussions on how to engage and help the gifted learner”.

Focus group B: “The issue of gifted children was never mentioned”. The responses from the mentors indicated that gifted learners in the schools might not be accorded the academic treatment they deserved. If that was the case, then the trainee teachers had no space to practise the expected skills to handle gifted learners since the mentors under whom they practised could not guide them. It

was therefore not surprising that all the trainee teachers indicated that their teaching practice schools did not pay serious attention to the needs of gifted learners.

4.9.3 Efforts to improve the school conditions to meet the needs of the gifted learner

Both the qualified and trainee teachers were asked how school conditions could be improved to meet the needs of the gifted learner. This question was posed to the mentors and trainee teachers during the interviews as well as the focus groups. The intention of the researcher was to find out how the teachers would improve the school conditions in order to meet the needs of gifted learners. It appeared that the issue of gifted learners may not have been addressed by the past and present teacher education programmes. From the responses proffered by both the mentors and trainee teachers indicated that the school administrators did not take care of the needs of the gifted learners.

Mentors A and B did not respond to the question, suggesting that they had no knowledge of the needs of gifted learners. Mentor C said that the school had no policy for gifted learners and that trainee teachers were giving extension work at times only as a way of satisfying college requirements. This implied that qualified teachers did not guide trainee teachers in handling gifted learners most probably due to lack of knowledge in handling gifted learners. It is apparent that no mentors had received training in handling gifted learners during their pre-service training. Mentor C went on to suggest that there was need for colleges and mentors to hold workshops on how trainee teachers would be guided in this regard. The mentors focussed on the trainee teacher rather than responding to the needs of the question and did not clarify how workshops would improve the school conditions to meet the needs of gifted learners.

Trainee Teacher A's view was that school administration needed to continuously monitor activities of gifted learners. The response was short of the specific activities and actions to be monitored. Trainee Teacher B was of the opinion that gifted learners be separated so that the teacher would prepare work suitable for them to proceed at their learning pace. While this is a good idea the implementation may not be practical since more financial resources would be

required. The two focus groups advocated allocation of more resources to improve the school environment to meet the needs of gifted learners, but did not indicate how. Focus Group A's support for a deliberate effort by the school to pay attention to gifted learners is an indication that these learners did not receive due recognition. On the whole, responses from all the participants reflect that the school conditions were not favourable to gifted learners.

The participants' direct responses are provided below.

Mentor A: [No response]

Mentor B: [No response]

Mentor C: My school does nothing for gifted children. Since there is no school policy you find that trainee teachers just give extension, work at times very late in the day so that lecturers see that something is being done. Qualified teachers just sit back and there is no guidance given to student teachers in this area. There is need for a mentor's workshop with colleges so that there is a common understanding that would result in better guidance given to student teachers.

Trainee teacher A: "The school would have to continuously follow up activities of gifted pupils and also there would be need for school administration to supervise extension work".

Trainee teacher B: "In a class the pace is determined by the slow learners. Not always do we give extension work where concentration is on slow learners' level".

Focus group A: "It is important that more resources should be allocated and a deliberate effort to ensure the gifted children get the attention that they require".

Focus group B: "We advocate for improved resources including ICT".

Of the three mentors who were interviewed, only one responded to the question. This kind of scenario could be an indication that the schools where they were operating had no deliberate initiatives to improve the school conditions to meet the needs of gifted learners. Such schools will not be in a position to provide the necessary support in complementing lecturers' efforts to adequately prepare

trainee teachers to handle gifted learners. While trainee teachers attempted to respond to the question, they did not particularly address the question.

4.9.4 Concluding remarks

The picture painted by the analysis of the responses from the mentors and trainee teachers on issues to do with improvement of school conditions to meet the needs of gifted learners is that there is not much that is being done in that area. The implication is that college lecturers are not getting enough support from schools in preparing trainee teachers to handle gifted learners. Creating a conducive environment is very critical in meeting the goals of gifted education. Therefore, there is need for conscientisation of school heads to look into the issue and take necessary action.

4.10 Summary of findings

The summary of the study's findings are presented in the following sub-sections.

4.10.1. Findings from sub research question 1

Research findings that are related to sub-research question 1 indicated that college teacher preparation programmes were not adequately equipping trainee teachers with knowledge and skills to handle gifted learners. Trainee teachers had limited knowledge of the qualities of teachers for gifted learners. This was reflected by their failure to meet the needs of gifted learners during their teaching practice. Mentors also displayed limited knowledge of the qualities of teachers for gifted learners. The implication here is that more needs to be done by primary teachers training colleges.

From the findings it was noted that there are no clear initiatives that were being taken by teachers colleges to prepare trainee teachers to handle gifted learners. Teachers colleges therefore, need to take initiatives in preparing trainee teachers with reference to the handling of gifted learners. Teacher training programmes need to include gifted education so that trainee teachers would be able to respond to the needs of gifted learners.

4.10.2 Findings from sub research question 2

The findings that emerged in answering sub-research question 2 are that trainee teachers appeared to be lacking in theoretical grounding on how to meet the needs of gifted learners. Teacher preparation programmes were found to be lacking in providing adequate knowledge and skills to handle gifted learners. Therefore, these programmes will have to be reformed.

All the participant lecturers had a common view that gifted learners benefitted from the World Wide Web and were excelling in school work. However, lack of technological skills among mentors and trainee teachers hindered them from effectively handling the gifted learners. The respondent lecturers were also of the view that there was a need for further research in the area of gifted education.

The schools were not meeting the needs of the gifted learners. There was more emphasis on extension work for fast learners than gifted learners. No reasonable suggestions were made about improving the school conditions to meet the needs of gifted learners.

4.11 CONCLUSION

The key objective of this research was to explore teacher education initiatives undertaken by teachers colleges in preparing trainee teachers to handle gifted learners in primary schools in Zimbabwe. This chapter has presented the data which was collected from college lecturers, qualified primary school teachers and trainee teachers. Research findings from these respondents show important issues concerning gifted education in teachers colleges and primary schools.

College lecturers and trainee teachers who were the core research participants reflected lack of knowledge of inclusivity and gifted education. Both groups had a misconception that inclusivity referred to educating non-disabled and disabled learners together. They did not consider gifted learners or learners who had barriers to learning as part of inclusive education. As such, findings from these participants indicated that teacher training programmes were not equipping trainee teachers with knowledge or skills to handle gifted learners. In view of this the lecturers, mentors and trainee teachers indicated the need to reform through reviewing the teacher training programme and include gifted education. This

would equip trainee teachers with the observed deficient knowledge and skills to handle gifted learners.

Mentors and trainee teachers concurred that the schools were not meeting the needs of gifted learners. They said that schools were placing emphasis on extension work more for fast learners than for gifted learners. These participants saw the need to improve the classroom environment for inclusivity. The qualified teachers also confirmed the college lecturers' views that teacher training programmes needed reviewing to incorporate gifted education. This was an indicator that no initiatives had been taken to prepare trainee teachers to handle gifted learners since the time they were trained.

Findings from lesson observations, interviews and focus group discussions with the trainee teachers revealed that they lacked knowledge and skills in handling gifted learners. The trainee teachers admitted and reiterated the need for teacher education programmes to incorporate gifted education.

The chapter has given details of research findings as reflected in the responses of the research participants to the data collection instruments. There is a wide range of congruence among the findings from the data collected. In the pretext of these findings, lecturers suggested that research in gifted education needed to be carried out. The final chapter will address discussions on findings, research contribution, conclusions and recommendations.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1. INTRODUCTORY REMARKS

In this section the researcher discusses the findings and the extent to which they addressed each research question. The objective of the research focused on answering the key research question, 'What are the teacher education initiatives undertaken by Teachers Colleges to prepare trainee teachers in handling gifted learners in primary schools in Zimbabwe?' The following sub-questions guided the researcher:

- How do trainee teachers view their teacher education programs in relation to gifted learners?
- What strategies could be used to enhance the training of teachers in handling gifted learners?

The study has demonstrated that trainee teachers were not prepared to teach gifted learners confirming claims by Chireshe (2011) that the Zimbabwean curriculum did not meet the needs of special needs education learners. This implied that there were no teacher education initiatives in preparing trainee teachers to handle gifted learners; therefore the contribution of the study is critical in guiding policy formulation that would initiate the introduction of gifted education in teacher training colleges.

The study used the MI theory as a theoretical framework, through which the aspects of gifted education were explored to provide insights into the initiatives taken by teachers colleges in preparing trainee teachers to handle gifted learners. The MI theory emphasises that all learners have different learning styles therefore teachers should be observant of what learning styles the learners in their classes possess. The research study affirmed MI theory and participants highlighted that the learners have different potentials but the teachers do not know how to assist them. Therefore, it is necessary to infuse gifted education in the teacher training programmes.

The researcher employed a qualitative approach, which necessitated the involvement of the research participants in their natural settings. A

phenomenological case study design was employed to collect data through qualitative methods, namely semi-structured interviews, observation and focus group discussion. The findings were consistent across all sets of data collected. The respondents to these data collection methods were lecturers from two teachers colleges, qualified teachers and trainee teachers from two primary schools.

In this chapter, the researcher focuses on the discussion of the major findings that were obtained in chapter 4 in response to research questions and in relation to the literature review. The discussions are organised around responses from interviews and focus group discussions and lesson observations. From the research findings conclusions and recommendations were made. The researcher also highlights limitations of the study.

5.2 SUMMARY OF THE FINDINGS

This section provides the reflections on Teacher Education Initiatives undertaken by Teachers Colleges to prepare trainee teachers in handling gifted learners in primary schools in Zimbabwe. Although trainee teachers are prepared in the teaching of learners there are some gaps when it comes to handling gifted learners. Literature was reviewed in Chapter 2 and the theoretical framework that underpins the study was also discussed, Chapter 3 dealt with the methodology whilst data was analysed in Chapter 4. The findings from the literature review, one to one interviews, observation and focus group interviews are addressed according to the themes identified from the analysis. As indicated in 1.4, teacher education programmes in Zimbabwe explicitly address special education issues related to disabled learners, but the area of gifted learners remains remote and peripheral and the status quo needs to be reviewed. As stated in the introductory chapter the main purpose of this study was to find out whether current teacher education programmes adequately prepare trainee teachers to handle gifted learners in Zimbabwean primary schools. The main question that was formulated in order to direct the study was about which initiatives have been undertaken by Zimbabwean teachers colleges in preparing trainee teachers to handle primary school gifted learners. In grappling with this question, in gathering the required data the views of the respondents that were involved suggest that the current

Zimbabwean teacher education programmes fall short in equipping trainee teachers with required knowledge and skills to handle gifted learners.

Judging from what all the respondents were saying, it seems that no meaningful initiatives targeted at improving teacher education for the gifted learners have been put in place by Zimbabwean teachers colleges. What actually turned out to be the case is that lecturers in these colleges have superficial knowledge about gifted education. The ripple effect of this such a state of affairs is that college directed teacher education programmes currently in place are not adequately equipping trainee teachers with knowledge and skills to handle gifted learners.

The interviews and focus group discussions held with trainee teachers revealed that they had very much limited knowledge of how to identify individual gifted learners and on what are the qualities of teachers of gifted learners. This was the same story with the interviewed qualified teachers who were in charge of the respondent trainee teachers as mentors. These mentors were also found to be so much lacking in terms of what the education of gifted learners is all about and how it can well be administered at the primary school level. When analysing the profiles of the lecturers who are involved in the training of teachers, it was evident that they had quite a lot of experience in preparing trainee teachers but there was a gap in preparing teachers to deal with gifted learners. In what follows below, a brief summary of the research questions investigated is provided and recommendations are suggested. The next section provides a brief summary of the answers to the research questions.

5.3. FINDINGS ON INITIATIVES UNDERTAKEN BY TEACHERS COLLEGES TO PREPARE TRAINEE TEACHERS IN HANDLING GIFTED LEARNERS IN PRIMARY SCHOOLS IN ZIMBABWE

Teacher trainers (lecturers) associated a number of sentiments on initiatives undertaken by teachers colleges in preparing trainee teachers in handling gifted learners in primary schools in Zimbabwe. They mentioned that they need support and training on how to teach trainee teachers the appropriate skills to use when handling gifted learners in class.

5.3.1. Initiatives undertaken by Teachers Colleges

This study focussed only on two Teacher Training Colleges in Zimbabwe, therefore the information may be different from what other colleges include in their programmes when preparing teachers. Equally the researcher argues that if trainee teachers are provided with the appropriate training, learners who are gifted will be accommodated in classes. With reference to the Salamanca Report (1994), inclusive education means that all learners irrespective of physical, intellectual, social, emotional, linguistic, ethnic and other conditions should learn together in the same classroom. However, the current scenario in the primary schools in Zimbabwe is that disabled learners are segregated into special classes and schools and the gifted learners are not catered for. This finding agrees with that of Diezmann, Watters and English (2001), for whom schools and teachers are normally unaware of how to appropriately cater for this special group of learners. It was therefore concluded that gifted learners were drawn back in most of the classes. Given this set up, lecturers and trainee teachers may not treat the gifted learners the way they are supposed to, hence gifted education might not be viewed as an important aspect of the teacher training programme. As a result it was concluded that the concept of inclusive education in which gifted learners should be taken care of was still elusive among lecturers and trainee teachers. The participants had a misunderstanding of inclusive education and it was missing from teacher training programmes.

Generally, lecturers are not knowledgeable about gifted education as they could not specifically mention issues lacking in gifted education. This was an indicator that their teacher training programmes lacked theoretical knowledge and skills to adequately ground trainee teachers in handling gifted learners. If gifted education was included in the colleges' teacher training programmes the lecturers should be knowledgeable as they are the implementers of these programmes. The absence of gifted education in teacher education programmes meant that trainee teachers were not equipped with knowledge and skills to handle the gifted learner in the classroom. This manifested in the lessons observed when trainee teachers displayed lack of knowledge and skills in planning for and handling learners with multiple abilities (see appendix H). From these findings trainee teachers had not been prepared to handle gifted learners whilst at college. This therefore meant that gifted education was missing in the teacher training programme.

The research findings indicate that, learning styles for gifted and non-gifted learners may differ in relation to their different multiple abilities. Learners learn best when their teachers accommodate the difference in abilities, interest, learning styles and readiness levels (Tomlinson, 2001). The teacher's knowledge of the difference in learning styles between the gifted and non-gifted would help the teacher to cater for their different needs. From the responses from all the lecturers and observations made on lessons taught by trainee teachers it was evident that they had no knowledge about the learning styles of either gifted or non-gifted learners. Lecturers design the syllabi for teacher education programmes; hence they are more likely to omit learning styles in the teacher education programmes.

Findings from this study confirm a lack of commitment on the side of Teachers Colleges in the preparation of trainee teachers regarding the handling of gifted learners. The knowledge and skills that teachers require in order to successfully handle gifted learners are acquired not by chance but through rigorous teacher preparation. Trainee teachers are supposed to be equipped with teaching skills that enable them to apply theory of education in real teaching and learning situations inside and outside the classroom. In the Professional Studies course, trainee teachers are prepared to be professionally competent and effective teachers; they are placed in the reality of the classroom with its demands and experiences. At the same time, the course also equips trainee teachers with basic primary school administrative skills (Department of Teacher Education, 2013, Professional Studies Syllabus A, 2011). With relevant and appropriate teacher training programmes, trainee teachers should not struggle to handle gifted learners in the classes because they would have learnt that at the college. As highlighted in 2.2.3 that, Pre-service teachers require direction on how to cater for diversity by building knowledge from direct gifted education experiences, it is the responsibility of those who are training teachers to provide that service. Keen (2005) noted that pre-service teacher education in New Zealand had not successfully integrated principles of gifted education into the teacher education curriculum. This implies that it is not Zimbabwe only that did not successfully infuse the philosophies of gifted education in their teacher training programmes.

Recommendations:

- There is need for a national policy on gifted education. This would provide guidelines for teacher education programmes on the aspects of gifted education to be treated in preparing trainee teachers to handle gifted learners.
- It is therefore recommended that training programmes at Teachers Colleges should be reviewed in order to include a component of gifted education. Trainee teachers should be taught how to handle such learners without feeling threatened and not being sure how to address the needs of gifted learners.
- Teacher Training Colleges should come up with a relevant and appropriate programme that equips pre-service and in-service teachers with the skills and the knowledge of dealing with gifted learners.
- It is recommended that inclusive awareness programmes should be launched in schools and teachers colleges, so that teachers can be introduced to different learning styles and abilities. Trainee teachers and in-service teachers should embrace diversity in learners as the classroom consists of learners with different abilities.
- Teacher education curriculum should be improved by infusing inclusive education to enable trainee teachers to handle diverse learners in the classes. In this way learners who are gifted will feel welcome and appreciated in the classes.
- Teacher education programmes in Theory of Education and Professional Studies should include learning styles to enable the trainee teacher to handle both the gifted and non-gifted learners.

5.4. FINDINGS ON THE PROGRAMMES OF TRAINEE TEACHERS IN RELATION TO GIFTED LEARNERS

It is important to note that trainee teachers view the current teacher training programme as lacking in terms of preparing them to handle gifted learners. The literature in Chapter 2 recommends that, Pre-service teacher training courses should aim at providing trainee teachers with competencies for teaching gifted learners (Tasmania Department of Education, 2000). In this study, the lecturers

from the Professional Studies section were mandated to teach trainee teachers in the theory and practice of handling different learners. However, the research findings revealed that college programmes were not fulfilling this aim. The training seemed to emphasise individual differences at the expense of gifted learners, as in the response of Lecturer 2 from College B, who complained that, *“The programme does not adequately address the issue of gifted learners but it only offers introduction when covering the topics of individual differences. The way student teachers deal with gifted learners is inadequate ...”* The researcher’s observation on lessons taught by trainee teachers confirmed that trainee teachers on teaching practice lacked knowledge and skills to handle gifted learners. This was clear testimony that teacher training programmes did not adequately equip trainee teachers with the knowledge or skills to handle gifted learners.

According to Zundan-Fraser and Lancaster (2012), one of the major changes in the preparation of teachers for mainstream schools has been the need to prepare them for the diverse student populations they will be required to teach either during their teaching practice or when they are qualified. Under the current teacher training model in Zimbabwe, Theory of Education and Professional Studies have a role to play in preparing trainee teachers to meet the needs of multiple abilities. Research findings from the mentors revealed that the topic on handling gifted learners was not part of the curriculum in teachers colleges during their training. This has been drawn from the participants' responses, for example Mentor C who said, *“During our training the common term used was fast learners and their needs were covered under individual differences which were covered in both Theory of Education and Professional Studies syllabuses.”* It appeared to have been taken for granted that the treatment of individual differences in general would enable trainee teachers to handle gifted learners. The responses from the trainee teachers tallied with those of mentors, for example trainee A, who said, *“During Psychology of Education there were lectures that covered individual differences and particularly that slow learners were to be given remedial work and fast learners given extra work. I am not sure of the needs of gifted learners because that was not covered in lectures.”* The mentors and trainee teachers were of different training profiles but still had the same responses, which was an indicator that no initiatives had been made in order to prepare trainee teachers to handle gifted learners.

Judging from this assertion and research findings, there were no initiatives in teacher education programmes to prepare trainee teachers to handle gifted learners. The teacher education training programmes should develop new knowledge and skills relevant to the needs of diverse learners, including gifted ones. In relation to this the researcher sought to find out from mentors and trainee teachers the aspects they considered relevant for preparing newly trained teachers to meet the needs of gifted learners. In response to the question, participants indicated that there was a need to include gifted education in Professional Studies and Theory of Education, which are the core areas for preparing newly trained teachers for classroom practice. This revealed that gifted education was not part of their teacher training programmes.

Recommendations

- All aspects of gifted education should be fully embedded in teacher training programmes rather than being an appendage that is left to the discretion of the lecturer.
- There is need for teacher training colleges to have a serious relook at their teacher training programmes in a proactive manner to include gifted education. This would adequately prepare trainee teachers to cater for learners with diverse abilities.
- Teacher training colleges should review their curriculum specifically in Theory of Education and Professional Studies to include gifted education. This would prepare and equip the trainee teachers with knowledge and skills to handle gifted learners.
- There is need for workshops at school level to staff develop mentors on the qualities of teachers for gifted learners. This would enhance their handling of gifted learners as well as guide the trainee teachers whom they host.
- The teacher training programme should go beyond the treatment of the qualities of a general teacher and include qualities of the teacher for gifted learners.

5.4.1. Distinguishing gifted learners from other learners

When analysing findings from observations and interviews, most participants agree that, gifted learners refers to intellectually exceptionally able learners who

score an IQ of 130 or above on the Wechsler Intelligence Scale for learners (Painter, 1984). Lecturers were unable to give detailed explanations about the IQ tests, which showed that they had limited knowledge about the tests as they relate to gifted education as the IQ scores are used sometimes to identify gifted learners. Professionally qualified teachers should possess the required knowledge and skills to assess and identify gifted learners (Marland, in Carolyn 2014). Thus, knowledge of IQ Tests is important to the trainee teacher in identifying gifted learners. If lecturers have limited knowledge about the tests they might not see their relevance to the trainee teacher and are most likely to exclude them from their teacher training programmes.

The term 'gifted' refers to intellectually exceptionally able learners who score an IQ of 130 or above on the Wechsler Intelligence Scale for learners (Painter, 1984). Gifted learners are those individuals who have 130+ IQs and learn up to eight times as quickly as low IQ learners, and when provided with the right kinds of teaching can master several years' materials in one year (Ibata-Arens, 2012). Judging by these views, knowledge of the IQ tests is important for trainee teachers as it is one of the ways of identifying gifted learners. The knowledge of learners' IQs would enable the teacher to provide suitable learning materials and content. Responses from the lecturers to the above question on knowledge of standardised IQ tests reflected that they had limited knowledge about the tests and how they could assist trainee teachers to meet the needs of gifted learners. This meant that lecturers did not teach the topic on IQ tests.

Recommendation:

- Lecturers should make a deliberate effort to provide trainee teachers with knowledge about the IQ tests.

5.4.2. Inefficiency in the Mentoring Process

Findings revealed inefficiency in the mentoring process because when student teachers are in the schools they are placed under mentors who are qualified teachers. It is assumed that these teachers has knowledge and skills in handling gifted learners but it was not always the case, some mentors knew exactly how to handle gifted learners whereas the majority did not have the skills to do that. Mentoring can be defined as a sustained relationship between a novice and an

expert: "In a clearly defined teacher-mentoring relationship, the expert provides help, support and guidance that helps the novice develop the necessary skills to enter or continue on his/her career path" (Podsen & Denmark, 2007:10). The mentor is seen as a trusted friend, counsellor, guide advocate and role model, information-provider and provider for learning opportunities (McKimm, Jollie & Hatterr 1999). Some of the roles of the mentor include assisting with induction and introducing the mentee to the department processes and procedures.

Mentors and trainee teachers revealed that they had limited knowledge on how education programmes relate to gifted learners as such they were not sure of the qualities of teachers for gifted learners, as evidenced by the responses of Mentor A

"...teachers of gifted learners should have higher levels of education. The teachers should have diversity in thinking and should be creative." From Focus Group A: "The qualities of a teacher should include hard work, wide reading and open mindedness as being the hall mark of the teacher for the gifted pupils."

The given qualities were few and generally applied to any other teacher, not specifically to teachers of gifted learners. On the same note, Keen (2005) asserts that the effective teacher of gifted learners should not necessarily possess exceptional academic qualifications, but exceptional attitudes. However, there has been little research that attempts to understand those who teach in the field (Hodge, & Kemp, 2006). In order to handle the gifted learner the qualities of a teacher of gifted learners should supersede those of a general classroom practitioner. Mentors and trainee teachers could only mention teacher qualities which are mainly expected of any teacher. This meant that the participants had no knowledge of qualities of a teacher for gifted learners. Ironically, this showed that this was lacking in the teacher preparation programme.

Recommendations:

- The study recommended in-service training on handling gifted learners in class for mentors because they play a huge role in shaping teachers who

are still in training. They need to be equipped with all the skills and knowledge that the lecturers have.

- Mentors require in-service training in content analysis and evaluation in order to enable them to select relevant and appropriate curriculum materials for the gifted learners.

5.5. FINDINGS ON STRATEGIES TO ENHANCE TRAINING OF TEACHERS IN HANDLING GIFTED LEARNERS

Findings revealed a number of strategies which can be used to enhance training of trainee teachers in handling gifted learners.

5.5.1. Identification of gifted learners

Findings in this study highlight the importance of training teachers to identify gifted learners in the classes so that they can be able to meet their needs. As highlighted in 2.2.6.1, gifted learners shows superior reasoning powers and marked ability to handle ideas, they can generalise readily from specific facts and see subtle relationships, and has outstanding problem-solving ability (Codd, 2010). Easthampton Community School views characteristics of a gifted learner as an individual, who shows superior reasoning powers and marked ability to handle ideas, generalise readily from specific facts and see subtle relationships (Delisle & Galbraith 2002). It also sees a gifted learner as someone who sustains concentration for lengthy periods and shows outstanding responsibility and independence in classroom work. These are some of the characteristics that distinguish gifted learners from the rest.

Dudeney (2003) argues that one of the characteristics of gifted learners is that they are intrinsically motivated, which manifests itself through high levels of task commitment and creativity (Reis & Sullivan, 2009). They are also curious about events and how things work (Hodge, & Kemp, 2000). The research participants failed to articulate how these motivational aspects could be assessed, which could be attributed to lack of knowledge and experience by lecturers in teaching assessment of motivation, specifically for gifted learners. The lecturers were able to identify ways of maintaining gifted learners' motivation, which included giving them work outside the classroom, giving feedback on their performance, providing challenging work and engaging them in more work. However, these ways are more applicable to all learners than gifted learners only. The general implication

was that the lecturers lacked knowledge of assessing and maintaining motivation in gifted learners.

All the lecturers had limited knowledge of the social and emotional characteristics of gifted learners as reflected in some of their responses, such as the Lecturer from College A: *“Gifted children normally want attention and usually contribute during lessons. Lack of attention by the teacher would lead to withdrawal.”* Lecturer 1 from College B said, *“Most gifted learners are extroverts, they are not afraid of any situation, they can interact with visitors or strangers and only a few are of reserved character.”* Some of the obvious important social and emotional concerns of the gifted learner, as cited by Bainbridge (2007) are very sensitive, perfectionist and energetic, and could have been mentioned. They did not specify examples of such characteristics of which the trainee teacher needed to be aware. This meant that the teacher training programmes did not meet the social and emotional concerns of gifted learners

In terms of the characteristics of gifted learners, all respondents that are, mentors and trainee teachers had limited knowledge of how gifted learners could be identified. Maccagnano (2007) suggests forms of identifying giftedness through assessment of types of intelligence which can be either interpersonal or intrapersonal. However, the respondents focused on identification of fast learners who may not necessarily be gifted. Their limited knowledge about the characteristics of gifted learners could mean their failure to assess and identify such learners in their classes. Lack of knowledge of identification also implied that the teacher trainee preparation programme could not have treated the issue. The research findings showed that the participants had more knowledge on identification of fast learners than gifted learners. With regards to these findings, the mentors and trainee teachers were deemed to have no knowledge of identifying gifted learners. Both groups were of different training profiles and the gap between their training had not been filled up in terms of gifted education. This pointed out that as yet no initiatives by teacher education had been taken in preparing trainee teachers to handle gifted learners; therefore, the gifted learners were under-identified by both the mentors and trainee teachers. Studies conducted have proved that that the teacher training programme had to teach trainee teachers techniques on how to develop critical thinking skills in all learners

which is one of the attributes of a gifted learner. All the lecturers conceded that in the eyes of society teachers were viewed as critical thinkers. This implied that it was also necessary for the teacher training programme to develop critical thinking skills in trainee teachers if they were to function as expected by society. In addition, all the lecturers admitted that critical thinking skills practices were missing in most areas of the teacher training curriculum. Under such conditions the trainee teachers would not succeed in techniques to develop critical thinking skills in all learners.

There is a close relationship between teacher practices and the development of critical thinking skills in learners. In order to develop them the teacher should have knowledge of the relevant pedagogical practices. Most of the participants agreed that there was a relationship between teacher practices and development of critical thinking skills but failed to elaborate. Critical thinking skills are vital to both the trainee teacher and the gifted learners. Responses from lecturers indicated that critical thinking skills were important for all learners irrespective of giftedness. They also pointed out that society viewed teachers as critical thinkers. This implied that critical thinking skills should be developed in trainee teachers and primary school learners. However, the lecturers admitted that critical thinking skill practices were missing in most areas of the teacher training curriculum. From these findings it was evident that critical thinking skills were missing in teacher preparation programmes and trainee teachers were insufficiently equipped to apply to their career as teachers. Learners who have the ability to think critically and question things are able to survive in their daily lives.

Findings also highlighted that, gifted learners have problems in that there was a mismatch between the curriculum materials and their unique needs. Learners who are gifted learn content easily, and therefore need a novel and challenging curriculum to reach their potential (Maccagnano, 2007). The implication from the participants' responses was that they lacked content analysis and evaluation skills relevant for the selection of textbooks and curriculum materials suitable for gifted learners. Compacting curriculum allows educators the opportunity to restructure grade-level curriculum in order to provide for appropriate challenge and interest within the curriculum (Reis & Renzulli, 2005). The indication from the participants' responses was that they were not exposed to the principles of selecting or

compacting curricular materials for learners with varying abilities during their teacher preparation. Furthermore, the respondents indicated that teacher's performance did not meet the gifted learners' challenges. It was conclusive that the gifted learners were not given space to apply critical thinking in their learning.

Recommendations:

- Intensive training on identifying and accommodating gifted learners is required, an expert with the skills and knowledge on gifted education can be contracted to disseminate his or her skills.
- All lecturers in primary teacher training colleges should undergo staff development to ensure that they have knowledge of assessing and maintaining motivation in gifted learners. This would enable them to develop assessment and motivational techniques in trainee teachers who in turn would apply the knowledge in teaching gifted learners.
- Workshops and seminars should be organised at college level to orient lecturers to the social and emotional concerns of gifted learners so that they would translate that into their lecture programmes in preparing trainee teachers.
- Mentors and trainee teachers need to know the characteristics of gifted learners if they are to be able to identify and assess such learners through instructional development workshops for mentors on identification of gifted learners and teacher training programmes that emphasise on characteristics of gifted learners to enable the trainee teacher to identify the learners. This would help the trainee teacher to draw up appropriate instructional designs suited to the learners.
- Teacher training colleges should equip trainee teachers with technological skills such as computer-based instruction and computer-based learning to enable them to guide all learners who are gifted as they can benefit a lot from technology.
- Teacher training programmes to embrace a wide range of critical thinking skills in all areas. This would enable the trainee teachers to develop critical thinking skills in the learners.

5.5.2. Inadequate knowledge of diverse ways in which learners learn

Findings reveal that there is inadequate knowledge about learning styles among lecturers, trainee teachers and mentors; this is a matter of concern because if they are unable to recognise the learning styles of the learners, they would not be able to accommodate them in the classroom. Literature recommends that the learning styles of different learners should be considered in the classroom. As discovered by Howard Gardner in 1983 (Leornard, 2002, p.223), Multiple Intelligences, refers to a means of understanding the many ways in which human beings are intelligent, that is, how we process, learn, and remember information (Maftoon & Sarem, 2012), MI theory has revealed that all learners can learn successfully when they have the opportunities to process information in their own way, and provides relevant information regarding uniqueness of individuals. It is important for trainee teachers to note that, the various intelligences explain why different learners have different abilities in different subjects of the curriculum. McKenzie (2002) cited in Maftoon & Sarem (2012) summarises these intelligences into three main domains, namely: *analytic*, *introspective* and *interactive*, each of which serves as an organisational basis for teachers to understand the relationship between the intelligences and how they work with one another. The understanding of this theory would guide the trainee teachers to accommodate different learning styles in their classes. On the other hand, lecturers in teacher training colleges will have to find a means to include MI in their teacher training courses, so that lecturers are able to teach trainee teachers about different learning styles.

The inclusive classroom should recognise and respond to the diverse needs of learners, accommodating different learning styles and rates of learning to ensure effective learning by all learners. Both mentors and trainee teachers saw the need to improve the classroom environment for inclusivity, which implied self-reflection by both groups on their practice. Through this they realised their shortcomings in managing inclusive classrooms and hopefully gifted learners. O`Gorman (2010) argues that, if the quality of learning for learners with Special Education Needs in inclusive education is to be enhanced, the quality of teacher education must be continuously upgraded. The participants opted for workshops organised at school and ministry levels that would enhance their management skills in handling gifted learners and inclusive classrooms.

Peterson (2007) observes that it is now time to accept that most teachers work in environments where learners with diverse needs are present and that there is need for them to examine how best they can support them in order to provide meaningful education for all learners. School-based workshops would be more effective since they would address the felt needs of the teachers and learners. According to Peterson (2007), most teachers work in environments in which learners with diverse needs are present and there is need for them to examine how best they can provide meaningful education for all learners. Through interviews and focus group discussion the researcher sought to find out from the respondents ways to improve inclusive classroom environment needed to offer education to all learners. Responses from mentors and trainee teachers highlighted the need for the improvement of classroom environments for inclusivity. They also suggested the need for school organised workshops on management of inclusive classes. From these findings it was concluded that inclusive education would cater for the gifted learners.

Recommendations:

- It is therefore recommended that lecturers, mentors and trainee teachers be skilled in different learning styles, this will improve the way they perceive gifted learners in their respective classrooms.
- Schools should create learning environments conducive to the needs of diverse learners. Learners with multiple intelligences should be able to learn with other learners in the class through the style they prefer.
- There is need for school based workshops for improving and managing inclusive classroom environments.

5.5.3. Meeting the needs of the gifted learners

In this study it was revealed that trainee teachers find it difficult to meet the needs of gifted learners. This frustrates them because they are unable to proceed with the lesson if the gifted learners tend to be disruptive. The easily applicable and effective strategy to meet the needs of gifted learners in the inclusive and mainstream classroom is differentiated instruction, based on the premise that since learners differ significantly in their interests, learning styles, abilities and prior experiences, then teaching strategies, materials and pace should vary

accordingly (Tomlinson, 2000). Responses from mentors and trainee teachers to interview questions and trainee teacher focus group discussion revealed that schools were not meeting the needs of the gifted learners.

That responses reflected that schools had no policies with regards to gifted learners implied that gifted learners were not recognised. As a result, more emphasis was placed on extension work for fast learners than gifted learners. Research findings indicated that mentors and trainee teachers did not cater for the needs of the gifted learners. The main cause was that gifted education was missing in teacher education programmes to equip trainee teachers with knowledge and skills to handle gifted learners.

Trainee teachers are expected to display relevant and formative impact on professional skills, knowledge and abilities to handle gifted learners of diverse abilities. Responses from trainee teachers showed lack of theoretical knowledge and skills in handling gifted learners. Their responses to the above question did not address the demands of the question such as given by Trainee Teacher B, who said, *"The needs of gifted learners could be addressed by giving extra work."* Focus Group A said *"The teacher should find methods that are suitable for the gifted learners."* From the lessons observed the researcher noted that the trainee teachers were delivering their lessons through question and answer, demonstration and group work as teaching methods. In the process the needs of gifted learners were not catered for. This implied that the content of handling gifted learners was lacking in the teacher training programme.

Teachers in an inclusive classroom should use their time flexibly, call upon a range of instructional strategies, and become partners with their learners to see that both what is learned and the learning environment are shaped to the learner (Tomlinson, 1999). In so doing the average lesson is improved to meet the needs of learners with multiple abilities, including gifted learners. The mentors' responses were short of strategies to improve the normal lessons to meet the needs of the gifted learner as cited by Tomlinson, (1999). Their focus on giving extra work to fast learners did not meet the needs of the gifted learner. On the other hand, the trainee teachers' responses reflected some knowledge about the needs of gifted learners but they failed to demonstrate the skills in the lessons observed. The conclusion derived from this was that mentors and trainee teachers were

focussing more on general individual differences at the expense of gifted learners. Thus, lessons conducted by trainee teachers were not geared to accommodate the gifted learner.

Recommendations:

- Differentiated instruction and adopting different learning styles is recommended, the strategy could be applied by any teacher to learners of diverse needs and abilities.
- Mentors should be staff developed through in-service training and workshops so that they gain knowledge and skills to meet the needs of gifted learners in their classes. The knowledge and skills gained would also enable them to mentor the trainee teachers on handling of gifted learners.
- The teacher education programmes should be designed to lead trainee teachers to acquire competences that would enable them to address the needs of gifted learners.
- Teacher training colleges should design teacher education frameworks that include differentiated instruction that would enhance the development of competent trainee teachers in planning lessons to accommodate gifted learners.
- Teacher training colleges should mount workshops for mentors on differentiated instruction for the improvement of their practice and guidance of trainee teachers.

5.5.4. Best ways of training teachers to teach gifted learners

According to the Tasmania Department of Education (2000), pre-service teacher training courses should aim at providing teachers with competencies in the teaching of learners who are gifted. On the same note, Lichtenwalter (2011) claims that teacher training for teachers to handle gifted learners could simply be an added component to other training already in place. In order to address this, the researcher sought to find out from the respondent lecturers the best methods they thought could be used to train teachers to teach gifted learners. Their responses had an orientation towards the need for teacher training programmes to be reviewed and include knowledge and skills to handle gifted learners. This

would produce teachers with professional competences to handle gifted learners. The lecturers also indicated the need to have specialists in teacher training in producing teachers for gifted learners. One lecturer further suggested the reduction of the current primary school teacher-pupil ratio from one to 40 to one to 20 to allow the teacher more time to attend to individual learners, including gifted ones. Although the proffered suggestions were good, by looking at the current economic situation in Zimbabwe the suggestions were not feasible.

The respondents conceded that the teacher education training programme needed reforms. The major suggested reforms included review of syllabi and textbooks to cater for all learners, reduction of school fees by government and revisiting the language policy. If the quality of learning for learners with special needs in inclusive education is to be enhanced, then the quality of teacher education should be continuously upgraded (O’Gorman, 2010). All the respondents reached a consensus on the need for educational reforms to achieve education for all in Zimbabwe. They also advocated major reforms in teacher education to include gifted education. The findings indicated that reforms were needed in the education programmes, beginning at primary school level through to teacher education. There is an imperative for reviewing the teacher training programmes to include gifted education.

Recommendations:

The only best way to cater for the needs of a gifted learner is through infusion of gifted education in teacher training programmes which should be guided by a clearly defined gifted education policy.

- There should be an overhaul educational reform in all education sectors as a priority issue which includes review of syllabi, textbooks and language policy.

5.6. RECOMMENDATIONS FOR FURTHER RESEARCH

In responding to the question Lecturer from College A said “*There is need for research to be carried out on gifted education as this remains a grey area. The target should be areas which gifted learners tend to be inclined to.*” Lecturer 2

from College B said "*I think the topic 'what causes giftedness: Is it heredity or is it nurturing?' There is also need to find out what makes people different in order for us to be able to deal effectively with gifted learners.*" The responses from all the lecturers indicated a common view that there was need for research to be carried out on gifted education.

The areas of research they highlighted were relevant to gifted education. Research in education is necessary for teachers to come up with new insights to the profession that would lead to innovations, modifications and adaptations to the current curricula. On the basis of this view, the researcher sought to find out from lecturer respondents possible research areas in gifted education. In their responses the lecturers conceded the need for research into gifted education. Gifted education was therefore prime ground for research in Zimbabwe.

Recommendation:

- Lecturers and research scholars should be encouraged to carry out research in gifted education in order to unveil and avail knowledge about gifted education to educators.

5.7. GUIDELINES FOR PREPARING TRAINEE TEACHERS IN HANDLING GIFTED LEARNERS

The study proposes the following guidelines:

- Upgrade teacher education programs continuously. This point to the transformative opportunity for teacher education to make a strong link between what is learnt by trainee teachers in their initial training to their real classroom practice.
- Infusing inclusive education, in teacher training programmes.
- Developing teacher education programmes appropriate to primary school environments that address aspects of giftedness. The programme should include identification of gifted learners, characteristics of gifted learners and differentiated planning and computer based teaching.
- Integrating methods of assessing the performance of gifted learners into the teacher education programme.

- Staff development of teacher educators in the area of gifted and inclusive education.
- Upgrading college libraries books and journals on gifted education.
- Developing professional and ethical standards in trainee teachers for dealing with gifted learners.
- Extending the trainee teachers' knowledge and reflection of educational and pedagogical theories of giftedness through research.

The findings of the research study revealed the following implications for practice.

- There were no initiatives taken by teachers colleges in preparing trainee teachers to handle gifted learners. This was confirmed by evidence from the lecturers that colleges were not covering gifted education. As a result trainee teachers were not able to handle learners with multiple abilities. The results indicate inadequacies of the teacher education programmes in preparing trainee teachers to handle diverse learners. According to O'Gorman (2010), if the quality of learning for learners with special needs in inclusive education is to be enhanced, then the quality of teacher education should be continuously upgraded.
- Lecturers lacked knowledge in this has emanated from an elusive inclusive policy which focuses mainly on inclusivity based on disability. There is need to 'reculture' policymakers and teacher education on the meaning attached to inclusive education, gifted education and the gifted learner. This is confirmed by Machi (2007), who argues that inclusive education is characterised by a shared responsibility among all stakeholders in an effort to meet the different needs of all learners. The shift of the meaning of these three terms would give a clear picture of what sort of a teacher needs to be produced by teacher education programmes to meet the needs of a gifted learner.
- Qualified teachers lacked knowledge and skills in handling gifted learners. Inherent in this was the implication that they were not trained to handle gifted learners. On the basis of the research study findings, teachers need in-servicing in gifted education. This would serve as a basic foundation and information for teachers to utilise effective pedagogical approaches in catering for learners with diverse abilities as enshrined in Gardner's (1999)

Multiple Intelligences Theory. Teachers can benefit from the learners multiple abilities and strengths to empower their intellectual, socio-emotional development by designing practical and challenging learning activities inside and outside the classroom.

5.8 RESEARCH CONTRIBUTION TO EXISTING KNOWLEDGE

Results from this study could be useful for policymakers and teacher educators as they work to construct programmes and policies for preparing and maintaining a high quality and relevant teaching force in Zimbabwe. Wood (2009:3) writes: "In order to ensure quality outcomes for gifted students in classrooms, it is important that teachers understand the nature of the gifted learner as well as particular strategies that address their needs." A clearer understanding of how teachers perceive gifted education and their work within the school context may help the nation reconsider the ways in which we prepare teachers. Given the Ministry's thrust on improving teacher education and continuing dialogue about inclusive education, this research could shed light on how best trainee teachers can be adequately trained to handle gifted learners in the contemporary classroom in Zimbabwe. The research findings expand the knowledge base in the field of gifted education in general and Zimbabwe in particular. In Zimbabwe there have been a few studies to date on gifted education (Manyowa & Ncube, 2013). This research study provides a springboard for further research in gifted education. The teaching fraternity is restricted to fast and learners with barriers to learning at the expense of multiple abilities. The ideas generated in this research can really go a long way in improving the training of trainee teachers to handle gifted learners. The knowledge of multiple intelligences would assist teachers in handling gifted learners. The research has also unveiled differentiated instruction as a strategy to handle learners with diverse abilities. As a result the exposure of this strategy to educators would empower them to draw up instructional designs suitable for gifted learners.

5.9 LIMITATIONS OF THE STUDY

The study was carried out at a period when the country was facing economic challenges that negatively affected the teaching profession, which reduced the area of coverage of the research study. The researcher and the mentors being

educators and expected to be on duty for eight hours made it difficult to collect data during working hours. However, the researcher sought consent from the school authorities and the mentors to collect data after working hours. Qualitative research requires data collection over an extended period of time (Merriam, 1998). While the researcher had already planned her lesson observation schedule with trainee teachers attached to primary schools close to college, the Ministry of Education Sports, Arts and Culture announced early closure of as a result of the national census that was to take place in Zimbabwe. This delayed the data collection process. There was also delayed response by both ministries to the application by the researcher to be granted permission to carry out the research study in colleges and schools.

5.10 CONCLUDING REMARKS

In conclusion, the aims of the study were met and all the research questions were answered, feedback was provided on Teacher Education Initiatives undertaken by Teachers Colleges to prepare trainee teachers in handling gifted learners in primary schools in Zimbabwe. The study indicates that although Teachers Training Colleges are trying their best to prepare trainee teachers, there are still some gaps in the aspects of the training, in particular preparing them in handling gifted learners in class. More emphasis should be on preparing teachers for the reality out there, when teachers are employed in schools they will be faced with some real challenges. They will be supposed to teach learners with diverse needs that means they will have to practice the theory that they learnt at the college, apply the knowledge and skills to meet the diverse needs of learners in class.

The study found that if trainee teachers are equipped with the relevant skills and appropriate knowledge they will be able to meet the demands of different learners in the primary classes in Zimbabwe. Lastly it is evident that handling gifted learners is not yet a priority in preparing trainee teachers by primary school teachers colleges in Zimbabwe. As such, it may be difficult to infuse the component of gifted education into the curriculum.

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APPENDICES

APPENDIX A: SYLLABUSES

UNIVERSITY OF ZIMBABWE
DEPARTMENT OF TEACHER EDUCATION
TEACHERS COLLEGE A
DIPLOMA IN EDUCATION (PRIMARY) 2-5-2 PROGRAMME
PROFESSIONAL STUDIES SYLLABUS 'A'

1.0 PREAMBLE
This syllabus is designed for post 'O' level students on a three year pre- service primary school teacher education programme, who spend an initial two terms at college ,five terms on teaching practice and the last two terms in college (2-5-2).The syllabus aims at putting theory into practice.

2.0 AIMS
The aims of the syllabus are:

- 2.1 to enable students to put theory into practice;
- 2.2 to equip students with knowledge, skills and teaching strategies;
- 2.3 to develop an innovative teacher; and
- 2.4 to enable students acquire knowledge and understanding of school administration.

3.0 OBJECTIVES
The students should be able to:

- 3.1 acquire knowledge and skills in scheming and planning;
- 3.2 compile and maintain teaching and learning records;
- 3.3 develop skills of language and communication;
- 3.4 use chalkboard and media;
- 3.5 acquire knowledge on lesson presentation and evaluation;
- 3.6 develop innovative skills; and
- 3.7 acquire knowledge on public service regulations and conditions of service.

4.0 CONTENT

4.1 Teaching and Learning Skills:

- 4.1.1 syllabus development;
- 4.1.2 syllabus interpretation;
- 4.1.3 scheming;
- 4.1.4 planning;
- 4.1.5 teaching;
- 4.1.6 record keeping and maintenance; and
- 4.1.7 teaching and learning evaluation.

4.2 Media and Technology:

- 4.2.1 selection and use of media and technology;
- 4.2.2 categories of media and technology;
- 4.2.3 information communication technology (I.C.T);
- 4.2.4 audio- visual aids ;
- 4.2.5 chalkboard work ;
- 4.2.6 electronic and print media ;and
- 4.2.7 display and storage of media .

4.3 Class /Classroom Management Skills:

- 4.3.1 theories of teaching;
- 4.3.2 classroom displays;
- 4.3.3 class management, organization, group and individual work ;
- 4.3.4 inclusive education; and
- 4.3.5 discipline.

4.4 Reading and Writing Skills :

- 4.4.1 chalkboard skills;
- 4.4.2 hand writing skills; and
- 4.4.3 reading skills.

4.5 Questioning Techniques:

- 4.5.1 framing and distributing questions;
- 4.5.2 types of questions; and
- 4.5.3 dealing with pupils' questions.

4.6 Educational Measurement and Evaluation:

- 4.6.1 test, measurement and evaluation ;
- 4.6.2 types of tests; and
- 4.6.3 marking.

4.7 Educational Administration:

- 4.7.1 administration;
- 4.7.2 public service regulations and conditions of service;
- 4.7.3 the school and the community; and
- 4.7.4 satellite schools and composite classes.

4.8 Teaching Methods:

4.8.1 Discussion:

- 4.8.1.1 class discussion ;
- 4.8.1.2 group work ; and
- 4.8.1.3 debate.

4.8.2 Problem Solving :

- 4.8.2.1 research;
- 4.8.2.2 quiz, puzzles and riddles; and
- 4.8.2.3 work cards and work sheets.

4.8.3 Guided Discovery / Inquiry:

- 4.8.3.1 experimental work ;
- 4.8.3.2 field work and field trips ;and
- 4.8.3.3 electronic media .

4.8.4 Presentation methods:

- 4.8.4.1 lecture method;
- 4.8.4.2 demonstration;
- 4.8.4.3 resource persons;
- 4.8.4.4 story telling ;
- 4.8.4.5 radio lessons;
- 4.8.4.6 games and simulations ;
- 4.8.4.7 drama ;
- 4.8.4.8 project work ;
- 4.8.4.9 drawing and painting ;and
- 4.8.4.10 use of songs.

4.9 Pre-Formal Learning:

- 4.9.1 pre-reading skills and activities ;
- 4.9.2 pre-writing skills and activities ; and
- 4.9.3 pre-number skills and activities.

5.0 APPROACHES

The following approaches/methodologies will be used for teaching purposes:

- 5.1 lectures;
- 5.2 seminars;
- 5.3 assignments ;
- 5.4 tests;
- 5.5 discussions;
- 5.6 use of resource persons ;
- 5.7 peer teaching ;
- 5.8 block teaching practice ;

- 5.9 information communication and technology;
- 5.10 research ;
- 5.11 distance learning/ modules and handouts; and
- 5.1.2 field visits .

6.0 ASSESSMENT

- 6.1 Coursework- one essay, case study, practical assignment and test;
- 6.2 Examination- three hour paper on short response type, case study and one essay
- 6.3 Weighting:
 - 6.3.1 coursework -40%
 - 6.3.2 examination -60%
- 6.4 Requirements to Pass :
 - 6.4.1 syllabus 'A' carries 25% in the professional studies area (section 4).
 - 6.4.2 to pass syllabus 'A' a student must score at least 50 % in both coursework and examination.

**UNIVERSITY OF ZIMBAWE
DEPARTMENT OF TEACHER EDUCATION
TEACHERS COLLEGE B**

**DIPLOMA IN EDUCATION (PRIMARY)
PROFESSIONAL STUDIES SYLLABUS 'A' (GENERAL COURSE)**

1.0 PREAMBLE

This syllabus is designed for post Ordinary Level pre-service students pursuing a three-year Diploma in Education (Primary) course following a 2-5-2 model (initial two terms residential phase, five terms school based experience and open and distance learning and final two terms residential phase). The intention of the course is to lay a common foundation for the development of general teaching skills applicable at primary school level. The content covered is up to first year university level.

2.0 AIMS

The course aims to:

- 2.1 develop in students basic concepts and skills in teaching;
- 2.2 foster in students an understanding of trends in instructional media and technology;
- 2.3 lay a foundation in the relationships between theories and methodologies in teaching and learning; and
- 2.4 equip students with basic administrative skills in education.

3.0 OBJECTIVES

By the end of the course students should be able to:

- 3.1 demonstrate skills in scheming, planning and lesson delivery;
- 3.2 link theory and methodologies in teaching and learning;
- 3.3 effectively evaluate pupils' performance;
- 3.4 design media for teaching and learning;
- 3.5 justify the importance of teaching mathematics and language; and
- 3.6 apply basic school administrative skills.

4.0 CONTENT

SECTION A: INITIAL TWO TERMS RESIDENTIAL PHASE

4.1 Introduction to Professional Studies Syllabus 'A'

- 4.1.1 Rationale
- 4.1.2 Components and assessment

4.2 The primary school curriculum

- 4.2.1 Goals of the primary school curriculum

REF:MK/AB/PSA/GEN/06/10

- 4.2.2 Organisation of the primary school curriculum
- 4.2.3 Principles of syllabus interpretation

4.3 Teaching skills

4.3.1 Preparation skills

- 4.3.1.1 Formulation of aims and objectives
- 4.3.1.2 Principles of scheming
- 4.3.1.3 Principles of lesson planning

4.3.2 Lesson delivery skills

- 4.3.2.1 Set induction
- 4.3.2.2 Stimulus variation
- 4.3.2.3 Questioning techniques
- 4.3.2.4 Motivation
- 4.3.2.5 Evaluation of lessons and pupils' work
- 4.3.2.6 Self evaluation

4.3.3 Management and Organisation of learning

4.3.3.1 Class management

- 4.3.3.1.1 Designing pupils' learning tasks
- 4.3.3.1.2 Supervising and marking pupils' work
- 4.3.3.1.3 Handling the individual child
- 4.3.3.1.4 Grouping pupils for learning tasks
- 4.3.3.1.5 Discipline
- 4.3.3.1.6 Interaction patterns
- 4.3.3.1.7 Sensitivity to feedback
- 4.3.3.1.8 Records and record keeping

4.3.3.2 Classroom management

- 4.3.3.2.1 Learning centre/ displays
- 4.3.3.2.2 Sitting arrangement

4.4 Educational Media and Technology

- 4.4.1 Rationale
- 4.4.2 Lettering/Handwriting
- 4.4.3 Chalkboard presentation
- 4.4.4 Principles of basic media design
- 4.4.5 Types of media
- 4.4.6 Information and Communication Technology (ICT) and e-Learning
- 4.4.7 Planning for effective use of media

SECTION B: OPEN AND DISTANCE LEARNING

4.5 Administration

- 4.5.1 Education Act
- 4.5.2 Public Service Regulations
- 4.5.3 Acts of misconduct and grievance procedures
- 4.5.4 Basic administration theories
- 4.5.5 Roles of Head Office, Provincial Office, District Office and the School Head
- 4.5.6 Roles of Responsible Authority
- 4.5.7 Roles of the School Development Committee (SDC) and School Development Association (SDA)
- 4.5.8 Roles of Deputy Head, Teacher -in-Charge and class teacher
- 4.5.9 Channels of communication
- 4.5.10 Performance management
- 4.5.11 Public relations

SECTION C: FINAL TWO TERMS RESIDENTIAL PHASE

4.6 Foundation Language

- 4.6.1 Philosophy of teaching language
- 4.6.2 Methods of teaching reading
- 4.6.3 Theories of language acquisition
- 4.6.4 Structural approach
- 4.6.5 Functional approach
- 4.6.6 Structural-functional approach
- 4.6.7 Morpheme theory
- 4.6.8 Phonic content
- 4.6.9 Beginning reading
- 4.6.10 Infant reading
- 4.6.11 Junior reading
- 4.6.12 Error diagnosis and remedial reading

4.7 Foundation Mathematics

- 4.7.1 Philosophy of teaching Mathematics
- 4.7.2 Theories of teaching Mathematics
- 4.7.3 Methods of teaching Mathematics
- 4.7.4 Learning resources in Mathematics education
- 4.7.5 Error diagnosis and remediation

5.0 APPROACHES

- 5.1 Lectures
- 5.2 Seminars and workshops

- 5.3 Project method
- 5.4 Peer teaching
- 5.5 Micro-teaching
- 5.6 Practical work
- 5.7 Collection of resources
- 5.8 Open, distance and e-Learning
- 5.9 Demonstrations
- 5.10 Research
- 5.11 Information and Communication Technology (ICT) integration
- 5.12 Class visits

6.0 ASSESSMENT

Assessment is by coursework and examination.

- 6.1 Coursework consists of two assignments of equal weighting (one from open and distance learning section) done during the last three terms of the course (50%).
- 6.2 Examination consists of one three-hour paper 50%.

7.0 CONDITIONS FOR PASSING

- 7.1 Candidate must pass coursework and examination separately with a score of 50%.
- 7.2 Candidate must submit all pieces of work as required by the subject area.

APPENDIX B: REQUEST AND RESPONSE LETTERS

30th June 2012

The Permanent Secretary for Ministry of Education, Sport, Arts and Culture

Ambassador House

Harare

Dear Madam,

RE: REQUEST TO CARRY OUT RESEARCH IN TWO OF YOUR PRIMARY SCHOOLS IN GWERU URBAN

I am University of South Africa doctoral student. I am based at Mkoba Teachers College in Gweru. I am carrying out a research in Curriculum Studies on the topic shown below:

Exploring the teacher education initiatives in the preparation of student teachers for handling gifted learners at primary school level as a way of ensuring education for all in the schools in Zimbabwe.

I am requesting for permission to conduct the research at St. Pauls and Bumburwi primary schools which are in Mkoba suburb. All the information collected would be used for academic purposes only and issues of confidentiality would be strictly adhered to.

Yours Faithfully,

F. Dube

Florence Dube (Mrs.)

Mkoba Teachers College

Box Mk20 Mkoba

Gweru

05/06/2012

The Permanent Secretary For Higher and Tertiary Education

RE: REQUEST TO CARRY OUT RESEARCH IN TWO OF YOUR TEACHERS COLLEGES

I am a UNISA registered student studying towards a Philosophy of Education Doctorate degree. My research topic is: **Exploring the teacher education initiatives in the preparation of student teachers for handling gifted learners at primary school level as a way of ensuring education for all in the schools in Zimbabwe.**

I have identified Mkoba Teachers College and Morgenster Teachers college. Mkoba has been identified for convenience and Morgenster is moving towards inclusive education specialization an area that includes gifted education.

I am humbly requesting for authority to carry out research in these two institutions in your Ministry.

Yours Faithfully,

F. Dube

Florence Dube (Mrs.)

P. O. Box 392
AJH 6-85
UNISA
0003
03/12/2012

The Zimbabwe Department of Education
ZIMBABWE

To whom it may concern

Please be informed that Mrs Dube F, student number 47240407, is a PhD registered student at UNISA. She has registered in the department of Curriculum and Instructional Studies.

Her research focuses on: **Exploring the teacher education initiatives in the preparation of student teachers for handling gifted learners at primary school level, as a way of ensuring education for all in Zimbabwe.**

I, as supervisor and promoter therefore, request that she be granted permission to conduct research and collect data with relevant Departments and participants in the Zimbabwe Education Department.

Yours Sincerely
Dr MM Rakoma



*all communications should be addressed to
"The Secretary for Education Sport and Culture"
Telephone: 734051/59 and 734071
Telegraphic address : "EDUCATION"
Fax: 794505/705289/734075*



ZIMBABWE

Ref: C/426/4
Ministry of Education, Sport,
Arts and Culture
P.O Box CY 121
Causeway
Zimbabwe
18 December 2012

Mrs F.Dube
Mkoba Teachers College
P.O.Box Mk 20
Mkoba
Gweru

RE: PERMISSION TO CARRY OUT RESEARCH

Reference is made to your application to carry out research in the Ministry of Education, Sport, Arts and Culture dated 03 December 2012.

Please be advised that the Secretary for Education, Sport, Arts and Culture has granted you permission to carry out the research.

You are required to report first to the Provincial Education Director who will assist you to gain entry into the schools you want to involve in your study.


Gweme I.

For: SECRETARY FOR EDUCATION, SPORT, ARTS AND CULTURE



All communications should be addressed to
"The Provincial Education Director, Ministry of
Education, Sport Arts and Culture"
Telephone:222911/4
Fax:226482 or 228595



Ministry of Education
Sport, Arts and Culture
P.O Box 737
GWERU

19 December 2012

Mrs F. Dube
Mkoba Teachers College
P.O.Box Mk 20
Mkoba
Gweru

Dear Madam

**RE: APPLICATION FOR PERMISSION TO CARRY OUT AN EDUCATIONAL RESEARCH
IN THE MINISTRY OF EDUCATION, SPORT, ARTS AND CULTURE**

Reference is made to your application dated 3 December 2012 on the above. Please be advised that permission has been granted to you to carry out a research on:

Exploring Teacher Education initiatives in the preparation of trainee teachers to enable them to handle gifted learners in Primary Schools in Zimbabwe.

The permission has been granted on these conditions:

- a) That in carrying out this research you do not disturb the learning/ teaching programmes in schools.
- b) That you avail the Ministry of Education, Sport, Arts and Culture with a copy of your research findings.

A handwritten signature in blue ink, appearing to read "A. Gudo".

A. GUDO
PROVINCIAL EDUCATION DIRECTOR: MIDLANDS PROVINCE

**All official communications should
be addressed to
"The Secretary"**

Telephone: 795891-5, 796441-9,
730055-9
Fax: 733070
Telegraphic address "EDUCATION"



Reference: E/7/6

SECRETARY FOR HIGHER AND TERTIARY
EDUCATION

P.O. Box CY 7732
Causeway

HARARE

16th November 2012

Mrs. F. Dube
Mkoba Teachers College
P.O. Box MK 20
Mkoba
Gweru

Dear Mrs. F. Dube

**REQUEST FOR PERMISSION TO CARRY OUT RESEARCH ON "EXPLORING
THE TEACHER EDUCATION INITIATIVES IN THE PREPARATION OF
STUDENT TEACHERS FOR HANDLING GIFTED LEARNERS AT PRIMARY
SCHOOL LEVEL AS A WAY OF ENSURING EDUCATION FOR ALL IN THE
SCHOOLS IN ZIMBABWE "**

Reference is made to your letter, in which you request for permission to carry out an educational research on "*Exploring The Teacher Education Initiatives In The Preparation Of Student Teachers For Handling Gifted Learners At Primary School Level As A Way Of Ensuring Education For All In The Schools In Zimbabwe*".

Accordingly, be advised that the Head of Ministry has granted permission for you to carry out the research at Mkoba and Morgenster Teachers' Colleges.

It is hoped that once completed your research will benefit the Ministry. Accordingly, it would be appreciated if you could supply the Office of the Permanent Secretary with a final copy of your study, as the findings would be relevant to the Ministry's strategic planning process.


MJ Chirapa

for: PERMANENT SECRETARY

APPENDIX C: CONSENT FORM FOR PARTICIPANTS: UNIVERSITY OF SOUTH AFRICA

Informed Consent Form

Name of researcher: Florence Dube

Registration Number:47240407

Degree: Doctor of Philosophy Curriculum Studies

e-mail:mkutswane@gmail.com

Department of Education

UNISA

Supervisor: Dr. Mahlo

Research Topic: Teacher education initiatives undertaken by teachers colleges to prepare trainee teachers in handling gifted learners in primary schools in Zimbabwe.

I am a post graduate student at UNISA carrying out a research on teacher education. The research is looking at teacher education initiatives in the preparation of trainee teachers for handling gifted learners as a way of ensuring education for all in Zimbabwean primary schools. Your contribution in the success of this study is very valuable and due to this fact, you are kindly requested to participate in this research. I will be visiting your school from the 11th June to the 19th June 2012.

During the interview, you will be expected to answer questions on how you handle gifted learners in a mainstream classroom in order for these learners to reach their potential. Besides the use of the interview, data will also be gathered through focus group discussions and class observations.

A number of class observations will be carried out during this period in order for me to learn how you handle gifted learners. Interviews and focus group discussions to be carried out will take a period of not more than one hour. While carrying out the interviews you should feel free to expand on the discussion topic as well as other related aspects that could enrich this topic. If during the interview you feel that you are not in a position to respond to some questions, you are allowed to say so and indicate that we should move on to the next one. In order to

protect your identity, a code number will be assigned to you. All data collected will be kept securely in order to protect interviewee identity.

CONSENT TO PARTICIPATE IN THE RESEARCH STUDY

1.....understand that I will be a participant in the research interview carried out by Florence Dube on the Exploration of Teacher Education initiatives in preparing teacher trainees in handling of gifted learners at primary school level in Zimbabwe. I clearly understand that participating in the research interview is voluntary.

I hereby give consent to participate in the research conducted by Mrs. F. Dube.

Sincerely,

Respondent's Name.....

Respondent's Signature.....

Date:.....

APPENDIX D

Interview schedule for lecturers

1. What is your understanding of inclusive education?
2. What influence has inclusive and mainstreaming on gifted education?
3. What is currently lacking in gifted education as a crucial issue in the 21st century?
4. How can we best train teachers to teach gifted learners?
5. How has the World Wide Web affected gifted learners?
6. How do gifted learners' learning styles differ from non-gifted learners learning styles?
7. Please describe your learning styles inventory
8. What is the gifted learners' preferred cognitive information style? Is it sequential or simultaneous?
9. How can we accurately assess motivation and maintain it in gifted learners?
10. What do you see as the most important social and emotional concerns of gifted learners which trainee teachers need to be aware of?
11. (i): What is your opinion on the standardised IQ Tests?
12. (ii): How can knowledge of standardised I.Q. tests assist trainee teachers to meet the needs of gifted learners?
13. How adequate is your training programme in equipping trainee teachers with knowledge and skills in handling gifted learners?
14. What educational reforms are currently needed to ensure the country achieves the goal of offering education for all?
15. What still needs to be researched in gifted education?

APPENDIX E

Interview schedule for mentors

1. What qualities are required of teachers of gifted learners?
2. How did your training prepare you to meet the needs of gifted learners?
3. How would you improve the school conditions to meet the needs of the gifted learner?
4. How would you handle inquisitive learners?
5. How do you identify a gifted learner?
6. How does your school meet the needs of the gifted learners?
7. How do you handle a gifted learner who has discipline problems?
8. How would you improve an average lesson to gear it towards gifted learners?
9. What kind of a programme would you wish to attend in order to improve your inclusive classroom environment?
10. How would you improve the school conditions to meet the needs of the gifted learner?
11. What aspects of teacher education do you think need consideration to prepare newly trained teachers to meet the needs of gifted learners?
12. How can teachers solve underachievement of gifted learners?
13. Which special problems do gifted learners face in learning and applying critical thinking?
14. What educational reforms are currently needed to ensure the country achieves the goal of offering education for all?

APPENDIX F

Interview schedule for trainee teachers

1. What is your understanding of inclusive education?
2. What qualities are required of teachers of gifted learners?
3. How did your training prepare you to meet the needs of gifted learners?
4. .What aspects of teacher education do you think need consideration to prepare newly trained teachers to meet the needs of gifted learners?
5. What educational reforms are currently needed to ensure the country achieves the goal of offering education for all?
6. What kind of a programme would you wish to attend in order to improve your inclusive classroom environment?
7. How does your school meet the needs of the gifted learners?
8. How would you improve the school conditions to meet the needs of the gifted learner?
9. How do you identify a gifted learner?
10. How do you handle a gifted learner who has discipline problems?
11. How would you improve an average lesson to gear it towards gifted learners?
12. How would you handle inquisitive learners?
13. Which special problems do gifted learners face in learning and applying critical thinking?
14. How can teachers solve underachievement of gifted learners?

APPENDIX G

Focus Group Discussion Questions

1. What is your understanding of inclusive education?
2. What qualities are required of teachers of gifted learners?
3. What aspects of teacher education do you think need consideration to prepare newly trained teachers to meet the needs of gifted learners?
4. What educational reforms are currently needed to ensure the country achieves the goal of offering education for all?
5. What kind of a programme would you wish to attend in order to improve your inclusive classroom environment?
6. How did your school meet the needs of the gifted learners?
7. How would you improve the school conditions to meet the needs of the gifted learner?
8. How do you identify a gifted learner?
9. How do you address the needs of the gifted learner?
10. How do you handle a gifted learner who has discipline problems?
11. How would you improve an average lesson to gear it towards gifted learners?
12. How would you handle inquisitive learners?
13. Which special problems do gifted learners face in learning and applying critical thinking?
14. How can teachers solve underachievement of gifted learners?

APPENDIX H

LESSON OBSERVATION SCHEDULES

Lesson 1 by Trainee Teacher A

Topic: Health and Life Skills on the topic: Changes in the body.

Lesson objective: learners should be able to identify and describe at least five changes that happen at puberty stage.

Introduction: Trainee teacher asks learners a question- *“what physical changes have taken place on them since they were born?”*

Chorus ... all learners shouting different answers and calling for teachers' attention

Trainee teacher calls class to order and asks Learner A to give an answer

Learner A: *I am interested in sports*

Learner B (girl): *I am now able to cook*

Learner C: *I do not know how I looked like when I was born*

Class: chuckles....

Teacher: ignores learners and proceed to develop the lesson

Teacher: *“Today we are going learn about changes in the body at puberty stage”.*

Teacher: *“What is the meaning of puberty?”*

Class: Keeps quiet looked and starred at the teacher

Teacher: *“Puberty means changes that take place to bodies of boys and girls when they grow up.”*

Teacher: Gives learners' group task: A picture showing a girl was used during the discussion on what takes place during puberty.

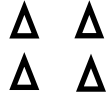
Teacher: Monitors learners during group task

Class: Gives report back group by group. Fast learners volunteered to give report back.

Teacher: Concludes lesson by giving learners written work on the same content as given for group tasks.

In the preceding lesson, the trainee teacher treated all learners as of same academic performance level by giving low order questions and also disregarding relevant answers from some “fast learners”. For example “one said that when boys grow up they develop hoarse voices to which acknowledged as correct yet another learner disputed the answer by saying that it did not apply to all boys. The teacher stifled the learner by rejection the second learner’s contribution. This shows that the teacher was not able to handle gifted learners. Secondly, the answer by Learner C was supposed to be followed up to verify the intention of the learner. It is evident from the lesson that the trainee teacher had not prepared for gifted learners in that class also seem to lack skills in handling such learners.

Lesson 1 by Trainee Teacher Bin Mathematics

Topic: Numbers and Powers of Numbers, Index. Lesson objective	
Lesson object: Learners should be able to find the value of numbers given their index and powers	
Teacher	Introduces the lesson by recapping work from the previous lesson.
Teacher	Using the diagram shown below the teacher asked the learners to <div style="text-align: center;">  </div> interpret the meaning using multiplication
Learners:	Chorus “ <i>TWO by TWO</i> ”
Teacher:	Demonstrates on the board how to interpret the diagram using multiplication.
Teacher:	Picks on three learners to practice on the chalk board while others are watching. Teacher assists learners by correcting their mistakes.
Teacher:	Gives group work as follows From the six (6) groups one identified as composed of fast learners. The five (5) groups were given two problems while the group identified as consisting of fast learners was given four problems to work on. The problems were of the same level of difficulty. Teacher closely supervised group work. The fast group was the first to complete the group task.
Teacher:	Gives learners an opportunity to report back.
Learners:	Give report back to the whole class group by group.
Teachers:	Gives each learner 6 problems to work on as individuals and then goes round the class supervising.
Learners:	The fast learners complete tasks quite easily while the rest are still

writing. No extension work is provided to the fast learners and after completing the six problems they sit waiting for the rest to complete.

All groups reported back to the whole class. The performance was quite good as most groups gave correct answers. The group consisting of fast learners got all the four problems correct. The trainee teacher was aware that the class had gifted learners since the school was streaming according to ability. The work given to the class though differing in the amount was of the same level. The gifted learners completed the work in a short space of time and had to sit idle. This situation clearly shows that the trainee teacher could not handle gifted learners since no challenging work was offered to these learners.

Lesson 2: by Trainee Teacher A: Religious and Moral Education

Lesson Topic: Traditional Thoughts: Life after death

Lesson Objective: Learners should be able to explain traditional ideas of life after death and retell the story of Lazarus and the Rich man.

Step 1: Teacher:

The teacher introduces the lesson by asking a question " *what do you know about the souls of people who are dead?*".

Learners: Learners raise hands and the teacher picks on one who says:

"The souls of people go to God when they die". The teacher just accepts the response and does not comment or expand on it.

Step 2: Teacher: Lesson declaration

Today we are going to learn about traditional thoughts of life after death.

Step 3: The teacher goes on to ask pupils: "*What have you heard about what happens to someone after they have died according to tradition?*".

Learners: Chorus of several versions

Teacher: Asks the class to be orderly then picks on one learner after they had raised their hands.

Learner: *Spirits come back through some relatives and at times*

they come back as ghosts.

Teacher:

The teacher responds: *Only evil spirits come back as ghosts.*

Step 4: The teacher goes on to read the story of a rich man and Lazarus while the whole class is listening.

Step 5: Group Work:

After reading the passage to the class, pupils in their groups are given the following tasks to work on:

1. What is the purpose of praying to God/ Allah/ Musikavanhu?
2. What are the reasons of being kind to the poor?
3. When should we give food to the poor?

Step 5: Group Report Work:

Since all the six groups were given the same tasks only three are asked to report back to the entire class.

Learners failed to articulate the first question but fairly answered the other two

Step 6: Individual Written Work:

After the group reports, the learners are given written work which they do individually in their exercise books.

Step 7: Conclusion:

The teacher concludes the lesson by advising the learners to live good lives before death as was expected of Christianity.

The lesson topic was on traditional religion but the objective was centred on Christian teachings. The lesson on the whole narrowed on Christianity and African Traditional Religion thereby leaving out other religious beliefs which some of the learners were likely to belong to.

The group tasks did not address the lesson objective. The first question which was quite challenging was not adequately addressed. The teacher himself did not appear confident to expand on the learners' presentation. The order of the group work questions needed to have started with low order moving on to high order. Question 1 is highly philosophical and proved very difficult for the learners

Lesson 2: by Trainee Teacher B: English comprehension

Lesson Topic: The bush spirits obey.

Lesson Objective: learners should be able to read the passage and answer comprehension questions correctly.

Introduction: The trainee teacher introduces the lesson by asking learners to read key words from the comprehension passage. *“Can anyone read these words?”* The trainee teacher puts up word cards on the chalk board: buzzed; elder; nearby; strip; unripe and slap. Learners raise their hands and in turns they read words on the chalk board.

The trainee acknowledges the correct reading by praising the learners.

Teacher: Lesson declaration

Today we are going to read the comprehension passage- the bush spirits obey and answer comprehension questions. We will read the passage on page 78 to 80.

Step 1: Teacher: The trainee teacher explains the meaning of words previously read. *Can you use these words in sentences?*

Learner: *elder means an older person*

Teacher: *very good. You can say my elder sister*

Step 4: Teacher reads a few lines of the passage and then picks on a few learners to read while others are listening

Step 5: Group Work: the class is divided into five groups

Teacher: *In your groups answer these questions*

Group 1 and 2: 1. Muzuvusi always disagreed with people because

2. List down two problems that were faced by Muzivisi when he found the land he wanted.

3. If you were Muzivisi what do you think would have been the best thing to do?

4. From this story what do you learn?

Group 3: 1. Which advice was given to Muzivisi by his father?

2. What was the response given by Muzivisi to his father?

3. In the end, what did Muzivisi do?

Group 4 and 5: 1. Who was Egfa?

2. How many children did Muzivisi have?

Step 5: **Group Report Work:** Group representatives make reports to the entire class while the teacher acknowledges the correct answers and corrects where necessary.

Step 6: **Individual Written Work:** The whole class is given six questions for the comprehension exercise to answer as individuals while the teacher moves round supervising and marking.

Step 7: **Conclusion:**

Teacher: What do you think are the dangers of listening to other people's advice?

Learner: one who does not listen to advice given by others ends up getting into trouble

Teacher: It is important to listen to advice from elders

The lesson objective for the lesson could not be measured. The trainee teacher went onto ask learners to read new words which were to be found in the comprehension passage. After the reading of words the trainee teacher went on to declare the lesson before giving a demonstration of reading the passage. The class was then put into groups for group work with group 1 and 2 of fast learners being given four questions while the rest were given two questions each. The next step was for the report back where group representatives gave their answers while the rest of the class listened. The next step that followed was for individual written

work where all the learners were given the same questions. The lesson was concluded by the trainee teacher through question and answer.

Lesson 3: by Trainee Teacher A: Art Education

Lesson Topic: Giving form to flat shapes.

Lesson Objective: Pupils will be able to draw a flat form from flat shapes

Step 1: Introduction: The teacher introduced the lesson by asking the learners to draw a pot. After the first task the learners were asked to describe their drawings to the whole class.

Step 2: Lesson declaration

The teacher declared that the learners were going to learn about drawing figures from flat shapes.

Step 3: Demonstration by the teacher:

The teacher gave an explanation on how to start drawing figures from flat shapes before demonstration on the chalk board.

Step 4: Group Work

Pupils were asked to discuss drawings of their choices in their groups. After agreeing on what to draw a group representative came up with a drawing. Groups in turn displayed their drawings to the whole class and the teacher and other learners commented on work of every group.

Step 5: Individual Work:

Learners were asked to individually draw objects from a circle, square or rectangle.

Step 6: Conclusion: The teacher asked learners to display their work on the wall ready for marking

Lesson 3: by Trainee Teacher B: Music Education

Lesson Topic: Songs at work

Lesson Objective: pupils should be able to:

- i) Name songs sung at work.
- ii) Sing songs usually sung at work.

Step 1:Introduction:

The teacher explained the importance of Music in day to day life.

Step 2: Lesson declaration

Teacher declared that the lesson was going to be on singing working songs.

Step 3: The teacher explained to the class how people in the olden days used and the impact of the singing while at work. He then sang a song while learners listened attentively.

Step 4: Group Work

In their groups learners were asked to list work songs. The teacher assumed that the learners knew the work songs. The task was not easy as reflected by report back from groups.

Step 5: Practice

In their groups the learners were asked in turns to sing their chosen songs to the class. Not much came out of this activity as there was generally no originality and two groups out of five sang the same song.

Step 6:Conclusion

The group that was judged to be best was chosen to sing to the whole class. The teacher there after emphasizing the importance of song during work.

Lesson 4: by Trainee Teacher A: Mathematics

Lesson Topic: Subtraction of proper fractions with different denominators

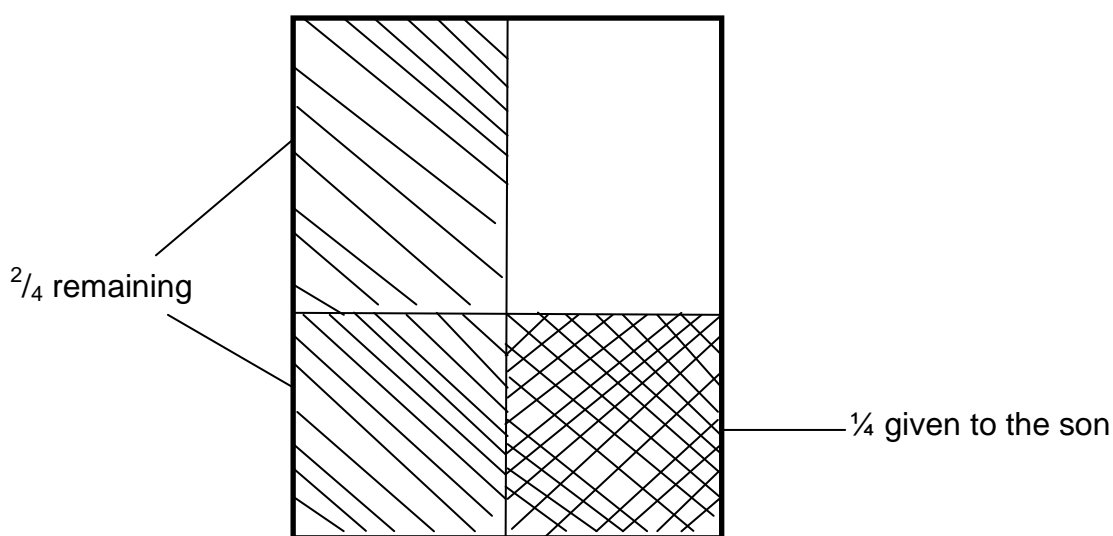
Lesson Objective: pupils should be able to:

- i. Subtract two proper fractions with same denominators.
- ii. Subtract two proper fractions with different denominators.

Step 1: Introduction: Introduction

The trainee teacher introduced the lesson by use of a short story "Mr Chimusoro had $\frac{3}{4}$ of a loaf and he gave his son $\frac{1}{4}$. How much is remaining?"

In order to show the working the teacher used the diagram as illustrated below:



The teacher explained how to find the answer using the diagram on the chalk board. The demonstration was quite clear to all the learners.

Step 2: Lesson declaration

Two learners were picked up by the teacher to work out two problems on the board to check whether the demonstration was understood. The learners managed to work on the two problems and got the answers correctly.

Step 3: Group Work

The learners in their groups were given two problems neatly printed on cards to work on. The teacher went round the room supervising all the groups. It should be noted that all groups including the sat group (Group 1) were given tasks of similar difficulty as reflected below:

Group 1

a) $\frac{8}{10} - \frac{1}{5}$

b) $\frac{1}{2} - \frac{1}{8}$

Group 2

a) $\frac{3}{5} - \frac{1}{4}$

b) $\frac{1}{2} - \frac{3}{10}$

Group 3

a) $\frac{5}{10} - \frac{2}{8}$

b) $\frac{7}{8} - \frac{3}{4}$

Group 4

a) $\frac{5}{7} - \frac{3}{7}$

b) $\frac{3}{4} - \frac{4}{8}$

Group 5

a) $\frac{4}{5} - \frac{2}{5}$

b) $\frac{1}{2} - \frac{1}{4}$

After allowing five minutes of working in their groups, the teacher asked group representatives to work in turns on the chalk board to show how they got the answers. Generally the learners worked well and got correct answers.

Step 4: Individual Written Work

The learners were given six (6) problems to work on as individuals in their exercise books. During the individual written work, the teacher closely monitored the process going round the class supervising and giving assistance to those who appeared to have challenges in their working.

Step 5: Conclusion

The teacher concluded the lesson by emphasising on how to subtract two proper fractions with different denominators.

Lesson 4: by Trainee Teacher B: Health and Life skills

Lesson Topic: Family Friends

Lesson Objective: pupils should be able to:

- i. Identify Family Friends
- ii. State the roles of family friends

Step 1: Introduction:

The trainee teacher introduced the lesson by asking the learners whether they had friends in the families they came from. This composite question was vague and did not bring out the knowledge that would benefit the learners. The question was poorly structured.

Step 2: Lesson declaration

Lesson Declaration

The teacher declared that the lesson was going to be on Family Friends

Step 3: The teacher explained to the class that a friend is “someone who helps you”

Step 4: The teacher asked pupils to describe the qualities of a good friend. Learners gave different descriptions of what they felt were qualities of a good friend. The teacher then led a discussion on identifying friends

Step 5: Conclusion

The teacher concluded the lesson by underscoring the importance of good friend

Lesson 5: by Trainee Teacher A: ChiShona

Lesson Topic: ChiShona comprehension

Lesson Objective: Pupils should find answers and answer questions in correct ChiShona". The objective was composite and only addressed low order skills. It should be noted that the class had a group that was referred to as fast learners group.

Step 1: Introduction: Introduction

The learners were asked to open the Chishona readers on a given page. The teacher then asked them to explain what they had observed from the picture on the given page. The response did not rise beyond simple recall answers.

Step 2: Demonstration

The teacher demonstrated reading to the class while learners passively listened.

Step 3: Individual Reading and Individual Written Work

Pupils were asked to read the passage silently as individuals as the teacher went round supervising. After a period of five minutes, the learners were given questions to be answered from the comprehension passage.

Step 4: Conclusion

The trainee teacher after collecting exercise books together with the learners went over the questions which had been covered in written work. This lesson had no extension work to cater for the fast learners. The group that was composed of the fast learners completed five minutes before stoppage time and three of them could be seen sleeping over the desk while waiting for the next instruction from the teacher.

Lesson 5: by Trainee Teacher B: Home Economics

Lesson Topic: Classroom Cupboard

Lesson Objectives: pupils should be able to:

- i) Discuss ways of cleaning cupboards and shelves.
- ii) Discuss ways of cleaning polished wood

Step 1: Introduction: The trainee teacher introduced the lesson by asking the learners the state of their cupboards. The response to the question was very poor because the question was vague.

Step 2: Lesson declaration

In lesson declaration the teacher told learners that they were going to discuss ways of cleaning cupboards and shelves. The verb discuss implied that the lesson was theoretical.

Step 3: Demonstration:

In this step of the lesson Abraham explained to the learners the importance of keeping the cupboards clean and went on to demonstrate cleaning of the cupboard.

Step 4: Group Work

Learners in their groups discussed ways of cleaning cupboards while the teacher went round supervising. After the discussion groups in turns were asked to report to the whole class.

Step 5: Practical Work

In their groups learners were assigned to clean a cupboard, their tables and benches. During the practical work the teacher moved round supervising and marking completed work.

Step 6: Conclusion: The group that had done well was asked to explain to the whole class the steps followed in cleaning the cupboard.

All the lessons for the two trainee teachers followed the same pattern and one could easily tell what was coming next. The lessons did not cater for learners with multiple abilities since the methodology used was the same and there was no content variation to cater for the different learners. The lesson delivery was routine as one same step followed the other in the same fashion. The methods used were the question and answer, discussion in groups and demonstration. Not much in the learner centered approach was used.

APPENDIX I: LANGUAGE EDITING CERTIFICATE

Date: Sunday, 26 April 2015

This is to certify that Language Editing has been carried out on the following thesis:

Teacher Education Initiatives Undertaken by Teachers Colleges to Prepare Trainee Teachers in Handling Gifted Learners in Primary Schools in Zimbabwe

By

Florence Dube

Algraham

Andrew Graham (BA, MA dist., PhD, University of Keele, UK)*



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*Former Tutor in Postgraduate Writing Centre and Managing Editor of ISI Accredited Journal