

**EVALUATING THE MANAGEMENT OF SCHOOL IMPROVEMENT PROGRAMME
IMPLEMENTATION IN THE SECONDARY SCHOOLS IN WOLAITA ZONE, ETHIOPIA**

by

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“EVALUATING THE MANAGEMENT OF SCHOOL IMPROVEMENT PROGRAMME IMPLEMENTATION IN THE SECONDARY SCHOOLS IN WOLAITA ZONE, ETHIOPIA” is my own work, and that all sources used or quoted have been indicated and acknowledged by means of complete references.

SIGNATURE

November 2021

TA ABIRE



DATE

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DEDICATION

I dedicate this thesis to my family, for they gave me the foundation to reach this stage, and especially, to remember my father, Ato Abebe Abire who died seven years ago. I really appreciate his concern for my education. I can imagine how much he would have been pleased, had he been alive. Rest in Peace!

ABSTRACT

The concept 'school improvement' indicates the plan to improve the quality of teaching and learning in a school. Quality education is a prominent agenda across the world, and countries such as Ethiopia are implementing various quality improvement initiatives. The Ethiopian Education and Training Policy (1994), which included the school improvement programme (SIP) as part of the educational reforms, was brought about to improve the quality of education. The purpose of this study was to evaluate the management of the school improvement programme implementation in the secondary schools in the Wolaita zone, Ethiopia. The study aims to understand the participants' experiences with the school improvement programme and then be able to understand the challenges and suggest ways to improve the SIP. A mixed methods research approach was used to complete the study. Moreover, of the mixed methods sub-divisions, a convergent /concurrent triangulation design is used. A quantitative questionnaire and qualitative methods (focus group interviews and document analysis) were used for data-collection. A total of 37 managers and 250 teachers participated in the study. A questionnaire with closed-ended and open-ended questions, which secured a 99 percent response rate, was administered to collect data from the selected teachers and managers (principals, vice-principals and HODs). During the qualitative phase, 10 supervisors, 10 school improvement committee members, 10 Woreda Education Office SIP experts and four zone SIP experts participated in the focus group interviews. Qualitative findings are not as positive as the quantitative findings on most of the issues that were evaluated. The researcher is of the opinion that this is because the nature of the qualitative participants, their position, knowledge and experience of SIP management differ from that of the quantitative participants. The study results make a contribution to the research on the management practice of SIP implementation, especially since no study on this issue has been conducted in the Wolaita zone of Ethiopia before. It was possible to make several meaningful recommendations for the management of SIP implementation in the Wolaita zone. They inter alia pertain to: the Zone Education Department (ZED) and the Woreda Education Office (WEO) staff, cluster supervisors, school principals and the school improvement committees who should give continuous support for managing the school improvement programme. This can be done by relevant stakeholders facilitating trainings, allocating an adequate budget, mobilising the

school community towards supporting SIP, and making stakeholders aware of the school improvement programme and school improvement resources. Important findings relate to improvement in the planning, organising, leading and monitoring and evaluation of the programme.

KEYWORDS: management of the school improvement programme, conceptualising school improvement, mixed methods approach, management functions, planning, organising, leading, monitoring and evaluation, secondary schools.

OPSOMMING

Skoolverbetering is 'n begrip wat dui op die plan om die gehalte van onderrig en leer in 'n skool te verbeter. Gehalte-onderrig behels 'n prominente agenda wêreldwyd, en lande soos Ethiopië implementeer verskeie inisiatiewe om gehalte te verbeter. Die Ethiopian Education and Training Policy (1994) is 'n beleid wat die skoolverbeteringsprogram (*SIP*) as deel van die opvoedkundige hervormings insluit, en wat ontwikkel is om die gehalte van onderrig te verbeter. Die doel van hierdie studie was om die bestuur van die *SIP*-implementering in hoërskole in die Wolaita-sone in Ethiopië te evalueer. Die oogmerk was om die deelnemers se ervarings van die *SIP*, sowel as gepaardgaande uitdagings, te verstaan en met maniere vorendag te kom om die *SIP* te verbeter. 'n Gemengdemetode-navorsingsbenadering is toegepas, met 'n konvergente/konkurrente triangulasie-ontwerp. Altesaam 37 bestuurders en 250 onderwysers het aan die studie deelgeneem. Vir die kwantitatiewe fase is 'n vraelys met geslote vrae en ope vrae, met 'n 99%-responskoers, gebruik om data van die gekose onderwysers en bestuurders (skoolhoofde, onderhoofde en departementshoofde) in te samel. Tydens die kwalitatiewe fase het 10 toesighouers, 10 skoolverbeteringskomiteelede, 10 Woreda Education Office *SIP*-kundiges en 4 sone-*SIP*-kundiges aan die fokusgroeponderhoude deelgeneem. Die kwalitatiewe bevindinge was nie so positief soos die kwantitatiewe bevindinge oor die meerderheid van die aangeleenthede wat geëvalueer is nie. Die rede is waarskynlik dat die kwalitatiewe deelnemers van die kwantitatiewe deelnemers verskil het ten opsigte van aard, posisie, kennis en ervaring van *SIP*-bestuur. Die resultate van die studie dra by tot die navorsing oor die bestuurspraktyk van *SIP*-implementering, veral omdat daar nog nooit vantevore 'n studie oor hierdie aangeleentheid onderneem is in die Wolaita-sone van Ethiopië nie. Dit was moontlik om verskeie betekenisvolle aanbevelings te doen vir die bestuur van *SIP*-implementering in die Wolaita-sone. Die Zone Education-afdeling en die personeel van die Woreda Education Office, groeptoeshouers, skoolhoofde en die skoolverbeteringskomitees moet volgehoue ondersteuning gee vir die bestuur van die *SIP*. Dit kan gedoen word deur tersaaklike belanghebbers wat opleiding fasiliteer, 'n toereikende begroting toeken, die skoolgemeenskap mobiliseer om die *SIP* te ondersteun, en belanghebbers bewus te maak van die *SIP* en hulpbronne vir skoolverbetering. Belangrike bevindinge het betrekking op verbeterings in die beplanning, organisering, leiding, monitering en

evaluering van die program.

SLEUTELWOORDE: bestuur van die skoolverbeteringsprogram, konseptualisering van skoolverbetering, gemengdemetode-benadering, bestuursfunksies, beplanning, organisering, leiding, monitering, evaluering, hoërskole

KAKARETŠO

Kgopolo ya kaonafatšo ya sekolo e laetša leano la go kaonafatša boleng bja go ruta le go ithuta ka sekolong. Thuto ya boleng ke lenaneo leo le tšwelelago lefaseng ka bophara, gomme dinaga tša go swana le Ethiopia di phethagatša maitapišo a go fapanafapana a kaonafatšo ya boleng. Pholisi ya Thuto le Tlhahlo ya Ethiopia (1994), yeo e akaretšago lenaneo la kaonafatšo ya sekolo (SIP) bjalo ka karolo ya diphetogo tša thuto, e hlamilwe go kaonafatša boleng bja thuto. Maikemišetšo a nyakišišo ye e be e le go sekaseka taolo ya phethagatšo ya SIP dikolong tša sekontari ka lefelong la Wolaita, Ethiopia. Maikemišetšo e be le go kwešiša maitemogelo a bakgathatema a SIP gammogo le ditlhohlo, le go šišinya ditsela tša go kaonafatša SIP. Mokgwa wa nyakišišo wa mekgwa ye e hlakantšwego o dirišitšwe ka tlhamo ya khutlotharo ya go kopana/ya nako e tee. Palomoka ya balaodi ba 37 le barutiši ba 250 ba kgathile tema ka nyakišišong. Bakeng sa kgato ya khwanthithethifi, lenaneopotšišo leo le nago le dipotšišo tše di tswaletšwego le tše di bulegilego, ka tekanyo ya karabo ya 99%, le ile la laolwa go kgoboketša datha go tšwa go barutiši le balaodi bao ba kgethilwego (dihlogo tša dikolo, batlatšadihlogo le dihlogo tša dikgoro). Nakong ya kgato ya khwalithethifi, baokamedi ba 10, maloko a 10 a komiti ya kaonafatšo ya sekolo, ditsebi tše 10 tša SIP tša Kantoro ya Thuto ya Woreda le ditsebi tše 4 tša SIP tša dizoune ba kgathile tema dipoledišanong tša sehlopha sa nepo. Dikutullo tša khwalithethifi e be e se tše botse go swana le dikutullo tša khwanthithethifi go bontši bja ditaba tše di lekotšwego. Lebaka le na le kgonagalo ya gore bakhathatema ba khwalithethifi ba be ba fapana le bakgathatema ba khwanthithethifi ka tlhago, maemo, tsebo le maitemogelo a taolo ya SIP. Dipelo tša nyakišišo di tsenya letsogo go nyakišišo ya mokgwa wa taolo ya phethagatšo ya SIP, kudukudu ka ge go sena nyakišišo ka ga taba ye yeo e kilego ya dirwa ka zouneng ya Wolaita ya Ethiopia. Go ile gwa kgonega go dira ditšhišinyo tše mmalwa tše di nago le mohola tša taolo ya phethagatšo ya SIP ka lefelong la Wolaita. Kgoro ya Thuto ya Lefelo le bašomi ba Kantoro ya Thuto ya Woreda, baokamedi ba dihlopha, dihlogo tša dikolo le dikomiti tša kaonafatšo ya dikolo ba swanetše go fa thekgo ye e tšwelago pele ya go laola SIP. Se se ka dirwa ke bakgathatema ba maleba go nolofatša tlhahlo, go aba tekanyetšo ye e lekanego, go kgoboketša setšhaba sa sekolo go thekga SIP le go dira gore bakgathatema ba lemoge ka ga SIP le methopo ya kaonafatšo ya sekolo. Dikutullo tše bohlokwa di amana le kaonafatšo ya peakanyo, go rulaganya, go eta pele, go hlokomela le go sekaseka lenaneo.

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ACRONYMS

ACT	Australian Capital Territory
AISSA	Association of Independent Schools of South Australia
ANOVA	Analysis of Variance
CIP	Curriculum Improvement Programme
CMaD	Communities Making a Difference
EIC	Education Improvement Commission
ESDP	Education Sector Development programme
ESDP I	Education Sector Development Programme One
ESDP II	Education Sector Development Programme Two
ESDP III	Education Sector Development Programme Three
ESDP IV	Education Sector Development Programme Four
ETP	Education and Training Policy
FGD	Focus Group Discussion
GEQIP	General education quality improvement package
GTC	General Teaching Council
HODs	Head of Departments
ICT	Information Communication Technology
IDEAS	Initiating Discovering Envisioning Actioning Sustaining
ISIP	International School Improvement Project
LEAs	Local Education Agencies
MAP	Management and Administration Programme
MoE	Ministry of Education
NGOs	Non-government Organisations
OD	Organisational development
OECD	Organization for Economic Cooperation and Development
PTSA	Parent Teacher-Students Association
REB	Regional Education Bureau
RTTT	Race To The Top
SAS	Statistical Analysis System
SI	School improvement
SIC	School improvement committees
SIG	School improvement grants
SIP	School improvement programme

SNNPR	Southern Nations, Nationalities, People's Region
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TDP	Teacher Development Programme
ULEAD	Utah Leading through Effective, Actionable, and Dynamic Education
UNESCO	United Nations Educational, Scientific and Cultural Organization
WEO	Woreda Education Office
ZED	Zone Education Department

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Over the past 20 years, secondary education in Ethiopia has been massively expanded. However, many constraints were observed, among these are poor quality of results and high repetition and dropout rates; and poor quality of educational inputs, such as skilled teachers and usable learning and teaching materials (Ministry of Education (MoE), 2015:16). To curb these challenges the Ethiopian government launched the School Improvement Program (SIP), an initiative in the general education system. This initiative focuses on ensuring secondary schools achieve the standards that support quality learning and teaching in a conducive school environment and support community-based management and decision making in schools (MoE, 2015:55). However, this programme also experienced severe challenges.

Key challenges identified by the World Bank (2017:17) include that textbooks are not readily available in classrooms and that school improvement planning is not effective. Studies conducted by Edamo (2015: 237), Kinde (2014:73), Fikret (2016:71), Wakwoya (2016:56) and Melesse (2016:82) found that coordination, resources, prior training for stakeholders before implementation, sufficient capacity among educational officials and school leaders, and leadership commitment were lacking. In addition, the poor school environment, insufficient involvement of stakeholders and inadequate planning lead to the problems related to SIP implementation in Ethiopian secondary schools. Furthermore, regional panel discussions with key stakeholders and school supervision reports on SIP implementation in Wolaita zone indicated that poor planning and implementation were the key problems (South Region Education Bureau, 2016). The researcher noticed that many of the challenges revolved around management issues, which inspired the researcher to conduct a study focusing on evaluating the management of the school improvement programme implementation in the secondary schools of Wolaita zone, Ethiopia. Specific aspects of managing school improvement (planning, organising, leading, monitoring and evaluation) are evaluated in the study.

1.2 BACKGROUND TO THE STUDY

It is not easy to conceptualise the concept 'school improvement' as it is multifaceted and constantly evolving. This is evident from the more comprehensive conceptualisation thereof given in chapter 2 (chapter 2, section 2.2). It is evident from conceptualisations of school improvement that they relate to improving the quality of teaching and learning in a school and continuously improving conditions for better learning and student outcomes. As early as the 1980s Van Velzen, Miles, Ekholm, Hameyer and Robin (1985:48) conceptualised school improvement comprehensively as: "...a systematic, sustained effort aimed at a change in learning conditions and other related internal conditions in one or more schools with the ultimate aim of accomplishing educational goals more effectively". The MoE (2011:1) in 2011 indicates that the main focus of school improvement is on student learning and the learning outcomes, reminding us of the same focus already indicated in 1985. On top of this, school improvement programmes form part of a system in the school improvement process, which occur at various levels from national to local level and encompassing changes in the structure of the school and changes in the cultural aspect of the education system (Edamo, 2015:231, Harris & Peels 2008, in Hopkins, Harris, Stoll & Mackay, 2011; Plan International, 2004:2). School improvement programmes have also undergone a historical evolution process (see chapter 2, section 2.2.1). As the conceptualisation of school improvement is comprehensively attended to in chapter 2, the concept is introduced here in an introductory way to assist a provisional understanding thereof, mainly within the Ethiopian context.

Using a school improvement programme/plan to improve a school is usually an encompassing process which includes mapping and analysing the national objectives, continuously evaluating progress and finally providing an analysis of the results based on national objectives. At the school level, the Ethiopian programme requires schools to undertake major activities. These include collecting school-based information, performing a system survey, deciding on the performance level of the school, designing an SIP plan, and implementing, monitoring, evaluating and reporting on the plan (MOE, 2007:3).

The concept school improvement as explained by the Ethiopian Ministry of Education (MoE, 2011:4-5) focuses on reviewing the status of schools by using the various school domains, and in terms of conducting self-evaluation in order to improve educational inputs and processes that enable students to improve their results. Accordingly, the objectives of the school improvement programme are:

- to increase significantly students' learning outcomes and discipline;
- to ensure good governance and democratic practice in schools promoting accountability and responsibility for its ultimate success; and
- to build the school leadership and administration on decentralization whereby schools are enabled to have broader administrative autonomy.

School improvement programmes involve various stakeholders in their conceptualisation. In the Ethiopian context, in order to realise the main objective of SIP to enable schools to improve students' achievement, different stakeholders are expected to play significant roles. More specifically, in the education system of the country, the Ministry of Education (MoE), Regional Education Bureau (REB), Zone Education Department (ZED), Woreda Education Office (WEO) and stakeholders at school level need to play vital roles to execute the programme as intended (chapter 3, section 3.4). Furthermore, at school level, the respective stakeholders (school board members, parent-teacher-student associations (PTSAs), school principals, teachers and students, among others) need to play important roles in implementing the school improvement programme based on the guidelines and policy directives to improve students' achievement and schools' capacity for change (chapter 3, section 3.4).

School improvement is also conceptualised in terms of the types and models of school improvement. According to Zepeda (2013:21) there are three major types of school improvement programmes, which are characterised by the initiator of the improvement efforts and the perceived need for improvement in the school or outside the school. These programmes are firstly, the bottom-up programmes that are wholly initiated and done by the school and the school decides on the focus, goals, and activities. Secondly, there are the top-down programmes that are forced upon the school with outside agents developing and implementing the programme. Thirdly, we find the

mixed programmes that are initially developed by external agents, but are implemented in schools by their own choice. The researcher noticed that different types of models of school improvement can be aligned/associated with these types of improvement programmes.

In the 1960s and 1970s, school improvement in the United States of America (USA) and the United Kingdom (UK) manifested the top-down model and it is known that this approach failed (Reynolds, Hopkins & Stoll, 1993:7). However, the government of Ethiopia currently follows the top-down approach to school improvement. The SIP framework used, which was adapted from the Australian Capital Territory Department of Education and Training framework that focuses on the improvement of students' achievement, and the quality of teachers and schools (MoE, 2008:41; chapter 2, section 2.3.2), was designed by the government to solve some educational difficulties in order to get improved results from schools through solving these difficulties.

There are numerous school improvement models and frameworks, and they may contain different key elements of school improvement (Masters 2012:27; Hanover Research, 2020:10; ACT, 2009:4; The Center on School Turnaround, 2017:4; Jackson, Fixsen & Ward, 2018:4). However, the literature on quick school improvement indicates that there are eight vital components of school improvement, and that overall school improvement is brought about by improvements in each of the following areas: teaching, leadership, governance, vision and ethos, curriculum, monitoring and evaluation, staff appraisal, and improving relationships between the school, parents and the community (Day & Sammons, 2016:37-38). Models usually contain several of these and/or other components.

The Ethiopian school improvement framework was adapted from the Australian Capital Territory Department of Education and Training, as already indicated. The framework has four domains of school improvement and 12 elements, 24 standards and 88 performance indicators. According to MoE, (2011:3) and Mitchell (2014:4), the four domains and their respective elements are categorized as follows: (1) teaching and learning (with the elements act of teaching, learning and evaluation, curriculum); (2) favourable learning conditions and environment (with the elements school facility, empowerment of students); (3) school leadership (with the elements strategic vision,

leadership behaviour, school management); and (4) community participation (with the elements cooperation with parents, community participation, promoting education).

The researcher became aware that countries try to derive various benefits from school improvement initiatives, but they also experience constraints and challenges. Regarding international efforts at school improvement, the improvement programmes are established to bring about educational reform and to support the overall development needs of the countries, and to provide accessible and quality education for citizens. Many countries use school improvement as an initiative to enhance the quality of education (Plan International, 2004: Awelu, 2012:63; Brandon 2011:36).

The efforts of various countries highlight some current improvement efforts. The new education policy in India aims to provide a quality education system to all students, irrespective of their place of residence, focusing particularly on the historically disadvantaged, marginalized and underrepresented. Access to quality education must be considered a basic right of every child (Ministry of Human Resource Development, 2020:5-7). Greece has initiated some promising efforts to move towards a more holistic approach to quality assurance in Greek education (OECD, 2018:172). In South Africa and Australia current education policy focus on the provision of wider access to education and improvement in the quality of education (Nnadoze, 2017:6-7; Torii, Fox & Cloney, 2017:6). Similarly, the initiatives of the Tanzanian Government focus on enhancing the standard of basic education through performance accountability and transparency, ensuring better motivation, and improving the working conditions of teachers in order to improve outcomes (Ministry of Education, Science and Technology (MoEST), 2018:28). The current initiatives of SI in the Ethiopian general education system focus on minimum standards to be achieved, supporting teaching and learning in a safe and healthy environment; and assisting community-based decision making and school management (MoE, 2015:55). Many challenges are, however, experienced in trying to achieve this.

Attempts to bring about education and school improvement are never without obstacles and constraints. Although there may be similarities, these challenges may differ from country to country, and region to region. According to the UNESCO Education for All (EFA) Global Monitoring Report (2013/14), financing remains a

significant challenge for all education systems in the developing countries. It is evident that the challenges African countries face will for instance differ largely from those faced by European countries, and that those facing developing countries may largely differ from those faced by the developed world. The challenges at play were already provided in the introduction (section 1.1) while some are indicated in chapter 3, section 3.2, and there is also a separate section in this study (chapter 3, section 3.5) that deals with challenges of school improvement programme implementation management. The constraints and challenges within the Ethiopian context are especially noteworthy for the purpose of this introductory background as they made the researcher aware of the problems facing management in implementing school improvement programmes and the need to study these in the Wolaita zone.

Studies in Ethiopia identified various challenges that affect the implementation of the SIP (Kelil, 2017:68; Lemessa, 2016:53; Alene, 2017:105; Edamo, 2015:227; Desta, 2016:78; Bayisa, 2018:89; Rahel, 2014:109; Gezahegn, & Abebe, 2019:82; Berhan 2010:150). In general, according to Edamo (2015:209-219) and Lemessa (2016:54), the findings of investigations prove that the major challenges for the adoption of SIP implementation at secondary schools include a lack of a stakeholder collaborative planning culture, guidance and counselling services, lack of clarity of policy and guidelines at the school level, lack of professional support from experts, lack of school leaders' capacity to build the team, commitment among school level actors, and the inadequacy of financial and material support from concerned bodies.

National inspection findings in Ethiopia indicate that 90 per cent of all schools fall into the unsatisfactory category, which indicates the need for improvement. Education authorities must pay attention to the following important matters contributing to the poor learning environment: low teacher quality, ineffective school improvement planning, and the inadequate availability of textbooks (World Bank, 2017:17). As mentioned in the introduction, the researcher noted the prevalence of management challenges, which pointed towards investigating these further by evaluating the management of school improvement programme implementation in the secondary schools of the Wolaita zone of Ethiopia.

Interventions to address challenges try to build the capacity of a school's leaders by building more support into school improvement plans; providing more efficient teaching and inclusive education by interacting with the cluster supervision system; developing instructional leadership capacity; planning for school improvement; ensuring behaviour according to the school's code of conduct; promoting teacher accountability and support; and mobilizing stakeholders and the community (Micheal, 2018:40). According to research the capacity of leaders to manage change is very important to improve schools (Marsh, 2015:72; Cravens & Hallinger, 2012:159; Abbott, 2015:145). In schools where leadership is participatory, the school community is engaged in the planning process. According to Escobar (2019: 448) the SIP is a good instrument to improve the standard of education in schools if the interventions are done in the real school context, with goals that deliver visible short-term results, with leader preparation, and with real stakeholder participation.

According to OECD (2020:13) and MoE (2011:48), school leadership and administration play the main role through communicating with participating respective stakeholders, exercising leadership to facilitate the meaningful participation of the school community, and ensuring that their contribution is managed effectively. Consequently, to realise SIP objectives, there is a need to have effective school leadership to handle the management of SIP as intended, and to enhance the quality of secondary schools in Ethiopia in general.

Therefore, in the light of the discussed challenges facing the implementation of school improvement programmes by school leaders, specifically within Ethiopia, as well as the issues and needs identified in the interventions discussed above, this study focuses on specific aspects of leaders' SIP management (planning, organising, leading, monitoring and evaluation) in secondary schools of the Wolaita zone. There is a need to have effective school leadership to handle the management of SIP as intended (according to the management functions/tasks mentioned above), and to enhance the quality of secondary schools in Ethiopia in general. Although there have been several studies done within the Ethiopian context as referred to in this background section, there is still a need for further research on the topic and the researcher has structured this study with a view to make a contribution in this regard.

Furthermore, the researcher is not aware of any study of this kind having been done in the Wolaita zone specifically.

1.3 PROBLEM STATEMENT

School improvement is a dynamic process involving many resources and stakeholders for its success. At the school level, as already indicated in the background, the programme requires schools to undertake major activities that include preparing and collecting of information, performing a systematic survey, deciding on the performance level of the school, designing a SIP plan, and implementing the plan, monitoring and evaluating as well as reporting (MoE, 2007:3). This puts a heavy responsibility on the shoulders of the principal and the school leaders that many seem not to be able to execute in the view of the researcher and as is evident from the challenges that have been alluded to in the background.

In any organisation the planning process is the main responsibility of the manager. At school level, the principal is responsible for the whole process of school improvement planning. The stakeholders are also involved in the planning process. Planning is a function of management, together with organising, leading and controlling. Planning provides direction, the reason for following a certain route and the means of reaching the goal (MoE, 2013:30). In a struggling school planning (the school improvement plan) assists leadership to analyse problems and address teaching and learning issues (MoE, 2013:6). Good planning indicates the current performance of the school and also how it will reach a better position in future (Hopkins & Craig, 2018:9).

A plan has no meaning if it cannot be implemented. The implementation process needs a timetable and strategy on how to proceed with the plan. Good leadership skills, as well as organising and controlling skills are necessary for smooth implementation. Implementation needs the active participation of all stakeholders and their commitment. Planners have to implement according to the plan and if the plan is not workable they have to find other means. A plan is not a rigid document. It can be revised during implementation. That is why serious attention should be given to the implementation process (MoE, 2013:65). From what has been stated about planning

so far, it is conceivable that the SIP will not succeed if planning is not done properly for the implementation of the SIP. Therefore, it is noteworthy that the World Bank (2017:17) indicated ineffective school improvement planning as a major challenge in efforts to improve schools. The researcher derived from this that the school leaders are required to be able to plan better.

Another management function that Ethiopian school leaders evidently struggle with is leadership. This features in the general challenges identified by Edamo (2015:209-219) and Lemessa (2016:54). Furthermore, school leaders' school level challenges in the implementation of the SIP which point to the issue of poor leadership in schools include poor communication, lack of commitment, coordination and consensus (Gezahegn & Abebe, 2019: 81). Not sufficiently prioritizing the school improvement programme among school leaders and other stakeholders are severe challenges SIP management face (Fikret, 2016:71; Wakwoya, 2016:56). Leadership is strongly stressed in research on school improvement (Meresa, Tadesse, Zeray, & Haile, 2019:9; Education Improvement Commission (EIC), 2000: 13; Hanover Research, 2014:13; ACT, 2009:17; MoE, 2011:49; Education Commission, 2019:61; MoE, 2013:17, 35-37; Bahiru, 2019:60).

The poor leadership and planning skills featuring in the challenges discussed already (sections 1.1 and 1.2) convinced the researcher that it would be difficult for principals to coordinate staff members and stakeholders' efforts towards SIP implementation if they lack skills in and knowledge of not only planning and leadership, but also of the other two management functions, namely organising and control.

The researcher's own lived experience also contributed towards his view that the management of SIP in Ethiopia needed to be put under scrutiny. The researcher's personal experiences of many years as a teacher, school principal and supervisor in the secondary schools of Wolaita zone, led to some relevant personal findings on the issue of school improvement implementation. The researcher found that the SIP was not strategically planned, led, organised, communicated, monitored, and evaluated based on the guidelines and standards. Often school principals prepare haphazard plans and keep it on the shelf to use it for supervision consumption. In addition, the researcher observed that the perception and awareness level of school improvement

of respective stakeholders in the school and at the woreda level is another problem not sufficiently addressed by managers. Besides, the researcher also witnessed that many stakeholders are reluctant to implement the programme and respective officials at WEO, ZED, REB and MoE levels do not provide adequate professional and technical support to facilitate the implementation of the programme. These and other practices observed by the researcher needed to be investigated and evaluated in order to be able to make recommendations on how the situation in the Wolaita zone could be improved to achieve a better implementation of the school improvement programme.

More to the point, the review drawn from the background and problem statement sections and the researcher's personal experience show that the management of the school improvement programme requires management ability in schools. The focus of this study will therefore be on the evaluation of the management of school improvement programme implementation in the secondary schools of Wolaita zone, Ethiopia.

1.4 AIM OF THE STUDY

The main aim of the study was to evaluate how school leaders manage the implementation of the school improvement programme in the secondary schools in Wolaita zone, Ethiopia. (Hence the major management tasks in the process of school improvement through the programme, such as planning, organising, leading, and controlling are evaluated.)

1.4.1 Specific objectives of the study

The specific objectives that guided the study were to

- 1) describe how school improvement and the management of school improvement is conceptualized.
- 2) describe how the evaluation of the management of school improvement implementation can be conceptualized.

- 3) determine how well school leaders manage the school improvement programme in the secondary schools of Wolaita zone.
- 4) disclose the major management challenges experienced in implementing school improvement programmes.
- 5) indicate how the challenges experienced in managing the school improvement programme can be addressed.

1.5 MAIN RESEARCH QUESTION

The main research question concerns the management of school improvement programme implementation in the secondary schools of the Wolaita zone, Ethiopia to bring about improvement in the management of these programmes. The research question can thus be formulated as such: How do school leaders manage the implementation of the school improvement programme in secondary schools of the Wolaita zone, Ethiopia?

1.5.1 Sub-research questions

1. How is school improvement and the management of school improvement conceptualized?
2. How is the evaluation of the management of school improvement implementation conceptualized?
3. How well do school leaders in the secondary schools of the Wolaita zone manage the school improvement programme?
4. What are the major management challenges experienced in managing the implementation of the school improvement programme?
5. How can the challenges experienced in managing the school improvement programme be addressed?

1.6 DELIMITATION OF THE STUDY

The proposed study was delimited to evaluate how school leaders manage the implementation of the school improvement programme in secondary schools in Wolaita zone, Ethiopia in the areas of SIP management (planning, organising, leading,

communicating, implementing, monitoring, and evaluating). The study was conducted in 15 secondary schools of the Wolaita zone. The participants who took part in the study were teachers, school managers, cluster supervisors, School Improvement Committee (SIC) members, woreda and zone SIP experts.

1.7 SIGNIFICANCE OF THE STUDY

The purpose of this study was to evaluate how school leaders manage the implementation of the school improvement programme in secondary schools of the Wolaita zone, Ethiopia. The study is expected to be significant in putting forward recommendations to retain the best practices and to overcome the challenges for the effective implementation of the programme in future. The researcher also hopes to draw the attention of the different stakeholders at the secondary school level and higher levels in the Wolaita zone for the successful implementation of the findings of this study. The quality of higher education in the country cannot be guaranteed without ensuring the quality of education at the primary and secondary levels. Thus, the study will also have implications for the improvement of the quality of higher education. Therefore, the researcher also desires to attract the interest of lecturers in the Faculties of Education who train teachers and school managers. They are the relevant people who can help with providing a better trained teaching force for secondary schools. Hopefully, new teachers and school managers can be better trained by them to implement the Ethiopian school improvement programme. Lastly, the study may also serve as a foundation for further similar studies.

1.8 THEORETICAL AND CONCEPTUAL FRAMEWORKS

1.8.1 Theoretical framework

In an insightful article by Ukwoma and Ngulube (2021) titled *The application of theoretical and conceptual frameworks in open and distance learning research* the authors show that there is actually much confusion among researchers on the use of theoretical frameworks and conceptual frameworks in research and that the distinction between these is not manifest among researchers. The researcher also struggled to find relevant theory to guide the research in a comprehensive way and therefore decided to rather opt for using only a conceptual framework for this research as suggested as a distinct possibility by Imenda (2014).

At the beginning of the study, the researcher chose systems theory as a theoretical framework to guide the study, but as the study progressed it became increasingly obvious that the study could not be framed fully by this theory. The study just did not fit the framework in enough respects for it to be useful any longer. The researcher then investigated the other theories featuring in Chapter 2 in order to determine whether they would have use as a theoretical framework, but there the problem was that they did not feature comprehensively enough in the study as the researcher only planned to use useful parts of them to build up what he envisaged to do in the chapter. The closest to a guiding “theory” or “theories” for the study was the MoE exposition of its SIP in chapter 3 as well as the management functions/tasks used to guide the empirical investigation, but the researcher found that these could be used more truthfully in an attempt to build up a conceptual framework that contained the meaningful concepts used in the study, and to show how these concepts interrelate. This is presented in the next section and provides a more honest exposition of how the study was conceptualised and how it fits together.

1.8.2 Conceptual framework

The explanation of the conceptual framework used by the researcher to direct the study will be done with reference to Figure 1.1 below. The central theme of the study taking the central position (the central box) in the figure relates to evaluating the

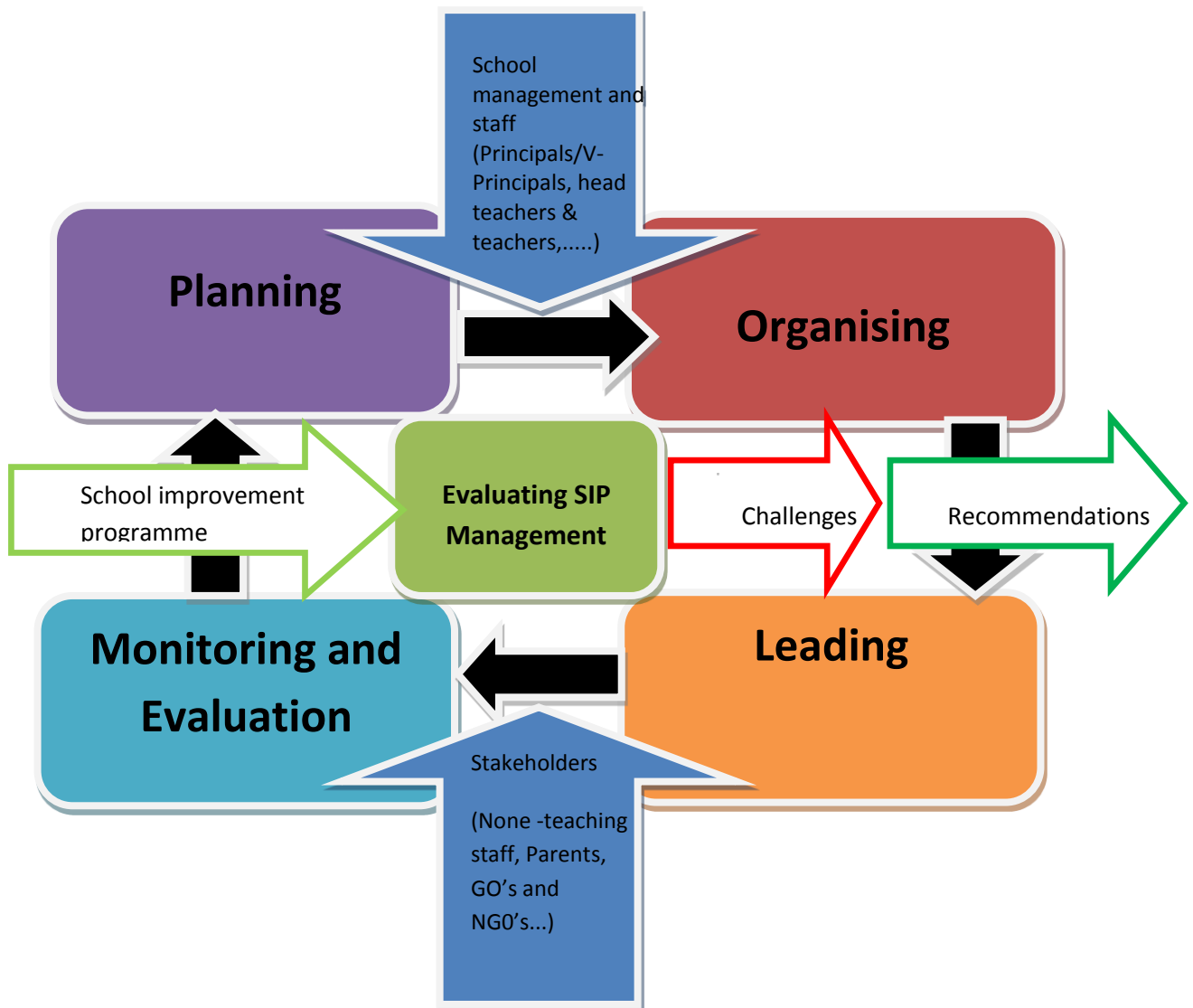
management of school improvement programme implementation in the secondary schools in Wolaita zone, Ethiopia. This theme is also related to the main research question and the main aim of the study. The school improvement programme (of which the management is being evaluated) is represented in the arrow to the left of the central box, while the challenges identified from the evaluation and the recommendations to address these challenges are indicated in the arrows to the right of the central box.

The exposition above also provides a simple presentation of the progression of the study. In chapter 2, school improvement programmes and the concepts and issues related to them (e.g., types, models and frameworks, domains, cycles, aims and objectives, role players) are discussed, while in chapter 3 this is done in relation to the Ethiopian school improvement programme, its management and evaluation. The results of the evaluation and the challenges emanating from the evaluation are presented in chapter 5, while the recommendations can be found in chapter 6.

It is the management of the school improvement programme that is being evaluated. The management tasks (planning, organising, leadership and monitoring and evaluation) are therefore positioned around the central box. The arrows combining them indicate their close relation in the management of the school improvement programme. These aspects are the management tasks being evaluated in the quantitative questionnaire as well as the qualitative focus groups.

The school management and staff, and the stakeholders with a vested interest in evaluating SIP management are represented in the arrows coming down from the top and up from the bottom of the figure. The school leaders who are evaluated in the study feature in the top arrow together with school staff.

Figure 1.1 Conceptual framework of the study



Sources: Adapted from: *MoE, 2011:5 & MoE, 2013:18*

The researcher trusts that the simple conceptual framework presented will assist the reader to get a grasp of the main concepts featuring in the study and how they relate to one another. The conceptual framework helped the researcher to conceptualise the study and to give direction to it.

1.9 RESEARCH METHODOLOGY

1.9.1 Introduction

This section briefly discusses the research paradigm, research approach used to conduct the study, research design, sampling, the data collection instruments, trustworthiness, validity and reliability of research instruments, data collection and data analysis procedures, and ethical issues. It also links these matters to their more comprehensive discussion in chapter 4.

1.9.2 Research paradigm

Paradigm indicates the researcher's world view or philosophy. Chalisa and Kawulich (2012:55) explain that the research paradigm assists in determining the methodology and design and explains matters concerning the researcher's world view. Creswell and Creswell (2018:44) identify the four types of philosophical world views as the post-positivist, social constructivist, advocacy and participatory, and pragmatist paradigms. Pragmatism as a worldview is concerned with applications that work and solutions to problems. It emphasises the research problem and uses all approaches available to understand the problem (Creswell & Creswell, 2018:332).

According to Creswell and Creswell (2018:45), the pragmatist paradigm focuses on the consequences of actions, and is problem-centred, pluralistic, and real-world practice oriented. In this study, the researcher used the pragmatist paradigm *inter alia* because it allows him to think in a problem-centred, pluralistic way about the problem and its practices. In order to be able to evaluate the existing practices of implementing schoolimprovement programmes in the selected schools the pragmatist paradigm was considered to be the best choice. In chapter 4, section 4.2 this will be discussed further.

1.9.3 Research approach

The major purpose of this study was to evaluate the management of school improvement programme implementation in secondary schools of the Wolaita zone in

order to suggest improvements in the way these programmes are managed. The study employs both quantitative and qualitative approaches to reach this aim. A mixed method approach could neutralise bias associated with a single method and is also used for integrating quantitative and qualitative data (Creswell & Creswell, 2018:297; Pardede, 2018:232). Accordingly, in this research data are collected via questionnaires, focus group interviews and document analysis to describe how well SIP is being implemented in accordance with the intended objectives of the programme. In chapter 4, section 4.3 this will be discussed in detail.

1.9.4 Design of the study

Research design is the plan of the study. Kothari (2004:31) defines the research design as "... the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure". As indicated above the mixed methods approach is used in this research in order to get a more comprehensive picture of the research theme by triangulating findings. Of the available mixed methods research designs a convergent/concurrent triangulation design is used since it is more appropriate for this study because the researcher can collect both quantitative and qualitative data at the same time/ concurrently, discuss the quantitative results separate from the qualitative results and then integrate them in a separate integration section. In chapter 4, section 4.4 this will be discussed further.

The research type selected in the design of this study was a case study strategy. Case study is an in-depth investigation of a single instance. Case studies are often associated with a qualitative research design. However, in this case study the researcher used both qualitative and quantitative data (Yin, 2003; Mertens, 2015: 296) and various methods of data collection. The researcher heeded what Tharenou, Donohue and Cooper (2007:78) say:

Cases are suited to explaining complex situations as an integrated whole and in terms of processes that unfold temporally. Generalisability is weak in single case study research, but may be increased by using more than one case, thereby increasing external validity. Cases provide an explanation of

processes; however, they require a theoretical framework in order to do so. Finally, case researchers need to be mindful of reliability and validity, which may be improved through cross-verification, and using multiple sources and multiple methods of data collection.

A case study investigates one or more organisations, or groups within organisations, to analyse the phenomenon under study (Tharenou *et al.* 2007:76). In this study the researcher collected questionnaire data from teachers, heads of departments, vice-principals and principals of different schools. In addition, the researcher conducted focus group interviews with school improvement committee members selected from the sampled schools, cluster supervisors, woreda (district) and zone SIP experts.

1.9.5 Population, sample size and sampling procedures (quantitative)

Currently the Wolaita zone has 12 woredas or districts and three town administrations, which have a total of 71 general secondary schools (Grade 9-10). To make the study manageable the Wolaita zone was divided into five zone divisions based on its geographical layout/infrastructure and spatial distribution of secondary schools, namely the central or middle part, the northern part, eastern part, western part and the southern part. These zone divisions formed the strata for sampling purposes since stratified multiphase sampling was used to select research participants. To obtain a representative sample from strata (zone division) a total of 15 secondary schools was randomly selected from the available secondary schools of selected woredas/town administrations. Regarding the study participants teachers, heads of departments (HODs), principals and vice-principals were engaged in the quantitative study. Quantitative sampling for the study is further explained in chapter 4, section 4.5.

1.9.6 Participants' selection (qualitative)

Regarding the study participants school improvement committee members, cluster supervisors, Woreda Education Office SIP experts, and Zone Education Department SIP experts were engaged in the qualitative study. For the qualitative study, the participants were selected by convenience sampling. In chapter 4, section 4.6 this will be discussed in detail.

1.9.7 Instruments for data collection

To gather first-hand information, the researcher used different data collection instruments such as open and closed-ended questions in a questionnaire, focus group interviews, and document analysis. Some of the relevant documents may include SIP manuals, SI plans (three years strategic and one year action plan), reports and policy frameworks. Data collected via these data collecting instruments were inspected and analysed to gain insight into the general nature, objectives, implementation status and contemporary challenges the programme implementation is facing. In chapter 4, section 4.7 this will be discussed further.

1.9.8 Measures of instruments' validity and reliability and piloting (quantitative)

To maintain the validity and reliability of the questionnaire and interview schedules as data collection instruments, they are firstly checked and examined for clarity and meaningfulness. To do so, the researcher followed a consecutive review process of the instruments with the support of his supervisor. Other measures (for instance piloting the quantitative questionnaire) were employed to address issues of reliability and validity (of quantitative data). This will be discussed further in chapter 4, section 4.8.

1.9.9 Instrument trustworthiness and triangulation (qualitative)

Of the mixed method sub-divisions, a concurrent triangulation approach is used. This approach was more appropriate for this study because the researcher can collect both quantitative and qualitative data concurrently and then compare the two sets of data in order to determine if they converge, or whether there are differences or some correlations (Creswell, 2012:540; Creswell & Creswell, 2018:41). This is the main method of triangulation employed in the study. Others are mentioned in chapter 4, section 4.9.

Trustworthiness in qualitative research is the heart of qualitative research analysis and is determined by four indicators: credibility, transferability, dependability and confirmability. These indicators reflect the concepts of validity and reliability in quantitative research (Guba & Lincoln in Kumar, 2011:172). Trustworthiness will be discussed further in chapter 4, section 4.9.

1.10 DATA COLLECTION PROCEDURES

In this study, a questionnaire, focus group interviews and document analysis were employed to collect data.

Qualitative data were collected by examining documents against a designed check list. Documents examined included, among others, school improvement plans (strategic and operational plans), and monitoring and evaluation reports of school improvement programme implementation (refer to Appendix E and F). In addition, the relevance and practicability of SIP manuals, guidelines and other related documents were inspected and analysed to obtain insight into the general nature, objectives, implementation status and contemporary challenges of programme implementation of the third and fourth SIP phases, which include the periods from 2014-2016 and 2017-2019. Qualitative data were also collected from focus group interviews. Interview schedules were designed for these sessions (refer to Appendix B and C for interview schedules).

Quantitative data, that measure the perceptions of school managers and the teaching corps on how well school leaders (principals, vice-principals and HODs) manage SIP implementation in secondary schools, were collected via a closed-ended questionnaire. The questionnaire is described in chapter 4, section 4.7.1. A copy of the questionnaire is included in Appendix D. Data collection procedures are comprehensively discussed in chapter 4, section 4.10.

1.11 DATA ANALYSIS PROCEDURES

Data interpretation, analysis and presentation are done based on the kind of data gathered. According to Creswell and Creswell (2018: 52), "Data analysis in mixed

methods research consists of analysing the quantitative data using quantitative methods and the qualitative data using qualitative methods”. Accordingly, appropriate statistics (descriptive and inferential statistics) were used to measure and depict meanings from quantitative data specifically collected by way of a questionnaire. The qualitative information was compiled as well as grouped on the basis of their thematic categories and used as tools for triangulation in order to confirm or disconfirm the findings of quantitative results. Analysing the quantitative and qualitative data sets will take place simultaneously, but the quantitative statistical results will be presented first, followed by the qualitative results that support or disconfirm the statistical analysis (Creswell, 2012:550). Data analysis is more comprehensively discussed in chapter 4, section 4.11.

1.12 ETHICAL CONSIDERATIONS

Ethics is one of the vitally important factors to consider in maintaining the credibility of the research. Since the respondents are human beings, there is a need to respect their values and beliefs. According to Lodico, Spaulding and Voegtle (2006:147; Fleming & Zegwaard, 2018: 210) ethical issues focus on protecting the rights of the research respondents; hence the researcher received permission from the Wolaita Zone Education Department and the schools before contacting the study participants and also developed informed consent forms to get participants’ permission before they engaged in the research. Furthermore, official letters served as formal communication with the schools. During the data presentation, analysis and interpretation the researcher took care of respecting the anonymity of respondents/participants. The respondents’/participants’ privacy was protected through anonymity (Cohen, Manion & Morrison, 2005:61; Fleming & Zegwaard, 2018:211). These and other ethical issues (a full account cannot be given in this introductory chapter) will be comprehensively discussed in chapter 4, section 4.13.

1.13 DEFINITION OF OPERATIONAL CONCEPTS

School improvement programme (SIP) is a programme with a systematic approach that improves the quality of education and educational programmes that make schools better places for learning, and which includes components such as leadership and

management, learning environment, teaching and learning, and community participation (MoE, 2011:3).

School improvement is a systematic, ongoing effort to bring about change in learning conditions and associated internal school conditions in order to accomplish goals more effectively (Mekango, 2013:19).

Secondary schools refer to schools presenting four years of schooling consisting of two years general secondary education (grades 9 and 10) and two years of preparatory education (grades 11 and 12).

Management in this study context refers to the execution of management functions in SIP implementation in the secondary schools of the Wolaita zone. Accordingly, management functions such as planning, organising, leadership, monitoring and evaluation, are considered in evaluating SIP.

Parent Teacher Student Association (PTSA) is an organisation of parents, teachers and students who regularly work for the welfare of the students, in particular, and for the community in general. It brings the school and community closer together to make the school improvement programme more effective.

Evaluation refers to the evaluation of the SIP implementation and its achievement in accordance with the SIP objectives and improving the quality of schooling.

Implementation refers to a specified set of activities designed to put into practice an activity or programme of known dimensions (Fixsen, Naoom, Blase, Friedman & Wallace, 2005: 5).

Stakeholders refer to participants who are expected to be involved in the planning and implementation of the SIP and include teachers, principals, students, parents and the local community (MoE, 2004).

Woreda refers to the administrative structure under a zone, which is similar to districts. In the Ethiopian context the management structure is as follows: region, zone, woreda and kebele. The regions are divided into different zones, which are divided into many

woredas. The woredas are divided into kebeles.

1.14 ORGANISATION OF CHAPTERS

This study is divided into six chapters. The first chapter contains the introduction and background of the study, the problem statement, the aim and objectives of the study, descriptions of the research methodology, and definitions of key concepts.

The second chapter presents the theories and concepts on the management of school improvement and the third chapter reviews related literature conceptualizing evaluation of the management implementation of the school improvement programme in Ethiopia.

Chapter 4 outlines the research methodology focusing on issues such as the research design, research paradigm, the study area, sampling, data collection instruments and procedures, data-analysis techniques, reliability, validity and trustworthiness, and ethical considerations.

The fifth chapter deals with the findings and discussion of the results. Finally, the sixth chapter presents a summary, conclusions, and the recommendations of the study.

1.15 CHAPTER SUMMARY

This chapter provided the background to the study attending to matters such as the concept school improvement, models of school improvement, benefits of school improvement, interventions to bring about school improvement and the main challenges encountered in the programme implementation in general and in Ethiopia in particular. This is followed by the problem statement, aim of the study and the research questions. The scope of the study, the significance of the study, research methodology, ethical considerations and definition of operational concepts are then discussed, followed by a presentation of how the chapters are organised.

CHAPTER 2

CONCEPTUALISING SCHOOL IMPROVEMENT AND ITS MANAGEMENT

2.1 INTRODUCTION

This chapter reviews the literature relevant to the study in relation to school improvement and its management. The review of related literature discusses issues related to the concept of school improvement, the evolution of school improvement, definitions of school improvement, types of school improvement, school improvement models, school improvement frameworks, and management of school improvement in relation to the management functions and basic principles of school improvement programmes. A literature review is simply a summary of what existing scholarship knows about a particular topic and answers to related research questions. Hence, an effective literature reviews, analyses, synthesises and evaluates knowledge on a particular topic (Shunda, 2007:2; Snyder, 2019:333). The reader is thereby updated about relevant literature that forms the basis of discussions on the concept school improvement and its management. It can also help to provide an overview of areas in which the research is disparate and interdisciplinary.

2.2 THE CONCEPT SCHOOL IMPROVEMENT

This section needs to be understood in conjunction with chapter 1 section 1.2 where the concept school improvement was analysed in an introductory manner. School improvement focuses on strategies to improve students' learning to provide quality education. Gray (2005:10) states that school improvement is the process of improving the way that schools organise, promote and support learning which includes a focus on aims, expectations, organisation, methods of teaching and learning and school culture.

There are literatures that describe school improvement focusing on teaching and learning in classrooms and the classroom management to support it. In relation to this, Gray (2005:17) states that school improvement focuses on change that improves the achievement of students, supports teaching and strengthens schools' ability to improve. Regarding international experiences, the programmes were established for the improvement of educational reform and the overall developing

needs of the countries, and to provide accessible and quality education for citizens. In South Africa, the recent initiative focuses on provision of wider access to education, and improvement in the quality of education (Nnadozle, 2017:6-7). In Australia the recent initiative focuses on implementing various policies to improve the quality of teaching during the career of a teacher (OCED, 2015:194 and Torii, Fox & Cloney, and 2017:6).

As already indicated in chapter 1 paragraph 1.2, the Ethiopian school improvement programme was adapted from the Australian Capital Territory (ACT) department of education and training programme, which is concerned with the improvement of students' achievement, and the quality of teachers and schools (MoE, 2008:41). Currently in Ethiopia the education policy in the general education system, focuses on ensuring secondary schools achieve the standards required to support good learning and teaching in a healthy and safe environment; and support community-based decision making and school management (MoE, 2015:55)

Hopkins (2001 in Fessehatsion, 2016:3), states that the approach enabling the educational change towards the recent comprehensive school improvement, encompasses being achievement oriented and enquiry based, accommodating teacher leadership and capacity building, being interventionist and using strategic external support. This approach tries to satisfy the needs of society, students and the objectives of the government.

Plan International (2004:2) conceptualizes the phrase school improvement as a dynamic, planned rational "change process with structural and cultural aspects". Its planning phases consist of initiation, implementation and institutionalization. These writers mention that the school improvement plan is not one dimensional, but a process that requires change in the structure of the school and change in the cultural aspect of the system.

School improvement is also regarded as a concept that focuses self-evaluation on various school domains and improving inputs and the teaching process to increase the academic performance of students (MoE, 2007). School improvement is about educational change that concerns school processes, student outcomes, teaching and

learning and the conditions that support it. What is evident from the above reasoning is that school improvement implies change and this change can be of a radical nature. On top of this, the school improvement programme is aimed at improving the efficiency of the educational system through different phases of development. The next section explains the different phases in the evolution of school improvement programmes.

2.2.1 The evolution of school improvement programmes

The evolution of school improvement programmes, as reviewed by Hopkins, Harris, Stoll and Mackay (2011: 1-12) depicts sequences of the phases of development rather than chronological aspects. Accordingly, school improvement programmes developed through five phases, namely what is conceptualized as (1) organisational culture of the school, (2) action research, (3) managing change through leadership, (4) building capacity for learning, and (5) systemic improvement.

The first phase of school improvement focuses on understanding the organisational culture of a school. In the 1960s Matthew Miles (1967, in Hopkins, 2011:2) advocated the adaptation of organisational development (OD) techniques to schools.

The second phase of school improvement was encompassed by the holistic approaches of the 1980s and was contained in the Organisation for Economic Co-Operation and Development's (OECD's) International School Improvement Project (ISIP) (Hopkins, 1987, in Hopkins & Reynolds, 2001:12). According to the analysis of these scholars, the second phase of school improvement programmes (Action research) was loosely conceptualised and did not employ a systematic approach to change.

The third phase of school development programmes began in the early 1990s. It was during this phase that school leadership increasingly focused on school change and improvement. Hence, comprehensive approaches to study the relationship between leadership and students' learning were carried out in this phase. Different countries and authorities have framed and suggested different leadership approaches to enhance the contribution of leadership for students' outcomes (Hopkins *et al.* 2011:7). Harris and Peels (2008, in Hopkins *et al.* 2011: 8) indicated that the fourth phase

of school improvement concerns system level changes brought about working together across schools and districts (Harris, 2000). Furthermore, Harris and Peels (2008) have claimed that the fourth phase of school improvement was fully underway in 2008 and recognised that schools are a part of a system with the school improvement process occurring at two levels, namely at national level and local level.

The fifth phase of the evolution of school improvement programmes describes the international experience of school improvement trends identified and highlights the importance of international comparisons and learning. School improvement programmes continue as the intentions to improve students' outcomes and the challenges encountered by the education systems in realising quality education are still developing side by side (Hopkins & Craig, 2018: 14).

To sum up, the evolution of school improvement programmes in each phase (organisational culture of the school, action research, managing change through leadership, building capacity for learning, and systemic improvement) as indicated above addresses different needs of change from time to time because of the increasing demands for change in the education of countries. Accordingly, a focus is manifested to improve learning outcomes for all students in all settings (Education Commission, 2019:146).

2.2.2 Defining school improvement

The researcher preferred to provide some definitions below in quotation format as the precise meaning accorded by the authors are then expressed in them and an authentic conceptualisation of the concept 'school improvement' can thus be attained.

According to the Education Improvement Commission (EIC) (2000:4), a school improvement plan is "...a road map that sets out the changes a school needs to make to improve the level of student achievement, and shows how and when these changes will be made". According to MoE (2010:1), school improvement programmes target both the school as an organisation and the classroom. In addition, Jeilu (2010:173) states that "...a school improvement is an activity to improve the input and process in order to improve teaching and learning outcomes".

After reviewing a number of articles Hopkins (2005:86) concludes that:

... school improvement is an approach to educational change rested on a number of assumptions, among which is a key focus on the internal condition of a school. These include not only the teaching and learning activities of the schools, but also its organizational norms, professional learning system, knowledge transformation process, leadership arrangements and its receptiveness to external learning.

According to MoE (2011:1), the main focus of school improvement is on student learning and the learning outcomes. School improvement contributes by focusing on different school domains and by conducting self-evaluation in order to enable students to score excellent results. To this effect, schools should primarily identify their weaknesses and strengths and prioritise relevant school domains and set goals for improvement. According to a recent definition school improvement is a continuous process where stakeholders contribute to student learning and improving their results (NAHT, 2020:7; Hopkins & Craig, 2018:15). According to yet another acceptable definition school improvement is a change process focusing on schools' internal organisational norms, the teaching and learning activities, school facilities and management actions (Edamo & Netshitangani, 2018:589).

Generally, school improvement cannot be encapsulated in a single definition or dimension. The concept 'school improvement' as interpreted by various writers contains several ideas having the same or nearly the same meanings as this emanated in the previous sections.

2.2.3 Types of improvement programmes

According to case studies there are three major types of school improvement programmes, which are characterised by the initiator of the improvement efforts and

the perceived need for improvement in the school or outside the school (Zepeda, 2013:21; Reezigt, 2001:25). These types are:

Bottom-up programmes that are wholly initiated and done by the school and the school decides on the focus, goals and activities.

Top-down programmes that are forced upon schools with outside agents developing and implementing the programmes.

Mixed programmes, that are initially developed by external agents, but are implemented in schools by own choice. According to Zepeda (2013:10), there is no clear manifestation how these different types of programmes manifest in countries, but the bottom-up approach would manifest in countries where schools have more freedom.

In the 1960s and 1970s, school improvement in the United States of America (USA) and the United Kingdom manifested the top-down model and it is known that it did not succeed (Reynolds, Hopkins & Stoll, 1993:7). However, as pointed out in chapter 1 paragraph 1.2 the government of Ethiopia currently follows the top-down approach to school improvement because the framework was designed by the government to solve some educational difficulties and to get improved results from schools aimed at solving such difficulties. This study will evaluate the management of the Ethiopian programme in the country's education system at secondary schools in the Wolaita zone of SNNPR, Ethiopia.

2.3 SCHOOL IMPROVEMENT MODELS AND FRAMEWORKS

In this section school improvement models and frameworks will be discussed providing a background on the types of models and frameworks used to bring about school improvement. Some turnaround models of the USA and continuous improvement approach models from Australia are briefly explained, followed by an exposition of several frameworks.

2.3.1 School improvement models

Models are important to support educational reform. According to Kutash, Nico, Gorin, Rahmatullah and Tallant (2010:22) and Dragoset, Thomas, Herrmann, Deke, James-

Burdumy, Graczewski, Boyle, Upton, Tanenbaum and Giffin (2017:8), models promote dramatic reforms rather than incremental reforms. The federal government of the United States of America (USA) requires Local Education Agencies (LEAs) to use four turnaround models in order to qualify for Race To The Top (RTTT) and School Improvement Grants (SIG) funding. These four models (Turnaround, School Closures, Transformation, and Restart models) are briefly presented below using the expositions by Le Floch, O'Day, Birman, Hurlburt, Nayfack, Halloran, Boyle, Brown, Mercado-Garcia, Goff, Rosenberg, and Hulsey (2016:2) and Kutash *et al.* (2010:4-5).

Turnarounds: This model replaces the principal and rehires less than 50 per cent of the school's staff; adopts a new governance structure; provides professional development; offers staff financial incentives and career-advancement; implements an instructional programme; extends time for learning and teacher planning; creates a community-orientation; and provides operating flexibility.

School Closures: This model closes the school and enrolls students in higher achieving schools within the Local Education Agencies.

Transformations: This model replaces the principal, provides professional development, implements a system for teacher-evaluation and reward, offers career advancement and financial incentives, implements wide-ranging reform of instruction, extends time for learning and teacher planning, promotes community-orientation, and provides sustained support and operating flexibility. Some observers believe that this model is not effective because it requires the fewest changes in staff.

Restarts: This model transfers control of, or closes and reopens, a school under the control of a school operator appointed after a tough selection process. Any former student who wants to enrol must be accepted in this model.

According to the Department of Education in the USA, these four models were introduced by the federal government to ensure dramatic changes with the funding provided. There is significant debate about these models surrounding issues such as the options provided and their effectiveness as a turnaround strategy. These

models vary in many ways and also in their efficacy (Kutash *et al.* 2010:23; Le Floch, O'Day, Birman, Hurlburt, Nayfack, Halloran, Boyle, Brown, Mercado-Garcia, Goff, Rosenberg, and Hulse, 2016:2).

Hudson, Louise and Gambel (2011:4-5) and Association of Independent Schools of South Australia (AISSA) (2012:2) refer to improvement models that bring about continuous improvement and focus strongly on improving teaching and learning. There are models that assist schools through the improvement process and assist schools to achieve goals. They are shortly explained below:

The External Review Model – this model collaborates with stakeholders, students, parents, staff, leadership, school board and the community. It has been used by the AISSA for participating schools in the Communities Making a Difference (CMaD) National Partnership (AISSA, 2012:11). The model assist schools to: clarify direction, obtain information for planning; and report on achievements. It can also promote confidence as independent reviewers are used (AISSA, 2012:18).

Capacity building Model – the model uses a leadership model (the IDEAS model) to strengthen pedagogy. Initiating Discovering Envisioning Actioning Sustaining (IDEAS) enables schools to envision a preferred future based on a school-wide approach to pedagogy. School-wide pedagogy refers to pedagogical principles developed by the professionals in the school that are relevant to the school community (AISSA, 2012:20).

Action research Model – workshops and seminars presented by education experts, together with visits by an external education consultant, form the basis of this model. A school-based team use school performance data about teaching and learning to design a school improvement project extending over one semester. Schools may choose to use an external education expert to assist them to reach outcomes (AISSA, 2012:22).

To effect school improvement leadership needs to have an understanding of human resource management policies, curriculum frameworks, agree on the pedagogy to be applied, provide good supervision and display high expectations regarding teaching

and assessment. All these processes must be engraved into the culture and professional practice of staff (AISSA, 2012:25).

Self-assessment and review model – during the final year of implementing this model an external validation process provides schools with tools to achieve in teaching and learning and tools for ongoing self-assessment and improvement (AISSA, 2012:26). In each year of the cycle the school performs self-assessment in order to determine priorities with tools such as the Tool for Self-Assessment of School Domains and the Curriculum Self-Assessment Tool. A self-assessment matrix helps schools with focus areas, improvement priorities and reporting progress (NAHT, 2020:7; AISSA, 2012:30).

According to the plan school improvement is an ongoing process and the scheduling thereof must take place according to the discretion of the school. The review focuses on four domains of learning, namely: (1) Learning and Teaching (2) Student Environment (3) Leadership and Management (4) Community Involvement (AISSA, 2012:27).

The next section presents school improvement frameworks.

2.3.2 School improvement frameworks

This section presents a review of school improvement frameworks with their SIP domains and SIP cycle. USA and Australian frameworks are selected for discussion based on their experience in the practice of school improvement and the accessibility of a relative recent literature study on school improvement programmes in these countries. Australia is also selected because of Ethiopia following an adapted Australian SIP. The themes through which school improvement frameworks of these countries are appraised are: SIP Domains and SIP cycle.

An SIP framework is a document that contains the tools used to follow up the implementation of the SIP against the standards of SIP domains (MoE, 2011:4). According to ACT (2009:2), all public schools in Australia have to use the Australian Capital Territory school improvement framework to examine their programmes and

practices critically. The framework provides a focus through which schools can assess to what extent they meet stakeholder expectations, their delivery on system priorities and strategic initiatives.

The Australian Capital Territory Department of Education and Training school improvement framework will help schools to evaluate their performance; to identify priorities and develop a four-year school plan and an annual operating plan; to establish accountability; to report on progress (ACT, 2009:2-3).

Most Australian education systems have their own school improvement programme frameworks. Their focus is on effective school practices and school improvement. They encompass inter alia a system-wide framework and cycle for school improvement; reports to local communities; and an end-of-cycle review (Masters, 2012:26).

In the USA most improvement policies focus on educational processes, which include instruction, that is, learning processes and environments or subject matter contents and other aspects of organisational functioning, such as leadership and management, school climate, staffing, school organisation, and participation in education (Hopkins, 2001; Hussen & Postethwaite, 1994).

The ACT school improvement strategies assist schools with the means to improve teaching and learning and student achievement through continuous self-assessment, evidence informed practice and strategic planning (AISSA, 2012:22; NAHT, 2020:7). The Ethiopian SIP was adapted from the Australian ACT framework. Currently the Ethiopian government at national level through the Ministry of Education selected the self-assessment and review model for the realisation and application of its school improvement framework because the model was applicable in any circumstance and is a self-assessment and review model. The Ethiopian SIP framework will be presented in detail in chapter 3 (see chapter 3, section 3.2.2).

2.3.2.1 Domains of school improvement programmes

Domains refer to the focus areas of school improvement programmes. The domains of school improvement refer to those critical issues that influence the ultimate goals of school improvement (MoE, 2007). They are more likely to help all students to achieve, if they address not only the teaching of individual teachers, but also other aspects of school capacity (Hopkins, 2001). In Australia there are for instance nine inter-related domains that have been applied in schools (Seifert & Hartnell-Young, 2015:2). School improvement and accountability frameworks developed by Australian education systems are aimed at guiding improvement efforts. They have various names, and have many common features. Some of them are listed below with their corresponding domains.

Table 2.1: Australian school improvement frameworks

State /Department	SIP Framework	Domains
Australian Capital Territory Department of Education and Training	School Improvement Framework	<ol style="list-style-type: none"> 1. Learning and Teaching 2. Leading and Managing 3. Student Environment 4. Community Involvement
New South Wales Department of Education and Training	Analytical Framework for Effective Leadership and School Improvement in Literacy and Numeracy	<ol style="list-style-type: none"> 1. Strategic Resourcing 2. Establishing Goals and Expectations 3. Ensuring an Orderly and Supportive Environment 4. Planning ,Coordinating and Evaluating Teaching and the Curriculum 5. Promoting and Participating in Teacher Learning and Development
Northern Territory Department of Education and Training	School Accountability and Performance Improvement Framework	<ol style="list-style-type: none"> 1. Teaching and Learning 2. Wellbeing 3. Transitions and Pathways 4. Partnerships 5. Leaderships

Queensland Department of Education and Training	School Planning, Reviewing and Reporting Framework: An improvement and accountability framework for Queensland State Schools	<ol style="list-style-type: none"> 1. An Explicit Improvement Agenda 2. Analysis and Discussion of Data 3. A Culture that Promotes Learning 4. Targeted Use of School Resources 5. An Expert Teaching Team 6. Systematic Curriculum Delivery 7. Differentiated Classroom Learning 8. Effective Teaching Practices
South Australian Department of Education and Children's Services	Improvement and Accountability Framework	<ol style="list-style-type: none"> 1. Focus on learning 2. Think systematically 3. Share Leadership 4. Attend to culture 5. Listen and Respond 6. Make Data Count 7. Set Direction 8. Target resources 9. Continuously Improve
Tasmanian Catholic Education Commission	School Improvement for Catholic Schools in Tasmania: School Improvement Framework and Process	<ol style="list-style-type: none"> 1. Catholic Culture and Ethos 2. Leadership 3. Learning Environment 4. Curriculum and teaching 5. Student Learning and Achievement
Western Australian Department of Education and Training	The School Improvement and Accountability Framework	<ol style="list-style-type: none"> 1. Teaching 2. Learning Environment 3. Leadership 4. Resources 5. Relationships
Victorian Department of Education and Training	Accountability and Improvement Framework for Victorian Government Schools	<ol style="list-style-type: none"> 1. Student Learning 2. Student Engagement and Wellbeing 3. Student Pathways and Transitions

Source: Masters, 2012:27

These frameworks have different priority areas, and also share common content. According to Masters (2012:27; Hanover Research, 2020:10), the following five areas count among the priority areas.

Leadership: This entails that leaders establish a clear vision/direction; take responsibility collectively with staff for the improvement of learning outcomes;

control performance data; provide instructional leadership; and manage resources with the aim of improving outcomes.

Learning: This entails believing that all students can succeed; engaging and motivating students; having high standards; meeting students at their needs level; and providing in the individual needs of students.

Teaching: This entails providing high quality teaching; ensuring a relevant and well-structured curriculum; using assessment for monitoring and providing feedback; and focusing on continual improvements in professional development.

Learning Environments: This includes establishing learning environments that are safe and supportive; maintaining good interpersonal relationships; establishing a learning supportive classroom climate; and celebrating success and progress.

Partnerships: This entails establishing partnerships with parents and the local community in improving learning.

The Australian ACT implementation of the school improvement framework works in a cyclic way to bring about school improvement. It has four domains, namely leading and managing, learning and teaching, student environment and community involvement (ACT, 2009:4). These are discussed shortly as the Ethiopian SIP is adapted from the Australian ACT framework (MoE, 2011:3). This issue is more comprehensively discussed in chapter 3, section 3.2.2.

Learning and teaching domain: This domain encompasses the context of curriculum delivery. Quality learning is promoted by good decision-making about what to teach, decisions about what is taught, the way in which students are engaged and prognostic assessment practice. These elements describe how: teachers set expectations; apply their professional and contemporary knowledge to establish learning environments that are effective; explicit and high standards for learning are established through school curriculum design and delivery; teachers plan for success and assess learning outcomes (ACT, 2009:4).

Leading and managing domain: This domain encompasses the communication of a clear vision and the establishment of management structures that have effective leadership, are focused on staff and students and that promote a culture of improvement. These elements describe how: leaders use reflective practices to appropriately manage people to achieve improvements; the school's leadership team demonstrates effective resource management to achieve results; school vision is collaboratively developed to be realistic, challenging, and futures oriented (ACT, 2009:4).

Student environment domain: This domain encompasses promoting good relationships that are consistent, welcoming and inclusive in which students' engagement in learning opportunities is ensured through their valued decision-making therein. These elements describe how schools create opportunities for students to develop into self-regulating learners and how good learning environments are brought about to focus on student needs and foster skills and interests (ACT, 2009:4).

Community involvement domain: This domain encompasses developing good community partnerships and networks. Schools respond positively to community expectations, and they value both diversity and the contribution of the community with a view to successful future outcomes. These elements describe how: the school enriches the curriculum through partnership activities involving the local community and resources; schools develop effective relationships with parents to support student engagement with learning; the school celebrates successful learning and teaching outcomes (ACT, 2009:4).

Since the school improvement strategy is required to reflect the specific context of the school, improvement strategies might differ in different schools. According to The Center on School Turnaround (2017:4) and Jackson, Fixsen and Ward (2018:4), different school improvement frameworks in the USA describe the key features of four domains: Turnaround Leadership, Talent Development, Instructional Transformation, and Culture Shift. They are summed up below.

Turnaround Leadership: In order to bring about quick and meaningful improvements in low performing schools turnaround leaders at all levels of the school system try to raise performance and convey the need for turning low performing schools around to achieve quality education for all students. Turnaround leaders use policies, structures, resources, and personnel to change schools towards a vision of success and use turnaround plans informed by data and adapted to local needs (Jackson *et al.* 2018:4; Willis, Krausen, Caparas, & Taylor 2019:7).

Talent Development: Staff that are committed and competent are required in every position, especially teachers and school leaders are needed to bring about turnaround. They should be chosen well and trained. (The Center on School Turnaround, 2017:11; Jackson *et al.* 2018:4).

Instructional Transformation: This domain encompasses support for improvement in many aspects of classroom teaching across the whole system and entails school support for the academic accomplishment of students. (The Center on School Turnaround, 2017:11; Jackson *et al.* 2018:4).

Culture Shift: This domain requires that the community inside and outside the school be dedicated to a culture of hard work and high academic expectations. Students are motivated to improve their accomplishments and are supported to do so. A culture of trust, respect and high expectation prevails. (The Center on School Turnaround, 2017:11; Jackson *et al.* 2018:5; Abeya, 2017:255).

According to Jackson *et al.* (2018:6), different approaches to bring about turnaround are needed in each school and district in the USA to support the key features of turnaround. Flexibility in using a common approach could work well in the various educational contexts.

The previous section provided a brief overview of school improvement domains used in the USA and Australia. Analysis of the review indicates that there are similarities and differences among the domains of school improvement programmes used in these countries.

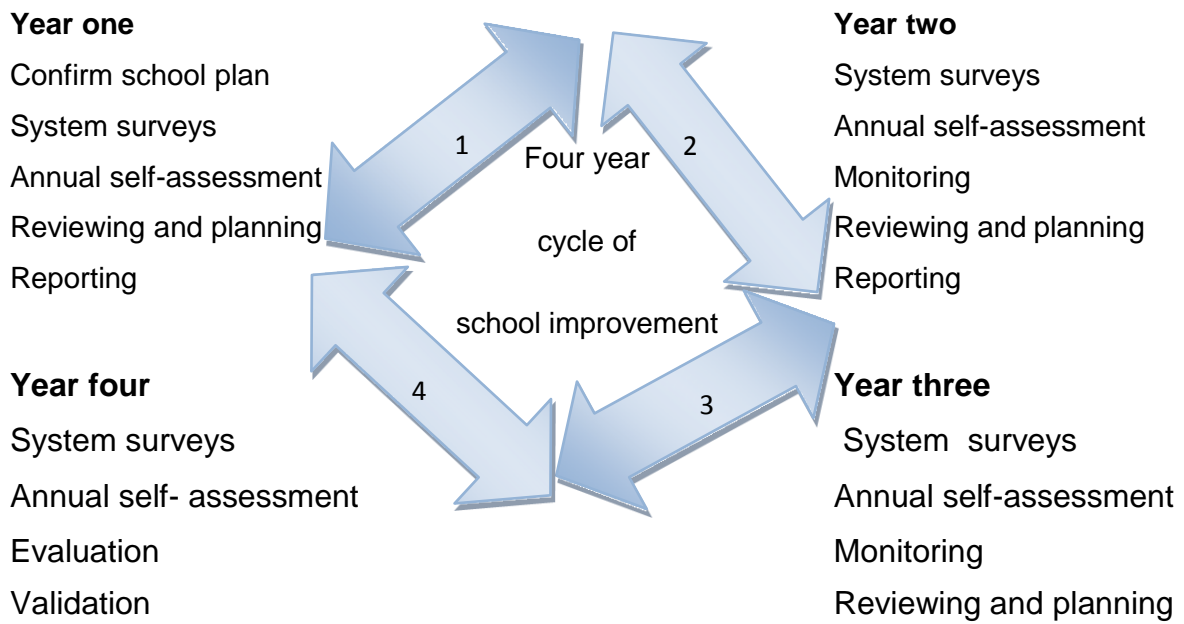
2.3.2.2 School improvement cycle

According to Ashenafi (2018:13), effective school improvement processes are cyclical and continuous. They do not have a fixed beginning or end. The school improvement plan may, for instance, take long to compile while the implementation process itself consists of a continuing cycle of planning, implementation and evaluation to bring about sustainable school improvement (Hopkins & Craig, 2018:8).

The Australian SIP framework has a four year package, which is cyclical. In other words, in each year there are sequential management activities (including planning) that are closely related and entirely connected to each other. Thus, in each year evaluation, planning, implementation, reporting, monitoring and evaluation take place. Some activities, such as external validation and annual surveys, may take place at a particular time each year, while other processes and strategies in the cycle are adapted to the context prevailing in schools. (ACT, 2009: 5).

There are certain activities that take place in each ACT school as is evident in the following quotation: “Each ACT school will develop a comprehensive four-year school plan and an annual operating plan, self-assess on an annual basis and report the outcomes against this plan to the school community. Each school will also participate in external validation in the fourth year of the cycle to gain an objective evaluation of its achievements and standards of performance and to inform future planning for continuous improvement” (ACT, 2009: 5). The ACT improvement cycle is illustrated in Figure 2.1.

Figure 2.1: ACT school improvement cycle



Source: ACT, 2009:5

Schools move through various stages of self-assessment and reflection in the four-year cycle. Various support strategies, personnel and tools are available to help schools at each stage as they develop school plans, implement and monitor the plans, report to parents and the school board and undergo external validation (ACT, 2009:6).

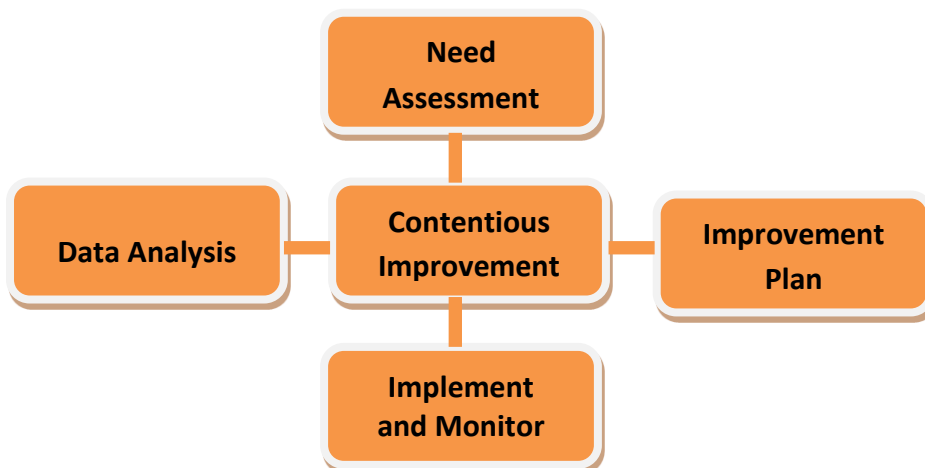
According to ACT (2009:6-7) and AISSA (2012:29), the key components of the school improvement cycle are gathering, planning, reporting and validating.

Gathering entails self-assessment, conducting satisfaction and other surveys and collecting and analysing of student achievement data. **Planning** entails developing the annual operational plan and the four-year strategic school plan, reviewing and updating it, and aligning it to system priorities and policies. **Reporting** entails updated reporting to the school board and staff. **Validating** entails preparing a presentation for the external validation panel and incorporating validation recommendations into future planning.

Turnaround improvement cycles: Turnaround improvement cycles are an integral part of practices, implementation, and school/district organisations (Jackson *et al.* 2018:29). In the USA different states and districts have varieties of school improvement cycles. The only one discussed here is the Texas Continuous Improvement Framework.

Texas Continuous Improvement Framework: The design of all component levels of the framework is such that they work together for systemic transformation in a cycle of continuous improvement, which is at the heart of the framework (Texas Center for District and School Support, undated) .The framework is presented in figure 2.2 and explained below.

Figure 2.2: Texas Continuous Improvement Framework



Source: Texas Center for District and School Support, undated: 7

Data analysis: The needs analysis and improvement plan is based on data that leads to the identification of problem areas.

Needs assessment: This process provides findings that assist planning processes after the root causes have been identified.

Improvement plan: The planning is done based on the data provided by the data analysis and needs assessment process and the improvement plan developed by district and campus teams. Goals and actions focus on areas of low performance and the interventions needed.

Implementation and monitoring: the implementation and monitoring process provides feedback and review opportunity to improve the plan (Texas Center for District and School Support, undated: 7).

Table 2.2 provides a summary of some school improvement cycles that are not further discussed here. This is presented in order to give a sense of the similarities and differences between cycles of various models.

Table 2.2: Summary of some school improvement cycles

	Country/State	Cycles /Process
1	Australian school improvement have five key steps of planning	Engage, Investigate, Communicate, Plan, and Evaluate
2	ACT school improvement cycle	Gathering, Planning, Reporting,
3	NCDPI-recommended school improvement planning process	Assess, Create, Monitor
4	Turnaround improvement cycles	Plan, Do, Study, Act, Cycle
5	Michigan Department of Education	Gather, Study, Plan, Do
6	Results-Oriented Cycles of Inquiry	Set Goals, Plan, Act, Assess, Reflect/Adjust

The most common steps of the SIP cycle reviewed by almost all models include: self-assessment, plan, implement, review and report, monitor. The process of SIP model is continuous, cyclical, and also customized based on information gathered by self-assessment that the school itself conducts at the end of each year as well as three or four years of external evaluation (MoE, 2011; Hopkins & Craig, 2018:8).

2.4 MANAGING SCHOOL IMPROVEMENT

This section will focus on management aspects of school improvement programmes. More specifically, the focus will be on how the programme is planned, organised, led and monitored.

Management is the process of accomplishing the organisational mission, vision, strategies, and goals by using coordination of individual efforts. In the school context, school leaders play key instructional and administrative roles while managing their schools. In this regard, they manage different resources such as human, material physical and financial resources that enable the schools to achieve their objectives (Education Commission, 2019:17). The management functions in the implementation of school improvement programmes are discussed next.

2.4.1 Planning school improvement programmes

Planning is a primary and most crucial function of management. The planning function of management involves examining the current situation of the organisation and looking forward to the future. To achieve the preferred outcomes planning must take into account the vision, mission, strategies, goals, objectives and resources needed (Carpenter, Bauer & Erdogan, 2012:28). According to these writers different types of plans are commonly applicable in any organisation including the schooling system, such as the strategic plan, tactical plan and operational plan.

A school improvement plan is typically strategic planning that begins with a self-assessment involving collecting and studying data/evidence to help determine where the school appears to be effective and where improvements are needed. The planning processes of SIP enable schools to identify their strengths, challenges, needs and wants (Cowan, Vaillancourt, Rossen & Pollitt, 2013:5).

According to Rahel (2014:6), planning school improvement entails setting goals for improvement and making decisions about when and how they will take place. A school improvement plan indicates changes schools have to make for improving student achievement and indicates time frames to plan when and how they will be accomplished.

A school improvement plan requires that awareness be created among staff by setting out its purpose, importance, processes, and the steps for stakeholders. Before beginning the SIP Plan, it is essential to build awareness of its importance among the various stakeholders (Rahel, 2014:6). School leaders must work together with cluster

supervisors to attain stakeholder awareness in order to ensure stakeholder involvement in SIP activities through workshops, seminars and the support provided to reach goals (Melesse, 2016:83). Once sufficient awareness has been generated within the community, it is time to conduct self-assessment. In planning for school improvement, self-evaluation plays a vital role (Anedargie, 2018). School self-evaluation is essential for collaborative inquiry, a mechanism for mobilizing the development work and the activities. Schools can plan and implement their SIP when they have reliable information about their achievement in relevant school improvement domains (MOE, 2007:9).

School improvement planning typically begins with a self-assessment that involves collecting and studying data/evidence to help determine where the school appears to be effective and where improvements are needed (Hopkins & Craig, 2018a:9). This exercise establishes the school's strengths, challenges, needs and wants.

According to Sinay and Ryan (2016:62), the school self-assessment process assists in identifying strategies for improvement and informing the implementation of the School Improvement Plan (SIP). It considers whether goals for student achievement are achieved, what evidence supports this knowledge and what actions can support continuous improvement.

In the SIP, self-assessment relates to the analysis of a school's present situation. According to Gallagher (2004:10), long-term strategic goals derived from an annual self-assessment help schools with direction, focus, and motivation.

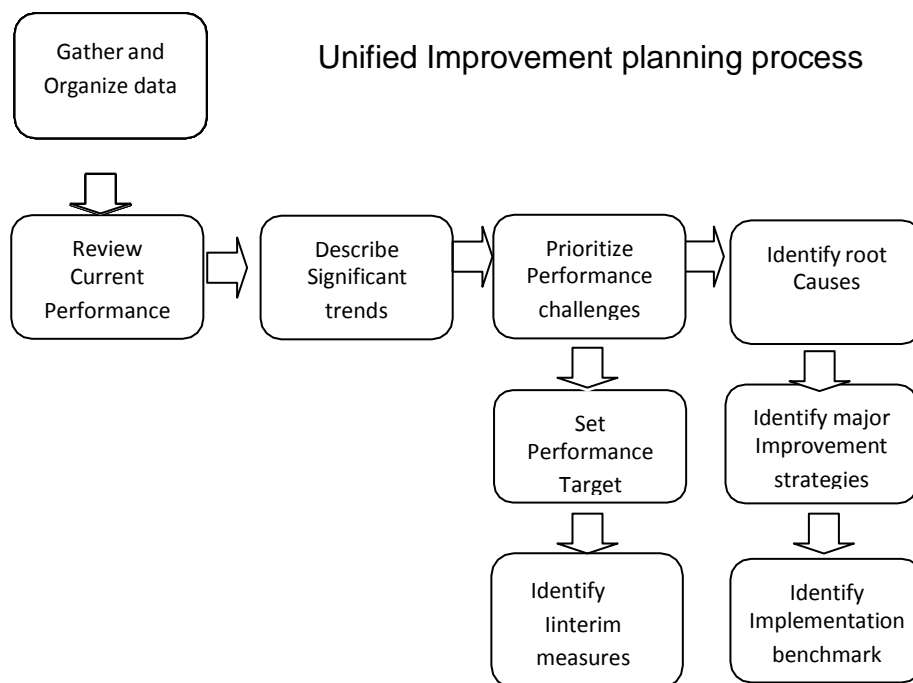
When it is dependent on reliable data and understood by relevant stakeholders, school level improvement planning can be effective.

Teachers, students and parents are supported and assisted in the development and implementation of the school improvement plan when they are involved in the school improvement planning process. Hence, school improvement planning demands solving problems collaboratively, envisioning, setting goals and objectives, and identifying implementation strategies (EIC, 2010: 10-11). This shows that developing an effective improvement plan needs the involvement of teachers, parents and other

community members to gather and analyse information and then determine school improvement needs.

The Colorado school improvement planning process begins with gathering and organising data, reviewing current data, describing significant trends, prioritising performance challenges, identifying root causes, setting performance targets, identifying major improvement strategies, identifying interim measures and identifying implementation benchmarks. The Colorado school improvement planning process is summarized below in figure 2.3 (Sinay & Ryan, 2016:19).

Figure 2.3: Colorado Department of Education Unified Improvement Planning



Source: Colorado Department of Education (Sinay & Ryan, 2016:19).

According to the Ethiopian SIP guideline (MoE, 2011:17), planning begins with creating awareness among stakeholders by the school improvement committee. Then follows conducting the school’s self-evaluation to identify its strengths and weaknesses, after which follows prioritising activities and developing a three-year SIP strategic plan. Based on the SIP strategic plan, the school cascades into action a one-year school improvement action plan every year. The Ethiopian school improvement planning has the following process: i) Schools should formulate the school improvement programme plan, which includes strategies, prioritised objectives,

inputs, implementers, time limits and evaluation strategies. ii) The effectiveness and continuity of the school improvement programme plan must be assured. iii) It must be ensured that the school improvement programme plan achieves the targets, and that it is based on the realities resulting from the self-evaluation. Questionnaires from education offices at different levels must be responded to timely and properly for the effectiveness of the support for school improvement. An action plan should be formulated and implemented to address the core issues on school improvement planning (MoE, 2011:18).

To sum up, planning as a primary managerial function has many inherently linked important common characteristics with planning in the above-mentioned countries. As discussed above the major planning elements are directly applicable in the context of school improvement planning processes. Commonly used elements in the planning processes were: awareness creation among the school community, self-assessment/ gathering data, identifying strengths and weaknesses, prioritising activities, setting goals, implementing and monitoring the plan. The next section presents the organisation of SIP.

2.4.2 Organising school improvement programmes

Organising as a management function often follows planning. In the context of SIP implementation, the management function organising plays key roles. For effective implementation of the SIP, leaders must be capable to optimally utilise available financial resources and must have an effective time management system (Mohammed & Handiso, 2018). For effective implementation of the SIP, school leaders are expected to organise the school resources efficiently to realise the vision, mission and objectives of schools. The management function organisation involves allocating human resources and developing an organisational structure to achieve the organisation's objectives. In addition, the coordinating and assembling of resources (human, physical, financial, informational, and other resources) to achieve the organisation's desired outcomes is incorporated into the management function of organising (Hopkins & Craig, 2018:9).

According to Park, Hironaka, Carver and Nordstrum (2013:9), organisations fall into three broad categories focusing on classroom-level instructional improvement, system-wide improvement, and collective impact. Organisations focused on the classroom-level, centre work on classroom level processes; school level and system-wide organisations centre work on the district level, and collective impact organisations centre work on the community level.

Organising for SIP implies making provision for school improvement committees and sub-committees at school level. According to MoE (2011:13-14), the school principal is responsible to make all stakeholders aware of improving education. The stakeholders include staff and teachers, students, parents, the community, the PTsAs and the kebele education and training boards, governmental and non-governmental organisations as well as religious organisations. They need to be made aware of the importance of school improvement in order to gain their positive response and motivation.

The school improvement committee should be composed of 5 to 10 members (depending on the number of students) drawn from teachers, students, administrative staff, parents and the community. The committee may form sub-committees accountable to it. Members of school improvement committees should be aware of the fact that their focus needs to be on the learning outcomes of students and that they should work in a close spirit and sense of collaboration in its realisation (MoE, 2011).

The school improvement committee shall primarily provide training to teachers, students, parents and the community. Administrative staff should also be made aware of the meaning, objective and importance of the programme and coordinate the joint participation of all stakeholders. In addition, according to MoE (2011:14), the school improvement committee mainly focuses on the following main strategies:

Conducting self-evaluations in schools to identify weaknesses and strengths and formulate a common plan; Identifying and putting in sequence the problems and formulating an actionplan: forming implementation committees (teams) at different levels; searching for extra sources of budget for the implementation; scheduling the

monitoring and evaluation for the realisation of the programme; facilitating the exchange of experience among the schools in the woreda through the Woreda School Improvement Coordinating Unit and striving for the realisation of better outcomes; arranging contests among schools and woredas to develop and encourage initiative and enhance the spirit of normal competition, and award the best performers in cash or kind (certificates, books or other).

The Woreda School Improvement Coordinating Unit should organise a symposium involving various public and civic societies, religious and governmental organisations to create awareness for the implementation of the school improvement programme, invite them to contribute their share and endeavour to use their contribution exhaustively (MoE, 2011).

The next section presents how the school improvement programme is lead.

2.4.3 Leading school improvement programmes

Leadership is defined as the act of influencing others toward a goal (Carpenter *et al.* 2012:18). Leaders can be found at all organisational levels. Formal leaders hold a position of authority within organisations and may use positional power together with their personal power to influence followers. Ideally leaders will not use force to influence followers, but followers will willingly identify with the leader's goal and adopt it as their own (Carpenter *et al.* 2012:426).

Bywaters and Hudson (2010) propagate that for school improvement to succeed, school leaders have to understand the interconnection of human resource management policies, curriculum frameworks, pedagogy, supervision, assessment of learning and quality school improvement based on data. According to the General Teaching Council (GTC) (2012:3), in Scotland leadership is central to educational quality and has to envision change in learning outcomes and mobilise, enable and support followers to achieve the change required.

The successful implementation of the school improvement programmes depends on the establishment of a coordinating unit from federal government to woreda/district level including SIP experts, and at school level an SIP committee that provides

leadership, is accountable, responsible and equipped with qualified and experienced professionals (MoE, 2015).

School leaders are expected to take the lead in bringing about continuous improvement in schools. In this regard, these leaders are the primary responsible ones for addressing the problems and weaknesses at schools. They also play appropriate roles in bringing effective practice and experience to seek solutions for the problems. In this respect, they should act jointly with the school improvement committee in the formulation of a school vision and strategic plan (MoE, 2013:16). According to MoE (2011:12; 2013:16) school leadership and administration play an important role in coordinating and managing phases due to its importance for the improvement of student results in schools.

Skilled principals can organise and support shared leadership among staff by guiding, coordinating and monitoring. By empowering staff collective ownership of the vision is created because it cannot be achieved individually. They should establish cooperation around the vision of the school and monitor progress towards its achievement and the success of strategies employed (Allensworth & Hart, 2018:4). Therefore the school leadership and administration include the school principal and vice-principal, school leadership committees (drawn from all stakeholders and the local community) and professionals and officials of education outside of the school. (The role and responsibilities of stakeholders, including the mentioned ones will be comprehensively discussed in chapter 3).

Generally, effective school improvement programme implementation needs the commitment of school leaders. To implement school improvement programmes school leaders should exhibit quality leadership from the planning phase up to the monitoring and evaluation of the programme implementation and even re-planning process. The school leaders should regularly assess the SIP implementation process phase by phase to rectify deviation from the actual plan and modify it if there is need. In addition, school leaders should provide support and professional development to staff members to successfully implement the strategies set out in the plan, and celebrate successes achieved in school improvement with their staff (MoE, 2013:37). The next section presents monitoring of SIP.

2.4.4 Monitoring school improvement programmes

Monitoring is the process used by stakeholders to get ongoing feedback on the progress in achieving goals. Goal achievement, and not just tracking the actions to achieve goals, is essential in this approach to monitoring. In other words, it is not just about tracking projects and using resources, but doing that in a way that ensures progress towards the most important results (MoE, 2013:66).

Monitoring the school improvement plan should come from the beginning of the implementation up to the end. All stakeholders should be involved in the monitoring process to check whether activities are being performed according to the plan or not (Sintayehu, 2016:27). School improvement committees closely monitor the school improvement work and provide the necessary assistance and support to implementers. Finally, they submit annual reports to the school community on the school improvement work undertaken by the school, and notify the local community about the status of the school improvement based on the result of the evaluation (MoE, 2013:66).

The preparation of a school improvement plan is not by itself a target. It is rather important to have periodic monitoring of the performance, and providing professional feedback to fill the gap, thereby strengthening the performance for better achievement. The monitoring, support and feedback must be conducted at the level of students, teachers, department, school, various school committees, the school cooperation centre as well as at woreda and higher levels. The feedback should include the weak and strong sides and need to be professional, constructive and timely (MoE, 2013:70). The feedback will then make a meaningful contribution towards the effectiveness of future performances.

2.5 PRINCIPLES UNDERLYING SCHOOL IMPROVEMENT PROGRAMMES

School improvement is a systematic approach that follows its principles in relation to the guiding roles of each school domain. Lunning and Ornstein (1991; in Habitamu 2014:9) have listed the following principles that need to be followed in the school improvement process:

- “Schools should employ a set of goals and missions which are easy to understand
- Students’ achievement must be continuously checked and evaluated.
- Schools need to help all students, especially the low achievers need to be tutored and an enrichment programme should be opened for high talented students.
- Principals and staff should be actively involved in continuous capacity building to update their knowledge, information and to develop positive thinking.
- Every teacher needs to contribute to successful implementation of the school improvement programme.
- Teachers must be involved in staff development by planning and implementing it.
- School environment has to be safe and healthy.
- School community relationships should be strengthened so that the community and parents are involved in SIP implementation.
- School leadership should be shared among staff, students and parents” (Habitamu, 2014:9).

Hopkins (2001:16) suggests basic principles as a base for developing a holistic approach to the process of school improvement. In addition to this, Hopkins also (2003:178) lists the following important principles of school improvement to improve the quality of education:

- “School improvement is a process that focuses on enhancing the quality of students’ learning;
- The vision of the school should be one that embraces all members of the school community as both students and contributors;
- The school will secure its internal priorities through adapting to external pressures for change and in doing so enhance its capacity for managing changes;
- The school should use data obtained through action research and enquiry to inform and drive forward the efforts made to improve.

- The school will seek to develop structures and create conditions that encourage collaboration that leads to the empowerment of students and teachers”.

MoE (2007:9) discusses the following guiding principles for the planning and implementation of SIP: the school principal is the leader of the school improvement team; students and parents have adequate involvement; the main target for school improvement is to achieve high student outcomes; students and parents have adequate knowledge about school improvement.

More lists of school improvement principles are available. However, the short indication of principles of school improvement provided in this section already indicates that principles are important to apply in the execution of school improvement and that efforts to improve schools thus need to be grounded in firm principles for improvement that the school community follow.

2.6 CHAPTER SUMMARY

In chapter 2 the researcher presented issues relating to the concept of school improvement and the management of school improvement. More specifically the researcher discussed the evolution of the school improvement programme, the definition of SIP, SIP models and frameworks, the major domains of school improvement programmes, SIP cycles and principles of SIP. The management of school improvement was discussed in relation to the management functions of planning, organising, leading and control.

The next chapter discusses the evaluation of the management of the implementation of the school improvement programme in the Ethiopian education system.

CHAPTER 3

EVALUATING THE MANAGEMENT OF SCHOOL IMPROVEMENT PROGRAMME IMPLEMENTATION

3.1 INTRODUCTION

This chapter reviews literature that is relevant to the topic of this study. The review of related literature discusses issues related to the concept evaluation of the management implementation of school improvement. The following will be conceptualized in this chapter: the Ethiopian education system and school improvement programme, objectives of the school improvement programme in Ethiopia, the Ethiopian school improvement programme framework, evaluating the management of school improvement in relation to the management functions (planning, organising, leading and monitoring and evaluation) and the role and responsibilities of stakeholders in SIP implementation. Thereby, the conceptual framework of the study is further extended and important information relating to the evaluation of school improvement is provided. This will assist the researcher in the construction of research instruments to do the empirical research. Finally the chapter discusses challenges of school improvement programme implementation management.

3.2 THE SCHOOL IMPROVEMENT PROGRAMME IN ETHIOPIA

Before 1994 the Ethiopian education system was faced with difficult problems of accessibility, equity, relevance and quality. According to MoE (1994:1), the education aims failed to respond to societal needs, nor did it give sufficient direction for the future. Some of the biggest issues were the failure of the system to develop the knowledge, thinking skills and attitudes of students for problem solving as the content and teaching thereof was problematic. The quality of education was further affected by a lack of facilities, overcrowding, insufficient teaching materials, and insufficient teacher training.

The Education and Training Policy (ETP) document of 1994 focused on economic development and the role of education to achieve this (MoE, 1994:2). For realising the

ETP, different sector programmes, that is Education Sector Development Programmes (ESDP I-V), were consecutively prepared and implemented after launching of the education policy. Each ESDP has its own goals and priorities.

The main aims of the Education Sector Development Programme (ESDP IV) relating to secondary schools were to provide in the human resources demand of the economy through improving access to quality education (MoE, 2010:7). In 2008 the General education quality improvement package (GEQIP) was launched for the improvement of the quality of education as part of the education sector development programme (ESDP I-V). The quality of education facilities would be attended to under ESDP IV. GEQIP I (2009-13) aimed to improve the teaching and learning conditions in all schools and the management structures supporting schools from above. GEQIP has five components:

- (i) curriculum, textbooks and assessment;
- (ii) a teacher development programme, including the English language quality improvement programme;
- (iii) the school improvement programme (SIP), including school grants;
- (iv) the management and administration programme, including EMIS development; and
- (v) the programme coordination and monitoring and evaluation. GEQIP also aimed at improving the effectiveness of the various components of the system and to address equity and other burning issues in an attempt to holistically improve the quality of education (DPMG, 2015:6).

The Ethiopian government has thus designed the General Education Quality Improvement Package (GEQIP) to improve the deteriorated quality of education and to increase access for all students, including students with special needs. According to MoE (2007), the package consists of six programmes, namely:

- (1) Teachers Development Programme (TDP);
- (2) School Improvement Programme (SIP);
- (3) Civic and Ethical Education Improvement Programme;
- (4) Curriculum Improvement Programme;

- (5) Information Communication Technology (ICT) Service Expansion Programme;
- (6) General Education Management and Organisation Improvement Programme.

The school improvement programme (SIP) is one component of the general quality improvement package (GEQIP), as can be seen above (DPMG, 2015:51; MoE, 2008:15). The Ethiopian government launched the school improvement programme countrywide beginning in the second half of 2006. The implementation of the education and training policy (ETP) resulted in increasing school enrolment dramatically at all levels (MOE, 2008:15). There are, however, several other challenges facing the country to improve the educational system.

Ethiopia has adopted the Australian Capital Territory (ACT) Department of Education and Training programme, which consists of four domains and twelve elements that encompass the school improvement programme (MoE, 2010: 2-3). According to the Ethiopian SIP manual and framework these domains and elements are: learning and teaching domain which contains teaching, learning, evaluation and curriculum; school administration domain which contains strategic vision, leadership behaviour and school improvement; suitable environment for learning domain which contains student focus, student improvement and student support; community participation domain which contains working together with parents, participating of the society and promoting education (MoE, 2010: 2-3).

According to MoE (2011:1), school improvement is a current and important concept focusing on doing self-evaluation to improve education and to evaluate various school domains in order to achieve better results through its main focus on learning. To this effect, schools should primarily identify their weakness and strength and prioritise each school domain and set goals. It is a continuous process involving all members of the school community and other stakeholders who contribute to student learning and improving their results.

The MOE and the regions developed the standard framework that guided the overall planning and implementation of the school improvement programme, assisted by the

school and community training efforts of GEQIP and UNICEF. The school improvement framework, the school improvement programme implementation manual, and the school improvement guidelines were used in their training. School problems were prioritised after the collection of data from parents, teachers and students following the set guidelines. After the gaps were identified, a strategic plan was prepared and a committee communicated this to the school community. Specific problems of each school had to be addressed in line with the national SIP framework (Development Portfolio Management Group (DPMG), 2015:51).

The implementation of the SIP programme demands active participation of all stakeholders, namely students, teachers, parents, the local community, supervisors, educational leaders, and expertise at different levels (MoE, 2011:56). Studies conducted by different scholars regarding SIP practice in the Ethiopian context revealed that the implementation practices of SIP in the secondary schools were not successful. Hofosha (2012:64; Meresa, Tadesse, Zeray, & Haile (2019:8-9) found that most schools did not do a self-evaluation, and did not identify and prioritise the problems. Stakeholders (namely teachers, students and parents) were not properly involved in the SIP planning process due to leaders not committing to get involved and doing it all by themselves. This weak involvement of key stakeholders impacts on the success of planning and implementation of school improvement programmes. This finding corresponds with the findings in the qualitative part of this study (see chapter 5, section 5.7.6.4).

Similarly, Kinde (2014: 82) conducted his study on factors affecting the implementation of school improvement programmes in the case of Nekemte town. He revealed that planning of the SIP lacked self-assessment to identify the current status of the school; allocating an adequate budget for teaching and learning; the practice of monitoring and evaluation was flawed; the provision of materials, facilities, and consistency of supervision made by the school improvement committee was flawed. These were the most serious challenges to achieving success of SIP in primary and secondary schools.

Furthermore, the lack of adequate supervision from the higher level education department, poor coordination and poor communication skills of school principals, can

be considered as the failure factors of educational leadership in implementing SIP. Finally, schools were found to not be sufficiently conscious of developing their own strategic plan (Kelil, 2017:67).

Generally, studies mentioned above indicated that stakeholder involvement in SIP planning was weak. There was also a lack of commitment from leaders to invite stakeholders to assist in planning, implementation, monitoring and evaluation. Officials at WEO, ZED, REB and MoE levels did not provide adequate professional and technical support to facilitate the planning and implementation of the programme. Therefore the school improvement programme is not managed according to the manuals and the guidelines (Melesse, 2016:82-83).

On the other hand, as already stated in chapter 1 paragraph 1.3 the researcher's personal experiences of many years as a teacher, school principal and supervisor in the secondary schools of the Wolaita zone, the SIP was not strategically planned, organised, led, communicated, implemented, monitored and evaluated based on the guidelines and standards. Often school principals prepare haphazard plans and keep them on the shelf to use for supervision consumption. In addition, the researcher observed that the perception and awareness level of respective stakeholders in the school and at the woreda/district level can be assumed as another problem. The researcher also witnessed that many stakeholders are reluctant regarding the aspect of programme implementation.

As far as the researcher's knowledge goes no study has been conducted regarding the management aspects of the school improvement programme in the secondary schools of the Wolaita zone. The purpose of this study is to fill this gap by making an assessment of the management aspects of school improvement programme implementation in the secondary schools of the Wolaita zone, Ethiopia (see chapter 1, section 1.3).

3.2.1 Objectives of the school improvement programme

The general objective of the school improvement programme is to improve students' achievement by improving the teaching and learning process and other factors

related to the programme. According to Dreier, Nabarro & Nelson (2018:11), a key goal of school improvement is improving the competencies of a school to manage itself, to analyse its problems, to develop and carry out a strategy of change. Further, OCED (2015:156) identified the aim of a school improvement programme as the development of schools' internal capacity for change and improvement which include the basic elements which contribute more to success. In school improvement programmes these are classroom teaching and learning practices, attractiveness of the school compound, buildings, classrooms, teachers' participation in their professional development programme, and decentralized school management.

According to MoE (2008:6), on the basis of the school domains, the school improvement programme focuses on achieving the following objectives; i) Increase the learning, results and discipline of students significantly. ii) Ensure good governance and democratic practice in schools' accountably and responsibly for its ultimate success. iii) Build the school leadership and administration on decentralization, thereby enabling schools to have broader administrative autonomy.

According to MoE (2011:5), the implementation of the school improvement programmes will result in the following: i) The capacity, flexibility and motivation of teachers and the leadership will be enhanced through different methods (self-teaching, evaluation and correction of weakness and development of strength; exchange of experience and provision of tangible and practicable training, etc.). ii) There will be favourable conditions and environments of education for students and the missing parts will be addressed step by step, thereby developing their interest in education and improving their capacity. iii) The awareness of parents and the community about education will be increased through different means, thereby making it possible to have a sense of belongingness for the education task. iv)

There will be coordinating of the community, NGOs, charities and religious organisations to provide essential inputs for education in addition to the assistance from the government to improve the quality of education.

Generally, the ultimate aim of a school improvement programme is to enhance the students' progress, achievement and development (Halsall, 1998:8). As reasoned

above, this means that the school improvement programme is ultimately aimed at changing schools' internal teaching and learning conditions and enabling the effective utilisation of facilities. As a result, the motivation and love of students for education will increase and this will contribute to the reduction of wastage in education, in other words reducing the number of repeaters and dropouts. The improvement in students' learning and results will create productive, entrepreneurial citizens and reduce poverty and bring about a society enjoying a better standard of living.

3.2.2 Ethiopian school improvement framework

The Ethiopian SIP framework consists of a three-year package, which is cyclical. In other words, in each year there are sequential management activities (including planning, organising, leading, implementing, evaluating and monitoring) that are closely related and entirely connected to each other. However, in each year, there is planning, implementing, monitoring, and evaluation and reporting. The school improvement programme has four implementation stages/cycles:

- (1) self-assessment,
- (2) planning,
- (3) implementation, and
- (4) monitoring (MoE, 2010:10).

The SIP process is continuous and cyclical, and can be changed using data based on external evaluation and the school's yearly self-evaluation as well as the three yearly evaluations. As mentioned earlier, this is a cyclical process of continuous improvement that is conducted on the basis of external validation and recommendations every three years (in addition to annual evaluation and adjustments in the school). This cyclical process could be illustrated as follows:

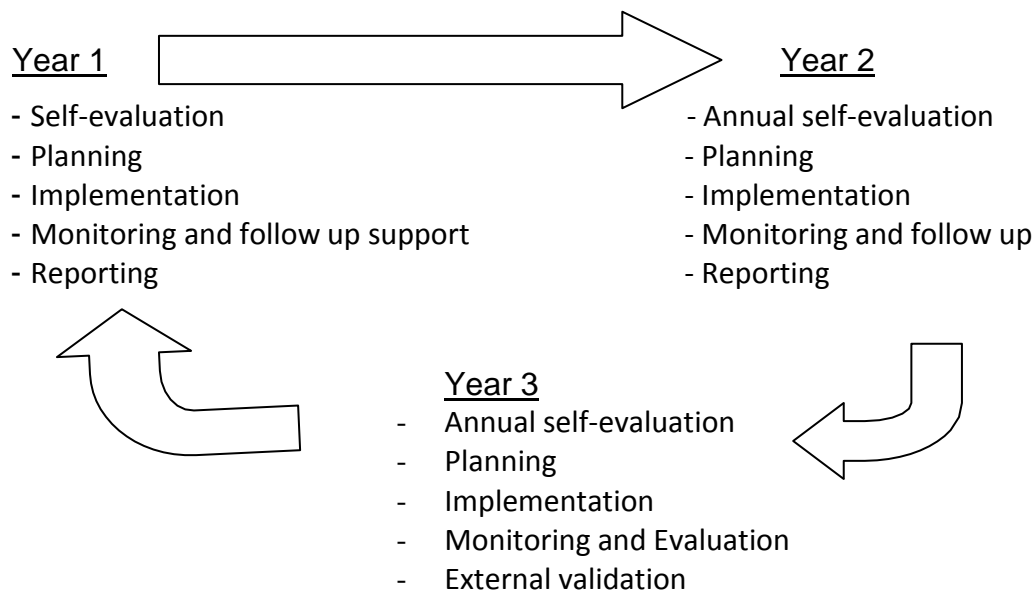


Figure 3.1: Ethiopian school improvement cycle

(Source: Ethiopian School Improvement Programme Framework, MoE, Revised 2011)

According to MoE, (2011:5-6), the first year of the school improvement programme mainly focuses on the following activities/steps: preparation, collecting data, system survey, decision/agreement, school improvement plan preparation, implementation of the plan, monitoring and supervision, finally reporting the implementation performance to the stakeholders. These stages are discussed below:

1. **Preparation:** School improvement programme framework implementation and leadership matters are to be determined by the school improvement committee and the committees at all levels should provide support to schools in their framework implementation and preparatory activities.
2. **Collecting data in terms of school domains:** primarily schools will be engaged in evaluating their performance in respect of the four school domains.
3. **System survey:** System survey is an assessment of current performance of the school in respect of the viewpoints of all stakeholders, namely students,

4. teachers, and parents. The survey is an indispensable task in which schools can issue or collect feedback about the four domains.
5. **Decision/agreement:** Decision/agreement will be reached on the school's current performance rating on the basis of careful investigation and validation of the data compiled. Key stakeholders will be involved in an annual self-evaluation process of the school. Other key bodies will also participate in data validation and the decision-making process. This is how the implementation of the school improvement programme framework is linked to the learning and teaching process.
6. **School improvement plan preparation:** On the basis of current performance evaluation (data) the plan for the next three years will be developed by the school improvement committee. The plan contains particulars such as specific goals and objectives and priority areas of activities. The plan may be reviewed when new changes occur in the context of the school that warrant priority attention in preparing plans that serve for the next three years.
7. **Implementation of the plan:** Implementation of the plan starts when the school improvement committee believes that the plan is adequately ready for implementation. This means when there is successful transition from the previous plan to the new plan.
8. **Monitoring and supervision:** The relevant committee conducts monitoring and supervising through sub-committees to be established under it.
9. **Reporting implementation (performance):** The school's committee submits an annual report to the school community and other concerned bodies on the performance of the programme.

In the second year schools will undertake actual improvement performance evaluation against existing goals and priorities set forth in the plan; performance indicators that are not accomplished in the first year will be identified, if any; new priorities will be identified, if any; planning, implementation, monitoring and supervision tasks will be undertaken; and finally the school's committee will submit the report to respective bodies (MoE, 2011).

In the third year schools validate actual improvement in self-evaluation, and the school will continue implementation of its strategic plan. External validation of schools' procedures and outcomes will be conducted to provide actual feedback, thereby identifying their strengths and weaknesses, together with recommendations on the basis of validation of data compiled. The external validation report will be submitted to the school (MoE, 2011:6-7). After the three-year cycle, the planning cycle is started again with new priorities, aims, foci, strategies, time lines, et cetera for all the aspects of the original improvement plan. Before starting a new cycle of improvement planning, improvements should first be celebrated through recognition and publication thereof. This is important for the further success of the school improvement planning process (EIC, 2000:57).

3.2.3 Domains and elements of the school improvement programme in Ethiopia.

The Ethiopian school improvement framework was adapted from the Australian Capital Territory Department of Education and Training, as already indicated. The framework has four domains and 12 elements, 24 standards and 88 performance indicators. According to MoE (2011:3) and Mitchell (2014:4), the four domains and their respective elements are categorized as follows:

<p>1. <u>Teaching and learning</u></p> <ul style="list-style-type: none"> • Act of teaching • Learning and evaluation • Curriculum 	<p>2. <u>Favourable learning conditions and environment</u></p> <ul style="list-style-type: none"> • School facility • Empowerment of students
<p>Student Outcomes</p>	
<p>3. <u>School leadership</u></p> <ul style="list-style-type: none"> • Strategic vision • Leadership behaviour • School management 	<p>4. <u>Community participation</u></p> <ul style="list-style-type: none"> • Cooperation with parents • Community participation • Promoting education

Figure 3.2: Domains and elements of school improvement

Source: MoE, 2011:3

3.2.3.1 *The teaching and learning domain*

The teaching and learning domain is the core domain which focuses on the teaching and learning process. According to Masters (2012:61), the domain mainly focuses on curriculum context and teachers' meaningful experiences, thoughts and engagement with their students' academic achievement. Teachers apply their knowledge in curriculum design and planning to improve students' learning outcomes and establish explicit and high standards for learning.

According to the Michigan Department of Education (2014:3), quality teaching and learning for all students is the main concern of schools. School activities are associated with the development of curriculum, teaching effectively, a collaborative assessment plan, monitoring student learning, and promoting high expectations. According to MoE (2013:10), the teaching and learning domain puts more focus on effective efforts and initiatives of teachers, students' efforts and expected behaviours, and curriculum.

Teachers are the main actors among the stakeholders in the improvement of schools and the improvement of the students' outcomes (Education Commission, 2019:78). Hence, they should have a professional code of ethics and discharge their responsibilities accordingly. Besides this, the different characteristics expected from teachers regarding effective activities for the school improvement programme, are: the mastery of subject content and methodology, conducting of periodic and continuous assessment and evaluation to ensure that students acquire adequate knowledge, skills and attitudes in their lesson, motivating students for effective learning, being role models to their students, and understanding differences in gender, special needs and skills (MoE, 2013:11-13; Mitiku, Alemu & Mengsitu, 2014:134).

Basically, it is believed that all subjects are important though some subjects are worthy of more attention due to their role as basis for others. Hence, given the existing situation of the country, the following subjects are given special attention in the school improvement programme: the mother tongue, English, Mathematics, Natural Science, and Civics and Ethics. Other cross cutting issues such as environmental protection,

health and reproduction, gender and HIV/AIDS will be integrated with other subjects having special attention in the curriculum (MoE, 2013:14).

3.2.3.2 *Conducive learning environment domain*

Conduciveness of the school environment is a crucial factor for school improvement. According to Masters (2012:61), a conducive learning environment entails a welcoming, inclusive and positive school environment. In safe and conducive learning environments students participate in a broader range of learning opportunities. Stakeholders' collaboration can result in a safe and conducive learning environment. Effective schools and learning environments provide resources to support instructional and management components of learning support. Safe and positive environments are collaborative efforts of staff and the respective stakeholders (Cowan, Court, Vaillancourt, Rossen & Pollitt, 2013:5).

According to MoE (2013:16-17), the existence of a favourable and positive atmosphere for the process of teaching and learning makes a huge contribution to the quality provision of education. Accordingly, extensive efforts will be exerted to ensure the suitability and normality of the school environment. This includes: The environment will be a safe and stable place where students learn without fear of provocation; provision of essential educational facilities; availability of a suitable room for teachers to plan their lessons, a suitable staff room and recreational place for teachers, libraries full of updated reference books, and computers and internet services; educational cluster centres will be created and equipped with the necessary teaching aids; electricity and telephone facilities (where accessible) and drinking water will be supplied; Toilets will be constructed separately for males and females.

Generally, a conducive environment focuses on the availability of resources (human and material), attractiveness of classrooms and usefulness of teaching and learning methods, and that students can discuss their problems. Finally, the participation of the respective stakeholders in making decisions related to academic and administrative issues also promotes a conducive environment (MoE, 2011:12).

3.2.3.3 School leadership and management domain

The leading and managing domain is the heart of the school improvement programme. According to Masters (2012:61), the crucial role of school leadership and management is communicating a clear vision for a school, setting directions and guiding the school community in alignment with its purpose, and establishing effective management structures. Leadership also provides the opportunities and structures for followers to attain common goals together, establishing a school culture of shared responsibility, mutual respect, and directing their focus on student learning (The Center on School Turnaround, 2017:11; Jackson *et al.* 2018:4).

According to OCED (2015:84), the success of school improvement needs effective school leaders. Effective school leaders establish conducive learning environments and advocate effective teaching and learning. In OECD countries the role of school leadership focuses on instructional leadership, in line with financial and resource management.

Generally, school leadership and management have a vital role in coordinating and managing different phases of the SIP for the improvement of students' academic achievement. In this regard, school leaders are primarily responsible for handling the problems and weaknesses at schools and they also play an appropriate role in bringing effective practice and experience to seek a solution for the problems. According to MoE (2011), school leadership and management include the school principal, the school board, parent, teacher and student associations, and the school improvement committee and education experts at different levels. Finally, they should act jointly with the school improvement committee to formulate the school's vision and strategic plan; organise, and also direct the implementation and evaluation of the programme. This is more extensively discussed in section 2.4.3.

3.2.3.4 Community involvement domain

The school community relation is one of the important factors in school improvement. According to Masters (2012:61), the development of quality ongoing community partnerships and networks are the main focus of the community involvement domain.

Parents and families contribute a lot to school improvement and decisions that affect the teaching and learning process by enabling mutual support between home and school (Scottish Government, 2017:15). Further, MoE (2013:19) indicates that parents, the community and NGOs play a vital role in the improvement and transformation of schools. Such activities of the school community can be summarized in the following two roles:

Firstly, parents in the Ethiopian context are expected to undertake the following actions to control their children's learning conditions: providing educational materials and a school uniform; maintaining their children's personal hygiene; checking their children's school attendance; discussing with school officials and finding solutions to problems such as disciplinary cases, the role of girls in education, dropouts, weak performing students, and so forth.

Secondly, parents provide financial and material support to schools. It is a known fact that the government alone cannot take the entire burden of expanding the scope of education, improve its quality, ensure its relevance and address the problems. Hence, there should be a system put in place whereby the sense of belongingness of the community for education is promoted. With the partnership of the community and NGOs financial assistance can be used to construct schools, add additional classrooms and renew the existing ones, and provide educational inputs.

According to Anderson and Mundy (2014:9) community and parent involvement is structured around parent involvement in teaching and learning; parent and community participation in school governance and management; and community and parent involvement at the system level (governance and accountability).

According to Khosa (2013:79), parental involvement relates to the parental role in assisting or supporting the child's learning at school, which is important in bringing about continuity between home and school. The children of supportive parents achieve better than those of non-supportive parents. Similarly, communities with strong religious institutions are more supportive of school improvement (Bryk, 2010:29). In general, parents and community play a great role in school improve-

ment programmes by providing resources to schools and monitoring the schools and their child's learning.

The next section presents the evaluation of the management of school improvement programmes.

3.3 EVALUATING THE MANAGEMENT OF THE SCHOOL IMPROVEMENT PROGRAMME

Successful school improvement programmes are related to systemic planning, evaluation and monitoring processes that help students to achieve more. Hence, the key stakeholders should be encouraged to actively participate in planning by continuously raising their awareness (Meresa, Tadesse, Zeray, & Haile, 2019:9). The extent to which stakeholders participate in SIP planning is, according to Ashenafi (2018:53), determined by how much the relevant bodies provide evaluation and monitoring and what the capacity of school leadership is.

Evaluation is an independent and rigorous assessment of activities that are either ongoing or completed in order to establish how well they achieve stated aims and contribute to decision making. Although evaluation and monitoring are distinct processes, they have quite similar aims, namely to help inform decisions, improve performance and achieve planned results using relevant information (MoE, 2013:68). There is also the well-known distinction between formative evaluation, which focuses on implementation/process, and summative evaluation, which focuses on the impact/outcome of the programme. School leaders can reflect, develop and grow through their use of evaluation systems (Scott, 2018:5). The cyclical use of evaluation processes can assist improvement when it informs decisions about the design and implementation of SIP.

In the next sub-sections different management activities/stages of the school improvement programme are presented in detail as they are essential aspects in the evaluation of programme implementation.

3.3.1 Evaluating SIP planning

The term “planning” is defined by different writers. A commonly agreed definition of planning is that this activity is the process of thinking, an organised foresight and vision based on experience and facts that are required for intelligent action. Planning takes place when systematic decisions are made by management about the goals and the activities that an individual, a group, or an organisation will pursue in the future. Planning is a process that managers use to think with tomorrow in mind and to select and identify appropriate organisational goals and actions (MoE, 2013:29-30).

As a primary managerial function, planning has many features inherently linked by important common characteristics. These include the fact that it is a continuous process because it is a never-ending function of managers. This nature of planning emerges from the fact that the future is uncertain, and has no end. This fact may influence the planning activity and therefore calls for adjusting and re-adjusting to respond to the changing environment. Planning should be flexible and not rigid. It should be flexible in order to respond to the unseen future circumstances. Planning involves decision making as planning is an anticipation of future events and as such it involves alternatives and selection of the best alternatives, which will enable the desired objective to be achieved (MoE, 2013:30).

Planning is the foundation of managerial functions as planning provides a starting point for other managerial functions. The organising, directing, and controlling functions arise from planning. Planning is future oriented as it involves looking ahead to the future, thereby determining what must be done in the future. Because it is forward looking, it enables managers to handle future events to fulfil organisational objectives. Planning is one of the four management functions together with organising, leading and controlling. Planning indicates where the organisation wants to go and also why it wants to go there and how it will get there; also how you will know if you are there or not. Even though planning requires managers to exert their time and energy, to plan or not to plan is not a choice, but rather should be considered as one of the major tasks of managers without which it is difficult to realise the organisational objectives (MoE, 2013:30).

According to (MOE, 2013:30-31), the following benefits/advantages of formal planning can be identified: planning provides direction and helps managers to think about the future in a flexible manner; planning coordinates efforts and helps managers to allocate all the resources efficiently for the achievement of the desired objective; planning eliminates unproductive effort, to minimize wastage and cost of production; it improves decision-making since it cannot be seen in isolation from decision-making. Since planning helps managers to make reliable decisions based on concrete evidence, it enables managers to be economical because effective planning keeps managers away from guess work and unproductive effort. Planning enables managers to employ the best advantages in the utilization of organisational resources and it increases efficiency and effectiveness of organisational goal achievement.

The purpose of the school improvement plan is to manage change and improvements. All the actions in a school improvement plan should be designed to raise the achievement of students. Apart from national priorities, the school improvement plan should also address the schools' own priorities identified through self-evaluation. The improvement plan is a pivotal document during education (Shetland Islands Council, 2017:12).

According to the EIC (2000:93), the best school improvement plans:

- “put students first by focusing on improving the level of their academic achievement;
- involve the school council, parents, and the community, as well as the principal and teachers, as drafters, implementers, monitors, and evaluators of the plan;
- honour the unique nature and characteristics of the school community;
- adhere to the province's standards for student learning and student achievement; are based on reliable data;
- follow the research on what makes schools effective;
- are realistic, yet aim high;
- are easy to understand by everyone in the school community;
- remain flexible to change”.

Evaluating the planning function of managing a school improvement plan requires taking into account the characteristics of efficient planning discussed in this section. This was taken into account in the planning of the questionnaire for the empirical study (Appendix D). The evaluation of the organising function of a school improvement plan will be discussed next.

3.3.2 Evaluating SIP organisation

School improvement programme implementation requires team work that is led by the school principal. The school principal is responsible to make all stakeholders (staff and teachers, students, parents and the community) and the unions of parents and teachers and the kebele education and training boards, governmental and non-governmental organisations, as well as religious organisations aware of the importance of the school improvement in order to gain their positive response and motivation. The principal should also create structures to organise stakeholders into operation units (OECD, 2018:161).

The school improvement committee is composed of 5 to 10 members (depending on the number of students) drawn from teachers, students, administrative staff, parents and the community, chaired by the school principal. The committee may form sub-committees accountable to it. Members of school improvement committees should be aware of the fact that their focus should be on the learning outcomes of students and that they should work in a close spirit and sense of collaboration for its realisation. The school improvement committee should primarily design its code of meeting procedures and work programme to start and undertake its mandate. The school improvement committee should evaluate the implementation process of the designed action plan, follow up on the improvement of the students' results from time to time and ensure that the activities are leading towards the intended goal within the specified time frame (MoE, 2013:61). School improvement activities (planning, implementing, monitoring and reporting) are organised on the bases of respective stakeholder participants. Successful implementation of the school improvement plan strategies need collaborative efforts of all stakeholders.

Accordingly, school improvement committees are responsible to provide training to

teachers, students, parents and the community as well as administrative staff about the meaning, objective and importance of the programme and coordinate the joint participation of all stakeholders; conduct self-evaluations in schools to identify weaknesses and strengths and to formulate a common plan; identify and put into sequence the problems and to then formulate an action plan; form implementation committees (teams) at different levels and describe their level of responsibility and accountability; search for extra sources of budget to implement the programme; schedule the monitoring and evaluation for the realisation of the programme; facilitate the exchange of experience among the schools in the woreda through the Woreda School Improvement Coordinating Unit, and to strive for the realisation of better outcomes; arrange contests among schools and woredas to develop initiative, enhance the spirit of normal competition and award the best performers; organise consultation forums at least after each semester result has been notified, respond properly to queries of the public and take the appropriate corrective measures (MoE, 2013:61).

The Woreda School Improvement Coordinating Unit should organise a symposium involving various public and civic groups, religious and governmental organisations to create awareness of the objective and implementation of the school improvement programme, and invite them to contribute their share and endeavour to use their contribution exhaustively (MoE, 2013:60-61).

Evaluating the organising function of managing a school improvement plan requires taking into account the characteristics of efficient organising as discussed in this section. This was taken into account in the planning of the questionnaire for the empirical study (Appendix D). The evaluation of the leading function of school improvement plan implementation will be discussed next.

3.3.3 Evaluating SIP leadership

Effective school leadership is regarded as a precondition for a successful school. Practices of effective school leaders centre mainly on the work of principals. Notwithstanding international current interest in distributed leadership, the position of the principal is still regarded as very important for successful schools. In the developed

world improvement of teaching and student learning focuses on principals' behaviours (Anderson & Mundy, 2014:7). The school leadership should design a clear vision for the school and it has to work in collaboration with the school community in moving to the vision. It is a function that requires joint responsibilities of the management and the administration (MoE, 2011:59).

The leading domain of a school improvement programme focuses on the communication of a clear vision for the school and setting up effective organisational structures for management to achieve it. Leaders direct the school to its purpose. Effective leaders act in a collegial way, focus on teachers and students and promote a collective responsibility for improvement (ACT, 2009:4). Effective principals also create a positive school culture, enhance motivation and commitment for improvement and work for success in challenging circumstances (Day & Sammons 2016:7).

According to Day and Sammons (2016:7), the key dimensions of successful leadership are: enhancing and improving conditions for teaching and learning; redesigning the organisation: defining the vision and values; redesigning and enriching the curriculum; aligning roles and responsibilities; improving teacher quality; building school-community relationships; building relationships inside the school community; placing an emphasis on shared values.

Evaluating the leading function of managing a school improvement plan requires taking into account the characteristics of efficient leadership as discussed shortly in this section. This was taken into account in the planning of the questionnaire for the empirical study (Appendix D). The evaluation of implementing a school improvement plan will be discussed next.

3.3.4 Evaluating SIP implementation

A plan has no meaning if it cannot be implemented. The implementation process needs a timetable and strategy on how to proceed with the plan. It needs active participation of all stakeholders and their commitment. The SIP has to be implemented as per the plan and if the plan is not workable, the concerned body has to examine other means. A plan is not a rigid document and can be revised during

implementation. This is why serious attention should be given to the implementation process (MoE, 2013:65). The implementation of school improvement needs the collaboration of the respective stakeholders to achieve the desired goal of the plan, which is the improvement of the student's academic achievement, behaviours, and overall improvement of schools. Therefore the role and responsibilities of stakeholders are presented in section 3.4. These roles and responsibilities need to be taken into account in the evaluation of SIP implementation. This was also taken into account in the planning of the questionnaire for the empirical study (Appendix D).

The next section presents evaluation of the monitoring and reporting function of a school improvement plan.

3.3.5 Evaluating SIP monitoring and reporting

Monitoring is the ongoing process that provides regular feedback to stakeholders about progress towards goal achievement. Monitoring does not only relate to checking the implementation of activities, but also to determining how progress can be ensured by implementing new strategies and actions to get important results (MoE, 2013:66-67).

Monitoring and evaluation of the school improvement programme is a critical function of management in programme implementation. According to OCED (2015:96), the various tools used for monitoring seek to achieve three objectives, namely: (1) measuring student progress; (2) evaluating the key factors improving student outcomes; and (3) providing feedback on how to move forward. Monitoring a school improvement plan should take place from the beginning of the implementation up to the end. All stakeholders should be involved in the monitoring process to check whether activities are being performed according to the plan.

After the implementation of the school improvement plan, the results and successes as well as problems encountered during the implementation and their solution should be reported. The report should include an all-round perspective of activities on the domains of the school improvement programme. The involvement of key stakeholders is expected during the preparation, review and approval of the report (OECD,

2017:29). Having done this, the performance report should be submitted to the stakeholders and the concerned governmental organ timely (MoE, 2013:70).

Generally, previous sub-sections provided a brief overview of the evaluation of school improvement programme management. School improvement programme evaluation is not a linear process; rather it is cyclical. Hence, it requires continuous evaluation and thereby possible modification. Evaluation of the programme is conducted in two ways. On the one hand, the school itself conducts annual evaluation on the implementation of the programme. On the other hand, external bodies conduct an evaluation at the end of the third year. Hence, based on the data and information obtained from both types of evaluations schools make possible modifications of the programme (MoE, 2007:03). The information obtained from both evaluations could serve as a basis for further planning.

Evaluating the monitoring and reporting function of managing a school improvement plan requires taking into account the aspects of efficient monitoring as discussed in this section. In the evaluation of school improvement the roles of the various stakeholders and how these should be executed must be taken into account. These aspects were taken into account in the planning of the questionnaire for the empirical study (Appendix D). The next section presents the roles and responsibilities of stakeholders in SIP implementation.

3.4 ROLES OF STAKEHOLDERS IN SIP IMPLEMENTATION

Anyone involved or interested to be involved in school functioning has an essential role to play in the evaluation process leading to the planning of improvement (EIC, 2000:12). The school improvement plan will be more successful with the cooperation of principals, teachers, student council, other groups/parents and the rest of the members of the community. The success and effectiveness of school improvement thus rests on the meaningful contribution of all stakeholders. The school community must ensure that there are favourable structures for a meaningful involvement of the school community (MoE, 2011:54; Hopkins, 2018:10; Maier, Daniel, Oakes, & Lam, 2017:21).

To ensure the quality of education through the improvement of schools, executive stakeholders from the federal level to the schools are expected to contribute their part. Hence, it would be appropriate to ask what the duty of these executive stakeholders might be with respect to the improvement of schools (Hopkins, 2018:15). These respective stakeholders are: the federal Ministry of Education, regional education bureaus, the zone education departments, the woreda education offices, schools, principals, teachers, students, parents, and community members, other government and non-government organisations (NGOs).

In general, for successful school improvement plan development the process needs to be participatory, inclusive and consultative. Further, the Ethiopian SIP (MoE, 2011:56) guideline describes the major stakeholders in SIP preparation and implementation processes as: school principals, teachers, non-teaching staff, students, parents, local community, educational professionals, cluster supervisors and other consultants and monitors. Similarly, leaders at the school, district and state levels engage families to support the learning of their children and the turnaround effort (Guzman, 2020:1696; The Center on School Turnaround, 2017:11; Jackson *et al.* 2018:4).

The next sub-sections describe the role and responsibilities of each stakeholder.

3.4.1 Role and responsibilities of school principals

Principals can influence classroom teaching in various ways, and they are seen as the main agents of change who can improve student outcomes (Allensworth & Hart, 2018:1). They have a powerful, indirect impact through their influence on staff commitment, motivation and working conditions (Leithwood, Day, Sammons, Harris, & Hopkins, 2006: 5). Their leadership is best when supported by consistent and supportive district-level leadership (Learning Point Associates, 2010:5).

Successful school improvement is related to school leaders' systematic planning, monitoring and evaluating process which enables increasing student achievement. Hence, the key stakeholders (teachers, students and parents) should also be encouraged to have active participation in SIP planning and implementation by continuously heightening their awareness (Meresa, Tadesse, Zeray, & Haile, 2019:9).

School principals play a crucial role in the process of implementing a school improvement programme. One of the roles of the school principal is to create awareness of the school improvement programme's planning, organising, implementing, monitoring and evaluation to respective stakeholders. Then, after the school principal has established the school improvement committees (SICs) he or she is responsible for leading and administering the planning of self-evaluation and the improvement process (Bahiru, 2019:60).

According to EIC (2000: 13; MoE, 2011:49; MoE, 2013: 35-37; Education commission, 2019:61), principals are the keyplayers in the school improvement process. They play various roles in ensuring that school improvement planning is successfully implemented. Most importantly, they have to ensure that improvement planning reflects their own school and community characteristics. In general, the role of school leaders in executing SIP can be placed into three core groups. These core groups include: communication, professional development and leadership.

Communication: Communication for SIP implementation is vital. It supports each of a manager's planning, organising, leading, and controlling functions. For the successful implementation of school improvement, programme leaders must communicate all aspects of SIP to respective stakeholders from its planning up to implementation phase by using different communication networks (Education Commission, 2019:111).

In addition, principals need to explain the process of school improvement planning to staff, parents, school councils, and community members; assist school councils, parents, staff, and community members to understand their role in school improvement and draw them into participating in school improvement; explain the characteristics of the school to the community; ensure regular communication on progress to all stakeholders and communicate the final school plan to them (MoE, 2013).

Professional development: Professional development is important for the effective realisation of school improvement programme implementation. In this regard, school

leaders need to use different staff development approaches to enable all academic and administrative staff to fully engage in the implementation of SIP by providing needs based short-term training and self-learning opportunities. Additionally, school leaders should support teachers, parents, and community members in developing and implementing the SIP plan and conduct close monitoring and evaluation of the programme implementation process. Based on skills and knowledge gaps, the school leaders must organise tailored training to improve the effective implementation of the programme (MoE, 2013:36; LaTurner & Lewis, 2013:5).

The following are also typical tasks that principals have to do: see to it that staff lead the process of development and implementation of the improvement plan; provide professional development, training and leadership opportunities to relevant staff, parents, school council members, and other community members; ensure professional development goals are established together with staff that focus on the strategies and goals of the school improvement plan; ensure that professional development activities focusing on the achievement of improvement goals feature on every staff meeting (EIC, 2000:13).

Leadership: Important school improvement leadership tasks of the school principal are to support the development of effective school plans, to validate the processes of school self-assessment, to monitor progress towards achieving goals and to endorse annual school board reports. They need to support and work with school improvement committees and school boards, and must ensure quality assurance is implemented throughout the cycle of review and improvement (MoE, 2013:37).

According to MoE (2011), principals need to perform various important tasks related to school improvement, such as developing and circulating a parent survey on various issues in relation to parental involvement; regularly collecting data on student achievement and ensuring the profitable use of the information collected; leading meetings with staff, parents, school councils, and community members; assessing the implementation of the school improvement plan by staff; supporting professional development of staff to execute the improvement plan; handling the budget in relation to the goals and strategies of the improvement plan; communicating information on

student achievement to the school community; and celebrating successes in goal achieving with the school community (MoE, 2011).

Because the role of the principal extends throughout many school functions during the improvement process, school districts should support them throughout the process (Hanover Research, 2014:12). According to Allensworth and Hart (2018:4) and Chemutai (2015:80), principals who promoted a strong school culture through the empowering support of teachers' and staff's work showed the highest learning gains. The school culture or climate is thus another very important factor in the process of school improvement.

During the school improvement process the usual important leadership tasks of successful principals need to be continuously performed well, such as those mentioned by Harvey, Holland, and Cummins (2013:4): "Shaping a vision of academic success for all students; creating a climate hospitable to education; cultivating leadership in others; improving instruction; managing people, data and processes to foster school improvement."

Best practices research indicates that the following leadership qualities are important for principals in the school improvement process:

Transformational: the ability to bring about staff motivation and engagement behind a strong school vision

Instructional: having knowledge about instructional issues and the ability to align school activity to improve instruction

Strategic: the ability to formulate strategy and identify concrete priorities around the strategy (Hanover Research, 2014:13).

On the other hand, educators working on the school improvement process in Maryland have identified five "... critical leadership skills a principal must demonstrate to effectively lead a school in improving student achievement and stress that the five areas are nota chronology of what a principal must do first, second, and third, but

rather are cyclical in nature and must be demonstrated continuously throughout the school improvement process” (Seremet, Ward, Williamson & Seikkaly, 2009; Farah, 2013:172). The five skills are: (1) promote collaborative problem solving and open communication; (2) collect, analyse, and use data to identify school needs; (3) use data to identify and plan for changes in the instructional programme; (4) implement and monitor the school improvement plan; and (5) attain a clear focus on student achievement goals (Seremet, Ward, Williamson & Seikkaly, 2009).

According to MoE (2013:37), school principals have the following mandate, namely to: manage the school improvement work and make the necessary efforts to ensure the availability of a favourable learning and teaching environment at schools; keep parents of students updated on the learning capacity and academic results of their children; discuss with parents to seek common solutions for problems encountered by students in their education; monitor closely the learning and teaching activity in the school and conduct classroom observations and take appropriate corrective measures on defective issues and assist parents; enable the school to have an improvement or growth vision; facilitate the establishment of solid and continuous relationships between families of students and the school; organise short-term trainings and programmes to share experience between teachers and the school community on matters vital for the school improvement at a convenient time for teachers and the school community; study and assess the academic result of students in terms of their grade, gender, family income, and so forth; submit a quarterly written report to the kebele education and training board and the woreda education offices on the issue of school improvement; convene annual meetings for the evaluation of the school activities in the area of improvement and suggest solutions to problems in the presence of the school community and parents.

According to ACT (2009:17), the principal is responsible for quality assurance of the education in the school and effective school improvement. According to them the role of the principal is to:

- “establish a school improvement committee;
- oversee the school improvement process;
- establish school targets; oversee the development and annual review of the

- school plan;
- liaise with central office staff to ensure school and system alignment; report regularly to, and consult with, the school board;
 - report regularly to the school management on the development and progress of the school plan and levels of student performance;
 - approve all forms of school reporting; ensure that appropriate evidence is retained and made available for the external validation process.”

Generally, the school principal and other school leaders need to acknowledge that the key to the improvement of student learning relates to effective teaching practices. Leadership should ensure that all students are challenged, engaged, and learning successfully through their encouragement of research-based teaching practices (Masters, 2010:15). In the evaluation of school improvement, understanding the role of the school principal in the management and implementing the SIP is most important. This was taken into account in the planning of the questionnaire for the empirical study (Appendix D).

The next sub-section presents the role of teachers in the implementation of the management of an SIP.

3.4.2 Teachers

No single teaching approach can meet all student needs since teaching is complex. As a result of their training and experience teachers/educators bring various knowledge and skills to their classes. Because of its complexity, and its focus on improving learning, the teaching system should not only evaluate teachers’

knowledge and skills, but also support continuous professional development, mentoring and induction programmes (Unnamed, 2010:1).

Teachers play the most important role from beginning to end in the school improvement process. According to MoE (2011:49), teachers work closely with parents and other school communities and respective stakeholders to plan, implement and monitor and evaluate school improvement programmes. More specifically,

teachers actively participate in schools' self-evaluation, prioritizing activities, setting goals, organising activities, supporting the evaluation of the plan and also providing a leadership role in the improvement process. This can be done through the existing department groups, groups of different grades or by sub-groups concerned with different areas. The sub-groups could be assigned with the duty to collect and analyse data on the major curriculum areas, student standards and results. There could also be groups responsible to evaluate different elements of domains.

The school principal should facilitate opportunities for the teachers and staff of the school to get professional competence training, thereby enabling them to take on responsibilities in the school improvement planning and having sufficient participation in the process. This training opportunity should also be facilitated to student representatives, parents and other members of the community involved in the school improvement and self-evaluation process. The school principal should provide opportunity for training offered on leadership and administration, and ensure the involvement of selected teachers or heads of department on the training (MoE, 2011:50; Hopkins & Craig, 2018:5).

The active participation of teachers in assessing students in a variety of ways can lead to improved student results. This involves developing strategies for improving student achievement, being involved in school improvement processes, actively communicating with parents by providing relevant information on student achievement, and finally setting and pursuing of professional development goals. Teachers are the ones who organise learning, communicate learning aims, assess

progress towards realising the aims, and adjust content and interaction (SRI International, 2011:2).

Since teachers have the biggest impact on student achievement, they play various critical roles in school improvement, according to MoE (2013:38). They should therefore participate and assume leadership roles in setting goals, establishing priorities, and formulating implementation strategies for the improvement plan; work closely with parents and school councils in the implementation of the plan; ensure strategies in the classroom address the improvement needs of students; use various strategies for improving student achievement; provide up-to-date information on student achievement and the school environment; and undergo professional development (Education Commission, 2019:31).

In the evaluation of school improvement understanding the role of teachers (as discussed above) in the management and implementation of SIP is most important. The next section will highlight the role of students.

3.4.3 Students

The involvement of students in the school improvement programme leads towards higher interest, which results in excellent results and success. By being involved their attitude of focusing on the lessons required for a higher qualification is developed. Their involvement in decision making regarding their lessons will raise students' awareness (MoE, 2011:62). According to the Education Improvement Commission (EIC) (2000:4), students in the secondary school can play an important role if they participate in planning, implementing and communicating the plan and activities to their parents. The school practice should be transparent and involve students in school improvement activities such as planning, implementation, monitoring and the decision-making process of the school. By doing this the students can contribute to the improvement of the school.

The persistent effort of students is one of the main factors for the realisation of effective school improvement or transformation. In this regard, students should be disciplined and observe the rules and regulations of their school and learn diligently to score a

better result (MoE, 2013:13). According to EIC (2000:16), secondary school students also play a part in school improvement planning by participating in goal setting and strategies; assisting in communicating the plan to the student body; communicating the plan to parents; and participating in reaching the goals.

The above section indicated that students can also play an active role in school improvement. Understanding this role is important when evaluating the management and implementation of school improvement.

3.4.4 Supervisors

School supervisors should encourage schools in the self-evaluation process, as well as planning of the improvement process, assist in facilitating strategy, and monitor and evaluate the success of each school, ensuring the availability of good opportunities to provide career development and training to the teachers and staff of the school, school improvement committee, parents and other community members to enable them to take part in the self-evaluation of their respective schools and make effective improvement plans. Besides, the role of supervisor has no end as supervisors attend different meetings of the school improvement committee and communicate with stakeholders on a daily basis in order to support students, teachers, principals and non-teaching staff. In addition, supervisors organise and facilitate different trainings for school principals, teachers, students, and different committees in the school. Finally, supervisors provide the necessary assistance to stakeholders, and also monitor and evaluate the school improvement activities (EIC, 2000:13).

Understanding the role of supervisors is important in the evaluation of the management and implementation of school improvement.

3.4.5 School improvement committees

The school improvement committee is responsible for preparing the school self-evaluation and improvement plan. To effectively use the capacity of the committee members, it is important to classify and set the time limit for the elements and domains in the self-evaluation form and assign them to the responsible members. The school improvement committee communicates the final SIP plan, activities and progress

reports to the school community (MoE, 2011:75).

School improvement committees are accountable to the principals of schools and have a three-year term of office. With regard to the improvement of a school, school improvement committees prepare the school improvement plan; design the system wherein the school community makes its contribution towards the school improvement work; design and implement a system to enable stakeholders to participate in awareness creation programme trainings, school self-evaluation, planning, implementing, and monitoring and evaluating the progress, and finally, report to local communities based on the evaluation (MoE, 2013: 60-61).

According to ACT (2009:17), the school improvement committee, which consists of teaching staff and broader school community, should support the principal to execute the school improvement process.

The role of the school improvement committee is to:

- conduct the self-assessment across the four domains of school improvement;
- Ensure the annual satisfaction surveys are conducted;
- Facilitate the school planning process and ensure that a variety of valid data have been sourced;
- Report to the school principal on development and progress of the school plan;
- Collate the evidence required for the external validation team” (ACT, 2009:17).

Because the members of the school improvement committee may have access to sensitive information they might need to sign a confidentiality declaration not to disperse such information outside the committee. Understanding the role of school improvement committees (as set out above) is important in the evaluation of the management and implementation of school improvement. The next section will focus on the important role of parents.

3.4.6 Parents

Parents' participation is crucial to effective implementation of an SIP. Studies indicate that the involvement of parents is one of the important factors contributing to the success of students at school. The students show progress in their academic performance when their parents have full participation in the education of their children. Absenteeism of students will be less frequent, homework will be done on time and they will have a positive attitude towards the school, which in turn enables students to complete their study successfully and score outstanding results (MoE, 2011:63).

Schools should improve their partnership with parents in order to ensure that the parents get educational information about their children and have full participation in the process. It is also important to make sure that the association of parents, students and teachers in the school comprises the representatives of parents and that they have the means of advancing their thoughts (MoE, 2011:63). It is important in the evaluation of the management and implementation of school improvement to take the role of parents into account.

3.4.7 Local community

The wider community could provide useful support for the school. In minority communities, a school is always the point of focus and the community could provide support to the school. The local community may need assistance to know how they can contribute. The entire process regarding their involvement and its importance for the improvement and success of the school should be explained to the local community. Hence, it is important to explain the process during meetings attended by key members of the local community (Asfaw, 2017:23). According to EIC (2000:4), the Ministry of Education, parents and community members play an important role in their children's education. Communities can be involved in different activities such as planning, implementing, and also supporting the school by contributing money and materials for the success of the school improvement plan. It is necessary in the evaluation of the management and implementation of school improvement to take the role of the local community into account.\

3.4.8 Non-teaching staff

The involvement of the non-teaching staff in the improvement process will heighten the spirit of the community within the school. The existence of spirit within the staff for membership in the school community will increase their dedication to the values and beliefs of the school. Allowing the non-teaching staff to have an active role in the formulation of policies of the school will ensure their sincere support for policies. These staff will be assigned to some administrative tasks within the formulation of the self-evaluation and improvement plan. For instance, they could collect data on students with records of absence and presence at school (MoE, 2011:53).

These staff could also be responsible to collect data and prepare student profiles during registration. Because the involvement of office workers will ensure their wholehearted support for the programme, the staff will consider them as part of the school and the process of improvement (MoE, 2011:53). It is relevant in the evaluation of the management and implementation of school improvement to take the role of non-teaching staff into account.

In general, the school improvement programme is a vital tool in bringing improvement in the quality of education. The programme could be realised with the meaningful participation of all stakeholders (Guzman, 2020:1696). Finally, the active participation of government officials, supervisors, WEO, ZED, REB and MoE experts should play the decisive role by providing training, resources, facilities, and also through monitoring and evaluating the progress.

It is relevant in the evaluation of the management and implementation of school improvement to take the role of non-teaching staff into account.

3.5 CHALLENGES OF SCHOOL IMPROVEMENT PROGRAMME IMPLEMENTATION MANAGEMENT

Challenges are the obstructions that affect the implementation of school improvement programmes. In chapter 1 paragraph 1.2 challenges have already been indicated, and this is an extension of that discussion. Prior studies (Fullan, 2005) have identified

many challenges in the implementation of SIPs in different parts of the world. In Europe the identified challenges relate to learning skills and attitudes in planning education, the new technologies (e-learning, e-tools and e-networking) in planning education and the role of ethics in planning education. According to OCED (2015:162), the external environment affects the implementation of school improvement programmes. The external challenges that affect the success of school improvement programmes include a lack of adequate external support, and the existence of conflicting policy agendas, which relates to the practicability of policies and programmes.

Similarly, studies in Ethiopia identified different challenges that affect the implementation of the SIP, such as the inadequacies of financial and material supply (Kelil, 2017:68; Lemessa, 2016:53; Alene, 2017:105). Also the lack of an adequate knowledge base, attitudes and skills in the areas of educational management and a lack of adequate supervision from the higher level of the education department are obstacles (Kelil, 2017:68). Furthermore, a lack of significant participation of the school community in school affairs (Edamo, 2015:227), the absence of collaboration among stakeholders, teachers' resistance to the programme implementation, a lack of supervision and follow up, high principal turnover and the coordination and implementation inability of school leaders, as well as a lack of participatory school self-assessment are causes of the poor implementation (Lemessa, 2016:53; Desta, 2016:78; Bayisa, 2018:89). Keli (2017:68; Lemessa 2016:55; Rahel, 2014:109; Frew, 2010:58; Gezahegn, & Abebe, 2019:82) identified that a shortage of financial and material resources and stakeholder support discourages school leaders.

Further, Berhan (2010:150) investigated the challenges of the school improvement programme and found the following obstacles: Teachers' resistance to the programme implementation, a lack of trained teachers for special needs education, difficulty in understanding SIP guidelines, and overcrowded classrooms.

In general, the findings prove that the major challenges for the adoption of SIP implementation at secondary schools include: lack of clarity of policy and guidelines at school level, guidance and counselling services, a lack of a stakeholders collaborative planning culture, lack of professional support from experts, lack of school

leaders' capacity to build the team, and commitment among school level actors, inadequacy of financial and material support from concerned bodies (Edamo, 2015:209-219; Lemessa, 2016:54).

It is furthermore clear that the school communities and stakeholders lack an adequate understanding of the components of school improvement activities. Absence of planned and regular community participation, poor family support to children to study at home and to attend their lessons regularly, are points of concern (Shimelis, 2015:70). It is difficult to implement and sustain educational policy and programmes without adequate knowledge, efficient allocation of resources, techniques and skills in the field of educational management. It would thus be difficult for principals to coordinate staff members and stakeholders' efforts toward SIP implementation if they lack knowledge of how to manage (Jeanty, 2019).

3.6 CHAPTER SUMMARY

In this chapter the researcher presented issues relating to the evaluation of the management of the implementation of the school improvement programme in the Ethiopian education system. More specifically, the researcher discussed the education system in Ethiopia, taking into consideration the provisions of the Ethiopian Education and Training Policy (ETP); the school improvement programme in Ethiopia; objectives of SIP; domains and respective elements of SIP; evaluating SIP management (planning, organising, leading, implementing, monitoring and reporting); and the role of respective stakeholders (principals, teachers, students, school improvement committees, supervisors, parents, local communities, non-teaching staff) in the programme implementation. Finally the main challenges of managing the school improvement programme implementation were discussed.

In the next chapter the research design and methodology is discussed.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter presents the research design and methodology of research. The research paradigm, research approach, design of the study, population, sample size and sampling procedures, participant selection, instruments for data collection, quantitative instrument reliability and validity, qualitative instrument trustworthiness, data collection procedures, data analysis procedures, and ethical considerations are presented.

In this chapter the researcher's plan to answer the research questions is set out; therefore the research questions are repeated here. The main research question of the study is: How do school leaders manage the implementation of the school improvement programme in the secondary schools of the Wolaita zone, in Ethiopia?

Based on the main research question the following sub-questions stated in chapter 1, section 1.5.1 are presented:

1. How is school improvement and the management of school improvement conceptualized?
2. How is the evaluation of the management of school improvement implementation conceptualized?
3. How well do school leaders in the secondary schools of Wolaita zone manage the school improvement programme?
4. What are the major management challenges experienced in managing the implementation of the school improvement programme?
5. How can the challenges experienced in managing the school improvement programme be addressed?

4.2 RESEARCH PARADIGM

The term paradigm refers to the held beliefs or values within a research community which dictate how scientists/researchers should go about doing research in their field,

what their focus should be on, the methods to be used and how to interpret results (The Commonwealth of Learning, 2004:6).

Furthermore, Chilisa and Kawulich (2012:55) explain paradigm as the researcher's world view/philosophy that helps to determine methodology and design or processes which encompass the researcher's world view. Creswell (2009:5) identifies the four types of philosophical world view which are: postpositive, social constructivist, advocacy and pragmatism. The current study is embedded in pragmatism or the transformative research paradigm, which emanates from actions, situations and consequences rather than antecedent conditions. There is a concern with what works, the applications, and problem-solving elements. In pragmatism the focus is on the research problem and all approaches available to understand the problem (Creswell, 2009:231).

In this study, the researcher uses the pragmatist paradigm because it allows him to think differently about the problem and its manifestations. According to Creswell (2009:6), the pragmatist paradigm focuses more on the consequences of actions, and is problem-centred, pluralistic, real-world practice oriented. This research is intended to evaluate the management practice and challenges faced in school improvement programme implementation of secondary schools in the Wolaita zone. In order to evaluate the existing practices of school improvement programmes in secondary schools, the pragmatist paradigm was regarded as the best choice for the study because of its problem-centered, real-world practice oriented nature mentioned above.

4.3 RESEARCH APPROACH

As stated above the major purpose of this study was to evaluate the management of school improvement programme implementation in secondary schools of the Wolaita zone in order to suggest improvements in the way this programme is managed. The study employs a mixed-method approach where both quantitative and qualitative approaches are used to attain this purpose as indicated in chapter 1 paragraph 1.9.3. A mixed method approach could neutralise bias associated with a single method and is also used for integrating quantitative and qualitative data (Creswell, 2009:14;

Pardede, 2018:232). Accordingly, in this research data are collected via questionnaires, focus group interviews and document analysis to describe how well SIP is being implemented in accordance with the intended objectives of the programme.

The quantitative descriptive approach was used to obtain data from the respondents about the management of school improvement programme implementation in the secondary schools. This quantitative data was collected from teachers and school managers from the sampled secondary schools using a questionnaire. The qualitative approach was used to enable deeper explanations of why a phenomenon occurs by capturing different dimensions of the experiences, perspectives, values and beliefs of the participants regarding the management practice of the school improvement programmes. Qualitative data were gathered through focus group discussions with cluster supervisors, Woreda and Zone Education Department SIP experts, and the school improvement committees of the schools used in the study, as well as document analysis. According to Mertens (2015:296), "... qualitative methods are used in research that is designed to provide an in-depth description of a specific program, practice, or setting".

According to Creswell (2012:3), the quantitative approach asks specific, narrow questions, and collects quantitative data from a large number of participants; analyses these results using statistics; and conducts the inquiry in an unbiased and objective manner. It attempts to quantify variables of interest by asking questions in such a way that the responses to these questions must be measurable. It involves collecting numerical data that can be subjected to statistical analysis. On the other hand, in the qualitative approach the researcher relies on the views of participants; asks broad, general questions; collects data consisting largely of words or text from participants; describes and analyses these words and themes; and conducts the inquiry in a subjective manner.

The researcher took into account the view of Creswell (2014:3, 21) that a research approach involves issues such as broad research assumptions and beliefs to data collection methods, analyses techniques and interpretation. In coming to a decision to use a mixed methods research approach, the researcher additionally considered

a range of issues related to the nature of the topic (a multi-dimensional approach is required to obtain relevant knowledge); the research questions (various concepts are evaluated and multiple factors are involved) and the research setting (multiple research settings are applicable). The researcher decided that methods of a quantitative as well as qualitative nature are required to obtain a comprehensive new knowledge base. The researcher particularly used the mixed methods approach to produce data and research results that are not only quantitatively valid and reliable, but also trustworthy because of triangulating the quantitative data against the perceptions of participants who can give their views in a free and unconstrained qualitative manner. The researcher reckoned that the strengths of the quantitative and qualitative research approaches could profitably be employed for the best results in this study. This influenced the research design of the study.

4.4 DESIGN OF THE STUDY

Once a decision has been taken regarding the research approach to follow in a specific study (e.g. the mixed methods research approach), a further decision needs to be taken regarding the specific type of mixed method research design that will be best suited to the research conditions/environment of the study. This is thus where the concept of a research design comes into play. Creswell (2014: 12) very concisely defines a research design as: "... the types of enquiry within quantitative, qualitative or mixed methods approaches that provide very specific direction for procedures [to be applied/ conducted/ used in the specific study]".

The types of mixed method research designs according to Creswell (2014:16) include: a convergent parallel mixed method design (also referred to as triangular concurrent design (Pardede 2018: 233-234)); an explanatory sequential mixed methods design; an exploratory sequential mixed methods design; a transformative mixed methods research design; and an embedded mixed methods design.

Since the convergent parallel (also referred to as triangular concurrent) mixed methods research design enables the researcher to integrate and merge quantitative and qualitative data and their acquired analysis results and findings - with the purpose of obtaining an overall and comprehensive picture of the research problem (Creswell

2014:15) - this type of mixed methods research design was found suitable for the purposes of the SIP research environment. (The research did not warrant, for example, a qualitative research component preceding a quantitative research component where the qualitative component would be used, for example, to identify dimensions of a phenomenon, and the follow-up quantitative component would then be used to evaluate perceptions of these identified dimensions of the specific phenomenon by means of custom designed quantitative measuring instruments. Such a scenario would warrant a type of sequential mixed methods research design).

Furthermore, a convergent/ concurrent triangulation design is used since it is more appropriate for this study because the researcher can collect both quantitative and qualitative data at the same time/ concurrently, discuss the quantitative results separate from the qualitative results and then integrate them in a separate integration section. In this way the researcher can directly compare the two databases to determine if there will be convergence, differences or some correlation (Creswell, 2012:540; Creswell, 2014:269; Pardede, 2018:234). The researcher perceived that this would be a good design to obtain reliable, valid and trustworthy research results and recommendations.

4.5 STUDY SITE, POPULATION, SAMPLE SIZE AND SAMPLING PROCEDURES (QUANTITATIVE)

4.5.1 Study Site and Population

The site of this study is limited to the Wolaita zone in the South Nations, Nationalities, and People's Regional State (SNNPRS) in the southern part of Ethiopia. The zone is located 329 km from Addis Ababa, the capital of Ethiopia and 159 km from Hawassa, the capital of the southern region. The SNNPR region has 13 zones, three special woredas and one city administration. The Wolaita zone is located in the central part of the region and bounded on the southern part by the Gmo Gofa zone and Abaya Lake, on the east by Oromiya Regional State and Sidama zone, on the west by the Dawuro zone, on the north by the Kambata Tenbaro zone and the Hadiya zone. The largest town and capital of the Wolaita zone is Soddo. The study was conducted in secondary schools of the Wolaita zone of SNNPR. According to the Wolaita zone

Finance and Economic Development Department Annual Statistics (2018:14), the Wolaita zone has a total population of 2,030,366. The zone has 12 woredas or districts and three town administrations, with a total of 71 general secondary schools.

These woredas and town administrations are spread over five Wolaita zone divisions (northern, southern, eastern, central and western parts). The sampling technique used in this study, namely stratified multistage sampling (Jain & Hausman, 2006), used zone division (5) as strata in the sampling process.

The detail of the sampling process is discussed in section 4.5.2 below and illustrated in table 4.1 of this section. Briefly, the stratified multistage sampling process used to sample research participants in this study included the following phases/steps:

4.5.2 Sample size and sampling procedures (quantitative)

4.5.2.1 Sample size

In section 4.5.1 it was mentioned that a decision was made on sample size. In general, decisions regarding sample size depend on such issues as the purpose of the study, the nature of the target population, available research funding and time constraints. Scholars suggest that the sample should be as large as possible as reliability is thereby increased and allows the use of more sophisticated statistics. For example, a sample size of 30 is regarded as the minimum number of cases to be used in a small sample situation where descriptive statistics will suffice to inform an exploratory study. If researchers plan to use inferential statistical analysis to confirm or verify established phenomena or relationships between variables or constructs in a field of study, larger samples will obviously be necessary (Cohen, Manion & Morrison, 2007:93).

4.5.2.2 Sampling procedure, stratified multiphase sampling

As mentioned in section 4.5.1, the Wolaita zone has 12 woredas/districts and three administrative towns. In the mentioned zone a total of 71 secondary schools are available for sampling.

4.5.2.3 Strata: Wolaita zone divisions

For research purposes the Wolaita zone was divided into five zone divisions based on the geographical layout/infrastructure and spatial distribution of secondary schools, namely central or middle, northern, eastern, western and southern parts. These zone divisions formed the strata for sampling purposes since stratified multiphase sampling was used to select the research participants. In this multiphase process several sampling techniques were used in the different phases of sampling, namely simple random, systematic, proportional and convenient sampling. The discussion below indicates where each technique was applied.

4.5.2.4 Selection of woredas/town administrations and schools per stratum

In the first phase of sampling, the Wolaita zone woredas/town administrations were randomly selected per stratum or zone division (if more than three were available per zone division to randomly select from). In each stratum (zone division) a secondary school was randomly selected from the available secondary schools in each of the three already selected woredas/town administrations: thus three schools per stratum (or zone division).

In table 4.1 below the distribution of the available number of schools, randomly selected schools, and number of teachers per selected school and woreda are indicated in columns 3 to 5 below. Columns 7 to 11 report the total numbers of principals, vice-principals, supervisors, SIP committees, woreda and zone SIP experts. The number of teachers selected for sampling and presented in column 6 is presented in more detail in table 4.1 below.

Table 4.1: Population and Sample Size of the study
(Quantitative-study sample size (col 6-7); qualitative-study sample-size (col 8-11))

The target population of the study			Sample selected							
Division of the Wolaita zone in directional settings	Woredas & town administrations available	No of Secondary Schools	Randomly selected Secondary Schools	No of teachers in	No of sampled teachers $n_i = \frac{N_i \times n}{N}$	No of principals & V/principals	No of cluster supervisors	SIP Committee	Woreda SIP expert	Zone SIP experts
Middle part of zone	Sodo City	7	Soddo SS	125	47	3	1	1	1	4
	SodoZuria	6	Gulgula SS	39	15	2	1	1	1	
	Damot Sore	3	Gununo SS	78	29	2				
Northern part of zone	Areka town	3	Hangeda SS	48	18	1	1	1	1	
	Bodit town	2	Melse Z SS	57	21	2		1		
	Damote Pulasa	3	-----	-		-	-			
	Damote Gale	5	-----	-		-	-			
Western part of the zone	Bolso Bombe	4	Bombe SS	34	13	3			1	
	Kindo Didaye	4	Halale SS	36	14	3			1	
	Kindo Koysha	5	Bele SS	47	18	4	1			
Southern part of zone	Offa	5	Wachege SS	21	8	2	1	1	1	
	Humbbo	7	Tebela SS	48	18	3	1	1		
			Abela F SS	36	14	3	1	1	1	
Eastern part of zone	DamotWoyed	4	Bedesa SS	30	11	3	1	1		
	Dugunafango	8	Belate SS	12	4	2	1		1	
			Betena SS	19	7	3		1	1	
Total		71	15	665	250	37	10	10	10	4

Source: extracted from secondary schools statistical data (Wolaita Zone Education Department, 2019 Annual report).

4.5.2.5 Determining the sample size of the teacher population

At this stage a decision had to be taken on the number of teachers to be sampled from the selected schools of the 5 strata (15 schools). As indicated in table 4.1, the total number of teachers employed at these selected schools tallied 665. By using the Taro Yamane formula (1967), also referenced by Israel (1992:3), the researcher

selected 250 teachers as representative for this study. This was deemed a representative, manageable and sufficient sample for this study. Taro Yamane's formula was applied as follows to provide a teacher sample size of 250 teachers.

The formula is $n = N / (1 + N \times e^2)$

where,

n = Sample size

N = total population of teachers

e = 0.05 (precision level)

thus,

$n = 665 / (1 + 665 \times (0.05)^2) = 665 / (1 + 1.663) = 249.719 = 250$, which constitutes a sufficient sample.

4.5.2.6 Number of teachers to select from each of 3 schools per stratum:

With teacher sample size determined, a next step in the sampling of teachers was to decide on the number of teachers to sample from each of the 3 selected schools per stratum (5). Proportional stratified sampling was deemed appropriate at this stage since the number of teachers differed per school and stratum (refer to table 4.1 above).

Proportional stratified sampling makes provision for unequal teacher numbers per school (stratum/ zone division) to be sampled as follows: the proportion of all to-be-sampled teachers to all available teachers, namely $250/665$, is multiplied by the number of teachers in a specific school to obtain the number of teachers to be sampled from a particular school (For example, for Soddo SS the number to sample will be $(250/665) \times 125 = 46.99$, which rounds to 47).

The proportion of teachers to sample per school is therefore calculated as follows:

$$n_i = (N_i \times n) / N$$

Where:

n_i = represents the number of teachers to be sampled from one of the three selected secondary schools in a stratum, ($i = 1, 2, 3$)

N_i = the total number of teachers in the particular school

N = the total number of teachers in the selected schools ($N = 665$)

n = the already decided upon sample size for teachers ($n = 250$)

(For example, n_1 , the number of teachers to be sampled from the Soddo Secondary School (refer to table 4.1) for the first/central Wolaita zone division is calculated as $(250/665) \times 125 = 47$ teachers. This is reported as the first entry in column 6 of table 4.1).

4.5.2.7 Teacher selection per school

Once the proportion of teachers to be sampled per school and stratum had been determined (column 6 of table 4.1), research then set about selecting the individual teachers. At each school teachers were randomly selected from an alphabetic list by means of systematic random sampling. The researcher applied the technique for each school (separately) by selecting a random number, n , (London School of Hygiene and Tropical Medicine. 2009), between 1, and, the total number of teachers at the school divided by the number of teachers that had to be sampled. For each school – working through the alphabetic list, every n^{th} name was then selected to the sample (Singh & Masuku, 2014:5; Tharenou *et al.* 2007:56).

4.6 PARTICIPANT SELECTION (QUALITATIVE)

Non-probability sampling, namely convenience sampling, was furthermore used to select school principals, vice-principals, supervisors, SIC members and experts from the Zone Education Department (ZED) and the Woreda Education Office (WEO). In convenience sampling, the researcher selects the subjects based on their availability (Stratton 2021: 374). Table 4.1 columns 7 to 11, the last row, indicate that 10 SIC members, 37 school principals and vice-principals, 10 cluster supervisors, 10 woreda experts, and 4 experts from the Wolaita Zone Education Department were included in the sample in this way. Except for the principals and vice-principals, the other participants were selected to take part in the qualitative research (focus group interviews).

4.7 INSTRUMENTS FOR DATA COLLECTION (QUALITATIVE AND QUANTITATIVE)

This section describes the various measuring instruments used to collect data in this study. The choice of data collection techniques is first and foremost based on the need to collect information/data that will effectively answer to the research questions of the study. Furthermore, choice of measuring instrument/s depends on the scope of the study and need to attain a complete picture of the problem under study.

To gather first-hand information, the researcher used different data collection instruments, namely, a management questionnaire with open and closed-ended questions, focus group interviews and document analysis. Different respondents were sampled for questionnaire administration and for focus group interviews to measure and obtain their views on aspects of management practice and challenges encountered in the management of the implementation of the school improvement programme.

Data from teachers, department heads (HODs), vice-principals and principals in sampled secondary schools were collected via questionnaires where responses to the closed-ended questions of the questionnaire constituted quantitative data and responses to open-ended questions, qualitative data. Data from cluster supervisors, school improvement committee members, experts from the Zone Education Department and the woreda/district education offices were gathered in focus group interview sessions (qualitative data).

Finally, school improvement programme documents such as school improvement plans (strategic and operational plans), as well as monitoring and evaluation reports of school improvement programme implementation were analysed by means of checklists (qualitative data). In addition, the relevance and practicability of SIP manuals, guidelines and other related documents were inspected and analysed to get insight into the general nature, objectives, implementation status and contemporary challenges of programme implementation (qualitative data).

4.7.1 Questionnaire

4.7.1.1 *Background and purpose of the questionnaire as measuring instrument*

A questionnaire as data collection instrument assists in obtaining information about the feelings, thoughts, attitudes, values, beliefs, perceptions and behavioural intentions of participants (Cohen *et al.* 2007:370-371).

A questionnaire generally consists of a list of statements or questions that research participants have to respond to. Two types of question-statement can be included in a questionnaire, namely open-ended or closed-ended questions/statements. Closed-ended questions offer a set of response-options from which respondents may choose. Generally, closed questions can be completed quickly and responses can be electronically captured for statistical analysis by means of computer software programmes. It also does not discriminate on the basis of how articulate the respondents are (Wilson & McLean, 1994:21). Open-ended questions allow respondents to write freely in their own words, and they can explain their responses. Open-ended question responses are however, more time consuming to interpret, categorise and code.

Response options to closed-ended questions are often offered as Likert rating scale options – as is the case in this study. Likert scale applications request the respondent to respond to each question-statement of a questionnaire in terms of a set of response options, for example, degrees of agreement (or frequency of use; or ease of completion; or extent of an experience). According to Kothari (2004:84), the Likert scale is defined as “... ratings (that) consist of a number of response options which express either a favourable or unfavourable attitude (or perception) towards a given object to which the respondent is asked to react”. The respondent for example has to select the favourability-level (or agreement-level) that best describes his or her perception of the question-issue/object queried. For example, a questionnaire question might probe a respondent's opinion on the statement that his or her job is quite pleasant. Response-options to the statement could include the following agreement rating options:

- (i) strongly agree,
- (ii) agree,
- (iii) undecided,
- (iv) disagree,
- (v) strongly disagree (Kothari, 2004:84).

In this study, respondents were asked to rate aspects of the management of SIP-implementation in terms of set targets on a 5-point *extent-level* Likert scale. The *extent-level* ratings measure respondents' perceptions of management-efficacy of SIP-implementation. Extent-level rating levels for this study are defined as '1': *managed effectively to a great extent*; '2': *... to a reasonable extent*; '3': *....to an average extent*; '4': *... to a limited extent*; '5': *...to no extent/not managed*.

4.7.1.2 A description of the management questionnaire of this study

The purpose of the questionnaire (see Appendix D) was to measure teachers' and school managements' (principals/vice-principals and HODs) perceptions of how effectively SIP-implementation was managed (research sub-question 3 of the study). The study was interested in specific aspects or dimensions of management pertaining to SIP-implementation, namely *planning, organising, leadership, and the monitoring and evaluating of SIP actions*. It was argued – while designing the questionnaire – that by measuring management effectiveness, collected information would furthermore also identify areas of ineffective management. Such areas would then point to problem areas or challenges encountered in managing SIP-implementation. This would inform or answer to research sub-question 4 of the study. The process of designing the questionnaire was therefore focused on measuring how effectively respondents perceived SIP-implementation to be managed – with particular focus on the *planning, organising, leadership, and monitoring and evaluation* dimensions of management. Furthermore, to ensure that all relevant aspects of the SIP were covered in the design of the questionnaire, the SIP-framework of Ethiopia (MOE, 2011:82-94) and the revised Governing Guideline for the Implementation of the SIP in Ethiopia (MOE, 2011) were used as guidelines. Related literature, specifically on the management of SIP-implementation, was also reviewed - as indicated and discussed in chapters 2 and 3 of this study.

The questionnaire was prepared in English and consisted of four components: a cover letter, a biographical information section, a section of 65 closed-ended questions (quantitative data); and a section consisting of 4 open-ended questions (qualitative data). Please refer to Appendix D for a copy of the questionnaire.

4.7.1.3 Cover letter

A cover letter was attached to the questionnaire, which explained the purpose of the questionnaire, supplied contact details of people responsible for the research, elaborated on ethical aspects of the research such as confidentiality, anonymity, willingness to participate, no-penalty withdrawal, expected completion time, and guidelines on completing the questionnaire.

4.7.1.4 Part 1: Biographical attributes of respondents

Five closed-ended questions were included in this section of the questionnaire and probed respondents' gender, age, qualifications, work experience and position held at schools. The sets of response-options offered for each attribute consisted of biographical property categories (for example the response options for *gender* were '1': male; and '2': female).

4.7.1.5 Part 2: Perceptions on managing of SIP-implementation

This section was divided in four *management* dimension sub-sections, namely:

- 18 question statements probing perceptions of the *planning* dimension of managing SIP-implementation (e.g. q6.1: *Our school's strategic plan is structured to include a vision statement*)
- 13 question-statements on the *organising* dimension of SIP implementation (e.g. q21: *The principal uses distributive leadership to manage SIP-implementation*)
- 18 question-statements on the *leadership* dimension of *managing* SIP-implementation (e.g. q26: *Our schools' leadership promotes SIP activities among stakeholders*)

- and 16 questions on the *monitoring and evaluation* dimension of SIP-implementation management (e.g.: q55: *Our school has a set assessment schedule for SIP-implementation*)

As previously mentioned, response-options to these questions consisted of perceived *extent-of-effectiveness* ratings, namely, '1': *managed effectively to a great extent*; '2': *... to a reasonable extent*; '3': *... to an average extent*; '4': *... to a limited extent*; '5': *... to no extent/ not managed*.

4.7.1.6 Part 3: Open-ended questions

In four questions this section sought respondents' opinion on how the four dimensions of management – in a SIP-implementation environment - could be improved. Respondents' responses to the biographical and closed-ended sections of the questionnaire (Parts 1 and 2 of the questionnaire) represented quantitative data and respondents' comments to the open-ended questions of the questionnaire (Part 3), qualitative data. An EXCEL template was furthermore designed to ensure that responses to the closed-ended questions of completed questionnaires were electronically captured in a pre-specified capture-format that would be easily and unambiguously understood by both the researcher and statistician.

Respondents' comments to the open-ended questions were analysed by hand and categorised according to areas of improvement suggested in these comments. It was anticipated that this information would then be used to inform research sub-question 5.

4.7.2 Focus group interviews

When limited time and resources are available as in this study, it helps to interview individuals who share common knowledge about an issue in groups at a convenient venue and environment suitable to all rather than conducting individual interviews (Koul, 2009:262). Focus group interviews in this study were therefore used to collect primary data on the management of the school improvement programme. Four focus groups were interviewed, namely 10 secondary school supervisors (one focus group),

10 Woreda/district Education Office SIP experts (one focus group), 10 school improvement committee members (one focus group) and four zone education experts (one focus group) at times convenient to both the researcher and participants.

The interview questions in the interview sessions were conducted according to a semi-structured interview schedule (see Appendix B and C). Responses collected from the Interviews enabled the researcher to obtain in-depth information on the management of the implementation of the school improvement programme in the selected secondary schools. All the interviews were conducted in the Amharic language to avoid communication barriers which might occur if interviews had been conducted in English. The duration of the interviews were scheduled to last between 60 to 90 minutes to give participants sufficient time to exhaust the topic.

Focus group interviews are types of interviews that provide qualitative research data (Ary, Jacobs & Sorensen, 2010: 441). Their purpose is to gain the perceptions or experiences of the group on a common issue that forms the focal point of the interview (Lodico, Spaulding & Voegtler, 2010:123).

Advantages of focus group interviews include the fact that this method is also applicable to people who cannot write and read. Focus group interviews give confidence to people who do not want to or are afraid to be interviewed alone (Owen, 2001, in Tirfe, 2016:143). Focus group interviews motivate participants to respect opposing views, and create a friendly environment and enjoyment among group members (Owen, 2001, in Tirfe, 2016:143).

The researcher used the results and findings of the focus group discussions for triangulation purposes against the findings of the questionnaire data, and, also to enrich the findings of the questionnaire data for supplementary insights.

In this study, focus group discussions were carried out with the school improvement committee members, cluster supervisors, woreda and zone SIP experts. The points of discussion were similar to those used in the other methods, in that they focused on the basic research questions concerning the management of the school improvement programme, its implementation and the challenges faced in this regard.

The researcher guided the participants carefully to ascertain that he obtained information on the management of SIP and the challenges associated with school improvement programmes and their outcomes. As the interviewer in the focus group discussion, the researcher controlled participants who tried to dominate the discussion.

Qualitative data generated from focus group discussions were transcribed, coded and interpreted thematically, which is discussed in detail in section 4.11.4.

4.7.3 Document analysis

In document analysis private and public documents such as newspapers and personal journals, the minutes of meetings, letters and diaries are studied (Tharenou *et al.* 2007:124). In this study document analysis was done once permission was granted by school principals to investigate the availability of SIP manuals, guidelines, policy documents, SIP frameworks, SIP committee organisation, SIP evaluation and progress reports, committee minutes, training documents, and strategic and operational plans. Checklists were used to evaluate availability. These checklists for secondary schools are provided in Appendix E and F. School improvement programme documents were also obtained from the MoE and the zone's education department. The researcher analysed them with the purpose of identifying SIP implementation challenges. School improvement policies, strategies and practices, particularly those updated in the 2011 school improvement programme frameworks, were studied. Because of the significant changes made in the secondary education sector development programme, the researcher also used guidelines prepared for this sector at national level.

4.8 QUANTITATIVE INSTRUMENT VALIDITY AND RELIABILITY AND PILOTING

Validity and reliability are two important characteristics of any measurement procedure (e.g. a questionnaire) in quantitative research. Validity relates to whether a research instrument indeed measures what it sets out to measure (Kumar, 2011: 173). The reliability of an instrument refers to its ability to produce consistent

measurement over time. In this instance, when an instrument is administered to the same, or a similar population and similar results are obtained, the instrument is said to measure reliably (Bolarinwa 2015:195; Mohajan 2017: 71). The reliability of an instrument does not guarantee its validity (Gaur & Gaur, 2009:31).

Several forms of validity are mentioned in the literature (Bolarinwa, 2015:195; Mohajan, 2017: 73-76), e.g. face, construct and content validity. Validity of a questionnaire can be evaluated in a pilot study (face validity) where participants express their opinion on the clarity of question statements and the statements' applicability to the phenomenon investigated. Furthermore, validity (content validity) can be assessed by experts in the study field as to whether the questionnaire statements cover the theoretical concepts research set out to measure. Statistical procedures (factor analysis) can furthermore be implemented to assess validity (construct validity).

The literature indicates that several measures can be used to assess the reliability of a questionnaire (Bolarinwa, 2015: 197; Mohajan, 2017: 69-71), e.g. test-retest, alternate-form and internal consistency reliability. Internal consistency reliability evaluates to which extent (consistency) a set of questionnaire statements jointly measure a concept of the research (e.g. *planning dimension of managing SIP implementation*) it is purported to measure. One such measure is the Cronbach alpha coefficient (Bolarinwa, 2015: 197; Cohen et al, 2007:506; Mohajan, 2017:71). Results in Chapter 5 show that this measure was used to confirm internal consistency reliability.

In this study, to assist in assessing and improving validity (and reliability) of the questionnaire, a pilot test was conducted with a small number of participants. The opinion of colleagues and experts in the field of study were also sought. Based on these results, the questionnaire was refined. (E.g. lengthy or unclear statements were shortened and rephrased to improve comprehension).

4.9 QUALITATIVE INSTRUMENT TRUSTWORTHINESS AND THE USE OF TRIANGULATION

Trustworthiness in qualitative research is the heart of qualitative research analysis and is determined by four indicators: credibility, transferability, dependability and confirmability. These indicators align with the concepts of validity and reliability in quantitative research (Guba & Lincoln in Kumar, 2011:172). Accordingly, Trochim and Donnelly (in Kumar, 2011:171) compare credibility to internal validity, transferability to external validity, dependability to reliability, and confirmability to objectivity.

Credibility refers to the truth value or confidence that the researcher has in the research findings based on the research design, context, and informants (White, 2005:206). The researcher used member checks in this study to establish credibility. Qualitative researchers use this strategy to ensure research findings are valid. The data collected from teachers and principals' questionnaires were also compared to the interview data collected from the school improvement committee members, cluster supervisors, woreda and zone SIP experts. How they practised the management of SIP implementation in secondary schools of the zone was thus tested. Furthermore, the literature review also provided the researcher with a complete and more balanced picture of the concept of a school improvement programme, and the evaluation of such a program.

Transferability indicates that the findings of qualitative research can be generalized or transferred to other contexts. The researcher can thus indicate that the results are applicable to groups other than the researched group (Trochim & Donnelly in Kumar, 2011:172). Findings from the qualitative study may be transferable or generalised to secondary schools of the Wolaita zone from where the sampling was done because the woredas and town administrations were selected by means of stratified random sampling. However, the reader must use his or her own discretion after reading the report to decide whether the lessons learned can be applied in other contexts/ or to other schools. To this end, the researcher will provide sufficient explanatory data for readers to be able to make judgements.

The stability of data in different conditions and contexts over time indicates **dependability**. Other researchers are free to check whether this research can be

replicated in other contexts by using the comprehensive exposition given in this study. In this study the process of data collection, analysis and interpretation were examined by professional colleagues and friends as external auditors (Kumar, 2011:171).

Confirmability, which is the parallel to objectivity in quantitative research, is the final construct in the qualitative approach (Kumar, 2011:172). To ensure confirmability of the qualitative findings the researcher shared the final findings with principals, teachers, and woreda SIP experts from whom the data was collected. They could then confirm whether the findings were sound and amenable in their eyes and whether it conformed to the objective reality of their secondary schools.

In this study, the concurrent triangular mixed methods design (parallel convergent mixed methods design) that was used, was well suited to triangulate findings. This approach was appropriate because the researcher could collect both quantitative and qualitative data concurrently and compare the findings of these two sets of data to evaluate convergence, differences or a correlational relationship (Creswell, 2012:540) between the qualitative and quantitative findings. Chapter 5, section 5.7.6.1–5.7.6.4 discusses qualitative/ quantitative results-integration.

4.10 DATA COLLECTION PROCEDURES (QUALITATIVE AND QUANTITATIVE)

In this study, a questionnaire, focus group interviews and document analysis were employed to collect data. The procedures followed in the data collection process are described in this section.

Three phases of data collection can be distinguished. This includes a first phase (quantitative) in which a pilot study was undertaken to assess the appropriateness, content-validity, face validity and comprehensibility of the questionnaire on management-efficacy linked to SIP-implementation. A pilot run furthermore assisted in gauging the to-be allotted completion time of the questionnaire, the complexity/comprehension level of the questionnaire, and, to effect adjustments/rephrase questions as and where pilot-respondents indicated such.

The second phase (quantitative) involved administering the refined questionnaire to sampled teachers and school managers of the 15 identified secondary schools of the Wolaita zone. The questionnaire was administered by the researcher and his assistant in face to face sessions with the respondents.

In the third phase qualitative data generated from focus group interview sessions were collected. This was done simultaneously to quantitative data collection.

4.10.1 Quantitative data collection (questionnaire)

Quantitative data that measure the perceptions of the teaching corps on how well school leaders (principals, vice-principals and HODs) manage SI implementation in secondary schools, were collected via a closed-ended questionnaire. The content and structure of the questionnaire is described in the preceding section 4.7.1. A copy of the questionnaire is included in Appendix D.

4.10.1.1 Teachers, principals, vice-principals and HODs: Questionnaires

The management questionnaire was administered to sampled teachers, principals, vice-principals and HODs of 15 identified Wolaita zone secondary schools. In total the questionnaire was administered to $250 + 37 = 287$ respondents (refer to table 4.1). Questionnaire administration sessions were scheduled at each school. At appointed times and dates all respondents at a specific school (teachers, principals, vice-principals and HODs) were seated and addressed in a single session. The researcher (or his assistant who was trained beforehand to conduct such sessions) explained the purpose and background of the study; indicated that those present had been selected via a process of random sampling; that their willingness to participate would be appreciated but not forced; and that the research had received ethical approval.

Guidelines regarding questionnaire completion and ethical aspects of research were then explained to the participants. These included:

- i. that participation was voluntarily and that respondents could cease their participation at any time without penalty;
- ii. that by completing the questionnaire respondents indicate their willingness to

- participate (informed consent);
- iii. the estimated time required to complete the questionnaire was communicated;
- iv. that the results or outcome of the research would be made available to respondents if they so requested;
- v. that respondents participated anonymously and that all information collected was regarded as confidential;
- vi. that data would be used for research purposes only;
- vii. that, in line with ethical protocol, a copy of the data was to be kept in a safe place (on a disk or in a safe) for a period of five years after which the data will be destroyed.

With regard to questionnaire completion, matters such as the following were shared:

- i. no correct or incorrect answer to questions exists and that respondents' true opinions are sought;
- ii. that all questions are to be completed, if possible;
- iii. that closed-ended questions require one response only, and so forth.

At the end of the session completed questionnaires were collected from the respondents. The responses of the completed questionnaire were electronically captured to an EXCEL spreadsheet – based on an EXCEL template designed for this purpose earlier in the study.

4.10.1.2 Questionnaire administration and the execution of qualitative data analysis

Since the design decided upon for this study is a concurrent convergent mixed methods design, the element of 'convergent' implies that the quantitative and qualitative components are compared at some stage in the research to determine whether analysis results and findings of the quantitative and qualitative components support and enrich one another (or whether they contradict one another). The 'concurrent' element of the design indicates that the quantitative and qualitative components of the study can be undertaken at the same time or overlap partially. (Although concurrent, the results of the findings – discussed in chapter 5 – are

presented separately to ensure a logical flow of discussion to keep results-presentation simple and uncluttered). A section in Chapter 5 is devoted to the integration of qualitative and quantitative findings.

The collection of qualitative data was undertaken simultaneously with the quantitative data and will be discussed next.

4.10.2 Qualitative data collection procedures

4.10.2.1 Document analysis procedures

In this study document analysis was done once permission was granted by principals of the sampled schools to investigate the availability of SIP manuals, guidelines, policy documents, the SIP framework, SIP evaluation and progress reports, committee minutes, training documents, and strategic and operational plans at the different schools (see Appendix E and F).

In addition, the relevance and practicability of SIP manuals, guidelines and other related documents were inspected and analysed to obtain insight into the general nature, objectives, implementation status and contemporary challenges of the programme implementation of the third and fourth SIP phases during the periods of 2014-2016 and 2017-2019.

4.10.2.2 Focus group interview procedures

Qualitative data was also collected by means of focus group interviews. Interview schedules were designed for these sessions (refer to Appendix B and C for interview schedules).

Four focus group interview sessions were conducted with cluster supervisors; SIC members, experts from the Zone Education Department (ZED) and experts from the woreda/district education offices (WEO). In total 34 respondents participated in these sessions (refer to table 4.1). Focus group interviews were conducted in the meeting halls of the Wolaita Zone Education Department after obtaining ethical clearance from

Unisa. Focus group interview appointments were honoured and took place at a time agreed upon by the participants and the researcher. The focus group interviews took between 60 and 90 minutes. The researcher recorded the focus group interviews in Amharic. All recorded focus group interviews were transcribed and each transcript was translated to English and labelled according to the focus group.

4.11 DATA ANALYSIS PROCEDURES

The question of how the quantitative questionnaire data – once collected – should be analysed, and in which manner quantitative analysis results should be presented and integrated with qualitative analysis findings are the point of discussion of this section.

It should be mentioned at this stage that the collected quantitative data was coded, captured (in EXCEL), and then cleaned and analysed using the Statistical Analysis System (SAS), version 9.2 software.

4.11.1 The analysis strategy designed for the quantitative response data

This section briefly sketches how different analysis techniques were selected to form a step-wise analysis strategy to analyse the quantitative questionnaire data. (Section 5.3.2 in chapter 5 discusses the analysis strategy in more detail). The specific analysis steps selected (and listed below) are dependent on such matters as:

- (i) data type,
- (ii) the variables and concepts entered into analyses,
- (iii) how well analysis will inform the research sub-questions of the study – the appropriateness of specific techniques,
- (iv) the reliability of analysis findings, and
- (v) whether specific matters that arise during the analysis process can be accommodated by conducting specific analyses.

In the planning of an analysis strategy biographical and perception variables, along with management constructs (for the *planning, organising, leadership and monitoring and evaluation* dimensions of management) were defined for the response data of

the questionnaire (refer to section 5.3.2 in chapter 5). Furthermore, biographical variables of age, gender, work experience, position held, and academic qualifications were identified. Perception variables were defined as the 65 closed-ended questions put to respondents. Management dimensions or constructs were defined as the joint perception each respondent expressed towards a subset of questionnaire questions designed to describe a dimension of SIP-implementation management (*planning, organising, leadership, monitoring and evaluation*).

The researcher furthermore argued that those analysis techniques selected during the design of the analysis strategy should address or accommodate matters that arise during the analysis process. Such matters included,

- i. the question of how an initial overview of participant perception of the various dimensions of management of SIP implementation could be obtained and displayed;
- ii. the question of whether a single, reliable measure of perception (perception score) for each respondent, for each *management* dimension, could be derived from the sets of responses to questionnaire questions designed to describe the four management dimensions;
- iii. the question of whether the underlying data structure was truly multidimensional and not unidimensional with respect to measuring 'management/ managing';
- iv. the question of how an initial indication of the possible effect of biographical properties (e.g. age; registration period) on respondents' perceptions of the four dimensions of effectively managing SIP-implementation should be obtained (type of analysis);
- v. the question of the appropriate analysis technique/s to confirm the statistical significance of specific biographical properties on respondent-perception regarding the four dimensions of management present when implementing SIP;
- vi. the question of whether assumptions of parametric analysis techniques are satisfied for the questionnaire dataset (and how to test the assumptions); and
- vii. importantly, the question of whether analysis results and findings answer to

research sub-question 3 (and indirectly to research sub-question 4).

To address these matters and, importantly, answer to research sub-questions 3 and 4, the following analysis techniques were incorporated into the analysis strategy. The crux of each analysis technique and how results should be interpreted, are discussed in the already mentioned section 5.3.2 of chapter 5. The analysis techniques selected for the quantitative analysis of this study includes:

- one-way frequency distributions of the biographical attributes of respondents (to describe the context of the study);
- composite one-way frequency tables of the responses to sets of questionnaire questions that describe each of the four dimensions of management (to obtain an overview of how respondents experienced each management dimension during SIP-implementation activities; and, to identify items that pose as challenges);
- scale reliability tests, exploratory factor analysis and the calculation of management dimension scores (to verify that the dimensions of management can be reliably estimated; that the underlying response data is multi-dimensional; and, to quantify, and parsimoniously measure respondents' perception regarding the four dimensions of management of SIP-implementation);
- parametric and nonparametric analysis of variance (to establish which biographical attributes of respondents statistically significantly affect respondents' perceptions of the four dimensions of management, and, the nature of these effects).

The findings to be derived from the execution of the various steps of the analysis process will then enable the research to inform research sub-questions 3 to 5.

4.11.2 Qualitative data analysis

The qualitative data were interpreted thematically after having been transcribed and coded. Regarding the analysis of qualitative data, the researcher transcribed the interviews, typed up field notes and sorted and arranged the data depending on the

sources of information into different types. After data collection, the researcher read all the data and then coded the data (Creswell, 2014: 247). The researcher coded the data by organising the data into meaningful categories by writing code words in the margins representing the various categories (Rossman & Rallis in Creswell, 2014:247). After the data coding process, the researcher generated a small number of themes or major categories, such as SIP management, planning, organising, leading, monitoring and evaluating. These themes appear as major findings and are often used as headings in the findings section of the report. Generally, in the analysis and interpretation of qualitative data the researcher followed the following steps: prepare data and organise it; review and examine the data; code data into relevant categories; construe descriptions of people, places and attitudes; build themes, interpret and report data (Alhojailan, 2012:40). The researcher wrote a summary report on the transcriptions of the focus group discussions by using all the steps mentioned above.

Generally, the qualitative data were transcribed, coded and interpreted thematically. The information were grouped on the basis of their thematic categories and used by integrating them to substantiate the quantitative discussion as tools for triangulation and/ or confirming or disconfirming the findings of quantitative results.

Finally, analysing the two raw data sets was done side-by-side, however reported with the quantitative statistical results first, followed by qualitative data that support or disconfirm the quantitative findings. The question of the format of the presentation and discussion of analysis results (both quantitative and qualitative) are argued in the next sub-section.

4.12 REPORTING QUANTITATIVE ANALYSIS RESULTS AND FINDINGS IN A CONCURRENT CONVERGENT MIXED METHODS DESIGN CONTEXT

This study adopted a convergent triangular mixed methods research design. This model was selected because it integrates newly acquired quantitative and qualitative knowledge - gained from analysis findings - into a new, integrated and insightful solution to the phenomenon investigated (e.g. *management of SIP-implementation*).

The format of presenting findings and interpretation of both qualitative and quantitative analysis for a convergent design is perhaps the most difficult (and sometimes even controversial) aspect of adopting this design in research. The literature suggests different ways to present and interpret such analysis results (Creswell 2012:262).

The standard approach would be to, in some way, concurrently present and compare the analysis results and findings of the quantitative data (e.g. scores) and qualitative data (e.g. text): For example a discussion (in a side by-side analysis) of the themes emerging from the qualitative data (e.g. *management challenges*) and comparing how these themes support or refute the statistical analysis (e.g. *negatively inclined frequency distributions of management elements* queried in the questionnaire). This would be the most straightforward way, but presentation could become cluttered and involved.

A second option is to firstly display and discuss quantitative data analysis results – which is then corroborated by qualitative data analysis in the form of descriptive texts and quotes (inter-dispersed with quantitative results in the same section). This is the approach followed in this study.

4.13 ETHICAL CONSIDERATIONS

Before starting the empirical investigation, the researcher had to attend to a number of ethical issues. Ethics is one of the important factors to ensure the quality of the research. According to Tharenou *et al.* (2007: 325), ethical issues need to be considered throughout the study.

4.13.1 Gaining entry

Shenton and Hayter (2004:223-231) defines the concept of gaining access to research as: "... securing entry into a particular organisation and ensuring that individuals associated with it, such as employees or users, will serve as informants/ [research participants]".

To undertake this research, ethical clearance firstly had to be sought from the Research Ethics Committee of the College of Education of Unisa. Such permission

was granted (Refer to Appendix G for the necessary documentation). The researcher also got permission from the Wolaita Zone Education Department to enter woredas and schools before contacting the study participants. Consent forms to obtain participants' permission were signed by them before they engaged in any research activities (see appendices P, Q, R).

4.13.2 Participants' rights

Adhikari, S. (2020) states the following on the rights of participants in a research study: "Participants have ... the right to withdraw at any point of the research. When any respondent decides ... to withdraw from the research, they should not be stressed or forced in any manner to try to discontinue them from withdrawing".

The cover letter of the questionnaire of the research under discussion indicated that participants were free to withdraw at any stage and that participation was voluntarily. This was also conveyed to participants of the qualitative interviews in focus group sessions. This aspect of ethics and ethical conduct is closely linked to respect for humanity and research professionalism. All the measures described in this section on ethics also contributed towards the ethical conduct and research professionalism of the researcher.

4.13.3 Informed consent

Labaree (2021) defines informed consent as:

"... the process through which a researcher obtains, as well as maintains, the permission of a person or a person's authorized representative to participate in a research study. Informed consent is achieved when participants [a.k.a., "human subjects"] in a study receive full disclosure of the research plan and its intent, understands all of the information that is disclosed to them, voluntarily consents to participate in the study and is competent to do so, and understands that they may withdraw from the study at any time."

Researchers need to ensure that participants' involvement is absolutely voluntary and thus have to obtain informed consent from participants (Tharenou *et al.* 2007:236).

Participants in the qualitative component of the research were presented with a letter of informed consent (see Appendix O), which outlined matters such as the benefits and purpose of research, as well as the demands, risks, limitations of confidentiality, methods, their freedom to withdraw, and how to obtain information on the results. Participants had to complete a form attached to the letter to indicate their consent.

A cover letter accompanied the quantitative questionnaire (see Appendix D) indicating the following: No foreseeable risks are associated with the completion of the questionnaire; anonymity is guaranteed; respondents are not required to indicate their name or organisation; that all information obtained from the questionnaire will be used for research purposes only and will remain confidential; that participation in the survey is voluntary; that they may withdraw from answering the survey at any stage without penalty; that completion of the questionnaire will be regarded as their consent to participate in the study; that on completion of the study, a soft copy of the findings of the research will be made available to them on request; that permission to undertake the survey has been granted by the Wolaita Zone Education Department and the Ethics Committee of the College of Education, Unisa. Completion of the questionnaire served as respondent consent for the quantitative component.

4.13.4 Confidentiality

Adhikari (2020), with regard to confidentiality comments: “Maintaining confidentiality ... means ensuring that the information given by the participant is confidential [at all times] and not shared with anyone, except the research team. It is also about keeping the information secretly from other people”.

The current research implemented measures to ensure confidentiality in several ways: namely, by not linking personal identification to data (e.g. names on questionnaires or interview transcripts), storing data securely (with the further commitment to delete data within 5 years once the study has been completed), not divulging research information indiscriminately, not using research information for any other purpose but the research study, and, not disclosing the information to outside parties.

4.13.5 Protection from harm

According to Adhikari (2020):

“It is necessary to minimize any sort of harm to the participants, [Aspects to consider include], bodily harm to contributors; psychological agony and embarrassment; social drawback; [and] violation of participant’s confidentiality and privacy. In order to minimize the risk of harm, the researcher/data collector should, [take care to] obtain informed consent from participants; protect anonymity and confidentiality of participants; avoid misleading practices when planning research; and provide participants with the right to withdraw.”

For the SIP implementation study, it was not anticipated that harmful or disrespectful situations would occur: questionnaire data was collected and stored anonymously and kept confidential, as well as that of the interviews and focus groups. Participants of focus group interviews were selected and grouped in such a way as not to be exposed to authorities that they feel might regard their comments as critique on the system or specific individuals.

4.13.6 Achieving anonymity

The issue of anonymity has been touched on in previous sub-sections since this constitutes such a critical ethical issue and criterium. Adhikari (2020) explains anonymity as: “... keeping the participant anonymous. It involves not revealing the name, caste or any other information about the participants that may reveal his/her identity.”

The current research adhered to this principle by not making the names and identities of the participants known in any way (also see paragraph 4.13.4 on confidentiality, as these aspects are interlinked).

4.13.7 Maintaining professionalism

Korenman (2006) states that:

“Professionalism in science denotes a pattern of behaviour identified with scientific integrity that, in turn provides certain privileges. Like other professionals, scientists are expected to behave with intellectual honesty and excellence in thinking and doing. ... Besides providing their expertise, professionals are supposed to behave collegially and teach the skills to others, and put society's needs first in their professional activity. ... They also are given the responsibilities to allocate funding, and review of their output in publications. Like other professions they are given responsibility for discipline in the event of poor performance or malfeasance. ... Elements of Professionalism [include], intellectual honesty; excellence in thinking and doing; collegiality and openness; autonomy and responsibility; and self-regulation.”

To this can be added research that is conducted with honesty, integrity, objectivity and respect for research participants (without discrimination). It implies responsible research reporting; openness and not obscuring facts to prove/disprove research hypotheses and more. The research team (student and supervisor) held ‘professionalism’ as a guiding objective in this research.

4.13.8 Participants’ vulnerability

Snipstad (2021: 1-8) states that although vulnerability can be interpreted and defined in many ways, the concept actually encompasses several dimensions which include intellectual impairment, physical/ or emotional dependency, power-dependency, socially constructed dependency/ vulnerability and more. Snipstad argues that the ethical issue regarding vulnerability for a study should somewhat subjectively ask whether “at risk persons” are involved in the study, and importantly, “How can this particular project [SIP implementation] protect these vulnerable people [if such people are included in the study] from harm?”

Vulnerable groups were not included in this study, but research nevertheless protected participants’ dignity and rights as human beings.

4.14 CHAPTER SUMMARY

In the above sections the researcher presented issues relating to the research design

and methodological steps used to conduct the study. More specifically, the researcher discussed the research paradigm, research approach, design of the study, population, sample size and sampling procedures, participant selection, instruments for data collection, quantitative instrument reliability and validity, qualitative instrument trustworthiness, data collection procedures, data analysis procedures, and ethical considerations.

The next chapter presents the results of data analysis.

CHAPTER 5

DATA PRESENTATION, ANALYSIS AND DISCUSSION

5.1 INTRODUCTION

Chapter 4 outlined the research methodology of the study and indicated that both quantitative and qualitative data were used to answer to the five research sub-questions of the study, which would then, in turn, jointly answer the main research question.

This chapter deals with the presentation, analysis, interpretation and discussion of data gathered from the respondents. The findings are presented based on the research questions formulated in chapter 1 and the conceptual framework outlined in chapter 1. Similarly, presentation and analysis of data were done as per the research design discussed in chapter 4. The study employed a concurrent convergent mixed methods research design in which both quantitative and qualitative data were included. According to the design the quantitative data will be presented first, followed by qualitative data (where the integration of data will also take place).

The current chapter firstly lists the main and sub-research questions to be answered by the acquired analysis results. Thereafter the focus is the quantitative data analysis that briefly defines (i) the analysis variables present in the questionnaire dataset and outlines (ii) the analysis strategy for analysing this data. The analysis strategy description lists, in a sequential fashion, the appropriate analysis techniques implemented in the various stages or steps of the analysis process. Several issues - that determine which analysis technique should be used - are listed. Research argued that analysis results had to be practical and reliable to provide the analysis results and type of information necessary to reliably answer the main research question.

The quantitative component of the chapter then furthermore presents (iii) the quantitative analysis results along with interpretation and findings. The analysis results are presented in the same sequence as the analysis strategy-sequence. This will ensure a logical flow of thought and discussion of the findings. The quantitative component of the chapter concludes with a (vi) summary of findings, and (v) a

discussion of the recommendations and limitations of the quantitative component of the study.

Attention in Chapter 5 then turns to the qualitative component of analysis and (vi) briefly discusses the participants of this research component, (vii) the qualitative measuring instruments, (viii) and the principle of triangulation. The (ix) qualitative findings are then presented in a way that integrates the quantitative findings to explain how the quantitative and qualitative findings substantiate one another.

(In the qualitative presentation quotations (of the direct words of the participants) and cross-references to chapters 2 and 3 will feature together with the interspersed quantitative results to bring about the integration of the qualitative and quantitative components of the study).

5.2 RESEARCH QUESTIONS TO BE ANSWERED

Chapter 1, section 1.5.1 and chapter 4, section 4.1 stated the main and sub-research questions as follows:

How do school leaders manage the implementation of the school improvement programme in secondary schools in Wolaita zone, Ethiopia?

Research sub-questions:

- 1 How is school improvement and the management of school improvement conceptualized?
- 2 How is the evaluation of the management of school improvement implementation conceptualized?
- 3 How well do school leaders in the secondary schools of the Wolaita zone manage the school improvement programme?
- 4 What are the major management challenges experienced in managing the implementation of the school improvement programme?
- 5 How can the challenges experienced managing the school improvement programme be addressed?

Research questions to be answered via quantitative and qualitative analyses:

As indicated in the methodology section of chapter 4, research was designed for qualitative results (collected from the literature, interviews and focus groups) to answer to research sub-question 1 – that focused on the conceptualisation of school improvement (SI) and the management of SI; and to answer to research sub-question 2, that focused on the conceptualization of the evaluation of SI and the management thereof.

Research was structured in such a way that the results of the analysis conducted on the quantitative response data - collected on the question statements of the questionnaire – would inform research sub-question 3. Furthermore, research argued that research sub-question 4 on the management challenges would be addressed by identifying those questionnaire questions that indicated negative perceptions of a specific aspect of management. In this instance, questionnaire items with a high tally of *'limited; no-extent-level'*-responses – thus negative perceptions – would identify problem-areas and thus challenges. Suggestions regarding improvement actions (sub-question 5) for the identified challenges will then serve as recommendations of the study.

In short, this argument indicates how the quantitative and qualitative analyses and results of this chapter strive to answer to sub-research questions 1 and 2, and also to 3-5.

The next section briefly defines the analysis variables and outlines the analysis strategy for the quantitative data.

5.3 ANALYSIS VARIABLES AND ANALYSIS STRATEGY: QUANTITATIVE COMPONENT

5.3.1 Analysis variables and SIP management constructs

The information collected from respondents via the questionnaire constituted the

dataset analysed in the quantitative component of the study.

5.3.1.1 Biographical variables

Personal information collected from the questionnaire, namely *gender, age, qualifications, work experience, position held at school and managerial or teaching role, as well as the Wolaita zone divisions* formed **the biographical variables** of the analysis.

Among these biographical variables the *position held by respondents* was of particular interest since the perceived efficacy of *management* was evaluated and managers (*principals, vice-principals and HODs*) formed part of the research participants. This group therefore needed to be identifiable in analyses. In all analyses discussed in the next sections (5.3.2. and 5.3.3 on the 'Analysis strategy' and 'Analysis results') a distinction is therefore made between *teacher-respondents* and the component of the sample that actively manage SIP-implementation – *management-respondents*.

The *Wolaita zone division* variable was also considered important. Stratified random sampling of respondents was done using the five divisions of the Wolaita zone as strata (*east, south, north, west and central*). Stratified sampling assumes and accommodates the possibility that differences between strata might exist, therefore it would be important to incorporate the effect of *zone divisions in the planning of data analysis* (see section 5.3.2, the analysis strategy section) to control the effect of the zone on participants' perceptions.

5.3.1.2 Perception variables and management constructs/dimensions (composite perception variables)

Apart from the biographical variables, questionnaire data was also collected that assessed perceptions on management relating to SIP implementation: perception data. Therefore, the responses of research participants to 65 questionnaire questions that probed matters on managing SIP-implementation formed a set of 65 perception variables. These questions were rated on a 5-point *extent*-level rating scale (Likert rating scale) with extent-level options of '1' (great extent); '2' (*reasonable extent*); '3' (*average extent*); '4' (*poor extent/ limited extent*); up to '5' (*no extent/ not at all*).

The literature review in chapter 2 indicated that independent studies identified several components of management, namely planning, organising, leadership, and monitoring and evaluation dimensions (chapter 2, section 2.4 and chapter 3, section 3.3). Therefore, responses to subsets of questionnaire questions that probe elements of the mentioned dimensions were used to assess how respondents experienced the above management dimensions applied to SIP-implementation: 18 management *planning* dimension variables; 13 *organising* variables; 18 *leadership* variables; and 16 *monitoring and evaluation* dimension variables. The four sub-sets of responses to the respectively 18, 13, 18 and 16 questionnaire questions constitute the management dimension constructs (thus composites or groups of perception variables).

The analysis strategy on how the dataset is to be analysed is outlined in section 5.3.2 that follows. It explains how specific analysis techniques were selected to, firstly, gain an overview of respondents' perceptions of all elements of SIP implementation management (analysing the 65 perception variables); and, secondly, to measure and interpret how respondents experienced the various dimensions of SIP management (analysing the four management dimension variables of *planning, organising, leading and monitoring and evaluation*).

5.3.2 Analysis strategy

The purpose of planning which analyses techniques to apply to the response data was

to assess how respondents currently perceive school managers to manage SIP-implementation. To answer this question (research sub-question 3), the perceived effectiveness of aforementioned four aspects of SIP-management, namely, *planning, organising, leadership and monitoring and evaluation*, thus had to be assessed.

The choice of consecutive analysis was based on specific matters that required consideration as analysis progressed. The various issues and techniques are listed and explained below:

- i. **The question was asked how an initial overview of perceptions of the various dimensions of management of SIP implementation could be obtained.**

It was argued that a general overview of teachers' and school management's perceptions on management-aspects of SIP-implementation would be obtained from four **composite one-way frequency tables**. In these tables the tally of respondents' choice of *extent*-level option (*great extent, reasonable extent; average; rarely; to no extent*) to each question within a group of questionnaire questions that describes an aspect of management (e.g. *planning, organisation, leadership, monitoring and evaluation*) would be presented as frequency-entries in the tables.

In these tables the total frequencies per extent-level (last row of each composite table) would indicate whether general perceptions of a management dimension – over all questions – were more to the positive or negative side of the extent scale. This trend for each table indicates general perceptions of effective or ineffective management per management dimension.

In each table, the per-question response pattern is also used to identify specific issues that respondents perceived differently from other issues. For example, whether similar or different perceptions were held on the two (organising) issues of '*sufficient resources allocated by the Department to SIP activities*' (q17) and '*our school has a SIC team that supports SIP activities*' (q13). **Chi-square tests** calculated over the frequency patterns of the questionnaire questions of each table, could be used to verify

whether some of these perception patterns differ statistically significantly from other frequency patterns.

Four composite one-way frequency tables were therefore calculated from the subsets of response data collected on the four groups of questionnaire questions that explain the four management dimensions (*planning, organising, leadership, monitoring and evaluation*). These tables are presented in the analysis results section that follows (section 5.5).

- ii. **Once an overview of perceptions had been formed, the question arose as to whether a single, reliable measure of perception for each respondent, for each management dimension, could be derived from the sets of responses to questionnaire questions describing the four management dimensions?**

A set of responses to a group of questions will reliably measure a construct (e.g. *organising dimension of management*) if *internal consistency reliability* can be established for the dataset. *Internal consistency reliability* determines whether all questions – designed to describe a specific construct – jointly contribute towards explaining the construct (e.g. the management dimensions of *organising*). This form of reliability is established by performing a scale reliability test on the set of questionnaire question responses that explains the particular management dimension.

A coefficient, referred to as Cronbach alpha, is reported as part of the output of a scale reliability analysis. Cronbach alpha values vary between 0 and 1. A Cronbach alpha coefficient in the region of 0.7, or > 0.7, is indicative of *internal consistency reliability*. *Internal consistency reliability* implies that a group of questionnaire items reliably measure the same construct (e.g. the planning dimension of management). Importantly; verification implies that a single measure for the construct, per respondent, can be derived as the mean response a respondent awarded all items in the specific group of questionnaire questions. Such a measure is referred to as a score, or perception score.

Four scale reliability tests were subsequently conducted on the four sets of responses that measured the respective management dimensions (*planning, organising, leadership; monitoring and evaluation*). The results of the scale reliability tests are presented in section 5.5.4.

iii. A further issue to be considered asked whether the dataset was truly multi-dimensional and not unidimensional?

Research asked the question whether several management constructs truly underlie the dataset of this study (multidimensional structure), or, whether a single construct (unidimensional structure) in essence underlie the dataset? To verify multidimensionality (the four dimensions of management), an exploratory factor analysis was planned and executed on the entire dataset to verify that several dimensions (e.g. planning, leadership, organising, monitoring and evaluation) of management underlie the structure and not only a single management structure.

Although factor analysis is exploratory in nature it provides a good indication of whether subsets of responses to questions cluster or group together to describe different management aspects or whether responses to all questions cluster as a single group to describe a central theme such as 'management'. A couple of factor analyses were run with varying numbers of factors specified for the underlying factor structure to test the null hypothesis that more than one factor underlie the dataset.

The results of these factor analyses are mentioned in sub-section 5.5.4.2 of the analysis results section, and for the discerning reader, the full results are presented in Appendix T.

iv. With the multi-dimensionality of the dataset verified, perception scores for the four dimensions of management can be calculated.

If *internal consistency reliability* of management dimensions is verified, and the multi-dimensional nature of the underlying data structure established, research argued that a **single measure per respondent for each management dimension** can be calculated. Such a score will measure how each respondent perceived, for example,

the effectiveness of *planning* (as part of management) during SIP implementation. As mentioned, scores per respondent, per dimension, are calculated as the mean rating response a respondent awards the group of questionnaire questions that describe a particular dimension.

For this research, four sets of perception scores were therefore calculated from the response data. For each respondent the four score values indicated how the particular respondent experienced aspects of management as it relates to SIP-implementation: Score values are interpreted in terms of the *extent-level* rating scale: for example, a score value that approximates '1' will indicate that a specific dimension of management (e.g. 'leadership') is perceived as being managed very well (*to a great extent*); whereas a score value that rounds to '5' will indicate that a specific dimension of SIP-implementation management is very poorly handled.

Once perception scores per respondent, per management dimension are calculated, tables of mean perception scores per management dimension, over all respondents, (section 5.5.5) are calculated to quantify how respondents perceived the four management dimensions during SIP-implementation. The findings of the table can be compared to the general trends expressed by the respective composite frequency tables of section 5.2.2.1.

A final matter to consider at this stage was whether factors such as the biographical properties of respondents (e.g. zone division, teacher or managerial position, age, work experience) affect respondents' perceptions of SIP-implementation management? It was argued that tables of mean scores per management dimension, over the categories of such biographical variable would provide a first indication of whether specific attributes of the respondents possibly affect their perceptions of management performance. Such tables and more advanced analyses to assess the effect of biographical factors are discussed in the sub-section below.

- v. **Which type of analyses will provide an initial indication whether biographical properties (e.g. age) of respondents, possibly affect respondents' perceptions of the different aspects (4) of effective management of SIP-implementation?**

It was argued that tables of mean perception scores per management dimension, over the categories of any of the mentioned biographical variables would provide a first indication of whether specific attributes of the respondents possibly affect their perceptions of management performance. These tables were duly calculated and category mean scores compared for each dimension of management (section 5.5.5.2 and Appendix V).

vi. Can it be proven that biographical properties affect perceptions of certain aspects (4) of the management of SIP-implementation?

The statistical significance of the effect/s of biographical properties on how effectively respondents perceive aspects of management to be conducted – as suggested by the composite frequency tables (if any) mentioned in the previous section – can be verified or refuted by either parametric or nonparametric analysis techniques (depending on whether certain assumptions of techniques are adhered to):

(a) Parametric analysis of variance

An appropriate parametric analysis technique to apply in the context of this study is a multi-factor analysis of variance (the GLM or general linear model approach). The term, 'analysis of variance' is commonly abbreviated to 'ANOVA'.

The technique tests the composite null hypothesis that, for each factor (biographical attribute) entered into the ANOVA model; the biographical category mean-perception scores of the management dimension being investigated are equal. (In other words, that the biographical variables have no significant effect on perceptions). (E.g., if the *position* and *division* biographical variables are entered into the ANOVA model that analyses the set of *planning* dimension scores, the null hypothesis would state that the mean *planning* perceptions scores for *managerial* and *teacher* positions (position factor) will be equal, as well as the mean planning perception scores for the north-, south-, east-, west-, and central divisions of Wolaita zone (the division biographical attribute)).

In the ANOVA model, a particular set of management dimension scores represents the dependant variable of the model, and the biographical factors entered into the model, the independent variable/s. The output of a conducted ANOVA test reports F-statistics and associated F-probabilities for the model as an entity and for each factor entered into the model. If the analysis is significant (e.g. the F-probability associated with the entire test is significant – indicated by a F-probability value of <0.001 ; <0.01 ; or <0.05), the statistical significance of the individual biographical factors in the model can be investigated (e.g. *position* and *division*). If significance is indicated in this instance, the research will conclude by stating that the null hypothesis, which states that the biographical factor categories of the mean perception scores of a particular management dimension are equal, is rejected. The alternative states that such category means scores of a particular management dimension differ statistically significantly. Thus, the statistical significance of the impact of a biographical effect on perceptions re an aspect of management is verified.

To conclude, the results of a conducted ANOVA, in conjunction with a multiple comparisons-of-means test performed on the biographical category mean perception scores of a management dimension, will verify the significance of a biographical factor/s on perceptions regarding a dimension of management, and, furthermore describe the nature of the biographical effect on perceptions (relevant tables of mean perceptions scores presented with analysis results in the next section 5.5.6 will detail this description).

The ANOVA technique requires that the ANOVA-assumptions of normally distributed data and homogeneity of group variances be satisfied. (These assumptions can be tested using tests such as **Levene's test**; and **Kolmogorov-**

Smirnov; Kramer von Mises; and Shapiro-Wilks tests (Ghasemi & Zahediasl, 2012; Gray, 2015).

Several preliminary ANOVA analyses were conducted (separately) on the four sets of perception scores for the four dimensions of management. In preliminary analyses, the statistical significance of the effects of *position, age, experience, and the Wolaita zone divisions* were investigated. Not all provisional analysis results are reported in the 'Analysis results' section, section 5.5.6. Only the results of biographical factors identified as statistically significant are included in reported analysis results. Other analyses are included in Appendix A.

(b) Nonparametric analysis of variance

If ANOVA assumptions are not met, or are under suspicion, an alternative nonparametric analysis of variance can be conducted to identify biographical properties (if any) that statistically significantly impact students' perceptions of dimensions of the management that present themselves during SIP-implementation. For this study nonparametric **one-way Kruskal-Wallis** (McDonald, 2019; University of Purdue, 2010) **tests** (more than two samples) and **Wilcoxon rank sum tests** (two samples) were deemed appropriate analysis techniques.

These tests investigate the significance of the effect of a biographical factor on perception scores of a management dimension. The tests are performed on the ranks (and ties) of a selected set of perception scores (e.g. *planning* dimension of management) and calculates a test-statistic based on the sum of these ranks. If the probability associated with the test statistic is <0.001 ; or <0.01 ; or <0.05 , significance on either the 0.1%, 1% or 5% level of significance is established. This in turn, verifies the statistical significance of the effect of a specific biographical factor on perceptions of a specific management dimension. (If significance is established, the null hypothesis is rejected which states that the median management dimension perception score for all categories of the significant factor are equal.)

[Comment in this regard: A two-way nonparametric test exists, the Friedman test, but a requirement of this test is equal numbers of perception scores for categories of the

biographical property investigated – e.g. age groups. This is not the case in this study]

Kruskal-Wallis tests were therefore performed separately on each set of management dimension perception scores (*planning, organising; leadership; monitoring and evaluation*) to verify the statistical significance of the effects of *age, experience and zone division* (these factors each have more than two categories) and a Wilcoxon rank sum test was performed separately on each set of management dimension perception scores (*planning, organising; leadership; monitoring and evaluation*) to verify the statistical significance of the biographical factor of *position (position had only two category levels to compare)*. The results of these analyses are reported in a summarised table in section 5.5.6.

vii. **In conclusion the research argued that analysis findings and deductions derived from these above listed tests would provide sufficient information to answer to stated research sub-question 3, that asked:**

Q3. *How well do school leaders in the secondary schools of Wolaita zone manage the school improvement programme?*

As mentioned earlier, in the process of answering to research sub-question 3, sub-questions 4 and 5 will also be informed:

Q 4. *What are the major management challenges experienced in managing the implementation of the SIP?*

Q 5. *How can the challenges experienced in managing the SIP be addressed?*

5.4 PROTOCOL ON RESULTS REPORTING

The majority of tables presented in the quantitative results sections of this chapter are a compilation of the raw analysis output. Such table/s summarise and report the raw analysis output of several similar analyses in one table (e.g., 5 separate one-way frequency tables of the biographical properties of respondents over property-categories, are compiled in one table and labelled as a 'Frequency distribution table of Biographical attributes'). This was done to save space and present a simple uncluttered presentation of raw results. (All essential raw analysis results are available as Appendix A).

Results presentation will follow the sequence of analysis steps outlined in the analysis strategy section. In the various sub-sections of the 'Analysis Results' section, section 5.5 that follows, discussion will be structured to firstly recap on the purpose of the analysis and an explanation of the layout of a specific results-table/s presented in that section. Thereafter, the particular analysis table will be presented, followed by deductions derived from this/these table/s. Each sub-section concludes

with boxed text that summarises the important findings of the sub-section (and how this serves to inform research sub-questions 3 up to 5).

5.5 QUANTITATIVE ANALYSIS RESULTS AND INTERPRETATION

5.5.1 The research context: Biographical properties of the sampled respondents

Chapter 4, sections 4.4.1 and 4.4.2 described the research environment as the secondary school environment of the Wolaita zone of Ethiopia. These sections indicated how teachers and school managers were sampled from the target population. The frequency distributions of biographical properties of sampled respondents are presented in table 5.1 below and assist in detailing the research context.

Table 5.1 reports the per-category tally of responses of the five biographical attributes of *age, division, experience, qualifications and teaching position*. The first column of each of the five sub-tables lists the attribute-categories. The second column reports category-frequencies followed by the proportion of frequencies reported for the specific category – expressed as a percentage of the total responses reported for a particular biographical question (N=287). The fourth and fifth columns indicate the cumulative frequencies per category and the proportion (as a percentage) of cumulative frequencies.

It can, for example be deduced from the first sub-table of table 5.1 that 78.09% (or 221 respondents: $101 + 120 = 221$) were younger than 41 years and that only 21.91% ($14.49\% + 7.42\%$; or $41 + 21 = 62$) of the respondents were older than 40. The deduction can be made that the sample is representative of a mostly younger generation of teaching staff.

Comment on the *position* attribute:

The frequency distribution of a condensed-category teaching-*position* attribute is also included in table 5.1. It is argued that, since the focus of research in this thesis is to assess *management* of SIP-implementation, a sound, well represented indicator of

manager (principals, vice-principals, and HODs-categories) and teacher (teacher-category) respondents are necessary to include in more advanced analysis. The initial (not condensed) table made provision for distinct (*principal, vice-principal, HOD and teacher*) categories of respondents. However, the first three mentioned categories all represent 'school management' or managers – which functionally differ from the teachers' category. Combining the first three mentioned categories and keeping the teacher category separate creates a representative manager or teacher indicator. Such an indicator is important in further analyses of research sub-question 3, which investigates 'how well school managers manage SIP-implementation'.

Table 5.1: Frequency distributions of biographical properties that describe the sample				
	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Age (missing=4)				
<31	101	35.69	101	35.69
31-40	120	42.40	221	78.09
41-50	41	14.49	262	92.58
>50	21	7.42	283	100.00
Gender (missing=4)				
Male	250	88.34	250	88.34
Female	33	11.66	283	100.00
Qualifications (missing=4)				
Diploma	2	0.71	2	0.71
Degree, Honours	224	79.15	226	79.86
Masters	57	20.14	283	100.00
Experience (missing=4)				
1-5 years	47	16.61	47	16.61
6-10 years	74	26.15	121	42.76
11-15 years	70	24.73	191	67.49
16-20 years	40	14.13	231	81.63
>20 years	52	18.37	283	100.00
position (missing=4)				
Principal	14	4.95	14	4.95
Vice-Principal	23	8.13	37	13.07
HOD	107	37.81	144	50.88
Teacher	139	49.12	283	100.00
position, condensed categories (missing=4)				
Management	144	50.88	144	50.88
Teachers	239	49.12	283	100.00
Wolaita zone division (missing=4)				
Middle	99	34.49	99	34.49
Northern	71	24.74	170	59.23
Western	49	17.07	219	76.31
Southern	38	13.24	257	89.55
Eastern	30	10.45	287	100.00

Deductions

The distributions over biographical attributes describe the context of the research study as a sample where the majority of respondents are male, younger and well qualified. The sample is representatively distributed over the five divisions of the Wolaita zone. With regard to teaching experience, the entire range of experience is represented in the sample. Approximately 50% of the respondents were managers and 50% teachers.

Because gender is not well-represented in the sample, the effect of gender will not be brought into consideration in further analyses.

5.5.2 Initial overview: Frequency distribution for the four proposed management dimensions/aspects (*planning, organising, leadership, monitoring and evaluation*)

As previously mentioned, composite one-way frequency tables of respondents' *extent* rating-levels responses to the four subsets of questionnaire questions that measure the management dimensions of *planning, organising, leadership, monitoring and evaluation were calculated*. *Extent*-rating levels were defined as, '1' indicating to a *great extent*; '2' indicating to a *reasonable extent*; '3' indicating to a very average/mild extent; '4' representing a *rarely/poor extent*; '5', *no extent/not at all*.

Tables 5.2 to 5.5 below present these composite frequency distributions. The first column of each table lists the elements of the management dimension designed to describe and assess the particular dimension (the subset of questionnaire questions). For each row of a composite frequency table, the second to sixth columns reports, per questionnaire item, respondent-tallies (and proportionate percentage) awarded each *extent*-rating level. For example, for the *planning management* dimension, *extent*-response distribution to *q1, SIP copies available to plan at school*, indicates that 106 *great extent* (or 37.46% of 283 total responses) and 86 *reasonable extent*-tallies (or 30.39% of 283 total responses) were recorded for *q1*.

The 'Totals'-row of a composite table:

The question may well be asked how these composite tables provide a general impression of how respondents perceive the various aspects of management (*management* dimensions) to be applied to SIP-implementation. The last row of each table, the Totals-row, indicates the total frequencies all respondents awarded each *extent*-level over all questions that explain a particular *management* dimension. The first general impression of respondents' perceptions can be gleaned from these total *extent*-level frequencies: If the majority of total frequencies are awarded the positive *extent*-levels (*great extent; reasonable extent*), it can be deduced that respondents in general experienced the particular *management* dimension positively. The opposite also applies: if the total *poor; to no extent/not at all* ratings (negative perception) record the majority frequencies, perceptions are considered negative for the particular management dimension. For example, table 5.2 indicates that $510+192=702$ (14.12%) total *poor; no extent/not at all*-frequencies were reported for all *planning* dimension questions of managing SIP-implementation. For the same management dimension, namely *planning*, $1778+1479=3257$ (65.52%) total *great extent; reasonable extent*-frequencies were recorded. This then indicates that respondents in general experienced execution of the *planning* dimension of managing SIP-implementation positively.

Chi-square test results and the row-wise *extent*-level frequencies:

In the composite frequency tables, row frequency-distributions indicate how respondents perceived each question-statement of a proposed management dimension (In other words, the response pattern per questionnaire item) (E.g., how respondents perceive q6.1, *that the schools' strategic plan includes a vision statement*. In this instance, $120+78=198$ of 276 *great extents; reasonable extent*-responses (71.74%) were captured; this points to an overwhelming positive perception).

For each table, a chi-square test was conducted and the results included in these tables. These Chi-square tests verify whether response-patterns (row frequencies) to some question-items of a management dimension differ statistically significantly from other response patterns. If statistical significance is indicated, question-items can be

identified that have response patterns that differ statistically significantly from other trend patterns (In other words, response patterns that deviate from the general perception trend for the specific management dimension). For example, in table 5.2 (*planning* dimension), a Chi-square statistic of 155.78 is reported, with associated probability of $< .0001$. This indicates to statistical significance on the 0.1% level: the response patterns of some questionnaire items therefore differ statistically significantly from other response patterns.

Identification of management dimension challenges:

Information on significantly dissimilar response patterns can be used to identify management issues that hamper SIP-implementation. This finding speaks to research sub-question 4 of the study, *management-challenges that impact SIP-implementation*.

An illustrative example: Although a general *positive* perception re the *planning* dimension of management was reported in table 5.2, examination of the individual response patterns reveals that the proportion positive responses to, for example, q5 and q11 is lower (respectively 57.70% and 56.27%) than that of other response patterns. Furthermore, the negative proportions for these response patterns are somewhat greater (respectively 16.85% and 15.41%) compared to the other response patterns. These less-positive response patterns may suggest management-issues or challenges that need consideration (Issues: (i) *prioritisation of key problem areas while designing a strategic plan*; and (ii) *revision of the annual SIP action plan by the SIC*). Deductions are described in boxed text below each table.

Bar graphs

Visual verification of perception trends and probable management challenges: Bar graphs in figures 5.2 to 5.5 in Appendix U can also be used to visually identify general perception trends of the management dimensions and probable management challenges.

5.5.2.1 The planning dimension of SIP-implementation management

Table 5.2 below presents the frequency distributions of the subset of questionnaire statements that were designed to describe the planning dimension of managing SIP-implementation.

Table 5.2: Frequency distributions of items that describe the planning dimension of SIP implementation over extent-of-management efficacy re SIP-implementation						
Elements of <i>Planning</i>	Extent level					Total
	Frequency Row Percentage	great extent	reasonable extent	average	rarely/ poor	
q1, SIP copies available to plan at school	106 37.46	86 30.39	63 22.26	22 7.77	6 2.12	283
q2, Schools SIP implement-strategy aligns, Ministry of Educ.	102 36.17	95 33.69	46 16.31	31 10.99	8 2.84	282
q3, School develops own 3year SIP strategic plan	117 44.49	56 21.29	57 21.67	26 9.89	7 2.66	263
q4, Self-evaluation done to id. strengths/ weaknesses	84 30.11	86 30.82	69 24.73	31 11.11	9 3.23	279
q5, Self-evaluation id/prioritise problem-areas, include SI-plan	75 26.88	86 30.82	71 25.45	40 14.34	7 2.51	279
q61, strategic plan includes vision statement	120 45.28	78 29.43	36 13.58	24 9.06	7 2.64	265
q62, strategic plan includes mission statement	119 43.12	67 24.28	51 18.48	30 10.87	9 3.26	276
q63, includes value statement	111 40.96	79 29.15	41 15.13	33 12.18	7 2.58	271
q64, includes prioritised objectives	95 34.93	79 29.04	61 22.43	28 10.29	9 3.31	272
q65, improvement actions, feedback dates	85 31.02	86 31.39	53 19.34	34 12.41	16 5.84	274
q66, implementers - staff that implements	80 29.41	92 33.82	54 19.85	33 12.13	13 4.78	272
q67, guidelines re. evaluation, improve-actions	84 31.23	86 31.97	56 20.82	30 11.15	13 4.83	269
q7, Annual SIP id. improvement issues for the year	119 42.50	82 29.29	50 17.86	18 6.43	11 3.93	280
q8, each dept. prepares own Dept. Improve-plan	123 43.62	75 26.60	45 15.96	21 7.45	18 6.38	282
q9, SI-committee includes teachers, develop SIP	121 43.06	75 26.69	48 17.08	23 8.19	14 4.98	281
q10, Leadership shares SIP-strategic plan, shareholders	80 28.37	88 31.21	72 25.53	26 9.22	16 5.67	282
q11, SIC revises strategic plan during implementation	75 26.88	82 29.39	79 28.32	30 10.75	13 4.66	279
q12, SI-planning continuous process, guided, assessments	82 29.08	101 35.82	60 21.28	30 10.64	9 3.19	282
Total	1778	1479	1012	510	192	4971
Total missing responses over all question-items = 195						
Probability associated with Chi-square statistic of 155.78 is < 0.0001 ***						

Deductions, Table 5.2

- A general overwhelming positive perception (*great extent; reasonable extent*) of the *planning* dimension of SIP-implementation management is reported (65.52% of total responses over all items, or 1778 + 1479 of 4971 responses).
- Statistically significant differences between questionnaire-item response patterns were indicated: The Chi-square test statistic for the frequencies of the table was 155.78, with an associated probability of < 0.001, therefore statistical significance on the 0.1% level is reported. This implies that response patterns differ statistically significantly for some items: perceptions of some issues were perceived significantly more positively,
 - e.g. q6.1, *at respondents' schools the strategic plan includes a vision statement* (74.71% positive responses (*great extent; to reasonable extent*) were reported)
 - q7, *the annual school improvement plan identifies improvement issues for the year* (71.79% positive responses recorded)
 - q8, *each department prepares its own improvement plan* (70.22% positive responses)
- and other patterns significantly less positive, (though still a majority positive frequency count), e.g.
 - q5, *key problem areas are identified to incorporate in the SIP* (16.85% negative responses – *rarely/ poor extent; not at all* - compared to 57.70% positive responses)
 - q10, *school leadership communicates the strategic plan to stakeholders* (14.89% negative responses compared to 59.58% positive responses)
 - q11, *the SIC revises the strategic plan during the implementation phase.* (15.41% negative responses compared to 56.27% positive responses)
- These last listed issues could present as possible managerial problems of the *planning*-dimension of SIP-implementation management (addressing sub-research question 4 re managerial challenges).

5.5.2.2 Organising dimension

Table 5.3 below presents the frequency distributions of the responses school

managers selected to the subset of questionnaire statements that describe the *organising* management dimension linked to SIP-implementation actions. The response trends to 13 issues that describe and measure organising are discussed below the table.

Table 5.3: Frequency distributions of items that describe the <i>organising</i> dimension of SIP implementation over extent-of-management efficacy						
Elements of organising in management	<i>Extent levels</i>					Total
Frequency Row Percentage	Great extent	reasonable extent	average	rarely/ poor	Not at all	
q13, School has SIC that support SIP activities	117 41.49	86 30.50	54 19.15	18 6.38	7 2.48	282
q14, SIP activities organised, SIP domains	99 34.98	97 34.28	53 18.73	25 8.83	9 3.18	283
q15, Funds allocated to major SIP domains	49 17.63	81 29.14	85 30.58	43 15.47	20 7.19	278
q16, Resources prioritise, according SI goals	60 21.35	97 34.52	77 27.40	31 11.03	16 5.69	281
q17, Resources allocated, /Dept./SI-plan	50 17.73	79 28.01	73 25.89	46 16.31	34 12.06	282
q18, SIC provides support, annual SI-plan	66 23.40	80 28.37	77 27.30	42 14.89	17 6.03	282
q19, Organisational structures aid SIP communication	58 20.71	86 30.71	75 26.79	45 16.07	16 5.71	280
q19, Organisational structures aid SIP participation	60 21.58	80 28.78	77 27.70	40 14.39	21 7.55	278
q20, Management, authority to leaders, implement SIP	72 25.99	83 29.96	78 28.16	34 12.27	10 3.61	277
q21, Principal uses distributive authority re SIP	82 29.60	95 34.30	58 20.94	29 10.47	13 4.69	277
q22, Woreda district-educ. ensures, principals, qualified	68 24.20	82 29.18	59 21.00	45 16.01	27 9.61	281
q23, Woreda district-office, support staff, SIP training	60 21.28	57 20.21	66 23.40	56 19.86	43 15.25	282
q24, SIP-implementation, benefit smaller class size	75 26.69	78 27.76	60 21.35	51 18.15	17 6.05	281
Total	916	1081	892	505	250	3644
Total missing responses over all question-items = 87						
Probability associated with Chi-square statistic of 200.37 is < 0.0001 ***						

Deductions, Table 5.3

- A general positive perception (*great extent; reasonable extent*) re the *organisational* dimension of managing SIP-implementation is reported (1997 of 3644; or 54.80% of total responses over all items are *great extent, reasonable extent* responses).
- Statistically significant differences between questionnaire-item response patterns are indicated by a Chi-square statistic of 200.37, with associated probability of < 0.0001 (the 0.1% significance level): some items were perceived more positive than others:
 - e.g. q13, School has SIC that support SIP activities (71% positive responses)
- and others less positively perceived issues,
 - q23. Woreda/district-office, support staff with SIP training (35.11% negative responses; and 41.49% positive responses)
 - q17, Resources allocated, /Dept,/SI-plan (28.37% negative responses and 45.74% positive responses)
 - q22, Woreda/district-educ. ensures, principals, qualified (25.62% negative responses)
- The less positively perceived items point to possible *organising* management challenges: namely,
 - Not sufficient SIP training opportunities via Woreda Education Office
 - Inadequate resources allocation per department as stipulated in SI plan
 - Woreda/district Educational Office fails to ensuring principals are adequately trained in SIP implementation

5.5.2.3 Leadership dimension

Table 5.4 below presents the frequency distributions of the subset of 18 questionnaire statements describing the *leadership* dimension of SIP-implementation management.

Table 5.4: Frequency distributions of items that describe the leadership dimension of SIP implementation over extent-of-management efficacy re SIP-implementation						
Elements of Leadership	Extent level					Total
Frequency Row Pct	great extent	reasonable extent	average	rarely/ poor	Not at all	
q25, Leadership supports SIP-vision, mission, values	104 37.14	82 29.29	56 20.00	27 9.64	11 3.93	280
q26, Leadership promotes SIP activities	70 25.18	107 38.49	68 24.46	25 8.99	8 2.88	278
q27, Leadership help teachers, implement annual SIP	77 27.40	90 32.03	72 25.62	30 10.68	12 4.27	281
q28, Teachers partake, decision-making, SIP planning	68 24.29	99 35.36	68 24.29	31 11.07	14 5.00	280
q29, Other parties partake decision-making, SIP-planning	64 22.70	88 31.21	68 24.11	43 15.25	19 6.74	282
q30, Key action plans implemented, achieve SIP goals	65 23.13	100 35.59	75 26.69	31 11.03	10 3.56	281
q31, Regular meetings re SIP matters	66 23.57	79 28.21	66 23.57	47 16.79	22 7.86	280
q32, SI goals communicated to school community	63 22.50	81 28.93	73 26.07	44 15.71	19 6.79	280
q33, Management follows up, SIP implementation	66 23.66	95 34.05	69 24.73	35 12.54	14 5.02	279
q34, Leadership strategies apply, pos. SIP outcome	62 21.99	100 35.46	68 24.11	37 13.12	15 5.32	282
q35, Management-supervisory role, HODs SIP feedback	67 23.84	86 30.60	71 25.27	36 12.81	21 7.47	281
q35, Management-supervisory role, teachers SIP feedback	59 20.85	93 32.86	76 26.86	37 13.07	18 6.36	283
q36, Leadership facilitates communication, stakeholders	72 25.53	86 30.50	61 21.63	45 15.96	18 6.38	282
q37, Establish mechanisms ensure SIP implementation	64 22.61	82 28.98	79 27.92	42 14.84	16 5.65	283
q38, Leadership speaks on SIP improvement objectives	59 21.07	97 34.64	70 25.00	36 12.86	18 6.43	280
q39, Leadership provides prof, SIP develop-opportunities	73 25.80	90 31.80	62 21.91	38 13.43	20 7.07	283
q40, Sound leadership-teacher-student relationship	94 33.45	84 29.89	59 21.00	29 10.32	15 5.34	281
q41, Management promotes awareness of SIP-implementation	64 22.61	91 32.16	76 26.86	33 11.66	19 6.71	283
Total	1257	1630	1237	646	289	5059
Total missing responses over all question-items = 107						
Probability associated with Chi-square statistic of 90.76 is 0.03*						

Deductions, Table 5.4: leadership

- A general positive perception (*great extent; reasonable extent*-) of the *leadership* dimension of SIP-implementation management is reported (2887 of 5059; or 57.07% of total responses over all frequencies).
- Statistically significant differences between questionnaire-item response patterns are indicated by a Chi-square statistic of 90.76, with associated

probability of 0.03 (the 5% level of significance). Thus, although a general positive perception was recorded,

- some items were more positively perceived than others:
 - e.g. q25, q26, and q40 which include issues of *leadership support for the vision, mission and values of the SIP*, (66.43% positive responses); *leadership promotion of SIP activities* (63.67% positive responses), and *sound leadership-teacher-student relations* (63.34% positive responses)
- and others, were less positively evaluated. These questions concern issues of
 - q31 *regular meetings are held re SI matters* (24.65% negative responses vs. 51.78% positive responses)
 - q32, *that the goals of SIP are communicated to the school community* (22.50% negative responses compared to 51.43% positive responses)
 - q36, *leadership facilitates effective communication with SIP stakeholders* (22.34% negative responses compared to 56.03% positive responses)
 - q29, *other parties that partake in decision making related to SIP matters* (22.00% negative responses compare to 53.91% positive responses)
- These less positively perceived items point to possible *leadership* challenges of managing SIP implementation, namely,
 - *Meetings regarding SIP matters that are not regularly held*
 - *SIP goals that are not effectively/adequately communicated to stakeholders*
 - *ineffective communication with SIP stakeholders*
 - *parties that should be involved in SIP decision making that are not actively included in the process*

These last findings again serve to inform sub-research question 4.

5.5.2.4 Monitor and evaluate management dimension

Table 5.5 below presents the frequency distributions of the subset of 16 questionnaire statements that describe the *monitoring and evaluation* dimension of SIP-implementation management. Findings derived from the table are discussed below the table.

Table 5.5: Frequency distributions of items that describe the monitoring & evaluation dimension of SIP implementation over extent-of-management levels						
Elements of Monitoring & Evaluation	Extent levels					Total
	Frequency Percentage	great extent	reasonable extent	average	rarely/poor	
q42, Principal supervises HODs annual-SI-plan activities	77 27.21	98 34.63	77 27.21	19 6.71	12 9.54	283
q43, Principal supervises teachers annual-SI-plan activities	74 26.24	103 36.52	66 23.40	30 10.64	9 3.19	282
q44, Establish systems, monitor progress re SI-plan	70 24.91	94 33.45	74 26.33	32 11.39	11 3.91	281
q45, SI-objectives annually evaluated for effectiveness	79 28.11	92 32.74	72 25.62	28 9.96	10 3.56	281
q46, SI-objectives revised, planned strategies ineffective	56 19.86	88 31.21	81 28.72	43 15.25	14 4.96	282
q47, Management monitor student performance, SIP implemented	65 23.05	95 33.69	77 27.30	32 11.35	13 4.61	282
q48, Student data analysed, assess improve-actions, SI plan	68 24.29	87 31.07	74 26.43	34 12.14	17 6.07	280
q49, School reports progress, community on improvement actions	53 18.93	85 30.36	81 28.93	43 15.36	18 6.43	280
q50, Cluster supervisors assess, implementation, SI-action plan	71 25.27	71 25.27	73 25.98	44 15.66	22 7.83	281
q51, Woreda officials assess, implementation, SI-action plan	45 16.07	96 34.29	72 25.71	42 15.00	25 8.93	280
q52, SI-committee assesses, implementation, SI-action plan	54 19.35	88 31.54	85 30.47	35 12.54	17 6.09	279
q53, SIP-policy, School Board reviews health practices	50 17.73	88 31.21	77 27.30	48 17.02	19 6.74	282
q53, SIP-policy, School Board reviews safety precautions	52 19.48	76 28.46	78 29.21	45 16.85	16 5.99	267
q54, SIP-policy, PTSA reviews health practices	53 19.20	79 28.62	68 24.64	47 17.03	29 10.51	276
q54, SIP-policy, PTSA reviews safety precautions	46 16.73	76 27.64	78 28.36	46 16.73	29 10.55	275
q55, Set assessment schedule on SIP-implementation exists	72 25.53	83 29.43	75 26.60	33 11.70	19 6.74	282
Total	985	1399	1208	601	280	4473

Total missing responses over all question-items = 119
Probability associated with Chi-square statistic of 110.70 is < 0.0001 ***

Deductions, Table 5.5

- A general positive perception (*great extent; reasonable extent-*) of the *monitoring & evaluation* dimension of SIP-implementation management is reported (2384 of 4473; or 53.30% of total responses over all items).
- Statistically significant differences between individual questionnaire-item response patterns is indicated with a Chi-square statistic of 110.70 and

probability of < 0.0001 (0.1% significance level): some items perceived more positive than others: These include, q42; q43, q45; which respectively deal with

- principals' *supervision of the SIP activities of HODs,*
- *and that of teachers,*
- *as well as the annual evaluation of SI objectives to assess effectiveness of planned strategies.* (The proportion positive responses to each of these questions are respectively, 61.84%; 62.76% and 60.85%)

- And others with less positive ratings include, for example
 - q54.2, *as part of SIP policy the PTSA reviews safety precautions* (27.28% negative vs. 44.37% positive responses)
 - q54.1, *as part of SIP policy the PTSA reviews health procedures* (27.54% negative responses vs 47.82% positive responses)
 - q53.2 *as part of SIP policy the School Board reviews safety precautions* (23.76% negative vs 48.94% positive responses)
 - q53.1 *as part of SIP policy the School Board reviews health practices* (22.84% negative vs 47.94% positive responses)
 - q50 *cluster supervisors assess implementation of schools' annual action plan* (23.49% negative vs 50.54% positive responses)
 - q51, *woreda/ district officials assess implementation of annual action plan* (23.93% negative vs 50.36% positive responses)
- It can be deduced that issues listed below – which pertain to the *monitoring and evaluation* dimension of management – present as possible challenges when managing SIP implementation:
 - PTSA's review functions
 - the School Boards' review functions
 - assessment by cluster supervisors, and
 - assessment by woreda/ district office officials

5.5.3 Initial overview: Bar graphs per management aspect (*plan, organise, lead, monitor and evaluate*)

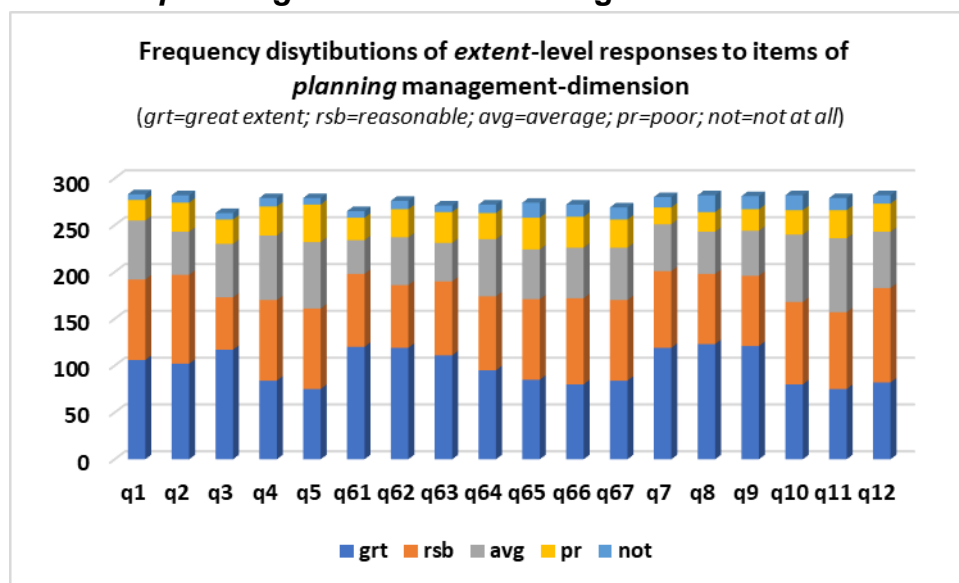
5.5.3.1 Planning dimension

The bar graph below visualises the *extent*-level frequency distribution of each

questionnaire item as a separate bar. For each bar, the proportion of 'positive responses' (*great extent; reasonable extent*) are indicated by the darker blue and brown sections of the bar. For example, the mentioned proportion for q7 and q8 presents as the two bars with the largest blue/brown bar-section - which signifies a high positive frequency (Using the relevant composite frequency table, table 5.2, this positive proportion calculates to 201 of 280 total responses, or 71.79% for q7; and 189 of 282 or 70.22% for q8). This visually verifies the same finding derived in sub-section 5.5.2.1.

Likewise, if considered that the light-blue/yellow section of any bar represents the proportion of negative responses to any question, the bar graph suggests the negative proportion is largest for q5, q10 and q11 – which once again agrees with the findings discussed in section 5.5.2.1.

Figure 5.1: Visual verification of perception trends that describe the *planning* dimension of management



In the same way the bar graphs can be used as a visual tool to identify the most- and least positive response patterns to questionnaire items that describe the other *management* dimensions. (To save space, and for the perusal of the discerning reader, the bar graphs of subsections 5.5.3.2 to 5.5.3.4 for the other management dimensions of *organising, leadership and monitoring and evaluation* of SIP implementation, are presented in Appendix U at the end of the thesis).

To conclude this section on preliminary analysis:

This subsection (and the sub-sections of bar graphs included in Appendix U), along with Tables 5.2 to 5.5 leads to the conclusion that initial analyses indicate towards respondents that perceived the various management-aspects of SIP-implementation positively. Examination of the response patterns of individual questionnaire items – that describe the various management dimensions – identified issues that suggest possible management challenges (Those questionnaire items with a smaller proportion of positive responses and relatively high proportions of negative responses).

Once a general feel for the data had been gleaned, analysis could move on to the question of whether responses to the subsets of questionnaire items - designed to describe dimensions of management (*planning, organising, leadership, monitoring and evaluation*) – jointly contribute towards describing/ evaluating the particular management dimension? As indicated in the analysis strategy discussion of section 5.3, scale reliability tests conducted on the four subsets of responses would be used to verify internal consistency reliability of the said management dimensions. The results of these tests and findings are discussed in the next section, section 5.5.4.

5.5.4 Internal consistency reliability of management-constructs (*plan, organise, lead, monitor and evaluate*) and verification of a 4-construct data structure using preliminary factor analysis

5.5.4.1 Scale reliability tests to confirm internal consistency reliability of the management dimension constructs

Table 5.5.4 below presents the results of four scale reliability tests performed on the four sets of questionnaire responses that measured respondents' perceptions of the four management dimensions applied by school management during SIP-implementation.

Each row of the table reports the results of a scale reliability test. The first column indicates the management dimension investigated for *internal consistency reliability*; the second column of each row lists the questionnaire questions of the responses

analysed and the third column of each row lists questionnaire question response data that a specific scale reliability test indicated (if any) as not contributing towards explaining the management dimension. The last column of each row reports the standardised and raw Cronbach alpha coefficients for each test.

Table 5.6: Results of four scale reliability tests performed on the extent-rating responses of the four subsets of questionnaire items designed to describe each management-dimension (planning, organising, leadership, monitoring & evaluation)			
Raw Cronbach alpha coefficients are reported in brackets in the for the column			
Management dimension	Items included in dimension	Items excluded	Standardised Cronbach alpha
<i>Planning</i>	q1-q5, q61-q67, q7-q12	-	0.96 (0.96)
<i>Organising</i>	q13-q18, q191-q192, q20-q24	-	0.94 (0.94)
<i>*Leadership</i>	q25-q34, q351-q352, q36-q41	-	0.97 (0.97)
<i>Monitor & Evaluate</i>	q42-q52, q531-q532, q541-q542,q55	-	0.96 (0.96)

Deductions derived from Table 5.6:

Since the four Cronbach alpha coefficients (standardised and raw) reported for the management dimensions all exceed 0.70 it can be deduced that *internal consistency reliability* was verified for the response data sets designed to describe and evaluate the four dimensions of management in the SIP-implementation environment.

It can thus be stated that the rating responses of the four sub-sets of questions respectively measure (reliably) how each respondent perceived that school managers performed *planning, organising, leadership and monitoring* management aspects in the SIP environment. It will therefore be possible to derive, for each respondent, for each management dimension, a measure or score (derived as a mean extent-rating from rating responses a respondent awarded each questionnaire question in a group) to indicate how each respondent experienced each management dimension. The means of these scores are reported in section 5.5.5.

In a final pre-cautionary step, prior to calculation and analysis of the above-mentioned management dimension scores, exploratory factor analysis was conducted on the

response data. This was done to verify that the underlying structure of the response data truly supports a multidimensional structure (several management dimensions) rather than a unidimensional structure (only a single, more general concept of management). The summary results are presented in section 5.5.4.2 and in Appendix T attached to the thesis.

5.5.4.2 Preliminary factor analysis results

Exploratory factor analysis (EFA) is a statistical method used to uncover the underlying structure of a relatively large set of variables. The overarching goal of factor analysis is to identify the underlying relationships between measured variables and decide whether a practical explanation or reason can be given for closely related variables to cluster in groups (factors). In other words, can factors be identified (constructs such as the management dimensions of *planning, organising, leadership and monitoring and evaluation*) and be sensibly labelled? (Statistics solutions:2020).

Although exploratory by nature and only indicative of a meaningful underlying structure, a couple of factor analyses (using the maximum likelihood method with varimax rotation) were performed on the response dataset. Varying numbers of factors were included in each model and statistics from the various analyses compared.

A more comprehensive description of these results is included in Appendix T. The results positively suggest that the underlying structure of the response data of the phenomenon of managing SIP implementation is multi-dimensional – which supports the approach of this study to evaluate respondent-perceptions on the management dimensions of *planning, organising, leadership and monitoring and evaluation*.

5.5.5 Calculated perception construct-scores and mean scores for the management dimensions/ constructs of *plan, organise, lead and monitor and evaluate*. Box plots to illustrate differences in perception mean scores

As mentioned in section 5.5.4, the verified *internal consistency reliability* of the management dimensions of *planning, organising, leadership and monitoring and evaluation* enables research to calculate perception measures per respondent for every management dimension. These measures, or scores, indicate how respondents perceived aspects of management. The scores are calculated as the mean *extent* rating each respondent awarded the set of questionnaire questions that describe a management construct/dimension. Sets of perception scores per management dimension were therefore calculated. The mean of these sets of scores are presented below in table 5.8.

5.5.5.1 Management dimension mean scores for the sample as a whole (*plan, organise, lead, monitor and evaluate*) and box-plot graphical display

Table 5.8 reports per management dimension (row) the mean of a particular management dimension for the entire sample (column 2). Column 3 reports the standard deviation, column 4 the number of observations, columns 5 and 6 the measure of skewness and kurtosis of the respective set of scores. Columns 7 and 8 present the maximum and minimum scores values. (The box plot graph in figure 5.5 in Appendix W, visualises the distributions of these scores).

Table 5.8: Mean management-dimension scores (plan, organise, lead, monitor & evaluate)							
Variable	Mean	Std Dev	N	Skewness	Kurtosis	Max	Min
planning	2.17	0.85	283	0.74	-0.07	4.89	1.00
organising	2.48	0.88	283	0.47	-0.50	4.85	1.00
leadership	2.42	0.93	283	0.52	-0.57	4.78	1.00
Monitor_ & Eval	2.50	0.89	283	0.43	-0.49	5.00	1.00

The value of the mean management dimension scores are interpreted on the *extent*-rating scale used in the questionnaire. Therefore, a mean score that rounds to '1' will signify *to a great extent*; '2' to a *reasonable extent*; '3' an *average extent*, '4' a *poor extent*, '5' to *no extent*.

Deductions derived from Table 5.8

The *planning* and *leadership* management dimensions mean scores round to '2' (2.17 and 2.42 respectively) which signifies positive perceptions (*reasonable extent*) This agrees with the initial overview of perceptions derived from the respective composite frequency tables of section 5.5.2. Likewise, the mean management dimension scores for the *organising* and *monitoring and evaluation* dimensions are respectively 2.48 and 2.5 (which round to '3', an *average extent rating*). The score of '3' indicates that perceptions still tend to the positive side but to a lesser extent than that of the *planning* and *leadership* dimensions of management. The extent-distributions in the relevant composite one-way tables of section 5.5.2 correspond with this finding.

5.5.5.2 Management dimension mean scores (plan, organise, lead, monitor and evaluate) calculated per category-levels of the age, position, experience and Wolaita divisions biographical attributes

An initial overview of the possible effect of biographical attributes on respondents' perceptions of management of SIP-implementation can be gleaned from the mean management dimension scores (of a particular dimension) – calculated per category of a biographical attribute: if mean perception scores for all categories of an attribute seems to be more or less equal for the management dimension, it suggests that the particular attribute does not affect perceptions. If however, mean perception scores (of a particular management dimension) per biographical category seem to vary, the variation suggests that the particular biographical attribute may impact perceptions of the particular management dimension. (This has to be confirmed with more advanced analyses as described in section 5.5.6, which follows.)

Tables 5.9 to 5.12 below present the biographical-category mean dimension scores (*planning, organisation, leadership and monitoring and evaluation*) for the categories of age, experience, position and zone division. For example, table 5.11 indicates that the *planning* mean score for the *teachers'* group is 1.79 (rounds to '2') as opposed to the *planning* mean score for the *school management* group of 2.56 (rounds to '3'). Thus, a more positive perception of planning seems to be expressed by the *teachers* than by the *school management* group. This suggests a possible effect of *position* on

planning perceptions. The respective mean scores in tables 5.9 to 5.12 provide an initial indication of the possible influential effect of *age, work experience, position and Wolaita zone* division on perceptions of aspects of management. The tables do not prove that certain biographical factors statistically significantly affect perceptions. This is verified with parametric and non-parametric analysis of variance discussed in the next section, section 5.5.6.

5.5.5.2.1 Initial impression of the possible effect of age on perceptions regarding managing SIP implementation

Table 5.9 indicates that the mean perception scores per management dimension over **age** categories for the various dimensions appear to be approximately equal. For example, the mean organising management category scores (<31 years; 31-40; 41-50; and 50+ years) are listed as 2.50; 2.48; 2.40 and 2.47 respectively – which fall within a very small value range. The statistical significance of age mean-categories being equal for the different management dimensions nevertheless was formally investigated in parametric- and nonparametric analyses of variance tests (see section 5.5.6).

Table 5.9: Means sores of the plan-, organise, lead-, monitor & evaluate-dimensions calculated according to age-categories									
Age	N	Variable	Mean	Std Dev	N	Skew-ness	Kurtosis	Max	Min
<31	101	planning	2.16	0.83	101	0.70	-0.18	4.50	1.00
		organisation	2.50	0.87	101	0.49	-0.77	4.69	1.15
		leadership	2.45	0.97	101	0.46	-0.97	4.56	1.00
		Monitor_Eval	2.54	0.91	101	0.39	-0.86	4.56	1.00
31-40	120	planning	2.14	0.84	120	0.89	0.56	4.89	1.00
		organisation	2.48	0.91	120	0.42	-0.37	4.85	1.00
		leadership	2.41	0.92	120	0.69	-0.10	4.78	1.00
		Monitor_Eval	2.49	0.88	120	0.56	-0.17	4.88	1.00
41-50	41	planning	2.31	0.93	41	0.53	-0.73	4.61	1.11
		organisation	2.40	0.83	41	0.57	0.14	4.77	1.08
		leadership	2.48	0.87	41	0.25	-0.50	4.56	1.00
		Monitor_Eval	2.53	0.85	41	0.28	0.30	5.00	1.00
>50	21	planning	2.07	0.87	21	0.58	-0.87	3.72	1.00
		organisation	2.47	0.91	21	0.59	-0.79	4.31	1.08
		leadership	2.23	0.88	21	0.38	-0.95	3.72	1.00
		Monitor_Eval	2.33	0.95	21	0.42	-1.06	3.88	1.00

The values of the mean management dimension scores are interpreted on the *extent*-rating scale used in the questionnaire. Therefore, a mean score that rounds to '1' will signify *to a great extent*; '2' to a *reasonable extent*; '3' *an average extent*, '4' a *poor extent*, '5' to *no extent*.

Likewise, in the next three subsections, sections 5.5.5.2.2 to 5.5.5.2.4, deductions

derived in similar fashion as those discussed above, are summarised. The associated means-tables are provided in Appendix V along with additional discussions on how findings mentioned in these sub-sections were arrived at.

5.5.5.2.2 Initial impression of the possible effect of experience on perceptions regarding the four aspects of managing SIP implementation

Comparison of mean perceptions scores – classified according to **experience** categories - for the various management dimensions (a table 5.10 is included in Appendix V), suggests that experience-perception means, for the different management-dimensions, are more or less the same. In other words, work **experience** does not seem to affect the perceptions of the various dimensions of management (this was again verified by means of parametric and nonparametric analyses of variance, discussed in section 5.5.6 that follows).

5.5.5.2.3 Initial impression of possible effect of position on perceptions regarding the four aspects of managing SIP-implementation

Comparison of the perceptions means of the *managers' and teachers' position-*categories per management dimension (the means table, table 5.11 is supplied in Appendix V), strongly suggest that **position-category** mean scores for particular/ some management dimensions are not equal. (This is verified in section 5.5.6. which follows).

5.5.5.2.4 Initial impression of possible effect of Wolaita zone divisions on perceptions regarding the four aspects of managing SIP-implementation

Comparison of **zone-division** category mean scores, for the different management-dimensions, (a relevant table of mean scores, Table 5.11, is attached in Appendix V) strongly suggests that **zone division** possibly affects respondents' perceptions of some of the management dimensions. (This suggestion of an influential *zone division* effect will be verified/refuted in the next section.).

In conclusion, comparison of category mean-scores for *age, experience, position and zone*, for the different management-dimensions, strongly suggests that *position* and *division* may be influential factors that impact perceptions regarding the management of SIP implementation. These suggestions are verified/ refuted in the next analysis results section, section 5.5.6.

5.5.6 Identification of influential biographical properties on perception: parametric analysis of variance tables, Bonferroni multiple comparisons of means tests and ANOVA-assumption tests

The suggestion of biographical properties that might possibly affect respondents' perceptions of management dimensions is further examined in this section. The analysis strategy section, section 5.3.2 explains how the analysis of variance (GLM approach) technique can be used to determine whether biographical attributes statistically significantly impact perceptions of management dimensions in the SIP-implementation environment. It was also mentioned that assumptions of normally distributed score-observations (and residuals), as well as homogeneous score-variances over biographical categories of a particular management dimension need to be satisfied for ANOVA results to be reliable.

Several preliminary 4-factor analyses of variance were conducted – separately – on the four sets of management dimension scores (each set entered as dependent variable in an ANOVA model), with the four biographical attributes of *age, experience, position and zone division* entered as the independent variables in the models. Preliminary analyses indicated that only *position* and *zone division* proved to be statistically significant effects on the perceptions of some of the management dimensions.

Table 5.13a below presents the summary results of four ANOVAs performed – separately – on the four sets of management dimension scores with the significant effects of zone division, position, and, the interaction between zone division and position included in the various ANOVA models. Table 5.8 displays the results of similar ANOVAs but with the interaction term (which proved to be non-significant as indicated in table 5.13a) added to the error term of the respective analyses. The

ANOVA models of table 5.13b present the models of best fit and guide the analyses that follow.

Table 5.14 reports the results of normality and homogeneity tests conducted on the four sets of management dimension scores to verify/ refute previously mentioned ANOVA assumptions. (If ANOVA assumptions are suspicious, nonparametric tests have to be conducted to establish statistical significance of biographical effects and thus verify or refute the findings of the parametric tests).

The last table in this section, table 5.16, presents the results of Bonferroni multiple comparisons of means tests to show how *position and zone division* (which were identified as statistically significant effects on management dimension scores) affect perceptions of *planning, organising, leadership, and evaluation and monitoring*.

5.5.6.1 Four factor analysis of variance results

Tables 5.13a and 5.13b refer:

The four sub-tables in these two tables report the results of separate ANOVAs that were conducted on particular sets of management dimension scores (*planning, organising, leadership and monitoring and evaluation*) – the respective dependant variables. The effects of *position and zone division* are entered as independent variables. Table 5.13a includes an interaction effect in the model as well. Columns 2 to 6 of each sub-table reports the degrees of freedom (d.f.), the sum of squares, mean squares, F statistic and F-probability associated with the F-statistic. Interpretation of the probability is explained in the analysis strategy section. Deductions that can be derived from these ANOVA results are discussed below table 5.13b – the table of best fit.

Table 5.13a					
Analysis of variance (GLM approach) to determine the statistical significance of zone and division main- and interaction-effects on perceptions regarding each of the 4 management-dimensions (plan, organize, lead, monitor & evaluate)					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Planning					
Model	9	56.8025701	6.3113967	11.82	<.0001***
zone	4	11.21763164	2.80440791	5.25	0.0004***
Position	1	40.37542901	40.37542901	75.64	<.0001***
zone*Position	4	5.20950941	1.30237735	2.44	0.0472*
Error	273	145.7154370	0.5337562		
Corrected Total	282	202.5180070			
Adjusted R-sq=0.28					
Organising					
Model	9	39.3746934	4.3749659	6.73	<.0001***
zone	4	8.72222839	2.18055710	3.36	0.0106**
position	1	23.07133634	23.07133634	35.51	<.0001***
zone*position	4	7.58112864	1.89528216	2.92	0.0218*
Error	273	177.3780354	0.6497364		
Corrected Total	282	216.7527287			
Adjusted R-sq=0.18					
Leadership					
Model	9	51.4614599	5.7179400	8.22	<.0001***
zone	4	19.41243698	4.85310924	6.97	<.0001***
position	1	25.73978996	25.73978996	36.98	<.0001***
zone*position	4	6.30923296	1.57730824	2.27	0.0624
Error	273	190.0141763	0.6960226		
Corrected Total	282	241.4756362			
Adjusted R-sq=0.21					
Monitoring & evaluation					
Model	9	29.3038532	3.2559837	4.60	<.0001***
zone	4	9.58875270	2.39718817	3.39	0.0100**
position	1	15.04156642	15.04156642	21.25	<.0001**
zone*position	4	4.67353408	1.16838352	1.65	0.1619
Error	273	193.2641621	0.7079273		
Corrected Total	282	222.5680152			
Adjusted R-sq=0.13					
Significance legend:					
***: statistical significance on the 0.1% level indicated					
** : statistical significance on the 1% level indicated					
* : statistical significance on the 5% level indicated					

Table 5.13b below reports on the four analyses of variance with statistically insignificant interaction effect added to the error term.

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Table 5.13b					
Analysis of variance (GLM approach) to determine the statistical significance of zone and division main-effects on perceptions regarding each of the 4 management-dimensions (plan, organize, lead, monitor & evaluate), with negligible interaction-effects added to error term					
Planning					
Model	5	51.5930606	10.3186121	18.94	<.0001***
Position	1	42.02341728	42.02341728	77.13	<.0001***
zone	4	9.56964337	2.39241084	4.39	0.0019**
Error	277	150.9249464	0.5448554		
Corrected Total	282	202.5180070			
Adjusted R-sq=0.25					
Organising					
Model	5	31.7935647	6.3587129	9.52	<.0001***
Position	1	23.75856403	23.75856403	35.58	<.0001***
zone	4	8.03500070	2.00875018	3.01	0.0187**
Error	277	184.9591640	0.6677226		
Corrected Total	282	216.7527287			
Adjusted R-sq=0.15					
Leadership					
Model	5	45.1522269	9.0304454	12.74	<.0001***
Position	1	27.54546491	27.54546491	38.86	<.0001***
zone	4	17.60676202	4.40169051	6.21	<.0001***
Error	277	196.3234092	0.7087488		
Corrected Total	282	241.4756362			
Adjusted R-sq=0.18					
Monitor & evaluation					
Model	5	24.6303191	4.9260638	6.89	<.0001***
Position	1	15.94973542	15.94973542	22.32	<.0001***
zone	4	8.68058370	2.17014593	3.04	0.0179*
Error	277	197.9376961	0.7145765		
Corrected Total	282	222.5680152			
Adjusted R-sq=0.25					
Significance legend:					
***: statistical significance on the 0.1% level indicated					
** : statistical significance on the 1% level indicated					
* : statistical significance on the 5% level indicated					

Deductions derived from Table 5.13b:

Since the F statistics for the **position and zone-division** biographical affects for the four sets of management dimension scores are all statistically significant on either the 0.1%, or 1% or 5% level of significance, it can be derived that these biographical effects statistically significantly impact how respondents perceive the *planning, organising, leadership and monitoring & evaluation* aspects of managing SIP-implementation. How these biographical attributes impact perceptions are indicated in Table 5.15.

To ensure that the findings of the parametric analyses are reliable, ANOVA assumptions of normality and variance-homogeneity of data is discussed in section 5.5.6.2 below.

5.5.6.2 Analysis of variance assumptions: Levene's test for homogeneity of variances and Shapiro-Wilks and Kolmogorov-Smirnov tests to verify normally distributed data

Although analysis of variance is robust to deviation from normality (Khan and Rayner 2003), the ANOVA assumptions were investigated using Levene's test for homogeneity of group variances (biographical-categories) for the management dimension scores, as well as Shapiro-Wilks and Kolmogorov-Smirnov tests to verify/refute normal distributions of these scores. McGuinness (2002:687) in this regard states, "All that is required for an analysis of variance to be reliable is approximate normality of observations and equality of variances. Only when there is single, large variances, or marked non-normality, are there likely to be substantial problems".

Table 5.14 presents the results of these tests. Each row of a table reports tests run on the score of a specific management dimension. Columns 2 to 5 report Levene's test results for homogeneous variances for *position, age, work experience and zone division* biographical categories. Columns 6 and 7 of each row report Shapiro-Wilks and Kolmogorov-Smirnov results for normally distributed observations.

Table 5.14: Test results regarding ANOVA-assumptions of (i) normally distributed data (*plan, organise, lead, monitor & evaluate*) and (ii) homogeneous group-variances (*age, position, experience, zone division*)

	Levene's test, homogenous group variances. F-statistic, (probability)				Tests for ANOVA-normality assumption test statistic and associated probability	
	Position	Age	Exp	Division		
Plan	11.70 0.001***	0.46 0.63	0.81 0.52	0.84 0.50	SW# KS	W = 0.94 (<0.0001***) D= 0.10 (0.01**)
Org	7.12 0.01**	0.30 0.74	0.89 0.47	3.49 0.01**	SW#	W = 0.97 (<0.0001***) D = 0.10 (0.01**)
Lead	3.36 0.07	0.60 0.55	0.32 0.86	4.32 0.002**	SW#	W = 0.96 (<0.0001***) D = 0.09 (0.01**)
Monitor	2.17 0.14	0.12 0.89	0.52 0.72	2.62 0.04*	SW#	W = 0.97 (<0.0001***) D = 0.07 (0.01**)

#SW: Shapiro-Wilks; KS: Kolmogorov-Smirnov
(i) **normality tests:** If associated probability is significant, the null-hypothesis of normally distributed variables cannot be rejected: in other words, indications of non-normality (McGuinness (2002:687);
(ii) If probability associated **with Levene's F** test is statistically significant, then the null hypothesis of equal group (biographical category) variances cannot be verified – thus an indication of heterogeneous group variances.

Significance legend: ***: statistical significance on the 0.1% level indicated; ** : statistical significance on the 1% level indicated; * : statistical significance on the 5% level indicated

Deductions Table 5.14:

Since statistical significance is indicated for both the Shapiro-Wilks and Kolmogorov-Smirnov tests, normally distributed management dimension scores can be assumed. However, statistical significance of Levene's test on the other hand, indicates heterogenous group (or biographical-category) variances for some of the sets of management dimension scores for the categories of *position and zone division*.

(It is argued, in the paragraph that follows, that the suggestion of non-compliance to homogeneity of variances has to be taken into consideration in the interpretation of analysis results for the **position** and **zone division** effects, since both parametric and nonparametric analyses indicated these two effects as statistically significant effects on perceptions of management-dimensions. An approach needs to be followed that ensure reliable deductions with regard to these two effects).

In the light of the findings of the ANOVA assumption tests, research decided to carry on with the parametric ANOVA findings, conduct Bonferroni multiple comparisons of means tests on the four sets of management dimension scores - to determine how *position* and *zone division* impact management perceptions - but, concurrently also

run nonparametric analysis of variance tests to verify the parametric results (since parametric ANOVA assumptions were somewhat suspicious). The nonparametric results are discussed in section 5.5.7

5.5.6.3 Bonferroni multiple comparisons of means tests to determine how the effects of position and zone division impact on the perceptions of dimensions of management

Table 5.15 below presents mean dimension scores (*planning, organising, leadership and monitoring and evaluation*) for the categories of *position* and *zone division* (columns 4 and 8). Columns 3 and 7 report the number of score-observations per biographical-category. The test results of the Bonferroni test – run separately on each management dimension set of scores for each biographical attribute (*position* or *zone division*) are reported in columns 2 and 5; and 6 and 9. The results of the Bonferroni test are indicated as an *lsd*-value (least significant difference value) and a set of small letters in the column next to the category mean scores to indicate how category mean scores of a biographical factor differ: if different small letters are indicated for categories, the mean scores differ statistically significantly.

For example, the effect of *division* on *planning* perceptions (the highlighted area) is illustrated in the fact that the mean *planning* scores of the *eastern division* differ statistically significantly from those in the *northern* division, but not from the *western and southern* divisions or from one another. The somewhat more 'positive' perception (mean score of 1.86 – which rounds to '2') of the *northern* division is statistically significantly higher than that of the *eastern* division (mean score of 2.45 – which rounds to '3' and is therefore slightly less positive on the *extent* rating scale). The other tests can be interpreted in a likewise fashion to describe the effect of *position and zone division* on perceptions of the dimensions of management.

Table 5.15: Bonferroni multiple comparisons of means test-results for the statistically significant joint effect of *position* and *division* for the 4 *management-dimensions planning, organising, leadership; monitoring & evaluating*

Manage-dimension	<i>Position.</i> <i>m: management, t: teacher</i>				<i>Wolaita division</i> <i>1: middle/central; 2: northern; 3: western;</i> <i>4: southern; 5: eastern part</i>			
	lsd ^{&}	n _i	means	Bonferroni [#]	lsd ^{&}	n _i	Means	Bonferroni [#]
Plan	0.17	139 144	t:2.56 m:1.79	a b	0.48	30	5: 2.45(3)	a
						98	1: 2.31	ab
						37	4: 2.23	ab
						48	3: 2.12	ab
						70	2: 1.86(2)	b
Org	0.19	139 144	t:2.77 m:2.19	a b	0.50	30	5: 2.70(3)	a
						48	3: 2.58	ab
						98	1: 2.57	ab
						37	4: 2.34	ab
						70	2: 2.23(2)	b
Lead	0.20	139 144	t:2.74 m:2.12	a b	0.52	30	5: 2.87(3)	a
						98	1: 2.55	ab
						48	3: 2.55	ab
						37	4: 2.29	bc
						70	2: 2.04(2)	c
Monitor	0.20	139 144	t:2.75 m:2.27	a b	0.20	30	5: 2.80(3)	a
						48	3: 2.62	ab
						98	1: 2.60	ab
						37	4: 2.37	ab
						70	2: 2.24(2)	b

[#]: Bonferroni multiple comparisons of means test: for each combination of management-dimension and biographical effect, category score means with different small letters differ statistically significantly

[&]: lsd: Bonferroni least significant difference

The values of the mean management dimension scores are interpreted on the *extent*-rating scale used in the questionnaire. Therefore, a mean score that rounds to '1' will signify *to a great extent*; '2' to a *reasonable extent*; '3' *an average extent*, '4' a *poor extent*, '5' to *no extent*.

Deduction derived from Table 5.15

The effect of *position* on perceptions of the management dimensions indicated that teachers' perceptions were slightly, but significantly less positive than their school management teams' views.

With respect to the effect of *zone division* on perceptions, it was indicated that for all management dimensions (albeit other significant differences) the perceptions of the *northern* division were always slightly, but statistically significantly more positive than that of the *eastern* division (for example the *planning, north* and *east* mean scores of 1.86 and 2.45 are indicated as statistically significantly different with small letters 'a' and 'b' attached)

As already mentioned, because of the fact that the ANOVA assumption of normality was somewhat suspicious in some instances, nonparametric tests were run to verify

the reliability of the parametric results of this section, section 5.5.6. These nonparametric results are also presented below.

5.5.7 Identification of influential biographical properties on perceptions: non-parametric analysis of variance results.

In table 5.16 below each row of the table presents the analysis results of either a Wilcoxon rank sum test (more than two samples /or biographical categories) or a Kruskal-Wallis test (two-sample test or two biographical categories).

Furthermore, table 5.16 reports the results of Wilcoxon rank sum tests that were performed – in separate runs - on the ranks of the four sets of management dimension scores to determine whether ***position*** (with two categories) statistically significantly affect perceptions regarding the four dimensions (/ aspects) of managing SIP implementation. If significance is established it would verify the results of the parametric analysis of variance tests for the factor of *position*. Column 2 and 4 of table 5.16 report on the Wilcoxon Z statistic and associated probability.

Likewise, the 6th and 7th columns of table 5.16 present the results of Kruskal-Wallis tests that were performed – in separate runs - on the ranks of the four sets of management dimension scores to consecutively determine the statistical significance of the effect of ***zone divisions, age and work experience*** on these management perceptions. (Kruskal-Wallis tests were conducted since *age, experience and zone divisions* all have more than two categories). Columns 6 and 7 report the chi-square statistic and associated probability of the test. If it is established that the effect of *zone division* on all/or some dimensions of management is statistically significant, such a finding will verify the results and findings of the parametric analyses with respect to *zone division*.

Table 5.16 Nonparametric analysis results: Wilcoxon rank sum (two-sample) test, or, Kruskal-Wallis test (> 2 samples) to identify biographical attributes (*age, position, experience, zone division*) that statistically significantly impact perceptions of dimensions of management (*plan, organise, lead, monitor & evaluate*) in the SIP-implementation environment

Management-dimension	Biographical attribute	Wilcoxon rank sum	Prob for Z-statistic	df.	Kruskal-Wallis test	Prob for Chi-sq (χ^2)	df.
Planning	<i>Position</i>	Z=7.73	<0.0001***	1			
	<i>Age</i>				$\chi^2 = 0.22$	0.89	3
	<i>Experience</i>				$\chi^2 = 2.61$	0.62	4
	<i>Division</i>				$\chi^2 = 18.27$	0.001***	4
Organising	<i>Position</i>	Z = 5.37	<0.0001**	1			
	<i>Age</i>				$\chi^2 = 0.32$	0.85	3
	<i>Experience</i>				$\chi^2 = 2.84$	0.58	4
	<i>Division</i>				$\chi^2 = 11.40$	0.02*	4
Leading	<i>Position</i>	Z = 5.37	<0.0001***	1			
	<i>Age</i>				$\chi^2 = 0.06$	0.97	3
	<i>Experience</i>				$\chi^2 = 0.90$	0.92	4
	<i>Division</i>				$\chi^2 = 22.86$	<0.0001***	4
Monitor&Eval	<i>Position</i>	Z = 4.52	<0.0001***	1			
	<i>Age</i>				$\chi^2 = 0.21$	0.90	3
	<i>Experience</i>				$\chi^2 = 1.39$	0.85	4
	<i>Division</i>				$\chi^2 = 10.62$	0.03*	4

Significance legend:
 ***: statistical significance on the 0.1% level indicated
 ** : statistical significance on the 1% level indicated
 * : statistical significance on the 5% level indicated

Deductions:

Table 5.16 verifies that the biographical effects of *position*- and *zone division* statistically significantly affects **the planning** (respectively on the 0.1% and 0.1% levels);

organising (respectively on the 0.1% and 5% levels of significance);

leadership (respectively on the 0.1% level of significance), and

monitoring & evaluation SIP management-dimensions (respectively on the 0.1% and 5% level of significance)

This validates the parametric analyses discussed in the previous section.

Therefore, the analyses and deductions derived in the parametric section can be assumed to be valid.

5.6 SUMMARY OF QUANTITATIVE ANALYSIS RESULTS

In this section a summary of the findings of the quantitative analyses is presented against the backdrop of the research sub-questions of the study that the quantitative

analyses have to answer. As indicated in the introduction to this chapter, these questions, research sub-questions 3 to 5 ask:

q3: How well do school leaders in the secondary schools of Wolaita zone manage the school improvement programme?

q4: What are the major management challenges experienced in managing the implementation of the school improvement programme?

q5: How can the challenges experienced in managing the school improvement programme be addressed?

To this effect, several quantitative analyses on the perception ratings of groups of questionnaire questions (that were designed to describe dimensions of the management of SIP-implementation) were conducted to firstly answer to sub-question 3. Poorly rated individual items in the initial phase of these analyses identified potential problem areas related to aspects of managing SIP-implementation – challenges – which were used to answer to research sub-question 4 on identified challenges. Suggested actions on how these identified challenges could be addressed then answered to research sub-question 5, namely recommendations.

5.6.1 Summary of exploratory and advanced findings

5.6.1.1 Overview of exploratory findings reflected in composite one-way frequency tables: positive to slightly less positive perceptions.

Planning

With respect to perceptions of planning activities of the management of SIP-implementation, an initial overview of perceptions (table 5.2) indicated that a general positive perception (*great extent; reasonable extent*) of the *planning* dimension of SIP-implementation management was reported (65.52% of the total responses over all items – and substantiated with a mean perception score of 2.17 in section 5.5.5.1), and that statistically significant differences between response patterns of individual questions were indicated. Perceptions of some issues (questions) were perceived significantly more positively. These include:

- 6.1, *at respondents' schools the strategic plan includes a vision statement*

(74.71% positive responses (*great extent; to reasonable extent*) were reported)

- q7, *the annual school improvement plan identifies improvement issues for the year* (71.79% positive responses recorded)
- q8, *each department prepares its own improvement plan* (70.22% positive responses).

Other significantly less positive perceptions were reported (though still a majority positive frequency count), e.g.:

- q5, *key problem areas are identified to incorporate in the SIP* (16.85% negative responses – *rarely/ poor extent; not at all* - compared to 57.70% positive responses)
- q10, *school leadership communicates the strategic plan to stakeholders* (14.89% negative responses compared to 59.58% positive responses)
- q11, *the SIC revises the strategic plan during the implementation phase.* (15.41% negative responses compared to 56.27% positive responses)

A list of such challenges that answers to research sub-question 4 is presented in section 5.6.2.

Organising

With respect to perceptions of organising activities of the management of SIP-implementation, an initial overview of perceptions (table 5.3) indicated that a general positive perception (*great extent; reasonable extent*) re the *organising* dimension of SIP-implementation management was reported (54.80% *great extent, reasonable extent* responses). This was substantiated as a somewhat less positive perception than that of the planning dimension in table 5.8 with a mean perception score of 2.48, (which rounds to '3'). Furthermore, statistically significant differences between questionnaire item response patterns were indicated. Some items were perceived more positively, namely:

- q13, *The school has SIC that supports SIP activities* (71% positive

responses), while others were perceived less positively:

- q23, *Woreda/district Office, support staff, SIP training* (35.11% negative responses; and 41.49% positive responses)
- q17, *Resources allocated, Dept./SI-plan* (28.37% negative responses and 45.74% positive responses)
- q22, *Woreda/district-educ. ensures, principals, qualified* (25.62% negative responses).

Leadership

With respect to perceptions of *leadership* management activities of SIP-implementation, an initial overview of perceptions (table 5.4) indicated that a general positive perception of the *leadership* dimension of SIP-implementation management was reported (57.07% *great extent*; *reasonable extent* – and substantiated with a mean perception score of 2.42 (which rounds to '2') in section 5.5.5.1) and that statistically significant differences between questionnaire item response patterns were indicated with some items identified as significantly more **positively** perceived, namely:

- q25, *leadership support for the vision, mission and values of the SIP*, (66.43% positive responses);
- q26, *leadership promotion of SIP activities* (63.67% positive responses),
- q40, and *sound leadership-teacher-student relations* (63.34% positive responses), while others, (although still a majority proportion of positive responses) were less positively perceived:
- q31 *regular meetings are held re SI matters* (24.65% negative responses vs 51.78% positive responses)
- q32, *that the goals of SIP are communicated to the school community* (22.50% negative responses compared to 51.43% positive responses)
- q36, *leadership facilitates effective communication with SIP stakeholders* (22.34% negative responses compared to 56.03% positive responses)
- q29, *other parties that partake in decision making related to SIP matters* (22.00% negative responses compared to 53.91% positive responses)

Monitoring and evaluation

With respect to perceptions of *monitoring and evaluation* activities of managing SIP-implementation, an initial overview of perceptions (table 5.5) indicated a general positive perception (*great extent; reasonable extent*) of the *monitoring and evaluation* dimension (53.30% of responses). This was substantiated as a somewhat less positive perception (with a mean perception score of 2.48, which rounds to '3') than that of the planning dimension in table 5.8. Furthermore, statistically significant differences between individual questionnaire item response patterns were indicated with some items perceived as significantly more positive:

- q42 principals' *supervision of the SIP activities of HODs,*
- *q43 and that of teachers,*
- *q45 as well as the annual evaluation of SI objectives to assess effectiveness of planned strategies.* (The proportion positive responses to each of these questions are respectively, 61.84%; 62.76% and 60.85%)

Others with a less positive perception:

- q54.2, *as part of SIP policy the PTSA reviews safety precautions* (27.28% negative vs 44.37% positive responses)
- q54.1, *as part of SIP policy the PTSA reviews health procedures* (27.54% negative responses vs 47.82% positive responses)
- q53.2, *as part of SIP policy the school board reviews safety precautions* (23.76% negative vs 48.94% positive responses)
- q53.1, *as part of SIP policy the school board reviews health practices* (22.84% negative vs 47.94% positive responses)
- q50, *cluster supervisors assess implementation of schools' annual action plan* (23.49% negative vs 50.54% positive responses)
- q51 *Woreda/district officials assess implementation of annual action plan* (23.93% negative vs 50.36% positive responses)

5.6.1.2 Advanced analyses that inform research sub-question 3: Internal consistency reliability, quantifying SIP management dimension perceptions and ANOVA results

(i) Internal consistency reliability, perception scores and mean scores:

Internal consistency reliability was verified for the response datasets of the groups of questionnaire questions designed to describe the four dimensions of management in the SIP-implementation environment. Reliable perception scores for each management dimension could be calculated per respondent. It was calculated as a mean rating of rating responses a respondent awarded each questionnaire question of a management dimension.

The means of the four sets of management dimension scores quantified and verified the initial findings of the composite one-way frequency-tables that perceptions regarding the four dimensions of management were relatively positive: the *planning*- and *leadership-management* dimensions mean scores (2.17 and 2.42 respectively) signified positive perceptions (reasonable extent) and the *organising* and *monitoring and evaluation* dimensions with mean scores of respectively 2.48 and 2.5 signified to an *average extent* - still somewhat positive, but to a lesser extent than the planning and leadership-management dimensions.

Furthermore, mean management dimension scores arranged according to the categories of the biographical factors of position and zone division, suggested that these two biographical properties affect perceptions regarding the dimensions of management.

(ii) Advanced analyses verified that the factors of position and zone division statistically significantly affect perceptions of the management dimensions of SIP-implementation:

Parametric and nonparametric analyses of variance, conducted on the four sets of management dimension scores, that considered the statistical significance of biographical effects (position, zone division) on perception scores, indicated that

position and zone division statistically significantly affect how respondents perceive the *planning, organising, leadership and monitoring and evaluation* dimensions of management in an SIP-implementation environment.

(iii) Answering to research sub-question 3:

By comparing mean dimension scores arranged either over *position or zone division* categories, analyses were able to describe the nature of the impact these two biographical factors had on perceptions: With respect to the effect of *position* on perceptions of management dimensions, for all management dimensions, it was indicated that teachers' perceptions were slightly, but statistically significantly less positive than their school management teams' views.

With respect to the effect of *zone division* on perceptions, it was indicated that for all management dimensions (albeit other significant differences) perceptions of the *northern* division were always slightly, but statistically significantly more *positive* than their *eastern* counterparts.

The initial and advanced analyses thus answered to research sub-question 3 as to how effectively respondents perceived school managers to manage SIP implementation at their schools.

5.6.1.3 How analyses answer to research sub-question 4

Research sub-question 4 asks:

“What are the major management challenges experienced in managing the implementation of the school improvement programme?”

The following issues are listed as possible challenges - not because all respondents rated these issues very poorly - but because a substantial proportion of responses to these issues tended towards the rating level of *'to an average extent'* as opposed to ratings of *'to a great extent'* or to *'reasonable extent'* that the majority of respondents selected for the other elements of the four management dimensions:

Challenges could thus be listed as follows (answering to sub-question 4):

Planning

Quantitative findings indicated the major challenges of managing SIP planning were:

- key problem areas not fully/ sufficiently identified/ incorporated into the SIP;
- school leadership does not communicate the strategic plan to stakeholders strongly enough, and
- The SIC do not revise the strategic plan during the implementation.

Organising

The main challenges which affect the organising of SIP management were:

- Woreda/district Education Office does not support staff with sufficient SIP training;
- Resources allocated to each department, school improvement plan were insufficient;
- Woreda/district Education Office does not sufficiently secure that principals are qualified.

Leadership

Identified challenges that affect SIP leadership were:

- meetings regarding SIP matters that are not regularly held with SIP stakeholders;
- SIP goals that are not effectively/adequately communicated to stakeholders;
- ineffective communication with SIP stakeholders, and
- parties that should be involved in SIP decision making that are not actively included in the process of SIP.

Monitoring and evaluation

Identified challenges that might affect the monitoring and evaluation of SIP management include:

- school boards and PTSAs do not regularly review safety precautions and health procedures;
- Woreda/district officials and cluster supervisors do not assess the implementation of the schools' annual action plan.

5.6.2 Addressing research sub-question 5

Research sub-question 5 asks:

“How can the challenges experienced in managing the school improvement programme be addressed?”

Research argued that specific action plans would have to be developed to address the various identified challenges (section 5.6.1.3) – in other words, improvement strategies should be developed. Challenges were identified as issues that respondents perceived **less positively**: research argued that these less positively rated issues (though still positive to some extent) hinted at some extent of dissatisfaction or inefficiency or infrequency or unavailability of the specific resource, service or action). In this section, section 5.6.2, research now argues that by examining the listed challenges of section 5.6.1.3 per management dimension (row 1, table 5.17); and noting the party included/ linked to the 'challenge' (row 2, table 5.17); as well as the activity (row 3, table 5.17) linked to a specific challenge, research can formulate, for every management dimension, the overarching bigger issue or challenge and action to rectify such a challenge – the recommended action strategy/ recommendation (row 4, table 5.17). These recommendations inform research question 5.

Table5.17: Issues identified as possibly problematic in quantitative analysis.

For these issues the parties involved and activities of concern are identified in rows 2 and 3 of the table. Row 4 offers the overarching challenge per management dimension as well as the remedial action/ suggestion of improvement offered

	Planning	Organise	Lead	Monitor & evaluation
Challenges	<ul style="list-style-type: none"> •Key problem areas for SIP not identified •School leadership ineffectively communicates strategic plan •SIC does not revise strategic plan (SP) 	<ul style="list-style-type: none"> •Staff support/ training from Woreda/district Office inadequate •The Woreda/ district Office does not ensure adequately SIP-trained principals •SIP allocated resources are inadequate 	<ul style="list-style-type: none"> •Meeting re SIP matters held irregularly •SIP goals ineffectively communicated to school community •Leadership's communication SIP stakeholders are ineffective •exclusion of SIP decision making parties 	<ul style="list-style-type: none"> •PTSA does not review safety precautions effectively •PTSA does not review health procedure effectively •School Boards do not review safety precautions effectively •School Boards do not review health procedure effectively • Cluster supervisors' assessment Annual Action Plan ineffective •Woreda district officials/ Assessment Annual Plan ineffective.
parties	<ul style="list-style-type: none"> •school leadership • SIC 	<ul style="list-style-type: none"> •Woreda district Office (WDO) 	<ul style="list-style-type: none"> •School leadership 	<ul style="list-style-type: none"> •PTSA •SB •Cluster supervisors •District officials
issues	<ul style="list-style-type: none"> •key problems •communication •revision (SP) 	<ul style="list-style-type: none"> •training •resources •qualified principals 	<ul style="list-style-type: none"> •SIP meeting schedule •SIP goal – community •SIP - stakeholders •SIP decision making parties 	<ul style="list-style-type: none"> •safety precautions •health procedures •assessment, SIP action plan
overarching challenge and solutions/strategies thereof	<p>SIP planning not coordinated / or executed at school level?</p> <ul style="list-style-type: none"> •Recommend/ strategy: Awareness program for school leadership re identification problems, inclusion communication & revision of process 	<p>WEO do not seem 'enthusiastic':</p> <ul style="list-style-type: none"> •Recommendation/ strategy would be to get WEO to involve higher authorities in organising activities. 	<p>School-leadership plan & communicate poorly re SIP</p> <ul style="list-style-type: none"> •Recommend/ strategy: Awareness programme for school leadership: importance of meetings as planning mechanism & SIP goal communication to all concerned parties 	<p>1. Community (PTSA & SB) neglect health and safety. 2. SIP assessment is neglected</p> <ul style="list-style-type: none"> •Possible recommendations required: (i) Create community awareness of health and safety via workshops for PTSA and SB. (ii) Higher authority intervenes to assist District officials and Cluster supervisors with SIP assessment.

Section 5.7 below presents the findings of the qualitative analyses (the focus group interviews, responses to open-ended questions and document analysis results). The section will indicate that a component of these findings identifies additional SIP challenges and strategies which will be added to the strategies listed in table 5.17 above.

Comment regarding challenges: Although analysis of variance results (table 5.13 and 5.15) indicated that the effect of (i) *Wolaita zone* and (ii) *position of respondents* statistically significantly influenced respondents' perceptions of the four **overarching constructs** of SIP *planning, organising, leading and controlling*, the influence-deductions do not carry over to each individual element of a construct. (For example, for the *planning construct*, analysis (table 5.15) indicated that *teachers'* perception of *planning* – reflected in a rounded mean perception score of '3' (*neutral*) was less positive than that of management with a rounded mean score of '2' (*reasonable extent/positive*). This, however, does not imply that the same deduction regarding *teacher/management* perceptions can be made for each of the 18 elements of the construct of *SIP planning*. In other words, for identified *planning challenges* determination of perception-differences between *teachers* and *management* is not possible. The same applies to individual challenges and the effect on *Wolaita zone*.

5.7 QUALITATIVE RESULTS: HOW DO THE QUALITATIVE DATA CORRESPOND WITH THE QUANTITATIVE DATA?

5.7.1 Research participants in the qualitative component of the study

Participants in the qualitative component of the study are school improvement committees, Woreda Education Office SIP experts, Zone Education Department SIP experts and cluster supervisors from sampled woredas, clusters and schools (see chapter 4, section 4.7.2).

5.7.2 Research questions to be answered by the qualitative data

The focus group interviews were aimed at verifying perceptions regarding the following topics: Conceptualization of SIP and its Management; conceptualization of the evaluation of SIP management (planning, organising, leading, monitoring and

evaluating); the challenges in the management of SIP and possible strategies to manage such challenges. The findings from the qualitative data indicate that interviewees' answers to the interview questions addressed the basic research questions (see chapter 1, section 1.5.1 and chapter 4, section 4.1).

5.7.3 Measuring instruments

This qualitative section briefly overviews the findings deduced from qualitative data collected as participant responses to (i) the quantitative component of the SIP questionnaire (the open-ended questions that were asked of participants while completing the questionnaire, Appendix D), as well as (ii) answers to focus group interviews (Appendix B and C) and (iii) document analysis (Appendix E and F) conducted by the researcher. These qualitative findings of participants' opinions on the qualitative open-ended questionnaire questions, and, opinions on issues probed in the interview schedule of the focus group interviews were compared to the findings of the quantitative analyses (the quantitative SIP questionnaire results).

Focus group interviews were conducted with the school improvement committees, the Woreda Education Office SIP experts, Zone Education Department SIP experts and cluster supervisors (see chapter 4, section 4.7.2).

5.7.4 Administration and collection/ classification of qualitative data

Focus group interviews were conducted in the Wolaita Zone Education Department meeting hall from 1 January 2020 to 30 February 2020. The focus group interviews took between 60 and 90 minutes. All the appointments with focus group interviewees were honoured and interviews were held at a time convenient for both the researcher and the officials. The researcher recorded the voice of focus group interviewees in the Amharic language. All recorded focus group interviews were transcribed and each transcript was translated to the English language and labelled according to each FG. The researcher classified the large volume of raw interview data regarding the four dimensions of management of SIP planning, organising, leading, monitoring and evaluating that were gathered through the focus group i

interviews and open-ended questions at the end of the questionnaire into similar groups in order to discern meaningful opinion trends.

5.7.5 Principle of triangulation

Although the researcher in this study reports the quantitative and qualitative results separately, the researcher analysed the findings derived from the qualitative data, that is, the focus group interviews, document analysis (the availability of SIP manuals, guidelines, frameworks and SIP committee minutes) and the open-ended questions of the questionnaire simultaneously with the quantitative data. This enabled the researcher to triangulate the findings of the quantitative research using qualitative findings (as stated in chapter 4). As the quantitative and qualitative data collection and analysis happened simultaneously the research design contributed to the trustworthiness of the data.

5.7.6 Reporting qualitative findings: reporting protocol for triangulation

This section, section 5.7.6 first and foremost reports on qualitative findings, but also refers to quantitative results to facilitate triangulation.

A ***protocol of reporting*** will be followed in this section to ensure logical and systematic reporting and triangulation of the quantitative and qualitative results. The protocol includes the following:

In all results-reporting sections, qualitative results and findings will be presented first, followed by relevant, quantitative deductions and findings. The quantitative findings will be presented in parenthesis. (The text in parenthesis will thus refer to relevant quantitative results of section 5.6.)

Furthermore, the **five research questions** of the research are used as a framework to structure the presentation of findings. Listing of a relevant research question will indicate the component of qualitative findings being reported (and relevant quantitative findings incorporated).

For each of the five results-presentation sections, the relevant focus-group questions

or topics of the interview schedule and relevant open-ended questionnaire questions will be displayed to explain/highlight the qualitative results reported in the particular section.

Table 5.18 – that follows the results discussion sections – provides a tabular summary of all qualitative results organised according to the topics covered in the interview schedule. Continual reference to the table while reading the qualitative results sections furthermore assists in understanding and following the results discussion.

Comment:

As was indicated in the introduction to this chapter, in the qualitative presentation quotations (of the direct words of the participants) and cross-references to chapters 2 and 3 will feature as a part of the qualitative report.

Furthermore, it was indicated in the introductory section of section 5.6 that the study was designed for the quantitative analyses to focus on answering research questions 3 to 5; however, quantitative and qualitative findings also served to enrich all five research questions.

The next section now reports on the qualitative results that inform research question 1, namely the conceptualisation of SI and management of SIP implementation.

5.7.6.1 *Research question 1: How is SI and the management of SI conceptualized?*

The responses of focus group interview participants to the following interview-schedule questions/topics are of interest, namely

- How is SI and the management of SI conceptualized?
- What is SI?
- What are the aims and objectives of SI?
- Who are the participants/ stakeholders in the SIP implementation?

- Does the school have SIP policy guidelines, rules and regulations, and manuals for SIP implementation?

Qualitative results: concept of SI:

In summary the participants indicated that the SIP is a programme that focuses on the improvement of a student's achievement and behaviour, providing a conducive school environment and also improving the school environment to accommodate special needs students.

Comment: This conceptualisation corresponds with the concept of SI presented in chapter 2 where it was indicated that SI is a change process focusing on the schools' internal organisational norms, teaching and learning activities, school facilities and management actions. As indicated, SI cannot be encapsulated in a single definition. The concept of SI as interpreted by various writers contains similar concepts expressed in different words (see chapter 2, section 2.2.2).

Qualitative results: aims and objectives of SI:

Qualitative responses further indicated that most focus group participants exhibited an awareness of the SIP, its main objectives, its focus areas, its stakeholders and participants in the programme implementation. Therefore, all FG participants are aware of the meaning and objectives of the SIP. Responses to the open-ended questionnaire questions suggest that some of the teachers were confused about what SIP is and what its objectives imply. This indicates to teachers' lack of awareness about the SI programme. The main areas covered in research question 1 were: definition of SIP, SIP participants/stakeholders, SIP objectives and the availability of SIP materials.

Qualitative results: the definition, objectives, participants and resources of SIP and comparison with relevant quantitative results

(i) Definition of SIP:

All groups of focus group interview participants understand the SIP as a programme

which focuses on improvement of a student's achievement and behaviours, providing a conducive school environment and also facilitating school environment to special need students, as indicated above. It was also already indicated that some teachers answering the open-ended questions of the questionnaire were confused about the meaning of SI.

(Relevant quantitative results: In comparison, from the relevant quantitative data findings can be derived that the perception of awareness of stakeholders on the SIP was rather positive or good (see response patterns to q1, q2, q6.1, q6.2, q6.3, q6.4, q6.6, q9, q10 in table 5.2 on *matters such as the availability of SIP guidelines; whether school's SIP strategy aligns with Ministry of Education; whether SIP strategy includes a vision and mission statement; whether the SIC participates with teachers*).

(ii) Objectives of SIP:

Comment: The general objective of the SIP is to improve student's achievement by improving the teaching and learning process and other factors related to the programme. A key goal of SI is to improve the competencies of a school to manage itself, to analyse its problems, to develop and carry out a strategy of change by focusing on different SIP domains (Hopkins, 1987:5; MoE (2011:1). Further, OCED (2015:156) identified the aim of an SIP as the development of schools' internal capacity for change and improvement which include the basic elements which contribute more to success. In SIPs these are classroom teaching, learning practices, attractiveness of the school compound, buildings, classrooms, teachers' participation in their professional development programme, and decentralized school management (see chapter 3 section 3.2.1).

Qualitative results:

The focus group interview participants agreed that the main objectives of SI focus on improving student learning and the learning outcomes.

(Quantitative results: The relevant quantitative results (q6.4 and q7, in table 5.2) indicated positive perception trends/ awareness of SIP objectives. A small minority of

respondents in the quantitative analysis were less positive on the aspects of *prioritising SIP objectives* and the issue of *whether annual SIP discussions identify improvement issues*: 13.6% and 10.36% non-positive ratings for q6.4, and q7 of table 5.2, but all ratings were still positive).

Participants/stakeholders of SIP:

Qualitative results: Interview sessions indicated that all focus group participants had an awareness of who SIP participants are (identified as: education professionals, cluster supervisors, principals, teachers, students, parents, and non-teaching staff).

Practically all FG participants argued at ground level that SIP planning and implementation were not participatory activities and that they were done by a single person/school principal only for supervision consumption. The researcher also recalls that one of the school principals at the time of document analysis responded that “*I am not aware of SIP participants/stakeholders*”.

Comment: According to the Ethiopian SIP guidelines (MoE, 2011:56) and The Center on School Turnaround (2017:11) the SI plan development process needs to be participatory, inclusive and consultative. Further, the SIP guideline describes the major stakeholders in SIP preparation and implementation processes as: School principals, teachers, non-teaching staff, students, parents, local community, educational professionals, cluster supervisors and other Government and non-Government organisations (NGOs) and other consultants and monitors (see section 3.4).

(iii) Availability of SIP materials (manuals, guidelines and frameworks):

Qualitative results: Focus group interview participants indicated that some of the schools in the Wolaita zone lack SIP manuals, guidelines and frameworks for SIP implementation.

Likewise, document analysis results also indicated that out of 15 secondary schools, nine schools had SIP guidelines, six schools had SIP frameworks and three schools had no SIP guidelines, framework or manuals. Most of those who responded to the

open-ended questionnaire questions indicated unavailability of SIP materials (guidelines, manuals and frameworks) as a main challenge of SIP planning and implementation.

Some of the focus group participants, especially SIC members, indicated that they were not aware of the SIP and SIP stakeholders. They indicated that this was caused by the fact that some schools in the Wolaita Zone did not have SIP manuals, guidelines and frameworks.

Comment: It is obvious that in these schools where these materials are lacking, there will not be a good conceptualisation of the concept of SI. The SIP framework provides a measure by which schools can evaluate the extent to which they are delivering on system priorities, meeting stakeholder expectations and implementing strategic initiatives. SIP guidelines and manuals also lead on how to practice the programme (see section 2.3.2).

5.7.6.2 Research question 2: How is the evaluation of the management of SI implementation conceptualized?

The responses of focus group interview participants to the following interview-schedule questions/ topics are of interest, namely,

- How can the evaluation of the management implementation of school improvement be conceptualized?
- How is the plan evaluated?
- Who are the participants in the evaluation process?
- Does the school analyse the outcomes of evaluations and assessments?
- For what purpose is the evaluation used?

Qualitative results:

To answer the research question, the researcher categorised the responses to the listed interview-schedule questions into the following categories that serve as sub-

headings in this discussion: *Self-evaluation; participants in the process of self-evaluation; Self-evaluation and assessment outcomes* and *Purpose of the evaluation.*

(i) Self-evaluation:

Focus group interview participants, especially the zone's education department experts responded that in most of the secondary schools SIP activities were not regularly evaluated. In some of the sampled secondary schools, participants indicated that the school management team do not do evaluations annually.

In response to the open-ended questionnaire question, one teacher participant commented that, *I don't know how the SI self-evaluation takes place and I don't know the participants in self-evaluation.*

Another interviewee (a cluster supervisor) confirmed that:

Most of the secondary schools in my cluster don't conduct self-evaluation at the school level. In some of the secondary schools the self-evaluation are made by the school principal for documentation purposes or for supervision consumptions.

Document analysis indicated that of 15 sample schools, 11 had no self-evaluation records, or SICs minutes. The remaining 4 schools had self-evaluation records which were done by the principal or some management teams only; thus not in a participatory way.

Comment: A successful SI program is related to a systemic planning, monitoring and evaluation process. Hence, the key stakeholders should be encouraged to have active participation in planning by continually raising their awareness. The extent to which concerned bodies and school leadership provide evaluation and monitoring determine the extent of stakeholders' participation in planning of SIP (Ashenafi, 2018:53) (see section 3.3). SI planning typically begins with a self-assessment that involves collecting and studying data/evidence to establish where the school is effective and where improvements are needed. This exercise establishes the school's strengths, challenges, needs, and wants (A Comprehensive Framework for Continuous SI, 2013:6; MoE, 2007) (see section 3.2.2).

(i) Participants/stakeholders in the process of evaluation:

The majority of focus group participants were able to list/ identify role players involved in the SIP evaluation process. However, one of the interviewees (cluster supervisor) indicated that only some principals or management members are involved in the evaluation process.

In addition, one of the teachers from the southern part of the zone commented that *“School principals do not invite to participate teachers, students and parents in SIP evaluation and also cluster supervisors and woreda/district SIP didn’t support schools”*. All focus group participants were of the opinion that in most of the secondary schools of the zone stakeholders do not participate in SIP evaluation.

Comment: In chapter 3, section 3.3.5 it was indicated that according to the SIP manuals, framework and guidelines the SI plan was supposed to be evaluated to identify strengths and weaknesses of the school. The evaluation is supposed to be done by internal experts (SIP committee), and external woreda/district SIP experts (MOE 2011).

(ii) Self-evaluation and assessment outcomes:

In summary all focus group participants responded that SI self-evaluation is not undertaken in secondary schools of the Wolaita zone. This contradicts the observations mentioned in the literature study chapter 3, section 3.3.5. SIPs require continuous evaluation and thereby possible modification. Monitoring a SI Plan should take place from the beginning of the implementation up to the end and all stakeholders should be involved in the monitoring process to check whether activities are being performed according to the plan or not.

(iii) Purpose of the evaluation:

Responses indicated that the focus group respondents were aware that the purpose of SIP evaluation was to serve as basis for further planning – as mentioned in the literature study in chapter 3, section 3.3.5.

Furthermore, focus group responses indicated that in most secondary schools of the zone, formal SIP school self-evaluation was not undertaken by the SIC and other external bodies. It was indicated that in some secondary schools of the zone activities were evaluated at school management meetings or in staff meetings most probably only once a year. According to the researcher it is improbable in these circumstances that the purpose of evaluation would be fulfilled at school level.

Comment: SIP school self-evaluation is conducted in two ways, namely, on the one hand, the school itself conducts an annual evaluation on the implementation of the programme. On the other hand, external bodies conduct an evaluation at the end of the third year. Hence, based on the data and information obtained from both types of evaluations, schools make possible modifications of the programme (MoE, 2007:3). The next section presents the results in relation to managing the SIP using the core management functions.

5.7.6.3 Research question 3: How do school leaders in your secondary schools manage the SIP based on the management functions?

- To enrich the findings of the quantitative analysis that answer to research question 3 (section 5.5 and summary findings in section 5.6), qualitative feedback from document analysis and participant-responses to relevant focus group questions – listed below – were analysed and are discussed below. The focus group interview questions of relevance to research question 3 ask of participants: How do school leaders in your secondary school manage the school improvement programme based on the management functions?
- How is it planned?
- How is it organised?
- How is it led?
- How is it monitored and evaluated?

The qualitative discussion below is split into the four management dimensions of SIP implementation, namely, *planning, organising, leading and monitoring and evaluation.*

(i) **Planning**

- **Qualitative findings:** The analysis results revealed that almost all secondary schools (13 out of 15) in the sample had a three year SIP strategic plan and a one year action plan that was derived from the three years SIP strategic plan. However, from focus group responses the researcher realised that in most schools in the study area, school principals prepared the SI plan without assessing the school's and students' performance. (**Relevant quantitative results**, namely q3, table 5.2, *Schools develop their own 3 year SIP strategic plan*; indicate that 65.78% positive perceptions were recorded on this matter – which corresponds with the qualitative findings).
- **Qualitative finding 1:** Focus group responses suggested that school principals do not communicate the SIP strategic plan to all stakeholders, and do not delegate and share authority and responsibility with stakeholders to ensure all have a common understanding of the strategic plan. (Relevant **quantitative results**, namely q10, table 5.2, *Leadership shares SIP-strategic plan with all shareholders* although not as strongly as the qualitative findings, expressed some reservation – 40.42% neutral to negative responses - and 59.58% positive perceptions).
- **Qualitative finding 2:** focus group participants responded that in most schools the SIP plan is developed for the sake of supervision purposes only. It is not used as a reference for SIP implementation and not revised. (Relevant **quantitative findings**, namely, q11, *SIC revises strategic plan during implementation*, table 5.2, report some negative perceptions re this matter: 15.41% negative and 28.32% neutral responses compared to 56.27% positive responses. There is thus some extent of disagreement).
- **Qualitative finding 3:** Focus group responses suggested that in secondary schools of the zone stakeholders did not participate in school self- evaluation and SI planning. Regarding participation in SI planning one of the teachers from the western part of the zone division indicated that, *“I don't participate in our school self-evaluation and planning processes”*.

Similarly, most of the interview participants agreed that the SIP plan prepared in the secondary schools of Wolaita zone was not done in a participatory way. Interviewees suggested that in some schools the principals copy the previous year's plan by only changing the date on the template. They also mentioned that in some cases, some newly hired principals directly copy the improvement plan from other schools.

- **Qualitative finding 4:** The focus group findings furthermore suggested that SIP stakeholders at school level, especially teachers, students and parents were not aware of the purpose of the SIP, its importance and SIP processes and procedures, and they did not participate in SI planning. Interview responses suggested that in the woreda/district, SIP experts, school principals and cluster supervisors did not encourage stakeholders to participate or propagate awareness to SIP stakeholders by means of training opportunities, seminars, or sharing experience gained at workshops.

(ii) Organising

- **Qualitative finding 1:** Focus group interview participants responded that in most of the secondary schools in the Wolaita zone the SI committees were not formally organised according to SIP guidelines. Similarly, most of the teachers in the open-ended questionnaire who responded, agreed that in their school SIP committees were not formally organised and SIP activities were not organised as stipulated in SIP guidelines, manuals, and frameworks. In some cases, the school principals were not aware who the SIP stakeholders/participants in the four dimensions of SIP management - namely *planning, organising, leading, and monitoring and evaluation* – should be. One of the teachers from the northern *zone division* in an open-ended question of the questionnaire commented that, *“In our school there is no formally organised SIP committee, no activities were monitored and evaluated and I am not familiar with school self-evaluation”*.
- **Qualitative finding 2:** According to focus interview participants the SIP was not led according to guidelines and in some cases, what schools plan and actually implement is different. The school activities are not organised and prioritised as SI objectives either.

Comment: In the literature study in chapter 2, section 2.4.2 and chapter 3, section 3.3.2 it is indicated that for effective implementation of the SIP, school leaders are expected to organise human, material and financial resources efficiently to realise the vision, mission and objectives of the schools. The management function, *organising*, involves allocating human resources and developing an organisational structure to achieve the organisation's objectives. From the qualitative findings it is suspected that this was not done properly in some schools.

- **Qualitative finding 3:** Some open-ended responses to questionnaire questions indicated that the Woreda Education Office SIP experts, cluster supervisors and SIC members do not monitor and evaluate the SIP implementation action plan and that they do not support the school and SICs. (**Relevant quantitative** findings namely, q23, '*Woreda district office, support staff, SIP training*', table 5.3, reported a substantial proportion of neutral to negative perceptions (23.40% and 35.11% respectively) - as opposed to a 41.49% positive response rate to this particular issue - which agrees to some extent with the qualitative findings. This indicates insufficient SIP training opportunities as organised by the Woreda/district Education Offices.
- **Qualitative finding 4:** Focus group participants were of the opinion that school principals do not work with SIP stakeholders, and do not delegate and share authority and responsibility with stakeholders. (**Relevant quantitative results**, Q20, '*Management, authority to leaders, implement SIP*', table 5.3, reported a substantial proportion of *neutral and negative* responses on this issue: respectively 28.16% and 15.88% as opposed to the 55.95% positive responses. This suggests that the issue of shared responsibility should perhaps receive further attention – as suggested more pertinently by the qualitative results).

The qualitative findings suggest that most secondary schools in the Wolaita zone do not have well-established organisational structures that facilitate participation of all SIP stakeholders in the SIP process, and that activities are not organised and prioritised under the different SIP domains. Focus group responses propose that this can be attributed to the fact that school principals do not organise SIP committees as

indicated in the SIP guideline. Qualitative focus group feedback suggest that SIC collaboration with school principals and cluster supervisors do not succeed because appropriate training to teachers, students, and parents is not provided.

(iii) Leading

- **Qualitative finding 1:** According to open-ended questionnaire question feedback, in some secondary schools of the Wolaita zone school management annually promotes its SIP activities that involve the school community, via staff meetings. (**Relevant quantitative** results, q26, '*Leadership promotes SIP activities*', table 5.4, agree with this deduction as indicated by the 63.67% *positive* and respectively 11.87% and 24.46% *more negative and neutral* perception-responses).
- **Qualitative finding 2:** Responses of focus group participants suggested that only a limited group of SIP stakeholders (principals) participate in the SIP decision-making process. (Relevant quantitative results, namely q29, '*Other parties partake decision-making, SIP-planning*', table 5.4, indicate that, although a 53.91% *more positive* perception re decision-making was reported, a substantial proportion of *neutral and more negative* perceptions were also reported: respectively 21.99% and 24.11%. This suggests that the SIP decision-making process should receive further scrutiny – as indicated in the qualitative results).
- **Qualitative finding 3:** In most secondary schools of the zone school management didn't facilitate effective communication with all stakeholders according to cluster supervisors and the Woreda Education Office and Zone Education Department SIP experts. (Relevant **quantitative findings:** q36, '*Leadership facilitates communication between SIP stakeholders*', in table 5.4 refers. Although a majority proportion of responses were *more positive* inclined, namely, 56.03%, a 22.34%, *negative* response was reported – which suggests that some participants question communication regarding SIP matters).
- **Qualitative finding 4:** According to cluster supervisors and the Woreda Education Office and Zone Education Department SIP experts school principals in most secondary schools of the zone do not facilitate staff

meetings on SIP matters. (Relevant **quantitative findings: q31**, ' *regular meetings are held re SI matters*', in table 5.4. Although a majority *positive* vote re staff meetings were reported, 51.7%, some less positive perceptions were offered re staff meeting with a 24.65% *limited or no extent* response rate. Some respondents perceived that staff meetings were not regularly held).

Comment: In the literature sections (chapter 2, section 2.4.3 and chapter 3, section 3.3.3), it was indicated that effective SIP implementation needs an effective commitment of school leaders. To implement SIPs, school leaders should exhibit quality leadership from the planning up to the monitoring and evaluation stage of programme implementation – and even the re-planning process. The school leaders should regularly assess the SIP implementation process phase by phase to rectify deviations from the actual plan and modify if there is a need. In addition, school leaders should provide ongoing support and professional development for staff in attaining the strategies of the plan and lead the community in celebrating achievements in improvements (MoE, 2013:37) (see section 2.4.3). The school leadership should design a clear vision for the school and it has to work in collaboration with the school community in moving to the vision. It is a function that requires joint responsibilities of the management and the administration (MoE, 2011:59) (see section 3.3.3). Findings, especially qualitative findings, thus far, seem to suggest that in some secondary schools, principals are not committed to lead SIP. It appears as though a perception exists among some participants (school improvement committees, Woreda Education Office SIP experts, Zone Education Department SIP experts and cluster supervisors that are more removed from day-to-day teaching activities) that the school principal does not manage SIP activities well or effectively. During document analysis one principal also agreed with the perceptions of supervisors and Woreda Education Office and Zone Education Department SIP experts. The results of the qualitative focus group component of the study (informed mostly by a Department of Education management component that is further removed from the day-to-day teaching process), seem to be more negative than the quantitative component of the study (informed by the teachers and principals of the schools – who are more involved in the day-to-day teaching at schools). This seems to suggest that teaching staff and principals' perceptions regarding the SIP's expected outcomes differ from what

departmental management officials – somewhat more removed from actual teaching expect from the developed SIP process.

(iv) Monitoring and evaluation

- **Qualitative finding 1:** Focus group interview participants (Woreda/district, Education Office SIP experts and the Zone Education Department SIP experts) responded that cluster supervisors do not monitor and evaluate the SIP implementation action plan. (**Quantitative results** indicate that some respondents (23.49%) perceived that cluster supervisors do not assess SIP action plan implementation to the fullest – as opposed to a 50.54% proportion of positive responses to q50, '*Cluster supervisors assess, implementation, SI-action plan*', in table 5.5).
- **Qualitative finding 2:** Focus group interview participants (especially cluster supervisors and SIC members) were of the opinion that Woreda Education Office SIP experts do not monitor and evaluate the SIP implementation action plan. (Relevant **quantitative results**, on this matter, namely, q51, '*Woreda officials assess, implementation, SI-action plan*', table 5.5, report a 23.93% negative response perception compared to a 50.36% *positive* response perception on the issue that the woreda SIP experts adequately assess SIP action plan implementation. The negative response rate indicates that there are some problems here as suggested in the qualitative findings.)
- **Qualitative finding 3:** Focus group interview participants (mostly Zone Education Department SIP experts) furthermore commented that in their opinion the Woreda Education Office SIP experts, cluster supervisors and SICs do not regularly monitor and evaluate the SIP implementation action plan. The opinion was also expressed that the PTSA and school boards do not regularly visit secondary schools in the Wolaita zone. On occasion schools evaluate their activities with school management and school boards as participants. In some schools of the zone the school management supervise and support department heads and teachers to meet the purposes of the SI once or twice a year. Document analysis showed that, in most of the secondary schools of the zone there are no self-evaluation records and that only two schools collect and analyse SI performance data. Therefore, most

schools do not collect and analyse the identified performance data to measure progress of SIP implementation.

In summary, it can be deduced that the management of SIP implementation activities were not always perceived to be well/ effectively planned, organised, led, monitored and evaluated as prescribed in SIP guidelines and manuals. In some instances focus group participants were of the opinion that activities were not attended to at all. The opinion was expressed by interviewees that SICs, school principals and school management did not fully/actively provide the necessary support towards successful SIP implementation. Comparison/triangulation indicated that qualitative findings were less positive than quantitative findings on most of these issues. In the researcher's view, differences could be attributed to the type of participant in the qualitative focus groups: their position, knowledge and experience on SIP management differ from that of the quantitative participants – as indicated in the comment in sub-section (iii) above.

5.7.6.4 Research question 4: What are the major management challenges experienced in managing the implementation of the SIP?

The responses of focus group interview participants to the following interview-schedule questions/ topics were of relevance to answering to and enriching research question 4, namely,

- What are the major management challenges experienced in SIP implementation?
- Challenges experienced in the planning process of SIP implementation
- Challenges experienced in organising SIP implementation
- Challenges experienced in leading SIP implementation
- Challenges experienced in evaluating and monitoring SIP implementation

Some challenges have already become evident from the answers provided to the previous questions, but even more challenges emanated when the above questions were put to the focus group interviewees. Challenges happen in the dimensions of managing SIP (planning, organising, leading, implementation, monitoring and evaluation) and are summarised below in accordance to the answers provided by

participants in the focus group interviews and open-ended questions of the questionnaire.

(i) Challenges experienced in SIP Planning

The responses of focus group participants indicated to the following potential planning challenges, namely

- A lack of knowledge and training among stakeholders to plan SIP properly (Relevant **Quantitative findings:** As indicated in section 5.7.6.3 for q23, '*Woreda district-office supplies support staff to train staff in SIP training*', in table 5.2, a certain extent of *more neutral or negative* perception ratings were reported for this issue – which could suggest that training support could be problematic)
- A lack of commitment of stakeholders (principals and teachers) towards SIP planning (Relevant **quantitative findings**, namely, q10, '*Leadership shares SIP-strategic plan, shareholders*', in table 5.2 – discussed in section 5.7.6.3 – suggest that SIP strategic plan communication might require attention).
- An awareness problem among stakeholders regarding SIP materials which includes guidelines, manuals and frameworks
- A lack of capacity building trainings to implement SIP
- A lack of stakeholder participation in school self-evaluation.

The above seem to suggest that the main challenges of planning SIP are related to an awareness problem among stakeholders regarding SIP manuals and guidelines to plan and implement SIP; a lack of stakeholders' participation in school self-evaluation; a lack of trust and commitment of stakeholders, and, a lack of trainings to plan and implement the SIP.

(ii) Challenges experienced in SIP organising

In response to already mentioned questions, focus group interviewees were of the opinion that the following might present as challenges, namely:

- A lack of leadership training for principals to organise SIP activities (as mentioned in section 5.7.6.3 relevant **quantitative results** reported some negative perceptions – though not a majority – on the issue of the woreda/district education offices' effectiveness in appointing qualified principals at secondary schools: q22, '*Woreda district-educ. ensures, principals, qualified*', table 5.3). In addition, FG participants commented that there seems to be a lack of trained manpower at woreda level to train SIP participants and also to facilitate and support SIP activities at school level.
- The opinion was expressed that woreda/district officials and SIP experts do not provide adequate/ effective training for teachers, cluster supervisors and the SIC. (In this regard, relevant **quantitative results** reported a substantial proportion of negative perception ratings (35.11%) for q23, '*Woreda district-office, support staff provide SIP training*' – discussed in section 5.7.6.3).
- There is a lack of adequate budget to implement SIP (As mentioned in section 5.7.6.3, **relevant quantitative results** reported a limited proportion of negative ratings perceptions regarding this issue (22.76%) – indicating some discontent regarding funding for improvement domains. Q15, '*Funds allocated to major SIP domains*', table 5.3 is relevant here).
- In most of the secondary schools the activities are not organised into different SIP domains. In addition, FG participants also indicated that there is a lack of well-organised and periodic school-based data available in schools.
- In most of the secondary schools of the zone there is no formally organised SIC as indicated in SIP guidelines, manuals and frameworks. On the other hand, in some of the secondary schools, school principals simply assign the committee according to their own motives.
- The school principal does not delegate SIP activities to stakeholders and does not assist the participation of stakeholders. (**Quantitative data** indicates that a small proportion (15.88%) of respondents assessed the statement of q 20, '*Management, authority to leaders, implement SIP*' in table 5.3 negatively – as already discussed in section 5.7.6.3. This could suggest that the delegation of authority to the SIC for SIP implementation might require further consideration)
- There is a lack of adequate support from the local community.

In summary, qualitative focus group responses identify the main challenges of organising SIP to be a lack of leadership training for principals to organise SIP activity; at school level there was no formally organised SIC; activities are not organised into different SIP domains; Woreda/district officials and SIP experts do not provide training for SIP stakeholders (teachers, cluster supervisors and the SIC); there is a lack of adequate budget to implement SIP; school principals do not delegate SIP activities to stakeholders and there is a lack of collaboration among stakeholders; and a lack of adequate support from the community.

(iii) Challenges experienced in SIP leadership

- Focus group responses indicate that school leaders do not sufficiently promote SIP activities among the school community. (**Quantitative results** indicate that some respondents (11.89%) perceived that school leadership does not promote SIP activity among stakeholders to the fullest – as opposed to a 63.67% proportion of positive responses to q26, ‘Leadership help teachers, implement annual SIP’, in table 5.4).
- Focus group opinion indicated that school leaders do not involve stakeholders/students, teachers and parents in decision-making processes of SIP activity. *(Teachers' and principals opinion, in quantitative findings on the similar issue indicate a 21.99% less positive and 53.9% positive response to q29, ‘Other parties partake in decision-making, SIP-planning’, in table, 5.4).
- Focus group opinion suggested that school leaders did not facilitate regular staff meetings. (Quantitative results indicate that some respondents (24.65%) perceived that meetings were not regularly held as opposed to a 51.78% proportion of positive responses to q31 ‘regular meetings are held re SI matter’, in table 5.4.).
- Qualitative focus group responses also suggested that there is a lack of the leader’s continuous follow up on SIP activities. (This corresponds with quantitative data which indicates that a small proportion (17.56%) of respondents assessed the statement of q33 ‘Management follows up, SIP implementation’ in table 5.4 negatively – as already discussed in section 5.7.6.3. This could suggest that the leader’s continuous follow up on SIP implementation might require further consideration.)

- The suggestion of little or no communication between school leadership and school communities or stakeholders about SIP implementation is made by the focus group interviewees. (On this issue, quantitative findings indicated that 22.34% of responses perceived that leaders do not facilitate communication with stakeholders, as opposed to a 56% proportion of positive responses to q36 '*Leadership facilitates communication, stakeholders*', in table 5.4).

In summary, qualitative focus group responses identify the main challenges of leading SIP were a lack of stakeholder participation in decision-making; leaders do not promote SIP activities among stakeholders; leaders do not involve stakeholders in the decision-making processes; leaders didn't facilitate regular staff meetings; a lack of conscientious follow up on SIP activities; and ineffective communication with stakeholders.

(iv) Challenges experienced in SIP monitoring and evaluation

Focus group interview and open-ended questionnaire respondents, in summary, indicated that the challenges experienced in the monitoring and evaluation process of SIP were:

- According to focus group responses, Woreda officials/SIP experts do not assess the implementation of the schools' annual plans regularly and do not give feedback to school leaders. (This should be compared to the **relevant quantitative results**, q51, ('*office officials do not assess SIP activities*') which reported a 23.93% negative rating perception, in table 5.5.)
- Qualitative findings furthermore indicated that focus group interviewees perceived that cluster supervisor assessment and support of the SIP activity at school level were not conducted to a satisfactory level. (This finding can be compared to **relevant quantitative findings**, of q50, namely, '*Cluster supervisors assess the implementation of the SI-action plan*', in table 5.5 – and discussed in section 5.7.6.3 – which suggest that implementation assessment might require some attention).
- Focus group interviewees were of the opinion that there is a lack of SI

committee assessment and support of the SIP activity at school level. **Quantitative results** reported a limited proportion of negative rating perceptions regarding this issue (18.6%) indicating some challenges in SI committee assessment of the implementation of the SI action plan as mentioned in section 5.5.2.4 (see q52, in table 5.5).

- Focus group interviewees were of the opinion that there is a lack of adequate budget to implement SIP (As mentioned in section 5.7.6.3, **relevant quantitative results** reported a limited proportion of negative rating perceptions regarding this issue (22.76%) – indicating some discontent regarding funding for improvement domains. (see q15, '*Funds allocated to major SIP domains*', table 5.3).
- There is a lack of well-organised periodic school-based data available in schools (Quantitative data indicated 18.21% negative responses to the issue of '*schools do not analyse and collect performance to determine the effect of improvement initiatives included in the strategic plan*', q48 – see table 5.5).
- The opinion was expressed by focus group interviewees that no regular SIP activity assessment schedules are available at schools. (This should be compared to quantitative findings of q55, table 5.5, which reported 18.14% negative responses on '*regular SIP assessment schedules on SIP implementation*'.)
- Focus group opinion suggests that the school board does not regularly review and report the SIP progress to the school community (This should be compared to quantitative findings on q53, '*school board review functions*', in table 5.5, where limited negative responses were reported – as discussed in section 5.7.6.3 – which indicated that the school boards' review function might require some attention.)
- Focus group interviewees were also of the opinion that SICs do not regularly report the improvement progress to the school community or stakeholders, and that the school management do not motivate and encourage best performers and role models in SIP implementation.

To summarise this sub-section it can be stated that the major challenges of the monitoring and evaluation dimension of SIP management were: a lack of assessment and feedback mechanisms of officials (SIC, cluster supervisors and WED experts); a

lack of a regular SIP activities assessment schedule on SIP implementation; the school management do not motivate and encourage best performers and role models in SIP implementation; a lack of well-organised periodic school-based data available in schools; the school board does not regularly review and report the SIP progress to the school community.

In the qualitative analysis and findings it emanated that the challenges in almost all zone divisions and schools are the same or nearly the same. Qualitative findings are not as positive as the quantitative findings on most of the issues. As already indicated (in the *comment*-section of sub-section 5.7.6.3) this might be ascribed to the fact that the perceptions, views, knowledge expectations/aims and experience of qualitative participants on SIP management differ from that of quantitative participants.

In the above section the management challenges experienced in SIP management were presented. The next section presents the proposed strategies to overcome the challenges.

5.7.6.5 Research question 5: How can the challenges experienced in managing the SIP be addressed?

Regarding the four dimensions of managing SIP (planning, organising, leading, and monitoring and evaluation) a lot of ideas on strategies to address the challenges mentioned in the previous section emanated from the focus group interviews and the open-ended questions of the quantitative questionnaire. The researcher decided it would be the most meaningful to present the findings by first listing the challenge and then to provide the strategy/strategies suggested by the participants directly after the challenge to which it applies. In many instances there was consensus and or overlap on strategies suggested, so it appeared the best to provide the findings of this section in the format decided on by the researcher.

The planning dimension of managing the SIP implementation can be improved by:

Challenge: Lack of knowledge/training of stakeholders (SIC, teachers, students, and

parents) to plan and implement SIP.

Suggested strategy: The Woreda/district Education Office can facilitate training programmes to create awareness of the SIP and important SIP materials (guidelines, manuals and frameworks) to implement the programme. This can also help a lot with the need for more knowledge and training in SIP implementation.

Challenge: Lack of stakeholders' /principals' and teachers' commitment to SIP planning.

Suggested strategy: Stakeholders can be motivated to participate in SIP activities by facilitating experience sharing during visitation programmes. The SIP committee has to work cooperatively with school management, teachers and students in the school. Woreda/district Education Office SIP experts must support the schools' SIP planning through facilitating training for SIP committees.

Challenge: Lack of stakeholder participation in school self-evaluation and SIP planning.

Suggested strategy: Self-evaluation by teachers, parents, and students needs to be conducted to identify strengths and weaknesses of the school.

Challenge: A cluster supervisor does not assess/monitor, evaluate and support SIP activity at school level

Suggested strategy: Cluster supervisors support school SIP activity and assess regularly. Monitoring and evaluating SIP activities regularly and revising the plan as the need arises needs to be attended to.

The organising dimension of managing SIP implementation can be improved by recognising the following challenges and proposing a strategy:

Challenge: Lack of well-organised SICs at school level.

Suggested strategy: Organising of SIC must be based on the SIP guidelines and manuals.

Challenge: Lack of principals' commitment to organise SIP activities into different SIP domains and relate SIP activities to incentives.

Suggested strategy: the Woreda/district Education Office should motivate and support school principals and SICs by facilitating training and experience sharing programmes by organising different SIP activities.

Challenge: Lack of sufficient budget to implement SIP.

Suggested strategy: Allocate an adequate budget to each SIP domain and each department as per prioritised SIP activities.

Challenge: Lack of leadership trained principals and woreda SIP experts to organise SIP activity.

Suggested strategy: The Woreda Education Office and the Zone Education Department can collaborate with universities to facilitate leadership training programmes for those who have no leadership skills.

Challenge: Lack of adequate support from the local community.

Suggested strategy: Local communities and parents should provide adequate support for the SIP annual plan implementation. Reference has already been made to suggest the creation of relevant training opportunities.

Challenge: The school principal does not delegate SIP activities to different stakeholders.

Suggested strategy: School principals collaborate with the SIC to assign SI sub-committees in each domain of the SIP; organising SIP activities into different SIP domains needs to be done in schools; school principals must put into practice a distributed leadership/participatory leadership style to manage SIP; assigning of SIP

activities to respective stakeholders should be done through delegating authority and responsibility.

Challenge: Lack of well-organised and periodic school-based improvement data in schools.

Suggested strategy: Schools provide well-organised improvement data systems.

The leading dimension of managing SIP implementation can be improved by:

Challenge: School leaders do not promote SIP activities with the school community.

Suggested strategy: Promoting school activities regularly with stakeholders and motivating the best performers in implementing SIP activities.

Challenge: School leaders do not facilitate regular staff meetings.

Suggested strategy: Facilitating regular meetings with different stakeholders needing to participate in SIP activities, including their teaching staff.

Challenge: School leaders do not allow the participation of stakeholders (students, teachers and parents) in decision-making processes of schools' SIP activities.

Suggested strategy: Allowing stakeholders (teachers, students and parents) to participate in the decision-making process of the school SIP implementation. Promoting the culture of SIP implementation awareness among stakeholders and encourage stakeholder participation in decision-making.

Challenge: School leadership do not communicate SI goals to different stakeholders

Suggested strategy: Communicating SIP goals to different stakeholders and school communities (teachers, students, and parents) and establishing strong communication between school leadership and stakeholders; providing support for teachers to implement the school SIP annual plan effectively.

Challenge: Lack of school leaders conscientiously following up on SIP activities.

Suggested strategy: Continuously follow up on the implementation process of SIP and practising specific leadership strategies to ensure positive improvement outcomes.

Challenge: No or little communication between school leadership and school communities towards SIP implementation.

Suggested strategy: Establish mechanisms that will ensure the implementation of the schools SIP plan and promote effective communication between the school leadership and stakeholders.

The monitoring and evaluating dimension of managing SIP implementation can be improved by:

Challenge: Woreda SIP experts, cluster supervisors and SICs do not regularly assess the implementation of schools' annual plan.

Suggested strategy: Woreda SIP experts, cluster supervisors and SICs must assess the implementation of the school's annual plan regularly; the school

leadership has to design the strategies for monitoring and evaluating of the school's effective implementation of SIP activities.

Challenge: SICs do not implement a regular SIP monitoring and evaluation programme.

Suggested strategy: SIC facilitates a regular monitoring and evaluation programme. School principals need to supervise HODs and teachers in the implementation of the annual improvement plan to ensure the objectives of SIP are achieved.

Challenge: SICs do not report the improvement progress to school community/stakeholders regularly and do not give feedback to school leaders.

Suggested strategy: Improvement progress must be regularly reported to the school community and giving feedback to school communities/respective stakeholders must take place.

Challenge: The school board and PTSA didn't regularly review health practices, and safety protection at the school.

Suggested strategy: The school board and PTSA must regularly review health practices, and safety protection at the school.

Challenge: There are not regular SIP activities and assessments scheduled in schools.

Suggested strategy: An assessment schedule for SIP implementation must be set.

Challenge: The school management do not motivate and encourage best performers/role models in implementing SIP activities.

Suggested strategy: The school management should reward, motivate and encourage the best performers/role models in SI practices.

Challenge: The school board does not regularly review and report the SIP progress

to the school community.

Suggested strategy: The school board should regularly review and report the SIP progress to the school community. Evaluating the SIP activities should take place annually by a team and/or different sub-committee.

The researcher experienced in the interview answers to the last research question that the participants regularly just indicated that the responsible office holders and committee members should take up their responsibilities according to the SIP guidelines.

Table 5.18 provides an overview of the type of questions asked to SIP committee participants; cluster supervisors, Woreda Education Office SIP experts and Zone Education Department SIP experts and summarized feedback received during focus group interview sessions as well as in open-ended questions. The aims of the focus group interviews were verifying the perceptions of respondents regarding the following topics: (a) the concepts of SI and management of SI (b) evaluation of the management implementation of SIP (c) leaders' management of SIP based on the management functions (d) management challenges experienced in SIP implementation (e) proposed strategies to address the challenges (see Appendixes B and C for full interview questions).

Table 5.18: Summarised responses of focus group interview participants (SIP committee, cluster supervisors, woreda and zone SIP experts) and open-ended questionnaire questions of teachers and management (HODs, principals and vice-principals)

Topics of Focus Group Interview questions: Research question 1	Summarized answers of participants' perceptions
(a) How is SI and the management of SI conceptualized? What is SI?	All groups of focus group interview participants indicated that the SIP focuses on improvement of a student's achievement and behaviours, providing a conducive school environment and also improving the school environment for special need students.
What are its aim and objectives?	The focus group interview respondents indicated that the main objectives of SI focus on improving student learning and the learning outcomes.

Who are the participants/ stakeholders in the SIP implementation?	All FG interview sessions indicated that all focus group participants had an awareness of who SIP participants are. Data from document analysis revealed that some stakeholders were not aware of who SIP stakeholders are.
Does the school have SIP policy guidelines, rules and regulations, and manuals for SIP implementation?	Focus group interview participants indicated that some of the secondary schools in the Wolaita zone have a lack of SIP manuals, guidelines and frameworks for SIP implementation. From document analysis results emanated that out of 15 secondary schools, nine schools have SIP guidelines, six schools have SIP frameworks and three schools have no SIP guidelines, frameworks and manuals, and only five schools have SIP guidelines, manuals and frameworks.
Different Topics of Focus Group Interview questions: Research question 2	Summarized responses of participants' perceptions
(b) How can the evaluation of the management implementation of school improvement be conceptualised? How is the plan evaluated?	All FG respondents and document analysis results indicated that in the secondary schools of the Wolaita zone SIP activities were not regularly evaluated. Document analysis indicated that of 15 sample schools, 11 had no self-evaluation records, or SIC minutes. The remaining 4 schools had self-evaluation records, which were done by the principal or some management teams only; thus not in a participatory way.
➤ Who are the participants in the evaluation process?	The majority of focus group participants were able to list/identify role players involved in the SIP evaluation process. However, in most of the secondary schools of the zone SIP activities were not evaluated by SIP stakeholders.
➤ Does the school analyse the outcomes of evaluations?	All focus group participants responded that SI self-evaluation is not undertaken in secondary schools of the Wolaita zone.
➤ For what purpose is the evaluation used?	All FG participants were aware that the purpose of SIP evaluation was to serve as basis for further planning. Furthermore, focus group answers indicated that in most secondary schools of the zone, formal SIP school self-evaluation was not done and undertaken by the SIC and other external bodies. None of the schools conduct self-evaluation.
Thus: Focus group and document analysis results suggested that in the secondary schools of the zone SIP activities were not regularly evaluated as SIP guidelines and manuals are not freely available. Qualitative findings suggest that stakeholders didn't participate in schools' SIP evaluation; <i>there were some</i> SIP evaluation records at school level. Therefore, one can derive that only some schools could attempt to analyse the outcomes of assessments.	

Different Topics of Focus Group Interview questions: Research question 3	Summarized responses of participants' perceptions
(c) How do school leaders in your school manage the SIP based on the management functions? How is it planned?	Mostly planned without assessing the school's and students' performance. Stakeholders didn't participate In SIP planning because they were not aware of SIP planning. Planning for the sake of supervision.
How is it organised?	In the secondary schools of the zone there were no well-organised SICs at school level and SIP activities were not organised and prioritised as SIP objectives.
How is it led?	In the most secondary schools in the zone school leaders do not facilitate effective communication among stakeholders and do not promote SIP activities among stakeholders. Stakeholders do not participate in the decision-making process.
How is it monitored and evaluated?	Officials at different levels do not monitor and evaluate the SIP implementation action plan. School boards and PTSAs didn't report SIP activities to stakeholders. At school level there is no well-organised school-based data. There are no evaluation records and minutes at school level
<p>Thus: The opinion of most focus group participants indicated that the management of SIP was not participatory; the activities were not organised and prioritised as SIP domains; the school management didn't promote SIP activities among stakeholders and stakeholders didn't participate in the decision-making processes of SIP. Generally, SIP was not managed according to the guidelines and manuals.</p> <p>Quantitative findings were positive to all aspects; however, a small proportion of respondents' highlighted the above-mentioned issues as areas which could be/were unsatisfactory.</p>	
Different Topics of Focus Group Interview questions. Research question 4	Summarized responses of participants' perceptions
(d) What are the major management challenges experienced in SIP implementation? Challenges experienced in the process of planning.	<ul style="list-style-type: none"> • lack of knowledge/training • lack of stakeholders' participation in school self-evaluation • lack of finance/budget • lack of trust and commitment • unwillingness of stakeholders in the programme

Challenges experienced in the process of organising	<ul style="list-style-type: none"> • lack of leadership training for principal's to organise SIP • lack of formally organised SIP committees • higher officials do not provide training for SIP stakeholders • lack of adequate finance to implement SIP • lack of adequate support from community • lack of stakeholder participation in SIP implementation
Challenges experienced in the process of leading	<ul style="list-style-type: none"> • lack of regularly promoting SIP activities among community • lack of stakeholder participation in decision-making • lack of communicating SIP goals to stakeholders • lack of staff meetings, lack of conscientious follow up and support, leaders' commitment
Challenges experienced in the process of monitoring and evaluating	<ul style="list-style-type: none"> • lack of assessment and feedback mechanisms of officials (SIC, cluster supervisors and WED experts) • lack of monitoring and evaluation schedule • lack of reporting system • lack of motivation
<p>Thus: the main challenges experienced in managing SIP in the secondary schools of the zone were: a lack of awareness about the programme; a lack of resources (financial, human and material); a lack of stakeholders' trust and commitment towards the programme implementation; a lack of stakeholders' participation in school self-evaluation and planning; a lack of stakeholder participation in SIP implementation; and a lack of motivation. Quantitative findings: to all mentioned challenges, the quantitative findings reported a degree or slight degree of dissatisfaction.</p>	
<p>Different Topics of Focus Group Interview questions. Research question 5</p>	<p>Summarized responses of participants' perceptions</p>
<p>(e) What strategies are proposed to address the challenges experienced in managing SIP?</p> <p>The planning dimension of managing SIP implementation can be improved by</p>	<ul style="list-style-type: none"> • Woreda/district Education Office can facilitate training programmes to create awareness of SIP • Stakeholders can be motivated to participate in SIP activities by facilitating experience sharing visitation programmes. • The SIP committee has to work cooperatively with school management and teachers and students in the school. • Self-evaluation by teachers, parents, and students needs to be conducted to identify strengths and weaknesses of the school. • Cluster supervisors must support school SIP activity and assess regularly.

<p>The organising dimension of managing SIP implementation can be improved by</p>	<ul style="list-style-type: none"> • The Woreda/district Education Office can motivate and support school principals and SICs by facilitating training and sharing programmes; organise different SIP activities; support schools • Organising of the SIC must be based on the SIP guidelines and manuals • Allocating an adequate budget to each SIP domain and each department as per prioritised SIP activities • The Woreda and Zone Education Department collaborate with universities to facilitate leadership training programmes • School principals must put into practice distributed leadership and a participatory leadership style to manage SIP
<p>The leading dimension of managing SIP implementation can be improved by</p>	<ul style="list-style-type: none"> • Promoting school activities regularly among stakeholders and motivating best performers • Allowing stakeholders and encouraging them to participate in the decision-making process of the school SIP activities • Continued follow up on the implementation process of SIP
<p>The monitoring and evaluating dimension of managing SIP implementation can be improved by</p>	<ul style="list-style-type: none"> • Woreda officials/SIP experts or cluster supervisors and SICs must assess the implementation of the school's annual plan regularly and design strategies for monitoring and evaluating of the school's effective implementation of SIP activities. • The school board and PTSA must regularly review health practices, and safety protection at the school. • An assessment schedule for SIP implementation must be set. • The school management should motivate and encourage the best performers/role models in SI practices.
<p>Thus: the main strategies to address the above-mentioned challenges were: creating stakeholder awareness for the programme planning and implementation; creating awareness of SIP manuals and guidelines; organising SIP activities of different domains; allocating an adequate budget; stakeholders participating in the programme evaluation, planning and implementation; motivating role models in SI practices; stakeholders participating in the decision-making processes of SIP activities; facilitating regular staff meetings; promoting actives among school communities and setting regular assessment schedules.</p>	

Generally, qualitative and to a much smaller extent, some quantitative findings indicated that the activities were not planned, organised, led, monitored and evaluated as indicated in the SIP guidelines, manuals and framework. Further, a lack of stakeholders' participation in each step of SIP management; a lack of adequate finance and trained manpower; a lack of SIP materials; a lack of stakeholders' awareness on SIP management and a lack of necessary support from higher officials (SIC, school

principals, cluster supervisors and Woreda SIP experts) to SIP implementers were the main challenges of SIP management. Therefore, the management of SIP implementation in the secondary schools of Wolaita zone can be improved substantially. Finally, qualitative findings are not as positive as the quantitative findings on most of these issues. It is noteworthy that those respondents inside schools, who are those who completed the quantitative questionnaire, have more positive perceptions than the participants in the focus group interviews which are not inside the schools (including the SIC members). In the view of the researcher this is because there is a difference in perceptions, views, knowledge, experience and positions of participants on education management, specifically SIP management.

5.8 CHAPTER SUMMARY

This chapter reported the results of the quantitative and qualitative analyses. Chapter 5 started off by stating the main research question of the study. This was done to remind the reader of the focus of interest in the study.

The quantitative component primarily focused on answering research question 3 (perceived effectiveness of school management to manage SIP-implementation) and inform questions 4 (challenges) and 5 (improvement actions/strategies). The focus of the qualitative component was mostly to answer to sub-questions 1 and 2, and further inform and enrich research sub-questions 3, 4 and 5. Apart from answering sub-question 1 and 2, section 5.7 indicated how integration of the findings of these two components provided full and rich answers to sub-questions 3 - 5 – more complete than one single approach would have achieved. The research design of this study, namely mixed methods concurrent/convergent triangulation, was thus a wise design choice to obtain comprehensive answers to research sub-questions 3 – 5.

The crux of the quantitative findings of the various analyses indicated that respondents were in general – albeit to a greater and lesser extent – positive about how *planning, organising, leadership and monitoring and evaluating components* of management manifested during SIP-implementation. Furthermore, analysis results of individual response patterns of questionnaire questions allowed the research to identify possible problem areas or challenges. Analysis results of more advanced analyses furthermore

indicated that the biographical attributes of *position* and *zone division* statistically significantly impacted perceptions regarding the *planning, organising, leadership, and monitoring and evaluation* aspects of managing SIP-implementation: teachers' perceptions were somewhat more subdued than that of the school management component of the sample (statistically significantly so); and perceptions of the *northern* division sample have always been slightly, but statistically significantly, more *positive* than their *eastern* counterparts.

Qualitative findings indicated that all the participants understand the meaning of SIP and its main objectives. However, it was indicated that in the secondary schools of the zone there seemed to be a lack of stakeholders' awareness on SIP management (planning, organising, leading, monitoring and evaluating) and the programme implementation. In addition, there also seemed to be a lack of awareness about the SIP participants/stakeholders and SIP materials (manuals, guidelines, and frameworks) in the secondary schools of the zone. It is obvious that in these schools where these materials are lacking, there will not be a good conceptualization of the concept SI.

Further, the evaluation of the management of SIP in the secondary schools of the zone indicated that formal school self-evaluation did not regularly take place by SICs and other external bodies. Therefore, it seemed that in most of the secondary schools principals copy the previous year's plan by changing only the date on the template and in other instances some newly appointed principals directly copy the improvement plan from other schools. SIP organisation in most of the secondary schools in Wolaita zone also showed deficits. From focus group responses it appears that the SIC is not organised formally according to SIP guidelines. The general opinion was that SIP activities were not planned, organised, led, monitored and evaluated according to SIP guidelines, manuals, and frameworks.

Finally, the main challenges experienced in managing SIP implementation and proposed strategies were addressed. The following chapter presents the findings, conclusions, recommendations, limitations and implications for future research of the study.

CHAPTER 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

In this chapter, a summary of the chapters and an overview of the conclusions to the research questions are discussed. This is followed by recommendations, the limitations of the study, and recommendations for future research.

6.2 A BRIEF OVERVIEW OF THE STUDY

The first chapter presented the introduction and background to the study, the problem statement and the reason why the researcher was motivated to conduct this study, the aim and objectives of the study, a short description of the research methodology and definitions of key concepts.

The second chapter presented issues relating to the concept of school improvement and the management of school improvement. More specifically, the researcher discussed the evolution of the school improvement programme, the definition of SIP, SIP models and frameworks, the major domains of school improvement programmes; SIP cycles and principles of SIP. The management of school improvement was discussed in relation to the management functions of planning, organising, leading, and controlling.

Chapter 3 presented issues relating to the evaluation of the management of the school improvement programme in the Ethiopian education system. More specifically, the researcher discussed the school improvement programme in Ethiopia, objectives of the school improvement programme, the Ethiopian school improvement framework, domains and elements of the SIP in Ethiopia, evaluating SIP management (planning, organising, leading, implementing, monitoring and evaluating), and the role of respective stakeholders (principals, teachers, students, school improvement committees, supervisors, parents, local communities, non-teaching staff) in the programme implementation. Finally, the main challenges of managing the school improvement programme implementation were discussed.

Chapter 4 outlined issues relating to research design and methodology. More specifically the researcher discussed the research design, research paradigm, the study site and population, sample size and sampling techniques, the quantitative and qualitative data collection procedures and instruments (questionnaire, focus group interviews and document analysis); quantitative and qualitative data analysis and interpretation; validity, reliability and trustworthiness of the research and the ethical considerations.

Chapter 5 reported on the implemented quantitative and qualitative analysis strategy of the study; the results obtained from these analyses; and how the findings were interpreted. The quantitative data analyses contextualised the study and established how implementing the school improvement programme was currently managed (the status quo). The analysis results enabled the researcher to identify the challenges that exist in the four dimensions of SIP management and how to improve the four dimensions of SIP management. Furthermore, the qualitative focus group interview data, open-ended questions of the questionnaire and document analysis were used to further contextualise and extend the quantitative findings.

Chapter 6 now presents a summary of the research, the conclusions of the study and recommendations based on the quantitative and qualitative analyses. The conclusions of the study are presented next.

6.3 CONCLUSIONS OF THE STUDY

The main research question and associated sub-questions in this study are firstly provided. Thereafter, to round off the study, the answers provided by the study to each research question will be shortly summarised.

The main research question was: How do school leaders manage the implementation of the school improvement programme in secondary schools in Wolaita zone, Ethiopia? (See chapter 1, section 1.5.1; chapter 4, section 4.1 and chapter 5, section 5.2).

The research sub-questions derived from the main research question are (see chapter 1,

section 1.5.1; chapter 4, section 4.1; chapter 5, section 5.2):

- How is school improvement and the management of school improvement conceptualized?
- How is the evaluation of the management of school improvement implementation conceptualized?
- How well do school leaders in the secondary schools of the Wolaita zone manage the school improvement programme?
- What are the major management challenges experienced in managing the implementation of the school improvement programme?
- How can the challenges experienced in managing the school improvement programme be addressed?

In sequence of the listed research sub-questions the main findings and the summary of important conclusions derived from these findings are presented below. It should, however, be remembered that answers to the last two research questions have already been comprehensively provided in chapter 5 (sections 5.7.6.4 and 5.7.6.5) and they will thus not be repeated in the same way in this chapter.

6.3.1 How is school improvement and the management of school improvement conceptualized?

The concept of school improvement as interpreted by various writers contains several ideas having the same or nearly the same meaning; and cannot be encapsulated in a single definition or dimension. Therefore the researcher concluded in chapter 2, section 2.2 that school improvement is a change process focusing on schools' internal organisational norms, teaching and learning activities, school facilities and management actions, which gives a broad indication of what is understood under school improvement (Education Improvement Commission (EIC) 2000:4; Jeilu 2010:173; Represas 2015:160; Hopkins 2005:86; MoE 2011:1) (see chapter 2, sections 2.2 and 2.4).

The first research question was not directly addressed in the quantitative study as the quantitative research focused on answering research questions 3, 4 and 5 as stated in

section 5.2. Qualitative study participants (SIC members, cluster supervisors, Woreda and zone SIP experts) are aware of the school improvement programme, its main objectives, its focus areas, and the stakeholders involved in SIP implementation. However, in the open-ended questions of the questionnaire some teachers indicated that they did not know who the SIP stakeholders are, and they were not aware of SIP manuals and frameworks. In addition, FG participants and the document analysis results indicated that most of the schools in the Wolaita zone lacked SIP manuals, guidelines and frameworks for school improvement programme implementation. Therefore, it was obvious that in these schools where these materials were lacking, there would not be a good conceptualisation of the concept school improvement (see chapter 5, section 5.7.6.1).

The researcher concluded that perceptions reported to open-ended questionnaire questions and interviewee responses indicated that:

- Responsible or accountable officials at different levels did not create sufficient SIP awareness during seminars and workshops for SIP stakeholders. As mentioned in chapter 5, section 5.7.6.3 the woreda/district SIP experts, school principals and cluster supervisors did not adequately encourage stakeholders to participate, nor did they propagate awareness among SIP stakeholders by means of training opportunities, seminars, or sharing experience gained at workshops.
- Leaders are not truly committed to implement the programme in such a way that all stakeholders can sufficiently conceptualise school improvement and its management (The perception was expressed that school principals do not work with SIP stakeholders, and do not delegate and share authority and responsibility with stakeholders. In some secondary schools, principals are not committed to lead SIP as indicated in chapter 5, section 5.7.6.3).
- Important SIP materials (guidelines, frameworks and manuals) were not according to expressed perceptions - readily available in most secondary schools of the zone, which prevents adequate conceptualising (see chapter 5, section 5.7.6.1). Regarding the conceptualisation of school improvement and the management of school improvement the qualitative findings caution that not all stakeholders are sufficiently made aware of what these concepts entail.

6.3.2 How is the evaluation of the management of school improvement implementation conceptualized?

Chapter 3 provided a theoretical analysis for understanding and interpreting the evaluation of the management of school improvement implementation in the Ethiopian context. According to the Ethiopian SIP manuals, framework and guidelines the school improvement plan evaluation was intended to identify the strengths and weaknesses of the school before planning the new school improvement strategic plan. The evaluation had to be done yearly by internal stakeholders (SIC, teachers, students and parents) and external SIP experts (MOE.2013). Evaluation of the management of school improvement in this study was further conceptualised in chapter 3 (see section 3.3) as focusing on the management functions of planning, organising, leading and controlling, as is also reflected in the quantitative questionnaire (see Appendix D). Conceptualised in this way, the researcher would be able to get an idea of how well the leaders in the secondary schools of the Wolaita zone manage the school improvement programme (research question 3).

The second research question was not addressed directly in the quantitative study as the quantitative research focused on answering research questions 3, 4 and 5 as stated in section 5.2. As far as the conceptualisation by the participants in the qualitative study is concerned, the majority of the focus group interview participants understood the participants in the evaluation of the SIP process to be teachers, principals, school boards, school improvement committees, parents and students, but it emanated from their responses that in most of the secondary schools of the zone stakeholders did not participate in SIP evaluation and that SICs and other external bodies did not regularly conduct formal school self-evaluation. In some of the secondary schools of the zone activities were evaluated in school management meetings or in staff meetings, most probably once a year. Focus group interview participants responded that in almost all secondary schools the SI plan was evaluated by the school principal and some of the management members solely for supervision consumption or documentation purposes. It appears that secondary schools in the Wolaita zone did not analyse the outcomes of SI self-evaluation, because SIP activities were not adequately evaluated (see chapter 5, section 5.7.6.2).

The researcher concluded from the qualitative findings that the conceptualisation of the evaluation of school improvement, even though some stakeholders were aware of what was expected, did not lead to evaluation being effected properly in practice:

- Stakeholders (students, teachers and parents) mostly did not participate in SIP self-evaluation.
- In most of the secondary schools of Wolaita zone self-evaluation was not regularly conducted by SICs and other external bodies.
- FG participants expressed the opinion that in secondary schools of Wolaita zone SIP activities were not evaluated and analysed according to SIP guidelines.

It is clear from the above that there are shortcomings in the conceptualisation of the evaluation of the school improvement plan among stakeholders that have to participate in doing the evaluation.

6.3.3 How well do school leaders in the secondary schools of Wolaita zone manage the school improvement programme?

6.3.3.1 Planning dimension of managing SIP implementation

According to **quantitative** analysis results, a general positive perception (*great extent; reasonable extent*) of the *planning* dimension of SIP-implementation management was reported at 65.52% of total responses over all *planning* dimension items (see chapter 5, table 5.2). Statistically significant differences between questionnaire item response patterns were indicated for these items: The Chi-square test statistic for the per-item frequencies of table 5.2 was 155.78, with an associated probability of < 0.001, therefore statistical significance on the 0.1% level. This implies that response patterns differ statistically significantly for some *planning* dimension items. These pattern differences can be explained as follows:

Perceptions of some issues were perceived significantly more positively, for example '*the school's strategic plan includes a vision statement*'; '*the annual school improvement plan identifies improvement issues for the year*' and '*each department prepares its own*

improvement plan' were reported with 74.71%, 71.79% 70.22% positive responses (*great extent; to reasonable extent*) (see chapter 5, table 5.2).

The perceptions of some issues were perceived significantly less positive, for example '*key problem areas are identified to incorporate in the SIP*'; '*school leadership communicates the strategic plan to stakeholders*'; '*the school improvement committee revises the strategic plan during the implementation phase*'. These issues were reported with respectively 16.85%, 14.89%, and 15.41% negative responses (*rarely/ poor extent; not at all*) compared to 57.70% 59.58% 56.27% positive responses (see chapter 5, table 5.2).

According to the statistical analysis there is thus room for improvement on some issues pertaining to the planning dimension of managing school improvement. These issues were identified and were listed under the challenges relevant to research question 4.

The nature of school improvement programme implementation requires excellent planning, which can be achieved through collective efforts by all school stakeholders. The findings on the **qualitative** analysis in chapter 5, section 5.7.6.3 indicate that research participants perceived that in most secondary schools, stakeholders did not execute existing policy while preparing, implementing, monitoring and evaluating the SI strategic plan. The most important SIP planning steps, such as planning the self-evaluation process, identifying and prioritizing problems that emanate from such an assessment, timely monitoring and evaluating of the SI strategic plan and implementation of the strategic plan was not done properly.

Moreover, there was poor involvement of stakeholders in planning the SI strategic plan. Similarly, most of the interview participants were of the opinion that the preparation of the SI strategic plan, its implementation, and monitoring and evaluating in the secondary schools of the Wolaita zone were not done in a participatory way. SIP stakeholders at school level, more specifically teachers, students and parents, were not aware of the purpose of the SIP, its importance, processes, and steps and they were not provided the opportunity to participate in SI planning. Interviewees expressed the opinion that the woreda/district SIP experts, school principals and cluster supervisors did not cultivate SIP awareness among stakeholders by means of trainings, seminars and sharing of

experience during workshops. Interviewees commented that in some schools principals copied the previous year's SI plan by simply changing the date on the template. According to interview responses, in some cases, newly appointed principals would directly copy the improvement plan from other schools (chapter 5, section 5.7.6.3).

In summary, the researcher concluded the following; based on the findings indicated in chapter 5, section 5.7.6.3:

- A lack of knowledge/training of stakeholders on SIP planning was indicated.
- Stakeholders' SIP awareness is low and the availability of SIP guidelines, manuals and frameworks are inadequate or absent.
- The school improvement committee and school principals were perceived as not effectively or productively contributing towards the planning and implementation of the school improvement programme.
- Cluster supervisors and woreda SIP experts were perceived as not adequately monitoring and evaluating SIP planning.
- Woreda and zone SIP experts and cluster supervisors were perceived as not regularly and sufficiently supporting SIP activity at school level. The facilitation of supportive conditions at school level and assistance from the Woreda Education Office was perceived as inadequate to implement SIP to the level of departmental expectations.
- Stakeholders (students, teachers, principals, SIC and parents) were not committed to SIP planning (see chapter 5, section 5.7.6.3).

These findings together with those of the quantitative results (which are less negative but also indicated to aspects of SI planning that required attention such as '*communication regarding strategic planning*', q10; '*key problems not included in the strategic plan*', q5, and '*strategic plans that are not regularly revised*' q11) indicate that

the planning function of managing SIP implementation is not executed sufficiently well and that there is considerable room for improvement.

6.3.3.2 Organising dimension of managing SIP implementation

The *organising* dimension of managing SIP-implementation in the **quantitative** study reported an overall positive perception of 54.80% of total responses over all *organising* items (*great extent, reasonable extent*). Statistically significant differences between questionnaire item response patterns were indicated by a Chi-square statistic of 200.37, with associated probability of < 0.0001 (0.1% significance level).

These response-pattern differences can be explained as follows: Some *organising* dimension items were perceived more positive than others, such as the item '*School has SIC that supports SIP activities*' (71% positive responses) (see chapter 5, table 5.3).

On the other hand, some issues were perceived significantly less positive, e.g. '*Woreda district-office provides support staff to provide SIP-implementation training*' (35.11% negative responses; and 41.49% positive responses); '*Adequate resources allocated to each department as per school improvement plan*' (28.37% negative responses and 45.74% positive responses); '*Woreda/District Education Office ensures that principals appointed are qualified to implement the SIP*' (25.62% negative responses). The less positively perceived items point to the following possible management challenges regarding the organising dimension of school improvement:

- The Woreda/district Education Office's inability to arrange sufficient SIP training opportunities.
- Inadequate finance allocation to each of the school's major improvement domains.
- The Woreda/district Education Office's inability to ensure that qualified principals are appointed to implement the SIP.

According to the statistical analysis there is thus room for improvement on some issues pertaining to the organising dimension of managing school improvement. These issues were identified and are listed under the challenges relevant to research question 4 (see

chapter 5, sections 5.6.1.3. and 5.5.2.2).

Findings of the **qualitative study** give a less positive evaluation which caution that there are real challenges regarding organising SIP implementation.

The perceptions that emerged from the qualitative findings indicated that most secondary schools of the Wolaita zone did not have well-established organisational structures facilitating the participation of the respective stakeholders in the school improvement programme. Neither were activities organised and prioritised under the different school improvement domains. The view was expressed that because school principals did not organise SIP committees according to the SIP guidelines and did not collaborate with other school principals and cluster supervisors, appropriate training for teachers, students, and parents could not be provided. Regarding SIP practices it emanated that stakeholders perceived that participation was lacking; the SIP budget was inadequate and support from the woreda SIP experts and cluster supervisors was inadequate. Interviewees perceived that school leaders poorly delegated authority and responsibility; that insufficient school facilities were available, that community participation was not encouraged; that training in SIP implementation strategies were inadequate/ineffective and that schools could not provide regular and organised school-based improvement data.

In summary the researcher concluded that participant perceptions reflected that:

- In most of the schools the school improvement committees were not organised as prescribed in the SIP guidelines, manuals and framework.
- Woreda/district officials/SIP experts do not effectively organise training for teachers, cluster supervisors and school improvement committees.
- In most secondary schools of the Wolaita zone, the activities are not organised into different SIP domains.
- The budget to implement the SI programme is inadequate.
- There is lack of community support.
- The school principals do not delegate SIP activities to stakeholders.
- There is a lack of trained human resources at the woreda level to train and

- facilitate SIP activities and to support schools.
- Principals at secondary schools lack leadership training.

These findings together with those of the quantitative results (which were less negative but also identified similar *organising* issues such as staff training (q23), inadequate SIP funding (q17) and principal qualifications (q22) as issues that probably require further attention) indicate that the organising function of managing SIP implementation is not executed sufficiently well and that there is considerable room for improvement.

6.3.3.3 The leading dimension of managing SIP implementation

Respondents' **quantitative responses** to all closed-ended questionnaire questions of the leadership dimension reported a 57.07% positive perception (*great extent; reasonable extent*) (see chapter 5, table 5.4). A statistically significant difference between questionnaire item response patterns were indicated by a Chi-square statistic of 90.76, with associated probability of 0.03 (5% significance level).

These response pattern differences can be explained as follows:

- The respondents' perceptions of some items were perceived more positively than others, such as: 'Our school's leadership supports the vision, mission and values of the SIP' (q25), 'Our school's leadership promotes SIP activities among stakeholders' (q26), and '*there is a sound relationship between the school's leadership, teachers and students*' (q40). These items respectively had majority positive responses of 66.43%, 63.67% and 63.34% (see chapter 5, table 5.4).
- Some items were less positively evaluated. These concern the following: '*Regular meetings are held regarding SI matters*' (q31), '*the goals of SIP are communicated to the school community*' (q32), '*leadership facilitates effective communication with SIP stakeholders*' (q36), '*other parties partake in decision making related to SIP matters*' (q29). For these items respectively 24.65%, 22.50%, 22.34% and 22.00% negative responses (*rarely/poor extent; not at all*) were reported compared to 51.78%, 51.43%, 56.03% and 53.91% positive responses (*great extent-, reasonable extent*) (see chapter 5, table 5.4).
- These less positively perceived items point to possible leadership challenges of

managing SIP implementation, namely,

- *meetings regarding SIP matters that are not regularly held*
- *SIP goals are not effectively/adequately communicated to stakeholders*
- *ineffective communication with SIP stakeholders*
- *parties that should be involved in SIP decision making that are not actively included in the process.*

According to the above quantitative findings there is thus room for improvement on some issues pertaining to the leading dimension of managing school improvement. These issues were identified and are listed under the challenges relevant to research question 4 (refer to sections 5.6.1.3 and 5.5.2.3).

Findings of the **qualitative study** gave a less positive evaluation which caution that there are real challenges regarding leading SIP implementation. In the qualitative study, all focus group respondents were of the opinion that in secondary schools of the zone school improvement activities were not led according to SIP guidelines, manuals and frameworks; stakeholders (students, teachers and parents) did not participate in decision-making processes of schools' SIP activities; leaders did not promote SIP activities among stakeholders and there was a lack of continuous follow-up on SIP activities; there was very little or no communication between school leadership and school communities/stakeholders regarding SIP implementation; and according to their perception school leaders did not facilitate regular staff meetings (see chapter 5, sections 5.6.1.3 and 5.7.6.3).

In summary qualitative responses indicated to:

- school managements that do not facilitate effective communication with all stakeholders
- leaders that do not promote SIP activities in the school community
- lack of leaders' continuous follow-up
- School leaders that do not facilitate regular staff meetings

These findings together with those of the quantitative results (which were less negative but nevertheless identified similar probable problematic issues such as staff meetings

(q31); and communication (q32 and q36)) indicate that the leading function of managing SIP implementation is not executed sufficiently well and that there is considerable room for improvement.

6.3.3.4 The monitoring and evaluation dimension of managing SIP implementation

Perceptions regarding the **quantitative** questionnaire items referring to the monitoring and evaluation dimension of SIP implementation indicated an overall majority positive perception of 53.3% total responses (*great extent, reasonable extent*). A statistically significant difference between individual *monitoring and evaluation* questionnaire item response patterns were indicated by a Chi-square statistic of 110.70 and associated probability of < 0.0001 (0.1% significance level).

These response pattern differences can be explained as follows:

The respondents' perceptions of some *monitoring and evaluation* items were more positively perceived (*great extent; reasonable extent*-ratings) than others: for instance '*principals' supervision of the SIP activities of HODs and that of teachers*' (q42), as well as '*the annual evaluation of SI objectives to assess effectiveness of planned strategies*' (q45). (The proportion of positive responses to each of these items are 61.84% and 60.85 %.) (See chapter 5, table 5.5 section 5.5.2.4, and section 5.6.1.3.)

On the other hand, some items were less positively evaluated (although still positive). These include the following items: '*as part of SIP policy the PTSA reviews safety precautions*' (q54.2); '*as part of SIP policy the PTSA reviews health procedures*' (q54.1); '*as part of SIP policy the school board reviews safety precautions*' (q53.2); '*as part of SIP policy the school board reviews health practices*' (q53.1); '*cluster supervisors assess implementation of schools' annual action plan*' (q50); '*and Woreda district officials assess implementation of annual action plan*' (q51). (These items respectively recorded 27.28%, 27.54%, 23.76%, 22.84%, 23.49%, and 23.93% negative responses (*rarely/poor extent; not at all* ratings) compared to respectively 44.37%, 47.82%, 48.94, 47.94%, 50.54% and 50.36% positive responses (*great extent, reasonable extent* ratings) (see chapter 5, table 5.5).

It can be deduced that the less positive issues listed below – which pertain to the *monitoring and evaluation* dimension of management – present as possible challenges when it comes to the management of SIP implementation:

- The school boards and PTSA do not regularly review safety precautions and health procedures;
- Woreda/district officials and cluster supervisors do not assess the implementation of the schools' annual action plan (see chapter 5, table 5.5).

According to the quantitative analysis results summarised above there is thus room for improvement on some issues pertaining to the monitoring and evaluation dimension of managing school improvement.

Findings of the **qualitative study** gave a less positive evaluation which caution that there are real challenges regarding leading SIP implementation. Findings from the qualitative study indicated that interviewees were of the opinion that for most secondary schools of the zone SIP assessment and feedback from officials (cluster supervisors and WED experts) were inadequate; that assessment of SIP activities were not regularly conducted and that assessment schedules for SIP implementation were absent or incomplete. Furthermore, interviewees were of the opinion that the school management did not succeed in motivating and encouraging best performance or role models in SIP implementation. They were of the opinion that the collection and analysis of SIP school-based data was not well-organised or regularly available in schools; and that school boards did not regularly review and report the SIP progress to the school community.

In summary the researcher concluded that interviewees perceived that:

- Woreda and zone education officials, SIP experts, cluster supervisors and school improvement committees did not regularly, or at all, assess the

implementation of schools' annual strategic plan and did not provide satisfactory feedback.

- The school improvement committees did not follow a regular/effective SIP monitoring and evaluation programme.
- In most of the schools of the zone, the school improvement committees did not regularly or effectively report SIP improvement to school communities or stakeholders.
- The school board and PTSA did not regularly review health practices, and safety of the school.
- In most of the schools there were very limited or no regular SIP activities, or presentation of SIP assessment schedules.
- School management did not motivate and encourage best performing schools and individuals.
- School management and school boards did not regularly review and report SIP progress to the school communities.

These findings together with those of the quantitative results (which were less negative but nevertheless identified similar probable problematic issues such as PTSA and school boards that do not regularly review health and safety issues (q54.1, 54.2, 53.1, 53.2) and assessment aspects (q50 and 51) indicate that the monitoring and evaluation function of managing SIP implementation is not executed sufficiently well and that there is considerable room for improvement.

The researcher would like to point out at this stage that the answer to research sub-question 3 presented in section 6.3.3 (sub-sections 6.3.3.1 - 6.3.3.4) also contains the answer to research sub-question 4 which will thus not be repeated as explained in section 6.6.4. However, before research sub-question 4 is addressed, the researcher wants to answer the question whether quantitative and qualitative findings jointly inform the relevant research sub-questions of the study.

6.3.3.5 Do quantitative and qualitative findings jointly inform the research sub-questions of the study?

More positive quantitative findings:

The mean perception scores, calculated for the four management dimensions in **advanced quantitative analysis**, verified that perceptions regarding the four dimensions of management – as discussed in the previous sections – were relatively positive: the *planning and leadership* management dimensions mean scores were respectively 2.17 and 2.42, which signifies positive perceptions (*reasonable extent* rating) while the *organising and monitoring and evaluation* dimensions mean scores of respectively 2.48 and 2.5 signified an *average extent* rating - still somewhat positive, but to a lesser extent than the *planning and leadership* dimensions of management (see chapter 5, table 5.8 and the tables in section 5.5.2).

More negative qualitative findings:

As already stated in chapter 5, section 5.7.6.5 it emanated from the qualitative findings that participants perceived that the management of SIP implementation activities were not planned, organised, lead, monitored and evaluated as prescribed in SIP guidelines and manuals. School improvement committees, school principals and school management did not provide necessary support to SIP implementation.

It therefore seems that respondents' perceptions of the quantitative component of the study were more positive – although SIP issues that were identified as possibly problematic in quantitative analyses were similar to issues perceived to be problematic in the qualitative component of the study. The quantitative or qualitative findings-comparisons were indicated in sections 6.3.3.1 to 6.3.3.4. Qualitative findings detailed shortcomings more specifically and critically (being narratives), but the findings did not contradict one another.

The question might well arise why the more negative tone by focus group interviewees (qualitative participants)? According to the researcher the nature of the qualitative participants, their position, and knowledge and experience on SIP management differ

from that of quantitative participants (see chapter 5, section 5.7.6.3): It can, for instance be argued that some qualitative study participants are very knowledgeable and focused on the SIP from its initial development due to their position as administrators or managers in the Ethiopian Education Department. Quantitative component teacher-respondents at local Wolaita zone schools are far removed from the detail of the SIP and, without in-depth SIP knowledge might perceive the programme and purpose completely differently. Furthermore, the quantitative and qualitative data collection instruments were very different. Closed-ended questionnaires require exact limited-choice responses (where respondents might doubt that anonymity is secure – although this is guaranteed) – which might inhibit respondents. Qualitative data on the other hand, was collected via focus group interviews where participants might have felt more at ease to express stronger opinions while surrounded by colleagues.

6.3.4 Challenges that hinder the management of SIP implementation in the secondary schools of Wolaita zone

The relevant research sub-question 4 pertaining to the challenges reads: “What are the major management challenges experienced in managing the implementation of the school improvement programme?” (see sections 1.5.1 and section 4.1).

The challenges that emanate from the study were already extensively highlighted in chapter 5, section 5.7.6.4. Some challenges that affect the management of school improvement programme implementation in the secondary schools of the zone were also presented in section 5.6.1.3 in summary format. They were also summarised in table 5.17 and table 5.18. There is therefore no need to further repeat the challenges once again at this stage.

6.3.5 Suggested strategies to address SIP management challenges

The relevant research question on improvement strategies reads: “How can the challenges experienced in managing the SIP be addressed?” (see sections 1.5.1; 4.1 and 5.2).

Proposed strategies to improve the challenges have already been extensively presented

in chapter 5, section 5.7.6.5 and in summary format in tables 5.17 and 5.18. The researcher presents only the summary format here.

In summary as indicated in chapter 5 in tables 5.17 and 5.18 the main suggested strategies to improve SIP management challenges are: creating stakeholder awareness for the programme planning and implementation; creating awareness on SIP manuals and guidelines; organising SIP activities for different domains; allocating an adequate budget; let stakeholders participate in the programme evaluation, planning and implementation; motivating role models in SI practices; allowing stakeholders to participate in the decision-making processes and SIP activities; facilitating regular staff meetings; promoting activities among school communities and setting regular assessment schedules.

These suggested strategies have been taken into account by the researcher in the presentation of the recommendations emanating from the study which are presented next.

6.4 RECOMMENDATIONS

The main aim of the school improvement programme was to improve students' performance. In order to improve students' academic achievements, from the perspective of this study, schools should manage SIP-implementation in a proper manner. SIP stakeholders should participate in managing SIP activities (planning, organising, leading, implementing, monitoring and evaluating). Therefore, based on the findings and conclusions drawn from this study, the following recommendations are suggested to be used by the stakeholders believing that they would be helpful in managing (planning, organising, leading, monitoring and evaluating) the school improvement programme more effectively.

1. The findings of the study indicates that conducting self-evaluation before planning the SIP and the evaluation and analysis of SIP activities according to SIP guidelines is a problematic issue. The researcher recommends that awareness of this issue should be created by officials at different levels (zone and woreda SIP experts, cluster supervisors and school principals) in order for

the issue to be addressed and so that all stakeholders can participate according to the guidelines for their roles in evaluation.

2. The study indicates that it is problematic that school principals do not delegate SIP activities to stakeholders and those stakeholders (students, teachers and parents) do not participate adequately in SIP activities such as self-evaluation, planning, implementation and decision-making processes. Allowing stakeholders (teachers, students and parents) to participate in the decision-making process of the school SIP implementation calls for promoting the culture of SIP implementation according to the guidelines by the relevant zone and woreda SIP experts and cluster supervisors. Creating awareness of the issue among stakeholders and encouraging stakeholder participation in decision-making and SIP activities is called for. This can be done in various ways, but the will to do something about this issue is required of the relevant officials.
3. The study indicated that it was a problematic issue that SICs were not organised according to SIP guidelines and that they were not functional. Therefore, it is essential to make the school improvement committee functional to make a better contribution to school improvement issues. Empowering and building the capacity of school principals and strategic planning teams in each school to work successfully and closely with stakeholders such as the SIC is very important.
4. Findings of the study indicate that in most secondary schools, the stakeholders lack awareness of SIP guidelines, manuals and frameworks. The respective officials at different levels do not facilitate adequate awareness creation seminars and workshops for SIP stakeholders. Woreda/district officials/SIP experts do not provide adequate training for teachers, cluster supervisors and school improvement committees. School principals also do not facilitate regular staff meetings where school improvement is discussed. Therefore, Woreda Education Office SIP experts, cluster supervisors and school principals in collaboration with the zone and regional education bureaus are advised to provide the training to develop a common understanding of school improvement programme management among the school communities before and during the academic year. Moreover, school leaders need to form a network with cluster supervisors and Woreda Education Office experts to bring awareness and inspiration to the communities, parents, students and teachers on the

objectives, the key participants of SIP management, the management functions (planning, organising, leading, monitoring and evaluating) and the role of all stakeholders. The following need also be noted:

- Woreda Education Office SIP experts should focus on capacity building through continuous training and professional consultation.
 - School boards and PTSA's need to help the schools in mobilizing the wider community.
 - Principals and the school improvement committee of the school should work to capacitate the stakeholders (teaching and non-teaching staff, parents and students) at school level.
5. The study indicates that school leaders or principals are not committed enough to manage (plan, organise, lead, monitor and evaluate) the SIP activities. Similarly, stakeholders (teachers, SICs and parents) were not sufficiently committed to SIP management (planning, organising, leading, and monitoring and evaluating). Therefore, school principals should encourage teachers to be committed to collaborate and participate as decision makers and leaders of efforts to implementation SIP activities and solve SIP management problems by delegating responsibility and providing rewards for better performance. Further, stakeholders can be motivated to participate in SIP activities by facilitating experience sharing during visitation programmes. The SIP committee has to work cooperatively with school management, teachers and students in the school. To be able to do this, the Woreda/district Education Office SIP experts should support the schools' SIP planning through facilitating training for SIP committees.
6. The findings showed that the resources allocated to manage SIP were low. Therefore, the Woreda Education Office needs to allocate a sufficient budget to SIP management (planning, organising, leading, monitoring and evaluating). Active participation of stakeholders in different discussions organised by school boards, PTSA's, school principals, cluster supervisors, and school improvement committees (SICs) need to search mechanisms which enable them to generate their own schools' income rather than waiting only for external support.
7. In most secondary schools of the zone the school principals do not delegate SIP

activities to stakeholders. Stakeholders (students, teachers parents and communities) do not participate in SIP activities (self-evaluation, planning and in the decision-making process). To improve the stakeholders' participation related to SIP management (planning, organising, leading, monitoring and evaluating) awareness should be created by school leaders to involve stakeholders in the SIP process. In order to develop accountability and responsibility in all stakeholders to plan, implement, and monitor and evaluate the programme, the school leaders need to prepare the school improvement programme plan collaboratively with other stakeholders.

8. In the secondary schools of the Wolaita zone the school management do not motivate and encourage best performers/role models in implementing SIP activities. Therefore, school management should reward, motivate and encourage the best performers/role models in SI practices.
9. The findings of this study indicate that the monitoring and evaluating of the SIP management or implementation were not undertaken properly. Therefore, the Zone Education Department (ZED), the Woreda Education Office (WEO), cluster supervisors, school principals and the school improvement committee should give attention to monitoring and evaluation systems for the success of the SIP and the school must set an assessment schedule for SIP implementation.
10. Reporting of SIP activities to stakeholders at school level was weak. However, reporting school improvement activities to stakeholders at school level is very important to gain timely feedback for further improvement. Hence, it is advisable that the school principals and school improvement committees should report the school self-evaluation result and other activities to concerned officials and stakeholders (teaching and non-teaching staff) at the expected time.
11. The study indicated that most of the challenges in managing SIP are related to the four functions of managing school improvement (planning, organising, leading and controlling). Therefore, the Wolaita zone and Woreda Education Office should give much attention to how the challenges can be solved according to the situation of the secondary schools in the zone:
 - The school principals have to give due attention to SIP management, strategic plan development and implementation and should be duly

supported in this regard.

- School principals should initiate commitments in conducting self-evaluation involving stakeholders (teachers, students and parents).
- Stakeholders (students, teachers, school leadership, parents and the wider community) should have continuous discussions about SIP and its implementation to solve the challenges related to the SIP.
- The Zone Education Department, Woreda Education Office, SIP experts and cluster supervisors should give convenient support for managing school improvement programmes.
- Principals and other leaders need to be trained in the management functions in order to confidently manage the SIP implementation.
- Coordination of communicating SIP information and alignment of SIP management activities between the various levels (district/woreda/zone offices and schools) is also a critical element of effective SIP implementation that the researcher became aware of and wants to communicate as a final recommendation.

6.5 LIMITATIONS OF THE STUDY

This study was limited to secondary schools in the SNNPR Wolaita zone, a part of the SNNPR of Ethiopia. The study did not include a sample of respondents across the region or the country. The findings of this study can thus only be generalized to secondary schools within the Wolaita zone.

Different groups of stakeholders were used for the quantitative and qualitative studies in the mixed methods research. This somewhat complicated it for the researcher to present a precise indication of overall perceptions. On the positive side, this also assisted the researcher to present a more balanced perspective on the research topic. (For example the different views on SIP issues recorded for different role players brought forward the critical point that role players' understanding of SIP is diverse/ deficient and should be brought on par to enable effective SIP implementation. This limitation thus also offered new information on some role players' lack of SIP knowledge.)

6.6 IMPLICATIONS FOR FUTURE RESEARCH

The results and limitations of the study led the researcher to suggest the following as areas of future research.

- This study provides information about the challenges in managing the school improvement programme with respect to the four functions of management (planning organising, leading and monitoring and evaluating) in the secondary schools of Wolaita zone. To the researcher's knowledge, no research has been conducted in other parts of the region using the same topic and methodology. Therefore, it is recommended that this study be repeated in other parts of the region/country.
- As this study focused on secondary schools in the Wolaita zone, similar studies could also be done with primary schools in the same or a different zone.
- The study researched the perceptions of teachers and those in managerial position like HODs, vice-principals, principals, cluster supervisors, woreda and zone SIP experts in the Wolaita zone regarding the four functions of managing SIP implementation. Future research could include the views and understanding of different officials at the SNNPR education bureau and Ministry of Education level regarding the management of SIP implementation in both secondary and primary schools of the country.

6.7 CONCLUSION

The purpose of this study was to evaluate the management of school improvement programme implementation in the secondary schools of the Wolaita zone in Ethiopia.

The main research question that guided this study thus asked: "How do school leaders manage the implementation of the school improvement programme in secondary schools in Wolaita zone, Ethiopia?" This question could be answered adequately by the findings to the research sub-questions. The researcher is therefore pleased that the aim of the study could be reached and that meaningful recommendations could emanate from it. The researcher further trusts that this study will make a useful contribution in

improving the management of the SIP in the Wolaita zone.

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APPENDIX A

Additional Analysis of variance tables indicating the non-significant effects of age, experience and interaction-of-biographical effects for the four management dimension perception scores (*plan, organise, lead, monitor & evaluate*)

**Initial impression of possible effect of position on aspects of management
(Categories not condensed)**

Table A1: Mean scores of the plan, organise, lead, monitor and evaluate dimensions calculated according to position-categories									
Position	N	Variable	Mean	Std Dev	N	Skewness	Kurtosis	Max	Min
Principal	14	planning	2.04	0.79	14	1.16	0.85	3.78	1.17
		organising	2.27	0.59	14	0.48	-1.19	3.31	1.54
		leadership	2.14	0.69	14	0.75	-0.31	3.56	1.33
		Monitor_Eval	2.46	0.69	14	0.32	-0.94	3.63	1.38
Vice-principal	23	planning	1.73	0.47	23	0.88	1.01	2.94	1.00
		organising	2.28	0.56	23	0.25	-0.79	3.38	1.38
		leadership	2.11	0.54	23	0.13	-0.05	3.18	1.17
		Monitor_Eval	2.33	0.65	23	0.35	1.05	4.00	1.00
HOD	107	planning	1.77	0.64	107	1.23	1.88	4.22	1.00
		organising	2.16	0.80	107	0.82	0.39	4.69	1.00
		leadership	2.11	0.87	107	1.02	0.48	4.56	1.00
		Monitor_Eval	2.23	0.86	107	0.78	-0.12	4.56	1.00
Teacher	139	planning	2.56	0.86	139	0.27	-0.47	4.89	1.00
		organising	2.77	0.91	139	0.14	-0.84	4.85	1.08
		leadership	2.74	0.93	139	0.13	-0.84	4.78	1.00
		Monitor_Eval	2.75	0.90	139	0.18	-0.57	5.00	1.00

ANOVAs with interaction-effects included

Table A2: Analysis of variance (GLM): determining the statistical significant effects of all biographical attributes and their interaction on perception scores of: Planning					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	77	90.7346265	1.1783718	2.16	<.0001
Position	3	42.98118317	14.32706106	26.27	<.0001
Age	3	0.13536956	0.04512319	0.08	0.9694
Exp	4	0.93059362	0.23264840	0.43	0.7893
Zone	4	10.51696567	2.62924142	4.82	0.0010
Position*Zone	12	8.25030507	0.68752542	1.26	0.2442
Age*Exp	6	3.94624429	0.65770738	1.21	0.3044
Age*Zone	11	6.60078908	0.60007173	1.10	0.3624
Position*Age	8	3.65648247	0.45706031	0.84	0.5700
Position*Exp	11	4.60275632	0.41843239	0.77	0.6723
Exp*Zone	15	9.11393729	0.60759582	1.11	0.3452
Error	205	111.7833805	0.5452848		
Corrected Total	282	202.5180070			
planning R-sq=0.448					
Table A3: Analysis of variance (GLM): determining the statistical significant effects of all biographical attributes and their interaction on perception scores of: Organising					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	77	83.6521763	1.0863919	1.67	0.0022
Position	3	24.11399880	8.03799960	12.38	<.0001
Age	3	1.42191715	0.47397238	0.73	0.5352
Exp	4	1.59025978	0.39756495	0.61	0.6542
Zone	4	8.54863909	2.13715977	3.29	0.0122
Position*Zone	12	15.19825685	1.26652140	1.95	0.0304
Age*Exp	6	2.72853096	0.45475516	0.70	0.6496
Age*Zone	11	5.26811944	0.47891995	0.74	0.7016
Position*Age	8	2.82059018	0.35257377	0.54	0.8231
Position*Exp	11	9.51081813	0.86461983	1.33	0.2088
Exp*Zone	15	12.45104593	0.83006973	1.28	0.2181
Error	205	133.1005524	0.6492710		
Corrected Total	282	216.7527287			
Organising. Adjusted R-sq=.3859					

Table A4: Analysis of variance (GLM): determining the statistical significant effects of all biographical attributes and their interaction on perception scores of: leadership

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	77	90.7155710	1.1781243	1.60	0.0047
<i>Position</i>	3	27.55183592	9.18394531	12.49	<.0001
<i>Age</i>	3	0.90414379	0.30138126	0.41	0.7461
<i>Exp</i>	4	0.71554161	0.17888540	0.24	0.9135
<i>Zone</i>	4	18.64137984	4.66034496	6.34	<.0001
<i>Position*Zone</i>	12	13.93648786	1.16137399	1.58	0.0997
<i>Age*Exp</i>	6	2.89019782	0.48169964	0.66	0.6861
<i>Age*Zone</i>	11	4.79010701	0.43546427	0.59	0.8341
<i>Position*Age</i>	8	2.23597104	0.27949638	0.38	0.9304
<i>Position*Exp</i>	11	9.94257872	0.90387079	1.23	0.2694
<i>Exp*Zone</i>	15	9.10732741	0.60715516	0.83	0.6484
Error	205	150.7600651	0.7354150		
Corrected Total	282	241.4756362			

Leadership. Adjusted R-sq = 0.3757

Table A5: Analysis of variance (GLM): determining the statistical significant effects of all biographical attributes and their interaction on perception scores of: Monitoring & evaluating

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	77	77.6086844	1.0079050	1.43	0.0258
<i>Position</i>	3	16.64750614	5.54916871	7.85	<.0001
<i>Age</i>	3	0.98779385	0.32926462	0.47	0.7066
<i>Exp</i>	4	1.18576597	0.29644149	0.42	0.7947
<i>Zone</i>	4	8.85934352	2.21483588	3.13	0.0158
<i>Position*Zone</i>	12	14.17961447	1.18163454	1.67	0.0752
<i>Age*Exp</i>	6	4.10020482	0.68336747	0.97	0.4490
<i>Age*Zone</i>	11	8.03008023	0.73000729	1.03	0.4191
<i>Position*Age</i>	8	3.63325806	0.45415726	0.64	0.7416

Table A5: Analysis of variance (GLM): determining the statistical significant effects of all biographical attributes and their interaction on perception scores of: Monitoring & evaluating					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
<i>Position*Exp</i>	11	10.57239493	0.96112681	1.36	0.1945
<i>Exp*Zone</i>	15	9.41272237	0.62751482	0.89	0.5791
Error	205	144.9593309	0.7071187		
Corrected Total	282	222.5680152			
Monitor & Evaluate. Adjusted R-sq = 0.3487					

Analysis of variance investigating the statistical significance of all main effects:

Table A6: Analysis of variance (GLM): determining the statistical significant effects of all biographical main-effects on perception scores of: Planning					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	54.5641120	3.8974366	7.06	<.0001
<i>Position</i>	3	42.98118317	14.32706106	25.95	<.0001
<i>Age</i>	3	0.13536956	0.04512319	0.08	0.9699
<i>Exp</i>	4	0.93059362	0.23264840	0.42	0.7931
<i>Zone</i>	4	10.51696567	2.62924142	4.76	0.0010
Error	268	147.9538950	0.5520668		
Corrected Total	282	202.5180070	Adj R-sq=0.2694		

Table A7: Analysis of variance (GLM): determining the statistical significant effects of all biographical main-effects on perception scores of: Organising					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	35.6748148	2.5482011	3.77	<.0001
<i>Position</i>	3	24.11399880	8.03799960	11.90	<.0001
<i>Age</i>	3	1.42191715	0.47397238	0.70	0.5519
<i>Exp</i>	4	1.59025978	0.39756495	0.59	0.6713
<i>Zone</i>	4	8.54863909	2.13715977	3.16	0.0146
Error	268	181.0779139	0.6756639		
Corrected Total	282	216.7527287	Org, adj.R-sq=0.1646		

TableA8: Analysis of variance (GLM): determining the statistical significant effects of all biographical main-effects on perception scores of : Leadership					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	47.8129012	3.4152072	4.73	<.0001
<i>Position</i>	3	27.55183592	9.18394531	12.71	<.0001
<i>Age</i>	3	0.90414379	0.30138126	0.42	0.7409
<i>Exp</i>	4	0.71554161	0.17888540	0.25	0.9110
<i>Zone</i>	4	18.64137984	4.66034496	6.45	<.0001
Error	268	193.6627350	0.7226221		
Corrected Total	282	241.4756362	lead. adj.R-sq=0.1980		

Table A9: Analysis of variance (GLM): determining the statistical significant effects of all biographical main-effects on perception scores of: Monitoring & evaluating					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	27.6804095	1.9771721	2.72	0.0009
<i>Position</i>	3	16.64750614	5.54916871	7.63	<.0001
<i>Age</i>	3	0.98779385	0.32926462	0.45	0.7155
<i>Exp</i>	4	1.18576597	0.29644149	0.41	0.8031
<i>Zone</i>	4	8.85934352	2.21483588	3.05	0.0177
Error	268	194.8876058	0.7271926		
Corrected Total	282	222.5680152	Monitor, adj .R-sq=0.1244		

APPENDIX B

FOCUS GROUP INTERVIEW QUESTIONS

Focus group interview discussion questions are administered to school improvement committee (SIC) members, cluster supervisors, woreda SIP experts, and zone SIP experts. (The same questions used in this schedule will be adapted to cover schools and not only one school in the case of interviews with cluster supervisors, woreda SIP experts, and zone SIP experts)

1. How is school improvement and the management of school improvement conceptualised?
 - What is school improvement?
 - What are its aim and objectives?
 - Who are the participants/stakeholders in the school improvement programme implementation?
 - Does the school have school improvement programme policy guidelines, rules and regulations, and manuals for school improvement programme implementation?

2. How can the evaluation of the management implementation of school improvement be conceptualised?
 - How is the plan evaluated?
 - Who are the participants in the evaluation process?
 - Does the school analyse the outcomes of evaluations and assessments?
 - For what purpose is the evaluation used?

3. How do school leaders in your secondary school manage the school improvement programme based on the management functions?
 - How is it planned?
 - How is it organised?

- How is it lead?
- How is it monitored and evaluated?
 - Does the school have well-established organisational structures facilitating the participation of respective stakeholders in the school improvement programme?
 - Are school improvement programme activities organised and prioritised under the different school improvement domains?
 - Does the school have a three years SIP strategic plan and one year action plan which is derived from the three years SIP strategic plan?
 - Does school management facilitate effective communication with all stakeholders?
 - Does management delegate and share authority and responsibility with different stakeholders?
 - Does management promote its school improvement programme activities among school communities? When? How?
 - Does management supervise and support department heads and teachers to meet the purposes of the school improvement? When? How?
 - Are school improvement goals regularly monitored, reviewed and evaluated on an annual basis to measure the effectiveness of the planned strategies? When & How?
 - Do cluster supervisors, woreda/district experts, and the school improvement committee members monitor and evaluate the implementation of the annual action plan? When? How?
 - Does the school collect and analyse the identified performance data to measure progress of school improvement programme implementation?

4. What are the major management challenges experienced in managing the implementation of the school improvement programme?
(Challenges happen in the process of planning, organising, leading, implementation, monitoring and evaluation.)

5. What strategies can be proposed to address the challenges experienced in managing the school improvement programme?

APPENDIX C
AMHARIC TRANSLATED FOCUS GROUP QUESTIONS

የትኩረትቡድንቃለ-መጠይቅ

ይህ የትኩረትቡድንቃለ-መጠይቅ ለትምህርት/ቤት መሻሻል ለሚቻል፤ ለአላስተርሱፕ ፕሮጀክቶች፤

ለወረዳና ዞን/ትምህርት ቤቶች ለመጠየቅ የተዘጋጀ ነው። (ቃለ-

መጠይቁ ለሁሉም ተጠቃሚዎች/ትምህርት ቤቶች/ትምህርት ቤቶች ለሚቻል፤ ለአላስተርሱፕ ፕሮጀክቶች፤

ለወረዳና ዞን/ትምህርት ቤቶች ለመጠየቅ የተመሳሳይ ነው)

1. የት/ቤት መሻሻልን የጥያቄ/ትምህርት አስተዳደር እንዴት ረዳለህ/ትረዳለህ?
 - ት/ቤት መሻሻል ማለት ምን ማለት ነው?
 - ዓላማዉ ምን ነው?
 - በት/ቤት መሻሻል መርህ-ግብር አተገባበር በላይ ርዥም ሆኖ/ተሳታፊዎች እንዳይሆኑ?
 - ት/ቤቱ የት/ቤት መሻሻል መርህ-ግብር አተገባበር መሰረዎች፤ ደንቦችና ማዕቀፎች አሉት?
2. የት/ቤት መሻሻል መርህ-ግብር ምዘና/ግምገማ አስተዳደር እንዴት ረዳለህ/ትረዳለህ?
 - እቅዱ እንዴት እየተገመገመ ነው?
 - በግምገማዉ ሂደት ተሳታፊዎች እንዳይሆኑ?
 - ት/ቤቶች ግምገማዉን/ምዘናዉን ወጤት ይተነኩሉ?
 - ግምገማዉ ለምን አገልግሎት ይወላል?
3. በ2ኛ ደረጃ ት/ቤቶች የት/ቤት አመራር/የት/ቤት መሻሻል መርህ-ግብርን ከማስተዳደር አንጻር እንዴት እየተገበረ ነው?
 - አስተዳደር ምን ይመስላል?
 - አደረጃጀቱ ምን ይመስላል?
 - አመራር/አተገባበር ምን ይመስላል?
 - የግምገማና ምዘና ክትትልና ድጋፍ ህደቱ ምን ይመስላል?
 - በት/ቤቶች/ቤቱ ምክርቤት ለላይ ርዥም ሆኖ የት/ቤት መሻሻል መርህ-ግብር አደረጃጀት አለው?
 - የት/ቤት መሻሻል መርህ-ግብር ተግባራት በሁሉም አባይ ትርጉሞች ቅድሚያ የትኩረት ተሰጥቶ ተደራጅቷል?
 - ት/ቤቶች የሶስት አመት የት/ቤት መሻሻል እስትራቴጅ ክፍት ድካሚያት ለሁሉም የተመነዘረ የአንድ አመት የድርግት መርህ ግብር አለባቸው?
 - የት/ቤቶች አስተዳደር/አመራር ከባለላይ ርዥም ሆኖ ጋር ለወጤታማ ግንኙነት ምን ይሆኑ እንደሚጠሩ?

- የት/ቤቶች አመራር/አስተዳደር ለተለያዩ ለባለ ድርሻዎች ሀላፊነት ንክተጠያቂነት ጋር አከፋፍሎ እየሰራ ነው?
- በት/ቤቶች አስተዳደር የት/ቤት መሻሻል ግብራትን ለት/ቤቱ ማህበረሰብ እያስተዋወቀ ነው? መቼ? እንዴት?
- በት/ቤቶች አመራር የየትምህርት ክፍል ኃላፊዎችንና መምህራንን መርህ-ግብሩን አላማከማ ሳካት አንጻር ድጋፍና ክትትል እያደረገ ነው? መቼ? እንዴት?
- በት/ቤቶች የት/ቤት መሻሻል ግቦችን ከአመታዊ እቅድ መነሻ በትኩረት እየተገመገመ፤ እየተከለሰ እየተመራ ነው? መቼ? እንዴት?
- የክላስተር ሱፐርቪዥዎች፤ የወረዳና ዞን ት/ቤት መሻሻል በለሙያዎች እንዲሁም የት/ቤት መሻሻል ከሚቴ አባላት አመታዊ የት/ቤት መሻሻል የድርግት መርህ-ግብር አተገባበርን እየገመገመ ነው? መቼ? እንዴት?
- ት/ቤቶች መረጃ በመሰብሰብ ትንተና በማካሄድ የት/ቤት መሻሻል መርህ-ግብር አተገባበር የአፈጻጸምን እየለከነው?

4. በት/ቤት መሻሻል መርህ-ግብር አስተዳደርና አተገባበር ሂደት ዋና ዋና የአስተዳደር እንቅፋቶች ምን ድናቸው? (የእቅድ፣ የአደረጃጀት፣ የአመረር/የአተገባበር፣ እንዲሁም የምዘናና የግምገማ)

5. የት/ቤት መሻሻል መርህ-ግብር አስተዳደርና አተገባበር ችግሮችን ከመቅረፍ አንጻር ምንምን መፍትሄዎችን ጠቁማለህ?

APPENDIX D

QUESTIONNAIRE TO BE COMPLETED BY

Teachers, and management/HODs, Principals and V—Principals

Dear Respondent

This questionnaire forms part of my doctoral research entitled: *Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita Zone, Ethiopia* for the PhD degree at the University of South Africa. You have been selected by a systematic sampling strategy. I therefore invite you to complete the attached questionnaire.

The main objective of this study is to evaluate the management of school improvement programme implementation in secondary schools of Wolaita Zone and to identify major gaps of this programme's implementation. The major management functions that underlie SIP-implementation (school improvement programme implementation), namely, planning, organising, leading, monitoring and evaluating are critically assessed and examined in the questionnaire to identify performance gaps in improving the quality of education in the mentioned secondary schools. Several stakeholders (principals, teachers, school improvement committees (SICs), district and zone education SIP experts) who are directly responsible for the effective implementation of SIPs provided input and are currently involved in this study.

- You are kindly requested to complete this questionnaire, which comprises three sections.
- Please answer as honestly and frankly as possible and according to your personal views and experience. Your perception is important. There are no correct or incorrect answers.
- No foreseeable risks are associated with the completion of the questionnaire.
- Anonymity is guaranteed. Questionnaire responses will only be used for research purposes.
- The questionnaire will take approximately 25-30 minutes to complete.

- You are not required to indicate your name or organisation and your anonymity will be ensured.
- Indication of your age, gender, occupation and position will only be used to describe the research sample and further contribute to the section on more advanced statistical analysis.
- All information obtained from this questionnaire will be used for research purposes only and will remain confidential.
- Your participation in this survey is voluntary. You may withdraw from answering this survey at any stage without penalty.
- Completion of this questionnaire will be regarded as your consent to participate in the study.
- On completion of the study, a soft copy of the findings of the research will be made available to you on request.

Permission to undertake this survey has been granted by the Wolaita Zone Education Department and the Ethics Committee of the College of Education, Unisa. If you have any research related queries, please address them to my supervisor or myself directly. My contact details are: telephone number +251911038868; e-mail: tesemaabebe2013@gmail.com. My supervisor can be reached at the Department of Educational Leadership and Management, College of Education, Unisa, e-mail: vniekej@mweb.co.za

Please return the completed questionnaire to Mr Tesema Abebe before (Date 20/03/2020).

Thank you very much in advance for your cooperation.

Tesema Abebe Abire
 PhD CANDIDATE IN EDUCATION MANAGEMENT
 College of education
 University of South Africa (Unisa), Pretoria, South Africa
 Date 13/02/2020

INSTRUCTIONS

1. Kindly respond to all questions.
2. Please indicate your response with an "X" in the appropriate box.
3. Please select one option.

Part 1: Personal Information

To each question below, please select the option that applies to you:		Serial nr	Official use column <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 1-3												
1	Gender <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1. male</td> <td>2. female</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	1. male	2. female	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 4								
1. male	2. female														
<input type="checkbox"/>	<input type="checkbox"/>														
2	Age category in years <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1. < 31</td> <td>2. 31-40</td> <td>3. 41-50</td> <td>4. > 50</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	1. < 31	2. 31-40	3. 41-50	4. > 50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 5				
1. < 31	2. 31-40	3. 41-50	4. > 50												
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>												
3	Highest educational qualification <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1. Certificate</td> <td>2. Diploma</td> <td>3. Degree</td> <td>4. Master's degree</td> <td>5. Doctorate</td> <td>6. Other</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	1. Certificate	2. Diploma	3. Degree	4. Master's degree	5. Doctorate	6. Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 6
1. Certificate	2. Diploma	3. Degree	4. Master's degree	5. Doctorate	6. Other										
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
4	Work experience as educator <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1. 1-5 years</td> <td>2. 6-10 years</td> <td>3. 11-15years</td> <td>4. 16-20 years</td> <td>5. > 20 years</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	1. 1-5 years	2. 6-10 years	3. 11-15years	4. 16-20 years	5. > 20 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 7		
1. 1-5 years	2. 6-10 years	3. 11-15years	4. 16-20 years	5. > 20 years											
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>											
5	Position at school <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1. Principal</td> <td>2. Vice-principal</td> <td>3. HOD</td> <td>4. Teacher</td> <td>5. Other</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	1. Principal	2. Vice-principal	3. HOD	4. Teacher	5. Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 8		
1. Principal	2. Vice-principal	3. HOD	4. Teacher	5. Other											
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>											

This next part of the questionnaire, Part 2 and 3, aim to evaluate how the SIP (school improvement programme) is implemented at secondary schools in the Wolaita Zone, and specifically at your school. The issues probed in Part 2 of this questionnaire are based on information extracted from the school improvement framework of Ethiopia, (MOE, 2011:82-94) and the Revised Governing Guideline for the implementation of the school improvement programme in Ethiopia (MOE, 2011).

Part 2:
The management of SIP implementation (school improvement programme implementation) in secondary schools in Ethiopia

Please indicate the extent to which you perceive SIP implementation to be managed at your school:

For each statement listed, please select one option that best describes the extent of management you experience to be exercised regarding the aspects listed below. (Indicate (X) the most appropriate option)

Please use the following 'extent'-rating legend:

1 = **To a great extent:** managed very well/prominent in this aspect of SIP implementation

2 = **To a reasonable extent:** managed well/ mostly present in management actions that concerns this aspect of SIP implementation

3 = **Average:** a perception of neither 'good' nor 'poor' management

4 = **Rarely, poor:** somewhat problematic /very seldom present in management actions that concerns this aspect of SIP implementation

5 = **Not at all:** problematic / absent in management actions that concern this aspect of SIP implementation

Sub-section 2.1: The Planning dimension of management

(How school improvement planning is done)

		1	2	3	4	5
1.	Our school has copies of all SIP documentation (SIP policy, rules, regulations, manuals and guidelines) to guide SIP planning.					
2.	Our school's strategic plan for SIP implementation aligns with SIP directions set out by the Ministry of Education.					
3.	Our school develops our own three year SIP strategic plan.					
4.	Self-evaluation sessions are conducted at our school to identify strengths and weaknesses that lead strategic planning.					
5.	Once self-evaluation has been completed, the school prioritises key problem areas (identified weaknesses) to be incorporated into the school's improvement plan as improvement actions.					
6.	Our school's strategic plan is structured to include:					
	a. a vision statement					
	b. a mission statement					
	c. a values statement					
	d. prioritised objectives					
	e. improvement actions with set feedback due dates					
	f. Implementers (staff who must implement the plan)					
	g. guidelines to evaluate improvement actions.					
7.	At our school, the annual school improvement plan identifies key improvement issues for the year based on the school's strategic plan.					
8.	Each department in the school prepares their own departmental improvement plan based on our school's annual school improvement plan.					
9.	The school improvement committee includes teachers in the development of the school improvement plan.					
10.	Our school's leadership communicates the SIP strategic plan to stakeholders to ensure all have a common understanding of the strategic plan.					
11.	The school improvement committee revises <i>the annual</i> SIP action plan during the implementation phase, if the need arises.					
12.	Planning of school improvement is a continuous revision process which is guided by regular assessments (monitoring, self- and external evaluations).					

Sub-section 2.2: The *Organising dimension* of management

(How major school improvement activities are assigned to individuals and departments, and how resources are allocated)

		1	2	3	4	5
13.	The school has a school improvement committee that supports SIP activities.					
14.	SIP activities are organised under the different SIP domains (teaching and learning, school management, conducive learning environment and community participation).					
15.	Adequate finance is allocated to each of the school's major improvement domains.					
16.	Resources are prioritized according to the school improvement goals in order to maximize the impact on teaching and learning.					
17.	Adequate resources are allocated to each department as per the school improvement plan.					
18.	The school improvement committee provides adequate support for the smooth running of the annual school improvement plan.					
19.	a. There are well-established organisational structures that facilitate <i>communication</i> between SIP stakeholders (SIP officials of the ZED and WEO SIP experts, principals, department heads, teachers, and the community).					
	b. There are well-established organisational structures that facilitate <i>participation</i> by SIP stakeholders.					
20.	The school management delegates adequate authority to SIP leaders to facilitate the implementation of the school improvement programme.					
21.	The principal uses distributed leadership to manage the SIP.					
22.	The Woreda/district education office ensures that principals, qualified to implement the SIP, are appointed.					
23.	The Woreda/district education office provides support staff to train secondary school staff in SIP implementation.					
24.	If class size is limited at our school, implementation of the annual improvement plan will show positive results.					

27-39

Part 3:

Open-ended questions

In this section, four open-ended questions are asked. Please describe in your own words how you perceive that specific aspects of managing SIP implementation *can be improved*.

1. How can the **planning dimension** of managing SIP implementation be improved?

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2. How can the **organising dimension** of managing SIP implementation be improved?

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3. How can the **leadership dimension** of managing SIP implementation be improved?

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4. How can the ***monitoring and evaluation dimension*** of managing SIP implementation be improved?

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APPENDIX E
DOCUMENT ANALYSIS CHECKLIST

Does the school have-----

1. SIP manuals, guidelines, policy documents, and the SIP framework?
2. School improvement committee:
Is the committee organised according to SIP guidelines?

Does the school have an organised school improvement programme sub-committee in each domain?

Does the school allocate a sufficient budget to the management of the SIP?
3. Three year strategic school improvement plan:
Does the school conduct self-evaluation before planning?

Does the school identify its strengths and weaknesses?

Does the SIP plan contain basic steps of SIP planning?

Who are the stakeholders/participants in SIP planning?
4. One year SIP action plan?
Does it contain prioritized activities for the school?
5. Progress reports (monthly, quarterly and yearly) on the issues of the school improvement programme?
Does the school report contain all areas of the plan?
6. Training documents of the school improvement programme? Do the documents contain all stages of SIP planning?
7. SIP activities managed based on the management functions of planning, organising, implementing, leading, monitoring and evaluation of the programme?
8. School self-evaluation records?
Are the self-evaluations activities monitored and evaluated periodically/monthly, quarterly and yearly? How?
9. SIP committee meetings minutes and plan?

APPENDIX F

AMHARIC TRANSLATED DOCUMENT ANALYSIS CHECKLIST

የሠነድ ትንተና ችክ-ሊስት

ት/ቤቱ/-----

1. የት/ቤት መሻሻል መመሪያዎች ደንቦችና የት/ቤት መሻሻል ማዕቀፍ አለው?
2. የት/ቤት መሻሻል ኮሚቴ አለው
 - ኮሚቴው በት/ቤት መሻሻል መርህ-ግብር በመመሪያ መሠረት የተደራጀ ነው?
 - ት/ቤቱ በእያንዳንዱ የት/ቤት መሻሻል አባሪ ዕሰጉዳይ የተደራጀ ኑስ ኮሚቴ አለው?
 - ት/ቤቱ የት/ቤት መሻሻል መርህ-ግብር ለማስተዳደር/ለመምራት በቂ በጀት መድቧል?
3. ት/ቤቱ የሶስት አመት የት/ቤት መሻሻል እስትራቴጅ ክፍት አለው?
 - ት/ቤቱ ክፍት በፊት ግለ-ግምገማ አድርጓል?
 - ት/ቤቱ ጠንካራና ደካማ ጎኖችን ሊይቷል?
 - የት/ቤቱ ስትራቴጅ ክፍት መሠረታዊ የት/ቤት መሻሻል እቅድ ቅድምተከተል የተከተለ ነው?
 - በት/ቤት መሻሻል እቅድ ዝግጅት ሰብሳቢዎች/በላይ ርሻዎች እንዳይኖሩ ነው?
4. ት/ቤቱ የአንድ አመት የድርጊት መርህ-ግብር አለው?
 - እቅዱ በት/ቤቱ ቅድሚያ ትኩረት የተሰጠው ነው?
5. ት/ቤቱ ወርሃዊ፣ በየሩብ አመትና አመቱ ማጠቃለያ የአፈጻጸም ሪፖርት ያቀርባል?
 - የት/ቤቱ ሪፖርት የእቅዱን ይዘት ሙሉ ሙሉ ለማሳሰብ ነው?
6. የት/ቤት መሻሻል መርህ-ግብር ሥልጠና ሠነድ አለው?
 - የሥልጠና ሠነድ ሁሉንም የእቅድ ቅድምተከተል ያያዙ ናቸው?
7. የት/ቤቱ መሻሻል እቅዱ አስተዳደራዊ ተግባራትን/አስተቃቀድን፣ አደራጃጅን፣ አመራርን፣ አተገባበርን፣
፤ ክትትልና ግምገማን ያያዙ ናቸው?
8. ት/ቤቱ የት/ቤት መሻሻል ግለ-ግምገማ ሠነድ መረጃዎች አለው?
 - የት/ቤት መሻሻል ግለ-ግምገማ ተግባራት አፈጻጸም በየጊዜው/በወር፣ በሩብ አመት እና በአመት/ያገመገማል? እንዴት?
9. ት/ቤቱ የት/ቤት መሻሻል መርህ-ግብር ኮሚቴ ቃለ-ጉባኤ የኮሚቴው የሥራ እቅድ አለው?

APPENDIX G
RESEARCH ETHICS CLEARANCE CERTIFICATE



UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2019/11/13

Ref: **2019/11/13/61957763/36/AM**

Dear Mr TA Abire

Name: Mr TA Abire

Student No.: 61957763

Decision: Ethics Approval from
2019/11/13 to 2024/11/13

Researcher(s): Name: Mr TA Abire
E-mail address: 61957763@mylife.unisa.ac.za
Telephone: +251911038868

Supervisor(s): Name: Prof EJ Van Niekerk
E-mail address: vniekej@unisa.ac.za
Telephone: +27124296992

Title of research:

**EVALUATING THE MANAGEMENT OF SCHOOL IMPROVEMENT PROGRAMME
IMPLEMENTATION IN THE SECONDARY SCHOOLS OF WOLAITA ZONE, ETHIOPIA**

Qualification: PhD Education Management

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2019/11/13 to 2024/11/13.

*The **low risk** application was reviewed by the Ethics Review Committee on 2019/11/13 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.



University of South Africa
Frelor Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA, 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4130
www.unisa.ac.za

3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date **2024/11/13**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

*The reference number **2019/11/13/61957763/36/AM** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,



Prof AT Motlabane
CHAIRPERSON: CEDU RERC
motlhat@unisa.ac.za



Prof PM Sebate
ACTING EXECUTIVE DEAN
Sebatpm@unisa.ac.za

APPENDIX H
MEMO FROM UNISA ETHIOPIAN LEARNING CENTER TO WOLAITA ZONE
EDUCATION DEPARTMENT

UNISA | 
university
of south africa

29 November, 2019

UNISA-ET/KA/ST/29/29-11-2019

Wolaita Zone Education Department

Soddo

Dear Madam/Sir,

The University of South Africa (UNISA) extends warm greetings. By this letter, we want to certify that Mr. Tesema Abebe Abire (student number 61957763) is a PhD student in the College of Education at UNISA. Currently, he has acquired ethical clearance from UNISA on his doctoral thesis entitled "*Evaluating the management of school improvement program implementation in the secondary schools of Wolaita zone, Ethiopia*".

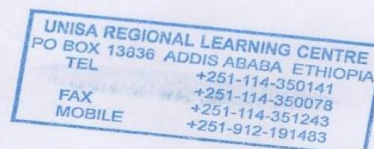
This is therefore to kindly ask you to assist the student to be able to collect data from selected school under your administration. Thanking you in advance for your cooperation, please find the copy of ethical clearance that he secured from UNISA.

Sincerely,



Dr. Tsige GebreMeskel Aberra

Director: Ethiopia Centre



University of South Africa
Regional Learning Center
P.O. Box: 13836, Addis Ababa, Ethiopia
Telephone: +251 11 435 2244 / +251 11 435 0078
Facsimile: +251 11 435 1242/ 43/ 44
Mobile: +251 912 19 1483
www.unisa.ac.za

APPENDIX I

AMPLE LETTER FROM WOLAITA ZONE EDUCATION DEPARTMENT TO WOREDA EDUCATION OFFICES

የወላይታ ዞን ትምህርት መምሪያ
SNNP Regional Government
Wolaita Zone Education Department

ቁጥር ወቅት/መ/ 561/93/103
Ref. No 6/4/2012 ዓ/ም
Date

- To
Sodo City Administration Education Office
Sodo Zuriya Woreda Education Office
Damot Sore Woreda Education Office
Areka Town Administration Education Office
Boditte Town Administration Education Office
Boloso Sore Woreda Education Office
Boloso Bombe Woreda Education Office
Kindo Didaye Woreda Education Office
Kindo Koysh Woreda Education Office
Offa Woreda Education Office
Humbbo Woreda Education Office
Damot Woysde Woreda Education Office
Duguna Fango Woreda Education Office

Subject: Requesting for Cooperation

This is to kindly inform you that Ato Tesema Abebe Abire, Supervisor at Soddo Town secondary schools, is currently pursuing a study, Doctor of Philosophy in Education (PhD), in Education Management at South Africa University. As a requirement for his study, he needs to conduct a research study entitled "Evaluating the Management of School Improvement Programme Implementation in the Secondary Schools of Wolaita Zone, Ethiopia". Hence, we further request your usual cooperation to allow him to:

- conduct focus group interviews with School Improvement Committee, cluster supervisors, Woreda education SIP(School Improvement Programme) experts, and SIP experts of Zone Education Department,
distribute questionnaire to teachers and principals, and
access relevant SIP documents in secondary schools

Therefore, we would kindly request you, Woreda Education offices, to allow him to get necessary assistance and support in his research activity.

Your usual cooperation is strongly appreciated.



Yours sincerely!

Handwritten signature and name: TEFERU LABISSO KOYRA

CC

Ato Tesema Abebe Abire

ስልክ 046-551-22-46
Tel. 046-551-21-53/52
ፋክስ 046-551-47-72
Fax

በኮሚሽን ምላሽ ሲጸፉ የደብዳቤያችንን ቁጥር መጥቀስ አይዘገን።
In replying, please quote our Ref. No

ፖ.ሣ.ቁ 320
P.O. Box
ወላይታ ሰዶ
Wolaita Soddo

አንድም ሕጻን ከትምህርት ውጪ አይሆንም!!

Y.T

APPENDIX J

SAMPLE LETTER FROM WOLAITA ZONE EDUCATION DEPARTMENT TO THE SCHOOLS

የወላይታ ዞን ጉምህርት መምሪያ
SNNP Regional Government
Wolaita Zone Education Department

ቁጥር መዝገብ 562/93/103
Ref. No
ቀን 6/4/2012 ዓ/ም
Date

- To
Soddo Secondary School
Gulgula Secondary School
Gununo Secondary School
Hangada Secondary School
Meles Zenawi Secondary School
Gurmu Koyisha Secondary School
Bombe Secondary School
Hallale Secondary School
Bale Secondary School
Wachega Secondary School
Abela Faracho Secondary School
Tebela Secondary School
Badessa Secondary School
Eilate Tena Secondary School
Bitena Secondary School

Subject: Requesting for Cooperation

This is to kindly inform you that Ato Tesema Abebe Abire, Supervisor at Soddo Town secondary schools, is currently pursuing a study, Doctor of Philosophy in Education (PhD), in Education Management at South Africa University. As a requirement for his study, he needs to conduct a research study entitled "Evaluating the Management of School Improvement Programme Implementation in the Secondary Schools of Wolaita Zone, Ethiopia". Hence, we further request your usual cooperation to allow him to:

- ✓ conduct focus group interviews with School Improvement Committee,
✓ distribute questionnaire to teachers and principals, and
✓ access relevant SIP documents in secondary schools

Therefore, we would kindly request you, Woreda Education offices, to allow him to get necessary assistance and support in his research activity.

Your usual cooperation is strongly appreciated.

C/C
To Mr. Tesema Abebe Abire



Yours sincerely!

Handwritten signature of Tesema Abebe Abire.

ስልክ 046-551-22-46
Tel. 046-551-21-53/52
ፋክስ 046-551-47-72
Fax

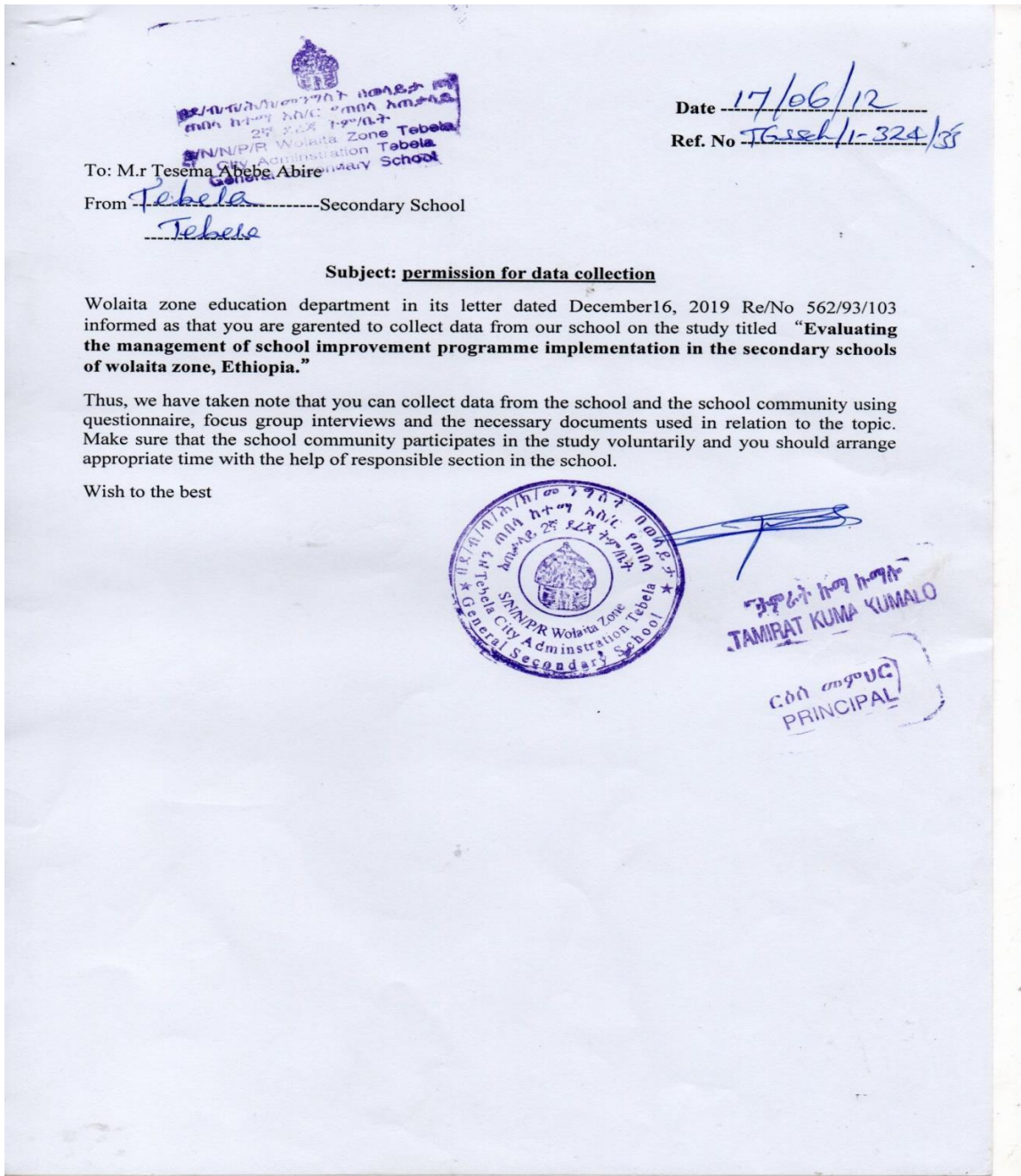
በክፍል ምላሽ ሲጻፉ የደብዳቤያችንን ቁጥር መጥቀስ አይዘገብም
In replying, please quote our Ref. No

ግብይት ሆስታል
P.O. Box
ወላይታ ሥራ
Wolayta Soddo

አንድም ሕጻን ከትም/ገበታ ወጪ አይሆንም!!

Y.T

APPENDIX K
SAMPLE LETTER OF PERMISSION FROM SCHOOL



APPENDIX L
REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT GOVERNMENT
SECONDARY SCHOOLS OF WOLAITA ZONE

Title of my research: Evaluating the management of school improvement programme implementation in the secondary schools of Wolaita Zone, Ethiopia

Date 23/11/2019

To Asst. Prof. TL Koyra
Wolaita Zone Education Department
Po Box 320, Sodo, Ethiopia
+251465511446 (office)

Subject: Request for Authorization to Conduct Research in Secondary Schools of Wolaita Zone

Dear Koyra

I, Mr. Tesema Abebe Abire am doing research under the supervision of EJ Van Niekerk, a Professor in the Department of Education Leadership and Management towards a PhD at the University of South Africa. We are inviting you to participate in a study entitled ***Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita zone, Ethiopia***. I also request the required permission form for entry into the schools.

The aim of this study is to evaluate the management of school improvement programme implementation in the secondary schools of Wolaita zone and identify major gaps of the programme implementation. Your zone has been selected because as a main requirement of my study, I am conducting research on a topic: ***Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita zone, Ethiopia***. The study will be conducted in schools which resort under 13 woreda education offices of the zone. The study will entail examining relevant school improvement documents, conducting focus group interviews and filling a questionnaire. The major management functions in the process of school

improvement programme implementation, like planning, organising, leading, monitoring and evaluating will be critically assessed and examined to identify performance gaps in order to improve the quality of education in the secondary schools of the Zone. As a result respective stakeholders like school principals, teachers, students, school improvement committees (SIC), district and Zone Education SIP experts who are directly responsible for the effective implementation of school improvement programmes in realising the quality of education in the secondary schools are engaged in the study.

The findings of this study will benefit all stakeholders involved and secondary schools in Wolaita zone. The benefits of the findings for the school principals are that the study will assist them in properly handling the main issues related to the challenges of SIP implementation. The findings of this study will also benefit the community of Wolaita Zone in particular. Furthermore, the scientific community will have a basis for further research on similar studies on the practice of SIP.

I believe that any potential risks and discomforts from participating in this study are minimal. The identity of participants will be protected. Participants will have the opportunity to review their interview transcript, confirm the information they have provided, provide any needed clarification and remove any information they do not want to be included in the study. There will be no reimbursement or any incentives for participation in the research.

Feedback procedure will entail that if participants would like to be informed of the final research findings, they will be asked to contact me, the researcher, Mr Tesema Abebe Abire, on +2519038868 or email tesemaabebe2013@gmail.com. The findings are accessible for a period of two years.

Should participants require any further information or want to contact the researcher about any aspect of this study, they should feel free to contact my supervisor, Prof. E.J. Van Niekerk at 012 429 6992 (office) or 083 276 3896 (cell) or email to vnieke@unisa.ac.za.

Yours sincerely



Tesema Abebe Abire

Secondary school cluster supervisor

APPENDIX M
PERMISSION LETTER TO THE WOREDA/DISTRICT EDUCATION OFFICE :
SODO ZURIYA WOREDA

Title of my research

Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita Zone, Ethiopia

Date

To : Sodo Zuriya Woreda Education Offices

Subject: Request for Authorization to Conduct Research in Secondary Schools

Dear

I, Mr Tesema Abebe Abire am doing research under the supervision of EJ Van Niekerk, a Professor in the Department of Education Leadership and Management towards a PhD at the University of South Africa. We are inviting you to participate in a study entitled “***Evaluating the Management of school improvement programme implementation in the secondary schools of Wolaita Zone, Ethiopia.***”

The aim of this study is to evaluate the management of school improvement programme implementation in the secondary schools of Wolaita Zone and to identify major gaps of the programme implementation. The study will be conducted in schools which are under 13 woreda education offices of the Zone. Your office has been selected for the study.

The study will entail examining relevant school improvement documents, conducting focus group interviews and filling a questionnaire. The major management functions in the process of school improvement programme implementation, like planning, organising, leading, monitoring and evaluating will be critically assessed and examined to identify performance gaps in order to improve the quality of education in the secondary schools of the Zone. As a result respective stakeholders like school

principals, teachers, school improvement committees (SIC), district and Zone education SIP experts who are directly responsible for effective implementation of school improvement programmes in realising the quality of education in the secondary schools are engaged in the study.

The findings of this study will benefit all stakeholders involved and secondary schools in Wolaita Zone. The benefits of the findings for the school principals are that the study will assist them in properly handling the main issues related to the challenges of SIP implementation. The findings of this study will also benefit the community of Wolaita Zone in particular. Furthermore, the scientific community will have a basis for further research on similar studies on the practice of SIP.

I believe that any potential risks and discomforts from participating in this study are minimal. The identity of participants will be protected. Participants will have the opportunity to review their interview transcript, confirm the information they have provided, provide any needed clarification and remove any information they do not want to be included in the study.

There will be no reimbursement or any incentives for participation in the research.

Feedback procedure will entail that if participants would like to be informed of the final research findings, they will be asked to contact me, the researcher, Mr Tesema Abebe Abire on +2519038868 or email tesemaabebe2013@gmail.com. The findings are accessible for a period of two years.

Should participants require any further information or want to contact the researcher about any aspect of this study, they should feel free to contact my supervisor, Prof. E.J. Van Niekerk at 012 429 6992 (office) or 083 276 3896 (cell) or email to vnieke@unisa.ac.za.

Yours sincerely



Tesema Abebe Abire

Secondary school cluster supervisor

APPENDIX N

PERMISSION LETTER TO PRINCIPALS

Title of my research: Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita Zone, Ethiopia

Date _____

To _____ school

Subject: Permission letter to do research

Dear

I, Mr Tesema Abebe Abire am doing research under the supervision of EJ Van Niekerk, a Professor in the Department of Education Leadership and Management towards a PhD at the University of South Africa. We are inviting you to participate in a study entitled “***Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita Zone, Ethiopia.***”

The aim of this study is to evaluate the management of school improvement programme implementation in the secondary schools of Wolaita Zone and to identify major gaps of the programme implementation. The study will be conducted in schools which are under 13 woreda education offices of the zone. Your school has been selected by a systematic sampling strategy from the total population of seventy-one schools.

The study will entail examining relevant school improvement documents, conducting focus group interviews and filling a questionnaire. The major management functions in the process of school improvement programme implementation, like planning, organising, leading, monitoring and evaluating will be critically assessed and examined to identify performance gaps in order to improve the quality of education in the secondary schools of the zone. As a result respective stakeholders like school principals, teachers, school improvement committees (SIC), district and zone education SIP experts who are directly responsible for effective implementation of school

improvement programmes in realising the quality of education in the secondary schools are engaged in the study.

The findings of this study will benefit all stakeholders involved and secondary schools in Wolaita Zone. The benefits of the findings for the school principals are that the study will assist them in properly handling the main issues related to the challenges of SIP implementation. The findings of this study will also benefit the community of Wolaita Zone in particular. Furthermore, the scientific community will have a basis for further research on similar studies on the practice of SIP.

I believe that any potential risks and discomforts from participating in this study are minimal. The identity of participants will be protected. Participants will have the opportunity to review their interview transcript, confirm the information they have provided, provide any needed clarification and remove any information they do not want to be included in the study.

There will be no reimbursement or any incentives for participation in the research.

Feedback procedure will entail that if participants would like to be informed of the final research findings, they will be asked to contact me, the researcher, Mr Tesema Abebe Abire on +2519038868 or email tesemaabebe2013@gmail.com. The findings are accessible for a period of two years.

Should participants require any further information or want to contact the researcher about any aspect of this study, they should feel free to contact my supervisor, Prof. E.J. Van Niekerk at 012 429 6992 (office) or 083 276 3896 (cell) or email to vnieke@unisa.ac.za.

Yours sincerely



Tesema Abebe Abire
Cluster supervisor

APPENDIX O
PARTICIPANT INFORMATION
LETTER

Participant information sheet

Date-----

Title: **Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita Zone, Ethiopia**

DEAR PROSPECTIVE PARTICIPANT

My name is Tesema Abebe Abire and I am doing research under the supervision of EJ Van Niekerk, a professor in the Department of Educational Leadership and Management towards a PhD at the University of South Africa. We are inviting you to participate in a study entitled

“Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita Zone, Ethiopia”.

WHAT IS THE PURPOSE OF THE STUDY?

The main purpose of this study is to evaluate the management of school improvement programme implementation in the secondary schools of Wolaita Zone and identify major gaps of the programme implementation. Therefore, the major management functions in the process of school improvement programme implementation, like planning, organising, leading, monitoring and evaluating will be critically assessed and examined to identify performance gaps in order to improve the quality of education in the secondary schools of the Zone.

WHY AM I BEING INVITED TO PARTICIPATE?

You are invited to participate in the study exploring the perception of different stakeholders regarding school improvement programme implementation in the schools and how to reduce/manage the problems. You have been selected to

participate in the study because your knowledge could provide the best information to achieve the objectives of the study. I obtained your contact details from the school principal. You are among the participants that will be involved in the focus group discussion or focus group interview. Each group has an average of 7 to 8 members.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

You are being asked to participate in a focus group interview in which you will be asked to share your opinion on the practice of school improvement programme implementation in the secondary schools. The focus group interview will last 60 to 90 minutes and will take place at a quiet place at the school mutually agreed upon by yourself and the interviewer.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. The interview will be audio taped as part of the process. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The findings of this study will benefit all stakeholders involved and secondary schools in Wolaita Zone. The benefits for the school principals are that the findings of the study will assist them in properly handling the main issues related to the challenges of SIP implementation. The findings of this study will benefit the community of Wolaita Zone in particular. Furthermore, the scientific community will have a basis for further research on similar studies of the practice of SIP.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

No foreseeable risks to you are associated with the research. All the information gathered will be used for research purposes only and will remain confidential.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

You have the right to insist that your name will not be recorded anywhere and that no one, apart from the researcher and identified members of the research team, will know about your involvement in this research.

Your anonymous data may be used for other purposes, such as a research report, journal articles and/or conference proceedings. Your privacy will be protected in any publication of the information (e.g. a report of the study may be submitted for publication, but individual participants will not be identifiable in such a report).

While every effort will be made by the researcher to ensure that you will not be connected to the information that you share during the focus group, I cannot guarantee that other participants in the focus group will treat information confidentially. I shall, however, encourage all participants to do so. For this reason I advise you not to disclose personally sensitive information in the focus group.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet in my locked office which will only be accessible to the researcher. For future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable.

All confidential or private information gathered during the research will be destroyed when they are no longer in use. Hard copies will be shredded (cut into small pieces) by using paper shredders. Electronic copies will be permanently deleted from the

hard drive of the computer.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

Participation is voluntary and, therefore, there will be no remuneration or compensation of any kind in this study.

HAS THE STUDY RECEIVED ETHICS APPROVAL

This study has received written approval from the Research Ethics Review Committee of the College of Education, Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Tesema Abebe Abire on +251 911038868 or by email at: tesemaabebe2013@gmail.com.

Should you have concerns about the way in which the research has been conducted, you may contact Prof.E.J. Van Niekerk at 012 429 6992 (office) or 083 276 3896 (cell) or email to vnieke@unisa.ac.za.

Thank you for taking time to read this information sheet and for participating in this study.



Tesema Abebe Abire

Cell phone: **+251911038868**

Email address: tesemaabebe2013@gmail.com

APPENDIX P

CONSENT TO PARTICIPATE IN THIS STUDY (Return Slip)

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study. I understand that my participation is voluntary and that I am free to withdraw at any time without penalty.

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the focus group interview.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname (please print) _____

Participant Signature

Date

Researcher's Name & Surname: TESEMA ABEBE ABIRE

Researcher's signature

Date

APPENDIX Q
CONSENT FORM FOR FOCUS GROUP AND CONFIDENTIALITY
AGREEMENT

Research Title: **Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita Zone, Ethiopia.**

Researcher Name: Tesema Abebe Abire

Cell: +251911038868

Email address: tesemaabebe2013@gmail .com.

Supervisor's Name: Prof. EJ Van Niekerk

Email address vnieke@unisa.ac.za.

I _____ grant consent that the information I share during the focus group may be used by Tesema Abebe Abire for research purposes. I am aware that the group discussions will be digitally recorded and grant consent for these recordings, provided that my privacy will be protected. I undertake not to divulge any information that is shared in the group discussions to any person outside the group in order to maintain confidentiality.

Participant's Name (Please print): _____

Participant Signature: _____

Researcher's Name: TESEMA ABEBE ABIRE

Researcher's Signature: _____

Date: _____

APPENDIX R

CONSENT TO FILL OUT THE QUESTIONNAIRE

Research Title: Evaluating the management of school improvement programme implementation in the secondary schools of Wolaita Zone, Ethiopia.

Researcher Name: Tesema Abebe Abire

Cell: +251911038868

Email address: tesemaabebe2013@gmail .com.

Supervisor's Name: Prof. EJ Van Niekerk

Email address vnieke@unisa.ac.za.

The purpose of the questionnaire and its nature has been explained to me.

I take part to complete this survey questionnaire, comprising three sections which will take approximately 25 minutes to complete as a part of the study entitled "**Evaluating the management of school improvement programme implementation in the secondary schools in Wolaita Zone, Ethiopia**" for the degree of PhD at the University of South Africa. My participation in this survey is voluntary and I have the right to withdraw from answering this survey without penalty at any stage. After the completion of the study, a soft copy of the study will be made available in the Woreda Education Offices and the Wolaita Zone Education Department.

Questionnaires will be used for research purposes only and will remain

confidential. Participant Name & Surname (please print)

Participant Signature

Date

Researcher's Name & Surname (please print) Tesema Abebe Abire

Date

APPENDIX S
LANGUAGE EDITING CERTIFICATE

To whom it may concern

This is to certify that I, Ilze Holtzhausen de Beer, language edited the thesis

“Evaluating the management of school improvement programme implementation in the secondary schools of Wolaita zone, Ethiopia” by Abire Tesema Abebe, submitted in accordance with the requirements for the degree of Doctor of Philosophy in the subject Education Management, University of South Africa, promotor: Prof EJ VAN NIEKERK.

The onus is, however, on the student to make the changes suggested and to attend to the queries. Please note that I do not accept responsibility for content errors.



IC Holtzhausen de Beer

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APPENDIX T

Multi-dimensionality: Factor analysis results

A more comprehensive explanation of section 5.5.4.2 of Chapter 5

Exploratory factor analysis (EFA)¹ is a statistical method used to uncover the underlying structure of a relatively large set of variables. The overarching goal of factor analysis is to identify the underlying relationships between measured variables and decide whether a practical explanation/ or reason can be given for closely related variables to cluster in groups (factors). In other words, can factors be sensibly labelled?

Although exploratory by nature and only indicative of a meaningful underlying structure, a couple of factor analyses (using the maximum likelihood method with varimax rotation) were performed on the response dataset. Varying numbers of factors were included in each model and statistics from the various analyses compared. The 'rotated factor pattern' matrix of each analysis was also compared to decide whether groups of variables that each analysis grouped together (based on factor loading weights) and which are referred to as 'factors', describe meaningful management concepts.

Table 5.7 below reports the summary results of four of these factor analyses (Maximum Likelihood method with varimax rotation). Each row of the table reports on a single analysis. The proportion of variance explained by the number of factors retained (n) is provided in column 2. The Tucker-Lewis reliability coefficient is reported as the second entry in each cell of column 2. Column 3 reports the Chi-square statistic and probability associated with the null hypothesis that n factors are sufficient to describe the underlying structure of the dataset (A significant null hypothesis test for a common factor underlying the dataset, with a Chi-square value of 3119.12 was reported for

¹ <https://www.statisticssolutions.com/factor-analysis-sem-exploratory-factor-analysis/>. Statistics solutions. *What is exploratory factor analysis?* Accessed 5-01-2020.

all runs with associated probability <0.001. This indicated that more than one factor/ dimension underlies the dataset). The Akaike Criterion (AIC) and the Tucker- Lewis reliability coefficient are respectively reported as the first and second entries in column 4. The Schwartz-Bayesian criterion reported in column 5 and column 6 indicates whether extracted factors form sensible constructs correspond with management dimensions of the study under discussion.

Table 5.7: Exploratory factor analysis results of 5 analyses using the principal components method, varimax rotation and varying numbers of factors (n= 3, 4, 5, 6, 8) to retain in the analysis					
n	Proportion of variance explained/ Tucker Lewis reliability coefficient	Chi-square test for H ₀ , > 1 factor	AIC Akaike criterion	SBC Schwartz's Bayesian criterion	Meaningful factor clusters*
3	0.78 0.82	3584.27 (<0.0001***)	433.29	-5442.14	factor 1: q23 +q24 factor 2: q21, some q22 factor 3: some q21, some q22
4	0.80 0.83	3256.32 (<0.0001***)	201.00	-5481.49	factor 1 q23 + 24; factor 3 some q21; factor 2 some q21 factor 4 mostly q22
5	0.83 0.85	3027.09 (<0.0001***)	59.0013	- 5433.6571	Factor 1: q23 + q24; Factor 2 some q21 factor 4 some q21 factor 3: q22
6	0.85 0.86	2819.72 (<0.0001***)	-50.7701	- 5356.7093	factor 1: q23 + q24 factor 2: some q21; factor 3: q22; factor 4 :other q21 no substantial factor loading weights other factors
8	0.88 0.88	2451.60 (<0.0001***)	- 226.9297	- 5168.7663	Factor 1 q23 +q24 factor 2: some q21 factor 3: q22 factor 4: other q21 factor 5: more q21 factors 6-8 not substantial factor loading weights
*: 'q21...' refers to planning dimension; 'q22....' to organisational dimension; 'q23...' to leadership dimension and 'q24...' to monitoring & evaluation dimension of management					

Deductions regarding factor analysis results:

The chi-square test for the null hypothesis of only a single / or common factor is statistically significant for all analyses reported in the table. This implies that more than one factor/ or dimension (of management) underlies the response data

structure of this study. Furthermore, models with 4 to 6 factors extracted can be sensibly named in terms of the combinations of *planning, organising, leadership and monitoring & evaluation* dimensions of management. (The AIC is relatively small for the 4-factor analysis (the least of the listed models) and the Tucker Lewis reliability⁵ coefficient is reasonable (0.83). Both indicators assist in determining multi-/ uni-dimensionality of a data structure).

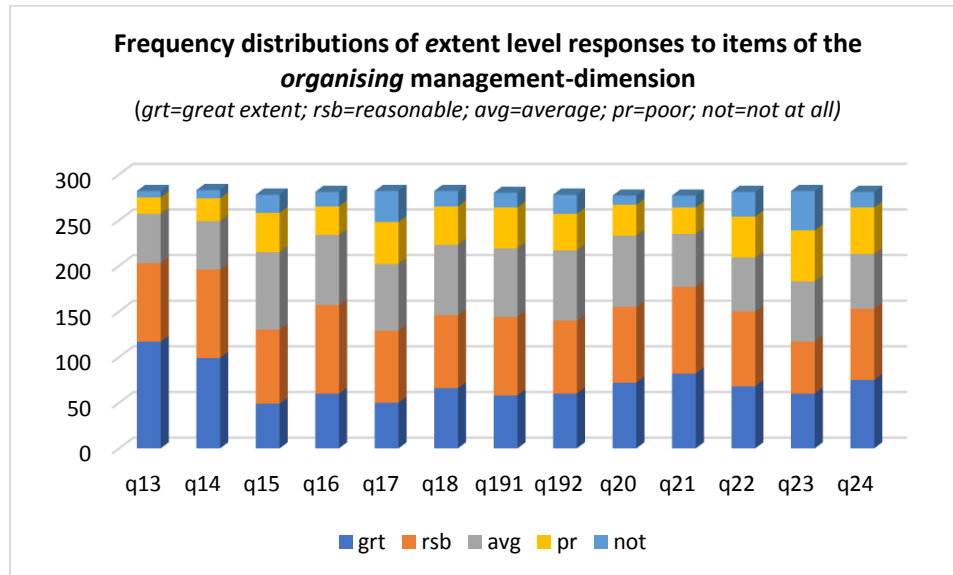
The leadership and monitoring & evaluation dimensions seem to overlap in the factor analyses – which is not surprising since these two components of management have a lot in common.

It can be concluded that a multidimensional structure underlies the response dataset.

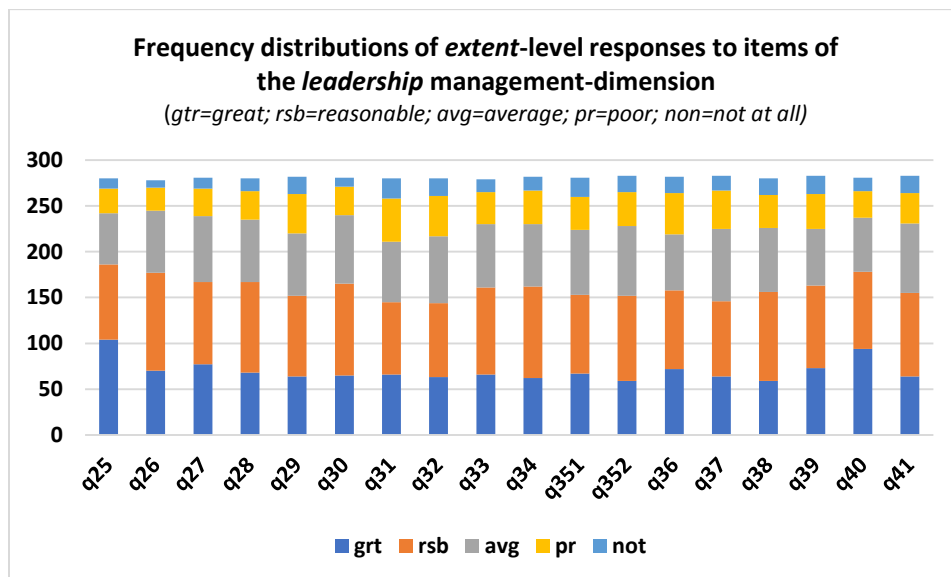
APPENDIX U

Proportional bar graphs: *extent*-frequencies of subset of questions describing the *organising, leadership- and monitoring dimensions* of management

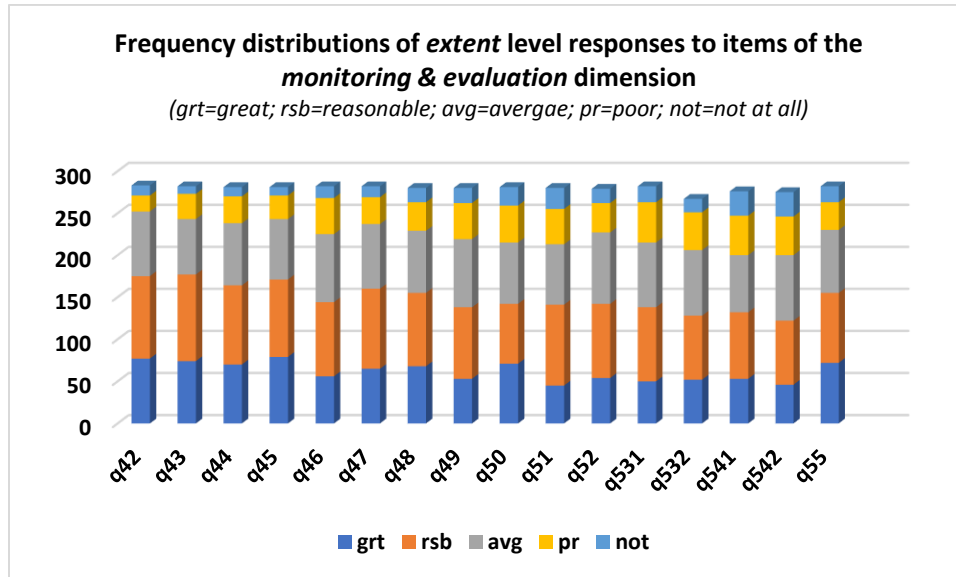
1. Figure 5.2: Visual verification of perception trends of set of questions designed to describe the *organising* management-dimension



2. Figure 5.3: Visual verification of perception trends of set of questions designed to describe the *leadership* dimension of management



3. Figure 5.3: Visual verification of perception trends of the set of questions designed to describe the *monitoring and evaluation*-dimension of managing SIP implementation



APPENDIX V

Table of mean perception scores for management dimensions categorised according to biographical properties

1. Possible effect of experience on perceptions re management dimensions

By comparing the mean perceptions scores of experience-categories for the various management dimensions, in Table 5.10 below, the mean values again seem to suggest that category perception means are more or less the same. In other words, work-experience do not seem to affect perceptions of the various dimensions of management. (This was verified by means of parametric and nonparametric analyses of variance, similar to those analyses discussed in section 5.5.6).

Table 5.10: Means scores of the plan-, organise, lead-, monitor & evaluate-dimensions calculated according to years-experience-categories									
<i>Exp</i>	N	Variable	Mean	Std Dev	N	Skewness	Kurtosis	Max	Min
1-5 years	47	planning	2.08	0.75	47	0.47	-0.74	3.71	1.00
		organising	2.37	0.86	47	0.63	-0.54	4.31	1.00
		leadership	2.40	0.96	47	0.56	-0.80	4.56	1.00
		Monitor_Eval	2.46	0.87	47	0.44	-0.27	4.56	1.00
6-10 years	74	planning	2.24	0.92	74	0.72	-0.02	4.89	1.00
		organising	2.59	0.93	74	0.29	-0.84	4.85	1.00
		leadership	2.45	0.98	74	0.40	-0.86	4.78	1.00
		Monitor_Eval	2.55	0.93	74	0.41	-0.67	4.88	1.00
11-15 years	70	planning	2.11	0.80	70	0.80	-0.15	4.06	1.06
		organising	2.40	0.93	70	0.53	-0.43	4.69	1.00
		leadership	2.35	0.90	70	0.76	0.05	4.67	1.00
		Monitor_Eval	2.42	0.90	70	0.57	-0.47	4.75	1.00
16-20 years	40	planning	2.07	0.85	40	1.16	1.22	4.72	1.00
		organising	2.45	0.76	40	0.72	0.63	4.46	1.15
		leadership	2.47	0.89	40	0.67	-0.03	4.61	1.11
		Monitor_Eval	2.57	0.79	40	0.44	0.09	4.63	1.13
>20 years	52	planning	2.30	0.89	52	0.49	-0.55	4.61	1.00
		organising	2.54	0.83	52	0.49	-0.21	4.77	1.08
		leadership	2.46	0.91	52	0.35	-0.61	4.56	1.00
		Monitor_Eval	2.54	0.94	52	0.36	-0.47	5.00	1.00

The value of the mean management dimension scores are interpreted on the *extent*-rating scale used in the questionnaire. Therefore, a mean score that rounds to '1' will signify *to a great extent*; '2' to a *reasonable extent*; '3' an *average extent*, '4' a *poor extent*, '5' to *no extent*.

2. Possible effect of position on perceptions regarding management-dimension during SIP implementation

Table 5.11 below reports the mean perception scores over *position*-categories, per management dimension. In Table 5.11 the condensed *managers/ teachers*-classification is used. (The un-condensed categories-table can be found in Appendix A). It was indicated in the analysis strategy section, section 5.3, that categories were condensed to improve representativeness with respect to a distinct *manager/ teacher* indicator because management was a critical aspect of the study and needed clear identification.

Comparison of the perceptions means of the *managers' and teachers'* categories per management dimension of Table 5.11 strongly suggest that *position*-category mean scores per management dimension are not equal. (This is verified in parametric, non-parametric analysis of variance procedures, section 5.5.6).

Table 5.11: Means sores of the plan-, organise, lead-, monitor & evaluate-dimensions calculated according to position-categories: Condensed position-categories

<i>Position</i>	N	Variable	Mean	Std Dev	N	Skewness	Kurtosis	Max	Min
management	144	planning	1.79	0.63	144	1.25	1.86	4.22	1.00
		organising	2.19	0.74	144	0.72	0.37	4.69	1.00
		leadership	2.12	0.81	144	0.99	0.67	4.56	1.00
		Monitor_Eval	2.27	0.81	144	0.67	-0.11	4.56	1.00
teacher	139	planning	2.56	0.86	139	0.27	-0.47	4.89	1.00
		organising	2.77	0.91	139	0.14	-0.84	4.85	1.08
		leadership	2.74	0.93	139	0.13	-0.84	4.78	1.00
		Monitor_Eval	2.75	0.90	139	0.18	-0.57	5.00	1.00

The value of the mean management dimension scores is interpreted on the *extent*-rating scale used in the questionnaire. Therefore, a mean score that rounds to '1' will signify *to a great extent*; '2' to a *reasonable extent*; '3' *an average extent*, '4' a *poor extent*, '5' to *no extent*.

3. Possible effect of Wolaita zone divisions on perceptions regarding the different dimensions of managing SIP-implementation

Table 5.12 below strongly suggests that *zone-division* possibly affect respondents' perceptions of some dimensions of management: for example, category means scores for the *leadership* dimension report mean scores of 2.55; 2.04; 2.55; 2.23; and 2.87 for respectively the *middle/ Central; Northern; Western; Southern and Eastern division* of the Wolaita zone divisions. This suggests a *zone-division* effect to be verified/ refuted in the ANOVA section. Such a finding would be of interest: not only because *zone-division presents as an influential effect, but also because zone-divisions were selected as strata in stratified random sampling of this study (This sampling technique assumes that heterogeneity between strata exists/ may exist, but that homogeneity within strata is expected for sampling purposes: Thus, differences between strata are expected.)*.

Table 5.12: Means sores of the plan, organise, lead, monitor & evaluate-dimensions calculated according to Wolaita divisions									
<i>Divi-sion</i>	N	Variable	Mean	Std Dev	N	Skewness	Kurtosis	Max	Min
Middle	99	planning	2.31	0.79	98	0.52	-0.29	4.72	1.00
		organising	2.57	0.73	98	0.27	-0.82	4.46	1.23
		leadership	2.55	0.81	98	0.31	-0.77	4.44	1.17
		Monitor_Eval	2.60	0.81	98	0.19	-0.74	4.63	1.06
Northern	71	planning	1.86	0.77	70	1.22	1.31	4.50	1.00
		organising	2.23	0.90	70	0.45	-0.91	4.18	1.00
		leadership	2.04	0.87	70	0.89	0.12	4.39	1.00
		Monitor_Eval	2.24	0.85	70	0.34	-1.01	4.06	1.00
Western	49	planning	2.12	0.83	48	0.50	-0.68	4.06	1.00
		organising	2.58	0.98	48	0.47	-0.88	4.69	1.15
		leadership	2.55	1.09	48	0.29	-1.23	4.67	1.06
		Monitor_Eval	2.62	0.96	48	0.45	-0.82	4.75	1.00
Southern	38	planning	2.23	0.94	37	0.98	0.30	4.89	1.00
		organising	2.34	0.80	37	0.98	1.02	4.85	1.15
		leadership	2.29	0.69	37	1.39	3.41	4.78	1.39
		Monitor_Eval	2.37	0.76	37	1.00	1.75	4.88	1.31
Eastern	30	planning	2.45	0.94	30	0.66	-0.31	4.61	1.06
		organising	2.75	1.05	30	0.54	-0.73	4.77	1.00
		leadership	2.87	1.05	30	0.28	-1.24	4.56	1.33
		Monitor_Eval	2.80	1.09	30	0.40	-0.84	5.00	1.13

The value of the mean management dimension scores is interpreted on the *extent-rating* scale used in the questionnaire. Therefore, a mean score that rounds to '1' will signify *to a great extent*; '2' to a *reasonable extent*; '3' *an average extent*, '4' *a poor extent*, '5' *to no extent*.

APPENDIX W

Box plot of the distribution of four sets of management-dimension scores (planning, organising, leadership, and monitoring and evaluation)

Figure 5.5: Box plot of the datasets of the scores of the management-dimensions

The x-axis lists the management dimensions and the Y-axis the *extent rating scale*

**Box—plot for four management dimension scores of
planning, organise, leadership, monitor & assess**

