IMPLEMENTATION OF GEOGRAPHY CURRICULUM IN ETHIOPIAN PUBLIC GENERAL SECONDARY SCHOOLS WITH SPECIFIC REFERNCE TO SIDAMA REGIONAL STATE

PhD DISSERTATION

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March 3 2025

Haramaya University, Haramaya

Implementation of Geography Curriculum in Ethiopian Public General Secondary Schools of Sidama Regional State

A Dissertation Submitted to the Department of Adult Education and Community Development, College of Education and Behavioral Sciences, Directorate of Postgraduate Programs

HARAMAYA UNIVERSITY

In Partial Fulfillment of the Requirements for the Degree of DOCTOR OF PHILOSOPHY IN EDUCATION (STREAM: CURRICULUM STUDIES)

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January 2025

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I hereby certify that we have read and evaluated this Dissertation entitled, "Implementation of Geography Curriculum in Ethiopian Public General Secondary Schools with Specific Reference to Sidama Regional State" prepared under our guidance by Afework Delelu Woldemichel. I recommend that it be submitted as fulfilling the Dissertation requirement.

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As members of the examining board of the final Ph.D open defense, we certify that we have read and evaluated the dissertation prepared by Afework Delelu Woldemichael. I recommend that the dissertation be accepted as fulfilling the dissertation requirements for the degree of Philosophy of Doctor in Education (Curriculum Education Stream).

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DEDICATION

To my beloved wife, Asegedech Abebe, and my children, whose unwavering love and support have been the driving force behind my achievements. I am profoundly grateful for everything you have done for me.

STATEMENT OF THE AUTHOR

By my signature below, I declare and affirm that this Dissertation is my own work. I have followed all ethical and technical principles of scholarship in the preparation, data collection, data analysis and compilation of this Dissertation. Any scholarly matter that is included in this Dissertation has been given recognition through citation.

This dissertation is submitted in partial fulfilment of the requirements for a Doctor of Philosophy degree in Education (Stream: Curriculum Studies) at Haramaya University. The Dissertation is deposited in the Haramaya University Library and Information Services and is made available to borrowers under the rules and regulations of the library. I solemnly declare that this dissertation has not been submitted to any other institution anywhere for the award of any academic degree, diploma, or certificate.

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BIOGRAPHICAL SKETCH

The author was born on January 19, 1960, in Harar City, located in the former Hararghe province, now part of Oromiya Regional State. He attended Model Primary School before moving on to Harar Junior Secondary School, both in Harar City.

After successfully passing the Ethiopian School Leaving Certificate (ESLC) Examination, he enrolled at Addis Ababa University (AAU), where he earned a bachelor's degree in Geography in 1983. Following his graduation, he served as a geography teacher, department head, and unit leader at various secondary schools in Ethiopia.

He later, pursued his Master's degree at Addis Ababa University, earning an MA in Curriculum and Instruction in 2005. Subsequently, he joined Hawassa Teacher Training College and Hawassa University as a lecturer. During his time there, he held roles as instructor, PGDT coordinator, and HDP leader.

In October 2017, he began a postgraduate program to pursue a PhD in Education, specializing in Curriculum Studies, at Haramaya University, Ethiopia.

ACKNOWLEDGMENTS

I would like to express my deepest gratitude to the individuals and institutions whose support and collaboration have been instrumental in the completion of this research.

First and foremost, I extend my profound gratitude to my advisors; Associate Professor Dr. Solomon Areaya, Associate Professor Dr. Yilfashewa Seyoum, and Professor Tesfaye Semela for their invaluable support, expertise, patience, and encouragement. Even during challenging times, they helped me find my way, stay on track, reach my goals. They have been more than supervisors throughout my doctoral journey.

I am also grateful to my dear friends, Associate Professor Dr. Zenebe Worku, Associate Professor Dr. Abraham Tulu, and Associate Professor Dr. Samuel Assefa, for their contributions to my dissertation. Their feedback and encouragement have been vital to my pursuit of this research. Special thanks go to Associate Professor Dr. Biruk Brihanu and Mr. Legesse Seyoum for their significant assistance with the statistical aspects and organization of my thesis. I also thank my colleagues, Dr. Anteneh Wassiyehun, and Mr. Getahun Alemu, for their contributions to my doctoral education. I appreciate my friends, Dr. Tassew Mezegebu and Dr. Yonas, for their unwavering support and encouragement. I feel fortunate to have them by my side.

I would like to express my gratitude to the six sample schools' principals, department heads, teachers and supervisors and curriculum experts for allowing me to conduct this research in their institutions and for providing me the necessary data and supporting me in the process of data collection. I would also like to extend my gratitude to Haramaya University for its financial support and collaboration throughout the doctoral journey.

I am deeply thankful to my siblings, Mr. Shemeles Zeleke and his wife, Awotash Abebe, for their steadfast support and encouragement throughout my studies. Lastly, my heartfelt appreciation goes to my family members: my wife, Assegedech Abebe (Samia), my son, Alula Afework, and my daughters, Yeabsira Afework and Ami Afework, who have shown immense patience and support. Thank you for being there for me whenever I need you. Lastly but not least, I would like to thank my daughters in-laws Mr. Branden Moccy and Mr. Biruk Abrham for their financial support.

LIST OF ABBREVIATIONS AND ACRONYMS

ESDP	Education Sector Development Program
GIS	Geographic Information System
GTP	Growth and Transformational Plan
MoE	Ministry of Education
OECD	Organization for Economic Co-operation Development
Ofsted	Office for Standards in Education
PACT	Performance based-academic coaching team
SAGTA	South African Geography Teachers' Association
SNNPRS	Southern Nations, Nationalities, and Peoples Region State
TPD	Teachers Professional Development
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America

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IMPLEMENTATION OF GEOGRAPHY CURRICULUM IN ETHIOPIAN PUBLIC GENERAL SECONDARY SCHOOLS OF SIDAMA REGIONAL STATE

ABSTRACT

This study examined the implementation of the Ethiopian general secondary school geography curriculum in the Sidama regional state. More specifically, the study tried to address the factors that influence the implementation of geography curriculum, the perceptions of teachers and school administrators regarding the geography curriculum implementation. The study employed a convergent parallel design within a mixed-methods approach. Both the quantitative and qualitative data were collected. For the quantitative component, 53 geography teachers from six urban and rural schools were selected through proportionate random sampling. Additionally, 11 school administrators were chosen purposively from these schools and relevant educational offices for the qualitative aspect. Data collection included questionnaires for quantitative insights and semi-structured interviews for qualitative depth. The analysis, involving both descriptive and inferential statistics, revealed several key findings. Overall, the curriculum implementation was suboptimal, with limited engagement from both teachers and administrators. Contributing factors included the curriculum's lack of clarity, which fostered negative perceptions among teachers, and administrators' limited engagement and familiarity with the syllabus, which hindered effective implementation. Traditional lecture methods predominated, side-lining student-centred approaches, and the use of English as the medium of instruction was inconsistent, contrary to national curriculum expectations. The study also highlighted that geography teachers participated minimally in professional development activities, despite a desire to improve their teaching skills. Motivation levels were generally low, and teachers often lacked adequate preparation time. Additionally, schools and administrators faced challenges in delivering technical support and providing equipment, which negatively impacted the implementation of the curriculum. The emphasis on preparing students for national examinations detracted from fostering a deeper understanding of the subject matter. Other challenges identified included student tardiness, disciplinary issues, and frequent absences. The study found that inadequate professional development significantly impacted curriculum implementation. Furthermore, there were no significant differences in curriculum implementation based on teachers' academic qualifications or experience levels. In conclusion, the study identified a substantial gap between the intended and actual curriculum delivery. This gap was attributed to resource limitations, the curriculum's broad scope, ineffective time management, teacher confidence issues, large class sizes, and student absenteeism. Recommendations include analysing teachers' working conditions, enhancing communication between curriculum developers and teachers, addressing discrepancies between intended and actual curriculum delivery, and strengthening support and collaboration between schools and governmental or non-governmental organizations.

Keywords: Curriculum, Implementation, Perceptions, Public Secondary Schools, Sidama Region

CHAPTER-ONE

INTRODUCTION

1.1 Background of the Study

The pivotal role of education is to instigate societal transformation through knowledge, thereby positively impacting the economic, political, and socio-cultural landscapes of a country. Education serves as a conduit for societal advancement, career development, and ultimately, a pathway to an improved quality of life, albeit not invariably. This transformation can be realized via a meticulously designed curriculum, well-structured institutions, proficiently trained educators, and the active engagement of diverse stakeholders from inception. Nevertheless, the fruition of educational benefits hinges not merely on the existence of these elements but on their effective application in practice (Woube, 2005).

A cornerstone of the education system, second only to educational policy, is the curriculum. It is a vital element in fulfilling the objectives of education, with education and curriculum being inextricably linked. The development and implementation of the curriculum are considered an ongoing aspect of educational policy. However, the concept of curriculum remains elusive, and can be viewed from different directions. It may also be seen from many directions having several levels of generality or specificity. Curriculum is a value laden term in which its definition is tied closely with certain value system (Abebe, 1986 as cited in Solomon, 2006). It has no universally agreed upon meaning. Scholars offer various interpretations based on the significance and values attributed to education, leading to a scenario where the curriculum is more often elucidated than strictly defined. For instance, Educationists like Bestor (1963) define curriculum in terms of a subject matter to be studied. According to this definition, a curriculum is the sum total of all courses of study for the various subjects in the school. Educators such as Hopkins (1941:12-19) and Count (1963:178-195) also define a curriculum as, “All experiences that contribute to the growth and development of the pupils.” With respect to this definition, the essential elements of curriculum are not necessarily found in books alone but in every walk of life. Similarly, Dowden T. (2013) simplifies the curriculum as the course of study pursued by students in a learning environment. Wiles & Bondi (2014) describe it as the entirety of a program developed for a school or student body, encompassing expected experiences and knowledge. According to Mkandawire, (2010), it represents the learning experiences of students, articulated through goals, objectives, plans, and their execution in school settings. On the other hand, American Educators (Tyler, 1949; Taba, 1962, Saylor et al., 1981) defined

curriculum as set of intended learning what is to be learned by individuals, developed in learners, or produced in society as a consequence of education.

However, by treating objective based (end-means) model, conceptions of curriculum definitions as problematic, Stinhouse (1975:4) forwarded his alternative definition of curriculum as "an attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation in to practice".

He further expounded his definition as curriculum is the means by which the experience of attempting to put an educational proposal in to practice is made publicly available .It contains both content and method, and takes the problem of implementation into account in the institutions of the educational system (Solomon, 2019).

The major variations in the meanings of curriculum originate from the meanings and values given and attached to education in general. If education is viewed and planned as product, then curriculum is a finished document to be executed to achieve predetermined objectives. On the other hand, if education is seen as a process of understanding and there by acquiring knowledge ,then curriculum is a guideline or a proposal that facilitates the teaching and learning process conferring to the need and interests of the learners to be implemented flexibly under different contexts (Solomon, 2019).

One of the best definitions of curriculum which was offered by British educators on curriculum debate presented by Alistair (2000, p. 9) as follow:

> *"...curriculum consists of all those activities designed or encouraged within its organizational framework to promote the intellectual, personal, social and physical development of its pupils. It includes not only the formal programme of the lessons, but also the 'informal' programme of so-called extracurricular activities as well as those features which produce the school's 'ethos', such as the quality of relationships, the concern for equality of opportunity, the values exemplified in the way the schools sets about its task and the way in which it is organised and managed. Teaching and learning styles strongly influence the curriculum and in practice they cannot be separated from it. Since pupils learn from all these things, it needs to be ensured that all are consistent in supporting the school's intentions" (Alistair, 2000, p. 9).*

This Broad conceptualization of curriculum consisting anything that schools do and facilitate students' learning can be used as workable definition for this study.

Curriculum implementation, a critical phase in the curriculum development process, involves the systematic transformation of the curriculum into classroom activities and fostering a positive attitude among students towards engagement and participation (Okello and Kagoire,

2016; Mkandawire, 2010). It encompasses the application of ideas and innovations in teaching knowledge, skills, concepts, and interpretations (Mulysia, 2009). Chaudhary (2015) and Nevenglosky, (2018) define it as the enactment of officially prepared course content and methodologies to equip students with requisite knowledge and skills. Similarly, Fullan (1991:65) describes implementation as, "A process that consists putting in to practice of an idea, program, or set of activities and structures new to the people attempting or expected to change." These outlooks collectively understand implementation as the translation of plans into action, the execution phase of a curriculum, and a determinant of its success or failure (Solomon, 2006).

In Ethiopia, the Ministry of Education (MoE) is tasked with developing a Framework for Curriculum Development and maintaining its standards. The MoE oversees the curriculum for secondary and higher education institutions and aids regions in formulating curriculum for the early and middle stages of primary education. It also coordinates the creation of curriculum support materials, conducts research, and evaluates educational programs at all levels. Regional Education Bureaus, along with Zone and Woreda offices, play a vital role in implementing primary and secondary curricula (MoE, 2009). Consultations with various stakeholders at regional and national levels, including professional associations, academic societies, and parent committees, are integral to the curriculum design and implementation process (UNESCO, 2007).

Within the Ethiopian 8-4 educational framework, Geography emerges as a core subject in secondary education, transitioning to an elective at the upper secondary level (grades 11 and 12) (MoE, 2020). This discipline facilitates students' exploration and comprehension of the interplay between humans and the Earth, integrating a broad spectrum of natural and social sciences under a unified spatial and environmental paradigm (Viles and Rogers, 2003). By focusing on natural processes, human endeavors, and their interactions, Geography contributes to addressing and resolving various spatial and environmental challenges at global, national, and local levels. The inclusion of Geographic Information Systems (GIS) concepts and independent fieldwork enriches students' learning experiences, enhances the quality of education, and cultivates systematic investigative skills. Thus, Geography education stands as an intellectually stimulating and valuable field of study, offering academic, career, and personal development opportunities for students. However, the teaching of Geography poses significant challenges for educators, attributed to its dynamic

nature, the integration of emerging technologies, and the provision of appropriate guidance within constrained timeframes.

This study aims to explore the implementation of the geography curriculum and the perceptions and practices of geography teachers in public general secondary schools in the Sidama region. The researcher posits that the outcomes of this investigation could provide valuable insights for curriculum developers, educators, and students, enhancing their comprehension of the challenges associated with the geography curriculum's execution at the classroom level.

1.2 Statement of the Problem

The process of implementing curricula is often likened to navigating through a "black box" fraught with challenges and unexpected issues. This term encapsulates the complexities encountered when putting curriculum policy into practice. Bennet (2007) highlights the discrepancies between the intended curriculum policy and its actual implementation as a primary indicator of these challenges, noting that there's often a gap between the intended outcomes and the realities of enactment. Such discrepancies pose significant challenges for stakeholders at various levels, including policymakers, mid-level administrators, and teachers, as identified by Wang Hong (2006).

The myriad issues stemming from curriculum implementation are acknowledged as both complex and inevitable, presenting a multifaceted challenge. Different stakeholders, interpreting curriculum policies through their unique lenses, contribute to these challenges. Policymakers initially devise these policies with positive intentions, yet local institutions may implement them with less desirable outcomes. Middle administrators, acting as intermediaries in policy translation, may face institutional and contextual barriers, hindering the curriculum's effective implementation. Chapman (2019) elaborates on these challenges, suggesting that curricula cannot be implemented as intended due to these encountered obstacles.

Furthermore, resistance from key stakeholders, such as teachers, can exacerbate implementation challenges. Teachers may perceive the curriculum differently from its designers, leading to reluctance or inability to integrate new curricular changes into their teaching practices. This issue is notably prevalent in the context of geography education, as Chapman (2019) observes.

Academic research has identified numerous challenges within the realm of curriculum implementation. For instance, Mkandawere (2010) points out obstacles such as inadequate funding, a lack of teaching materials, insufficient qualified teachers, and the absence of essential school facilities. Additionally, Akakandelwa and Munsanje (2011) note the difficulty teachers face in utilizing materials effectively, often stemming from a lack of training specific to the curriculum in question. This situation underscores a broader issue: without comprehensive training and involvement in curriculum development, teachers may lack a sense of ownership and investment in successful implementation.

The degree of teacher involvement in curriculum development, including planning, creation, implementation, and reflection, significantly impacts their understanding and ownership of the curriculum. Akandware (2010) emphasizes the importance of engaging teachers throughout the curriculum development process, highlighting their pivotal role in successful implementation.

Local studies further elucidate factors impeding curriculum implementation. Asrat (2020) identifies inadequate teaching materials and a lack of student engagement as significant barriers. Mesfin (2020) points to political interference and an unfavorable learning environment as detrimental to curriculum implementation. Similarly, studies by Lemlem (2010), Awol (2014), and Semela (2017), reveal additional challenges, including organizational and administrative issues, a lack of active learning techniques, and the absence of training that accounts for local contexts.

To enhance the effectiveness of geography curriculum implementation, it is crucial to identify and address both the positive and negative experiences encountered in practice. Such analysis can inform revisions and strategic planning to overcome obstacles in future implementation efforts. Cheung and Wong (2012), Badugela (2012), and Ogar and Opoh (2015) advocate for this approach and emphasizing the need for continued experimentation and innovation to support student progress and enhance the delivery of curricula.

The impetus for this study stems from the researcher's extensive firsthand experience with challenges in geography curriculum implementation within secondary schools and teacher training institutions. These challenges include inadequate infrastructure, poor time management, and a general lack of engagement among teachers and students. The scarcity of research on geography curriculum implementation at the general secondary level, especially in the Sidama region, further motivates this study. Given the national geography curriculum's

wide-reaching impact on a significant student population, investigating its implementation within this context is deemed essential.

1.3 Objectives of the Study

The overarching goal of this research is to examine the implementation of the geography curriculum within public general secondary schools in the Sidama region, employing a mixed-methods approach. This investigation focuses on understanding the perceptions and practices of teachers, as well as identifying the factors that influence the implementation of the geography curriculum in this specific context. Specifically, the study seeks to:

- Assess teachers' viewpoints regarding the geography curriculum for general secondary schools and its execution in the Sidama Region, aiming to uncover teachers' insights and attitudes towards both the curriculum and its practical application.
- Examine the perceptions of school administrators (including principals, department heads, supervisors and curriculum experts) on the geography curriculum for general secondary schools and its implementation, providing a comprehensive understanding of administrative perspectives on curriculum execution.
- Identify the factors that influence the implementation of the geography curriculum in public general secondary schools in the Sidama Region, seeking to uncover both the challenges and facilitators that affect curriculum delivery.
- Examine the support provided by the school administration for the implementation of the geography curriculum in general secondary schools in the Sidama Region, aiming to understand the level and types of support that enhance the effective execution of the curriculum.

1. 4 Research Questions

The study aims to address the following research questions comprehensively:

1. How do geography teachers perceive the geography curriculum and its implementation in the general secondary schools of the Sidama region?

2. What are the perceptions of school administrators (including school principals, department heads, and curriculum experts/supervisors) regarding the geography curriculum for general secondary schools and its implementation?

3. What factors influence the implementation of geography curriculum for general secondary schools in the Sidama region?
    a. Which factors are predictive of teachers' adherence to curriculum implementation?
    b. To what extent do teachers' educational backgrounds and teaching experiences influence their approach to implementation?

4. To what extent do school administrators provide support for the implementation of the geography curriculum in general secondary schools in the Sidama region?

1.5 Scope of the Study

This study is confined to the examination of geography curriculum implementation in public general secondary schools (grades 9 and 10) within the Sidama region. It delves into issues surrounding the perceptions, practices, and determining factors that could affect geography curriculum implementation process. Consequently, the focal areas of this investigation encompass the teachers' perceptions and attributes, teaching methodologies and techniques, instructional materials, physical infrastructure, and the school and classroom-level factors that impact the geography curriculum implementation in general secondary schools across the Sidama Region, Ethiopia.

The variables identified as independent variables in this study include teachers' perceptions, teaching methodologies and techniques, instructional materials, physical infrastructure, and the resources and support available. On the other hand, the extent of curriculum implementation in general secondary schools is deemed as dependent variable.

The study's demographic encompasses government secondary schools, principals, department heads, supervisors,/curriculum experts, and teachers within the Sidama regional state. Schools and participants were selected from the focused population. This study's participants comprised principals, department heads, teachers from the selected schools, and supervisors and curriculum experts from the education bureau. All geography teachers from the selected general secondary schools were included in the study based on the belief that they could provide comprehensive information about their curriculum implementation. School principals and department heads were also involved under the assumption of their direct and indirect engagement in the curriculum implementation process. Furthermore, curriculum experts and

supervisors were considered due to their role in directing and supporting the school curriculum implementation.

This research utilized both quantitative and qualitative methodologies for data collection and analysis. The quantitative segment incorporated a questionnaire to capture an overarching view of the studied problem. Meanwhile, the qualitative segment comprised two sets of interviews and document analysis to further elaborate and refine the findings from the quantitative research.

1.6 Significance of the study

This study provides a comprehensive examination of the geography curriculum implementation process, offering valuable insights into the challenges and issues associated with this subject area. By exploring variables such as teacher perceptions and practices, the availability of support and resources, and the factors influencing curriculum implementation, this research holds significant relevance for stakeholders in the field of general secondary education.

Specifically, the study offers considerable contributions to the international discourse on secondary education practices and challenges. It achieves this by identifying and analyzing the specific issues and practices related to the implementation of the general secondary geography curriculum. Furthermore, it aims to inform policy makers and educational planners about the unique challenges encountered in the geography curriculum implementation within the Sidama region. Ultimately, this research serves as a foundational basis for future studies focused on the development of geography curricula, thereby enriching the academic and practical understanding of this vital educational area.

1.7. Operational Definition of Key Terms

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Curriculum -curriculum is the plan of action and what is to be taught or learnt in school. The term curriculum implies the planned learning experiences offered to the learners. In this study it refers to geography subject outlined in the National Curriculum for Secondary Schools.

Geography - In this study, geography as a subject offered to students in grades 9 and 10 within the general secondary schools of Ethiopia's educational system. It is designed to impart knowledge on both physical and human environments. Furthermore, it aims to equip learners with the skills necessary for effective map reading.

General Secondary School- means the first cycle of secondary education in the Ethiopian education system that includes grades nine and ten.

Implementation –In this study the term implementation implies the process of translating educational plan into reality to bring about change in the learners.

School administrators- are those professionals, such as principals, department heads and supervisors, typically working in the school. They are responsible for overseeing administrative and academic tasks to ensure that the school runs accordingly for effective curriculum implementation.

Instructional media- means those resources which are used in the geography curriculum implementation.

1.8 Limitation of the study

Research endeavors are inherently subject to certain limitations, and this study was no exception. A significant challenge encountered was the limited availability and willingness of some educators, including teachers, school leaders (such as principals, unit leaders, vice principals, and department heads), to participate fully in the questionnaire and interview processes. Their busy schedules and varying levels of interest impacted their responsiveness. To address this issue, the researcher engaged in open discussions to clarify the study's objectives, which, along with the assistance of colleagues who encouraged participation, enhanced the rate of questionnaire returns.

Another notable limitation was the scarcity of relevant literature, particularly regarding the practices of geography teaching, leadership development, and succession planning within the educational sector and specific to the Ethiopian context. This scarcity was characterized by a pronounced lack of both books and up-to-date literature in the field. In response, the researcher exploited every available resource, including libraries and the internet, to gather necessary information.

Additionally, the study faced external challenges, including insecurity and the widespread impact of COVID-19, which further complicated the data collection process. These factors

necessitated the adoption of flexible and innovative approaches to ensure the completion and integrity of the research.

1.9 Organization of the Study

This research paper is structured into five chapters, each meticulously designed to provide a comprehensive exploration of the study's scope, findings, and implications. Chapter one introduces the study by presenting the background, clearly stating the problem, articulating the research question, and delineating the objectives. It further highlights the significance of the study, its delimitations, limitations, and offers precise definitions of key terms. Chapter Two embarks on a thorough review of literature relevant to the research topic, setting the theoretical foundation for the study. Chapter Three delves into the research methodology, detailing the approach and techniques employed in gathering and analyzing data. The analysis and interpretation of the data collected from the study's subjects are presented in Chapter Four, providing critical insights into the research findings. Chapters Five devoted to the Summary, conclusions and recommendations based on the findings of the study. The document also includes a References section and an appendix, which contains the questionnaire and interview format utilized in the research process.

CHAPTER-TWO

REVIEW OF RELATED LITERATURE

This chapter primarily focuses on six key topics and subtopics. It begins with an examination of the Ethiopian education policy and its curriculum, followed by a discussion on the concept of curriculum implementation and its various approaches. The chapter then explores the place and nature of geography education, and the specifics of geography curriculum implementation and the various curriculum models. Additionally, it delves into the determinants of curriculum implementation, which include change policy, the role of change agents, and organizational factors in implementing change. Finally, it concludes with a theoretical framework and conceptual framework to provide a comprehensive understanding of the factors influencing curriculum implementation in the context of Ethiopian education.

2.1 Education Policy and Curriculum Framework

Education is an instrument of change for the individual and the society. It is a process of acquiring academically, socially, and professionally useful knowledge, attitudes, and skills for personal growth and societal transformation.

And, if education is to serve that purpose effectively, the role of a well-developed curriculum framework is immense to support and facilitate quality education for nation. It is with this understanding that the national curriculum framework has come into being.

In the past, very many studies were conducted on various issues of the system of education including its curriculum. Several changes have been conducted on one of the education system issues, curriculum. One of the changes introduced in the Education and Training Policy of 1994 which emphasized the need to address the major drawbacks in education including lack of relevance of contents, prevalence of difficult and overloaded contents in text books, absence of interactive learner-centered methodologies, and lack of proper implementation of continuous assessment. It also stressed the importance of taking measures that would improve better access, quality, relevance, equity, and efficiency. However, the education policy and the curriculum developed to redress the limitations of the past have not been able to address them properly and the system continued to suffer from the same problems including quality and relevance. Thus, to overcome the education system problems and align the curriculum with the 21st century advancements, a major revision of the existing policy and its curriculum was felt necessary.

As a result, a new educational and training policy and its curriculum were developed in 2023 with the goals to produce citizens who are innovative, inventive, productive, self-directed, responsible and active contributors to national development. Moreover, cultivate citizen to become creative and critical thinkers, decision makers as well as problem solvers. Cultivate individuals who stand for human right, justice and peace. Cultivate citizens endowed with moral, discipline, democracy and useful culture.

In relation to the structure, the Ethiopian Education is structured in three general phases:

The General education consists of pre-primary level (5 and 6 years children); primary school (from grade 1 to grade 6); Middle level (grade 7 and grade 8); and secondary education (grade 9 to grade 12). It is an integral part of education that provides academically useful knowledge, attitudes and skills for life and further education, social cohesion, development and transformation, and equipping with professionally and technically useful knowledge and skills for the world of work, further training, and career development.

Technical and Vocational Education and Training (TVET) includes: Non formal basic vocational training; junior level TVET and Middle level TVET

Higher Education which departs from secondary education that includes under-graduate and graduate is the other level.

Hence, Secondary school education is a period marking the beginning of developing abstract reasoning and logical thinking abilities helpful to understand and generate knowledge beyond the here and now. It is also time for widening and deepening knowledge, skills and attitudes obtained during previous learning and getting prepared for further education at the tertiary level, further technical training, and the world of work. In the 9^{th} and 10^{th} grades of the secondary education students will acquire useful academic knowledge that will prepare to enroll either in various vocational training programs or 11 and 12 grades for further university level education within a short period. Thus no time and resource wasted.

To effect the objective mentioned above, geography is one of the curricula among others for grade 9 and 10.

2.2 Concept of Curriculum

Although educators and researchers have debated on many aspects of curriculum, there is still no widely accepted or unanimously agreed definition of curriculum. Thus, the concepts of curriculum vary depending on the context of the discussion.

The origin of the term curriculum came from Latin word “currier” which means “race course”. Based on this the oxford dictionary defines term curriculum as a course or specific fixed course of study in school or college. Similarly, Webster’s new international dictionaries define it as the body of course offered in an educational institution. However, when these definitions compared with definitions formulated by scholars in the field they are complex and too narrow (Pina *et. al.*1995, quoted in Wang, 2006)

Curriculum is a term which is used with several meanings and viewed from many directions having several levels of generality or specificity. Curriculum is a value laden term to the extent that its definitions are closely tied to certain value systems (Abebe , 1986 as cited in Solomon, 2019). For instance, Ralph Tyler (1949), one of the earliest known scholars defined it as all the learning of students planned and directed by the school to attain its educational goals.

Similarly, the term curriculum which was defined as subject matters set out by teachers for student to cover, developed and expanded to mean a plan, experience or a methodology inquiry in the early 20th century (Wang, 2006).

Marsh (1997, p. 3) defines curriculum as Curriculum is a content or subjects, a set of materials and objective performance which is taught inside and outside of the school and directed by the school. It is an individual learning experiences that is planned by school personnel. In his definition marshal attempt to reach consensus by reflecting diversified values and experiences. Curriculum to Dowden (2013), in its simplest form means the course of study students undertake in a learning context.

For Ofted (2019) curriculum is defined as: the substance of what is taught. It is a specific plan of what pupils need to know and should be able to do. The curriculum shapes and determines what pupils will get out of their educational experience. It is distinct from pedagogy, which is how the curriculum is taught. And, it is distinct from assessment, which is a means of setting out the desired outcomes we wish pupils to achieve and evaluating whether they have achieved those outcomes. (p. 4)

On the other hand, by protesting the objective model (end-means), Stinhouse (1975) forwarded definition of curriculum as “an attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation in to practice”. He further expounded his definition and said that curriculum is the means by which the experience of attempting to put an educational

proposal in to practice is made publicly available .It contains both content and method, and takes the problem of implementation into account in the institutions of the educational system (as cited in Solomon, 2019).

Often (2019) also described his working definition of curriculum as a framework for setting out the aims of a programme of education, including the knowledge and understanding to be gained at each stage (intent); for translating that framework over time into a structure and narrative, within an institutional context (implementation), and for evaluating what knowledge and understanding pupils have gained against expectations (impact/achievement) (Ofted, 2019).

2.3 Curriculum Implementation

The concept of curriculum implementation has been expressed in different ways by different scholars. However, the attempts to define "implementation" leads to related meanings; it can be conceptualized from two point of perspectives. These are academic perspective and professional perspective.

According to the academic context, curriculum implementation refers to the process by which educators and educational institutions put into action the designed curriculum. It involves translating the planned curriculum into teaching and learning activities, materials, and experiences that fulfil educational goals and objectives. This process requires careful planning, teacher preparation, resource allocation, and on-going evaluation to ensure that the intended curriculum is effectively delivered (Fullan & Pomfret, 1977). In this perspective Curriculum implementation can also be seen as a dynamic and interactive process where teachers adapt the curriculum to fit the specific needs, interests, and abilities of students. This adaptability reflects the view that curriculum implementation is not a mere transfer of content but an active process that involves teacher discretion, student participation, and contextual factors (Oliva, 2005).

In a professional setting, curriculum implementation is often described as the actual delivery of curriculum content by educators to meet the intended learning outcomes. It encompasses the practical aspects of carrying out lesson plans, using instructional strategies, and assessing student learning to ensure alignment with the curriculum's objectives. Professionals often focus on factors that facilitate or hinder effective curriculum implementation, such as teacher competency, institutional support, and access to resources (Ornstein & Hunkins, 2018).

From a professional viewpoint, successful curriculum implementation relies on effective leadership, collaboration among educators, and continuous professional development. Educators must be adequately trained and supported to interpret and adapt curriculum materials, incorporating best practices to maximize student engagement and achievement (Marsh & Willis, 2007).

For instance, Beauchamp (1968:132) and Giroux et al (1981: 45-46) defined curriculum implementation as, “Simply putting the curriculum that was planned and developed in to practice.” Furthermore, Giroux mentioned that the entire process of curriculum implementation is highly complex, so that it requires extremely skillful organization of participants and components for effective results. Fullan and Alan (1977:336) see implementation as, "The actual use of an innovation or what an innovation consists of in practice." Similarly, Fullan (1991:65) describes implementation as, “A process that consists putting in to practice of an idea, program, or set of activities and structures new to the people attempting or expected to change.” In These definitions, implementation is perceived as a process of translating plans into actions, and as an execution stage of a planned curriculum.

Ornstein and Hankins (1998) view curriculum implementation as an interaction process between those who have developed the program and those who are charged to deliver it. Garba (2004) describes curriculum implementation as the process of putting the curriculum into work for the achievement of the goals for which the curriculum is designed. To Mezieobi (1993) implementation is simply a process of putting an agreed plan, decision, proposal, idea or policy into effect. Hence curriculum implementation includes the provision of organized assistance to staff (teachers) to ensure that the newly developed curriculum and the most powerful instructional strategies are actually delivered at the classroom level. Curriculum implementation, therefore, refers to how the planned or officially designed course of study is translated by the teacher into syllabuses, schemes of work and lessons to be delivered to students.

To Zumwalt in Akwesi (2012) curriculum implementation is the practical application of theory into practice and the eventual outcome is evidenced through the learners’ performances in and outside the classroom. It is the teacher who translates the curriculum into practice through designing the curriculum contents and instructional strategies. However, not all teachers will automatically accept the newly proposed curriculum. It requires a considerable period of time for a teacher to be competent and perfect in its use. It is only during a stage of institutionalization or enactment where a new curriculum is completely

accepted by teachers and the activities associated with it become a matter of routine. (Fullan and Hargreaves, 1991, & Marsh, 2004).

The ability and effectiveness of the teacher to carry out curriculum implementation largely depends on some variables like knowledge/experience qualification, availability of resources and motivational issues.

According to Ogar and Awhen (2015).Curriculum implementation is a stage in curriculum process, where the teacher and learners are involved in negotiation aimed at promoting learning. This is the interactive stage of the curriculum process which takes place in the classroom through the combined effort of the teachers, learners, school administrators and parents. It also integrates the application of physical facilities and the adoption of appropriate pedagogical strategies and methods. The quality of curriculum implementation of any society is the base of its political, economic, scientific and technological well-being.

Although a good curriculum policy is no guarantee of improved teaching and learning, it does provide clear guidance to teachers, textbook writers, government officials and parents as to what education is striving for. Attempting to introduce curriculum reform without thinking through the implications for teachers and their classroom practice is likely to collide with very different understandings and result in insecurity and instability in the system (Fullan, 2001)

Michael Fullan, in his work "*The New Meaning of Educational Change"* (2001), provides valuable insights into the complexities of educational reform and the challenges associated with implementing curriculum changes as follow.

Fullan emphasizes that curriculum implementation should be viewed as an on-going process rather than a one-time event. It involves multiple stages, including initiation, implementation, and institutionalization. Successful change requires time and sustained effort across these stages.

The other key point stated by fullan is associated with Complexity and Non-Linearity of implementation. He suggests that curriculum implementation is inherently complex and often unpredictable. Many factors can influence the process, including school culture, leadership, resources, and external pressures. Understanding and navigating this complexity is essential for effective implementation.

Fullan stresses the importance of Systemic Change and Coherence in curriculum implementation. For curriculum implementation to be effective there needs to be alignment

and coherence within the education system. This includes alignment between the curriculum, assessment practices, teaching methods, and policy directives. Fullan advocates for systemic change that involves all levels of the education system working toward common goals.

Fullan focused Professional Development and Capacity Building as key factor in curriculum implementation. He underscores the importance of on-going professional development to support teachers in implementing curriculum changes. This includes building their capacity to understand and apply new instructional methods and assessment practices that align with the curriculum.

Leadership is a crucial element in Fullan's framework. He emphasizes that strong and supportive leadership at both the school and district levels is vital for driving curriculum implementation forward. Leaders must be able to inspire, support, and guide their teams through the complexities of change.

Furthermore, Sustaining Change is another vital element considered in implementation by fullan. He points out that sustainability is a key challenge in curriculum implementation. Even when changes are initially successful, maintaining them over the long term requires continued commitment, adaptation, and support from all stakeholders involved.

Therefore, Fullan's work provides a comprehensive framework for understanding and navigating the challenges associated with implementing curriculum changes in educational settings. His emphasis on the human, systemic, and adaptive aspects of change highlights the need for a holistic and flexible approach.

Implementation is often presented as the second phase in a three-phase model of change: initiation, implementation and continuation (or institutionalization) (Fullan, 2001). Initiation is the process that leads up to and includes a decision to adopt or proceed with a change. In developing countries such as Ethiopia, change programs are often initiated centrally, driven by political factors and by external agencies since these agencies provide funding for such programs. Implementation or initial use is the process that involves the first experiences of attempting to put an idea or reform into practice. Continuation or institutionalization refers to whether the change gets built in as an ongoing part of the system or the normal practice of an institution or a school, or disappears, such as by way of an explicit decision to discontinue the change or through attrition. A continuation requires successful implementation and needs to be planned for and given ample attention during the implementation phase.

With respect to curriculum implementation perspectives, in their 1992 work, Snyder, Bolin, and Zumwalt outlined three primary approaches on curriculum implementation. These are the fidelity (instrumental) approach, Mutual adaptation, and curriculum enactment.

Curriculum implementation as fidelity approach emphasizes implementing the curriculum exactly as it was designed. Teachers are expected to follow the curriculum strictly, ensuring that its intended goals and content are delivered without alteration. The primary focus is on consistency and fidelity to the original curriculum plan. In this approach effectiveness of the curriculum implementation depends on the how well the innovation faithfully used as intended by developers. Therefore, the problem of viewing the curriculum implementation as fidelity approach is that it is not a true reflection of real world experience.

Curriculum implementation as mutual adaptation is another perspective which views curriculum implementation as a flexible process where both the curriculum and the teachers adapt to each other. Teachers modify the curriculum to suit their specific contexts, while still aiming to meet the broader goals of the original curriculum. This approach values teacher input and acknowledges the dynamic nature of classroom settings.

Enactment approach is the third approach in which curriculum implementation is seen as an interpretive or explanatory fact. Teachers have significant autonomy and are encouraged to bring their own experiences, knowledge, and creativity into the classroom. The enactment approach emphasizes the role of teachers as active agents who construct meaning and deliver the curriculum in ways that are contextually relevant and responsive to students' needs. In addition, Shawer (2010) identified that Curriculum enactment perspective assumes that curriculum knowledge is not a prescribed product anymore, but rather an ongoing construction of the enacted experiences created by the teachers and learners.

The implementation of a curriculum needs to ensure that all stakeholders are informed (about the innovation and guidelines) and communication is proactive. Professional learning communities provide forums for discussion, support, feedback and advice. Resources need to be in place and professional development training needs to be provided to teachers and all associated staff that need expertise. Fullan and Pomfret (1977) suggest *"effective implementation of innovations requires time, personal interaction and contacts, in-service training and other forms of people-based support".* However, training without follow-up, support for teachers and subsequent training sessions will not deliver significant results (Killion & Kaylor, 1991).

Furthermore, The success of the implementation is not only relies on the in-service teacher training and change in believes and practices but the ongoing support of the implementation process and clarity of the change process with clear and specific details provided to teachers (Fullan and Stiegelbauer, 1991; Fullan, 2007). Change is hard to conceive and harder to implement and requires the support and leadership within schools from subject leaders, vice-principles and principles and at higher levels such as directorates and within the Ministry of Education (Fullan, 2007). The belief and attitudes of supervisors to support changes and curriculum reform is essential.

Successful implementation of curriculum therefore, results from careful planning, which in turn focuses on three factors: people, programme, and organization.However, no matter how well formulated a curriculum may be, its effective implementation is one of essential stage toward achieving the desired goals of education. This is because the problem of most programmes emerges at the implementation level (Asebiomo, 2009, cited in Ogar and Awhen, 2015).

In summary, implementation of curriculum in any school is complex process and greatly varies from school to school. This is because there is no one right way of going about it for all teachers in all schools. There is no single unique and effective implementation method that is available for all teachers and schools (Marsh, 2009). Thus, curriculum implementation is a systematic translation of the planned curriculum into practice based on the school context to achieve educational goals. It is a process in which various stakeholders engaged with their various responsibilities for its successful implementation. Effective curriculum implementation, thus, requires staff development to promote an understanding of the new innovation, provision of various resources and supports to schools and teachers, monitoring of the implementation process, leadership and supervision from principals and supervisors, collegiality and sharing among teachers, and determining evidence of student learning. Moreover implementation also depends on how the innovation is introduced, perceived and encouraged at the school level.

2.4 The Place and Nature of Geography Education

The education system in Ethiopia which was restructured to better fit the context and needs of the country as the “6-2-4” structure (that is, six years of primary schooling, followed by two years of junior secondary education, followed by four years of senior secondary education) had been in place since 1962 was replaced by “8-2-2” structure during 1994 and remains in place till today. Primary education consists of an eight-year cycle divided into a basic education cycle covering grades 1–4 and a general primary cycle covering grades 5–8,

followed by two years of general secondary education (grades 9–10) and two years of preparatory secondary education (grades 11–12) (MoE, 2009).

The General secondary education (grades 9 and 10) aims to prepare students in identify areas of interest for further education and training. The preparatory level (grades 11 and 12) prepares students for higher education or choosing a career. National examination is now administered only at the end of grade 12; regional examinations are given at the end of grade 8. Technical and vocational education and training (TVET) is institutionally separate from the regular educational system, forming a parallel track. Access to formal TVET is offered after completion of grade 10 (MoE, 2009).

In the education system of Ethiopia geography has been given either in combination or isolation. At primary first cycle (1-4) geography and Natural science topics are given in combination as environmental science subject /curriculum. Geography education at secondary primary cycle of 5 and 8 grades is being imparted as social studies in combination with civics and history contents. The course is given in isolation from grade nine to twelve grades (Moe, 2009).

In general geography as a subject now meets a number of objectives such as development of skills which in turn produces fundamentally literate individuals who will become successful members of the workforce (Harris et al., 2012). Learning geography also develops individuals with a strong sense of place and space from multiple perspectives, so that they can understand the contemporary world in which they live. Similarly, geography has the potential to develop a young person's identity and their understanding of their place in the world. Finally geography also provides these individuals with a strong sense of social and political issues facing humanity, to support them in developing values and/or making a commitment to social action (Harris et al., 2012).

Specifically, the study of geography has great potential to motivate student's curiosity and enhancing their experience about the world. Geographic knowledge enables students to empower and prepare them to make important contributions and decisions in a diverse and complex global society. It allows students to better understand the social and environmental issues within their locality and on a global scale. Moreover, through geographic technologies and tools, interactive and hands-on instruction teachers and students will have easy access to geography data and enrich learning experiences of geographic concepts. In addition, information about places and events can be readily available through fieldtrips, web-based

geographic information systems (GIS), and interactive mapping programs with the guidance of geography teacher (Schell, E. M et.al. 2013).

Similarly, the ministry of education describes that the main aim of teaching geography in Ethiopian general secondary school is to enable students to construct basic knowledge and develop skills for analyzing spatial distribution and interaction among elements of the environment at local, regional, country and global level and their capacity to support human life. Basic concepts of earth science and population-related issues will also be introduced to help students develop a scientific outlook on the natural and human phenomena that they encounter in their day-to-day activities. Besides, map reading skills will be provided to be used in understanding and interpreting geographical facts and concepts. Through taking the geography course, students have the facts and concepts, and the opportunity to experience methods of research into issues relating to space from a local to a global scale (MoE, 2020).

Maps are the basic tools of geography learners as they collect, organize and analyze spatial information. These resources are highlighted in Ethiopian geography curriculum as primary resources which enable learners to develop spatial competence (MoE, 2020).

In teaching geography with the help of professional teacher, learners should progressively develop the required skills to enhance geographical understanding. Abilities that they would be required to develop include: finding sources relevant to the enquiry; working with sources which incorporate asking questions, finding information, organizing, analyzing, and synthesizing (interpreting) information; answering questions and considering practical actions where possible, and reporting on findings of the enquiry process using different communication skills. Moreover, learning and teaching geography has to be associated with the development of 'enquiry skills to investigate key concepts and processes in geography; knowledge and understanding of the interrelationships between people, resources and the environment; and critical analysis of development issues on a local, national and global scale (Beets and Lesley, 2008). On the other hand, Effective geography teaching is often related with a teacher having sound subject knowledge and the ability to do through planning and preparation. In connection to this, planning for effective teaching and learning has to go beyond the mere coverage of what is prescribed in the policy document for geography and related guideline documents (Beets and Lesley, 2008).

Scholars in their studies indicated that quality geography education will be evident in a school where there are clarity of the goals and objectives, the development of a sound base of knowledge and understanding, ensuring an appropriate level of difficulty and learner-centred

programmes to achieve deep learning; exposed to increasingly complex challenges through programmes, motivate and engage learners in learning that is systematically planned and organised teachers use a wealth of learning resources and appropriate forms of formative and summative assessment, and continuity and progression learning (Beets and Lesley, 2008).

Similarly,Schell *et.al*. (2013) suggested that effective geography classroom has to give student a taste of what geography can be, and provide learning experiences that go well beyond the traditional geography textbook and classroom walls**.** Geography education includes teachers who are well-prepared to teach geography, are passionate about supporting learning in the discipline, and are committed to their own learning of geography throughout their careers. It describes a classroom that promotes depth of learning, values students' prior knowledge and experience, and seeks to give students practice in doing geography.

However, it is not what most students experience when learning geography. In most schools across the country, learning geography is still focused on rote memorization that does not help much to retain knowledge for longer periods and to develop meaningful skills (Alemayehu, 2006).In addition, Geography is taught usually only by chalk and talk in the classroom, whereas it is educationally desirable to involve students in outdoor activities as well.

2.5 Geography Curriculum Implementation

Scholars in their studies indicated that Quality geography education will be evident in a school where there are clarity of the goals and objectives, the development of a sound base of knowledge and understanding, ensuring an appropriate level of difficulty and learner-centered programmes to achieve deep learning; exposed to increasingly complex challenges through programmes, motivate and engage them in learning that is systematically planned and organised teachers use a wealth of learning resources and appropriate forms of formative and summative assessment, and continuity and progression learning (Lambert and Balder stone 2010, Owen and Ryan 2001, Butt 2002).

Moreover, learning and teaching Geography has to be associated with the development of 'enquiry skills to investigate key concepts and processes in Geography; knowledge and understanding of the interrelationships between people, resources and the environment; and critical analysis of development issues on a local, national and global scale. On the other hand, Effective geography teaching is often related with a teacher having sound subject knowledge and the ability to do through planning and preparation. In connection to this, we note that planning for effective teaching and learning has to go beyond the mere coverage of

what is prescribed in the policy document for Geography and related guideline documents (Beets and Lesley, 2008).

The implementation of geography curriculum requires not only the teachers' knowledge and understanding of various concepts that are important, but their ability to create learning opportunities, which facilitate student learning (Beets, P. and Le Grange, L. 2005).

It is also important to note that Implementation of curriculum is not only related to effecting the content but more importantly to winning over the hearts and minds of teachers since most difficult challenges are associated to teachers' change of attitudes, motivation, belief and practices(Hargreave and fullan, 2012).

The rapidly changing environment and resurgence of new ideas, beliefs and ways of life require Geography teachers to review their approaches to the subject. The teacher requires a careful choice from variety of teaching and learning methods and techniques which should aim at reaching all students with active participation. Some of the approaches and methods of teaching Geography suggested by MOE(2009) are discussion, Question and Answer, lecture, oral exposition (combined lecture, question and answer), role play, demonstrations, field work, use of maps, use of photographs, use of resource persons, case studies, co-operative studies, integration and infusion of contemporary issues.

Wamutitu (1991) noted that Geography being both a body of knowledge and a distinctive discipline of study requires a multi-method approach of teaching to be adopted by the teachers**.** Such method should therefore merge theory, content and application together in the experience of the students. The curriculum consists of, Human Geography, physical geography and practical Geography which includes statistics, field work, photograph interpretation and map work.

Nevertheless, geography teachers do not use field work as a method of teaching Geography as it is recommended in the curriculum. There was minimal use of field work. Schools with adequate textbooks, apparatus and other instructional materials are at an upper hand with regard to examination performance compared to those without. Problems identified affecting field work included: time constraints, inadequate Geography equipment and teaching resources, inadequate Geography teachers, financial constraints, broad based Geography syllabus, public exam oriented teaching approach, interference with schedules or programs of the school especially due to field work activities and lack of in-service courses and seminars for Geography teachers (Achola, 2010).

The availability and utilization of teaching and learning resources are critical in the curriculum implementation process. According to Valverde et al. (2002), curriculum materials have a powerful influence on what students learn. The studies in Africa including Ethiopia also found that non-availability of relevant teaching and learning resources influenced teachers' in planning and delivering their micro-curricula as well as lack of insufficient financial support by the governments (local and national) and poor physical infrastructure conditions of the schools inhibited the teachers in the implementation of outcome-based macro curriculum content (Rogan, 2007).

2.6 Major Stakeholders and Their Roles

Curriculum policy implementation in any educational jurisdiction involves a variety of stakeholders such as students, teachers, administrators, consultants, state employees, university professors, parents, lay citizens, and political officials interested in education. These stake holders play different roles depending on their skills at different times in the change process either to facilitate or hinder curriculum implementation. The following review of literature focuses on the roles of major players, and relates those studies to the current study. These major players are: school administrators-principals, department heads, and curriculum experts/supervisors-who communicate to the actual implementers and teachers who implement these directives.

Teacher

The role of teachers as one of the main stakeholders in the implementation of curriculum innovation has been the focus of on-going interest to curriculum researchers. This is because teachers determine whether or not curriculum innovation is executed in the classroom as it is intended by policy makers (Clandinen and Comally, 1992). They are teachers as individuals, who implement, adopt, reject, or ignore curriculum innovation. They are the core of the innovation process (Carless, 1997; Hickey, 2005; Sinnema, 2010). This means, the better teachers understand a curriculum, the better they can implement it, they know what to do (Cheung and Wong, 2012) and they will try harder to implement it properly (Ekawati, 2017; Karakuş Gülçin; 2021). Therefore, teachers' decision role in the implementation of curriculum cannot be underestimated without their support and genuine involvement in the innovation, any curriculum implementation will stay at a superficial level (Creless, 1999). Teachers interpret and give life to the curriculum and translate its intentions into classroom practices (Norris, 1998). As Scott (1994) describes, teachers can control the rate and the degree of change of any curriculum. Accordingly, Kimpston (1985) stated that teachers'

beliefs about their roles in the curriculum implementation process are the most efficient way to answer the question of what does or does not get implemented in the curriculum. Similarly, Ryder Jim (2015) also indicated the importance of the teacher role and state that they determine the success or failure of a curriculum.

As Callan and Sahlberg cited in Walish (2016), suggested in the implementation of curriculum change, teachers are the key agents in the translation of the policy vision into reality in schools. There is growing consensus that teachers as individuals and schools as institutions occupy the pivotal role in the implementation of change, acting as the conduit between aspiration and reality, between policy and practice. Implementation of curriculum change is importantly related to winning over the hearts and minds of teachers such as attitudes, motivation, philosophies, beliefs and practices of teachers (Hargreaves and Fullan 2012). According to Ahmed, (2000) the teacher is considered the most crucial factor in implementing all educational reforms at the grassroots level. It is evident that the academic qualifications, knowledge of the subject matter, competence and skills of teaching and commitment of the teacher have effective impact on the teaching learning process. Similarly, (Evans, 1996; Hargreave and fullan, 2012) stated that Implementation of curriculum is not only related to effecting the content but more importantly to winning over the hearts and minds of teachers since most difficult challenges are associated to teachers' change of attitudes, motivation, belief and practices

In the absence of ownership of change, teachers will portray an image of reform or compliance to satisfy policy-makers and external educationalists, where as in reality, practice changes little (Sarason 1990; Fullan 1993).Successful change, therefore, occurs as long as teachers internalized and integrated the new practices with their existing attitudes and practices (Walsh 2016). The implementation of geography curriculum requires not only the teachers' knowledge and understanding of various concepts that are important, but their ability to create learning opportunities, which facilitate student learning (Beets, P. and Le Grange, L. 2005). Crocker and Banfield (1986) in their study underline the necessity of a complete understanding of teacher thoughts, judgments, and decisions relative to curriculum if further progress is to be made in curriculum characteristics and instructional practice. Cronin-Jones (1991) also points out that teacher perceptions and beliefs play a critical role in the curriculum implementation process.

The results of Cronin-Jones' (1991) study has also shown that teachers significantly altering curricula to make them more congruent with their own teaching contexts and belief systems.

She states teachers' beliefs as the main reason of this difference. Cronin-Jones (1991) gives a second reason of the difference between intended and implemented curricula, teacher attitudes toward curriculum packages. She underlines Connelly and Ben-Peretz's (1980) claim that teachers need to believe in an intended curriculum to properly implement it. Teachers' allocations of time to various subject matters are reported to depend on the teachers' attitudes toward the subject matter and the degree of enjoyment they experience in teaching it. She states that teacher beliefs about the ability levels of students in a given age group and beliefs about which student outcomes are most important, exert powerful and potentially negative influences on the curriculum implementation process.

Tobin and Gallagher (1987) also report teachers' knowledge of subject matter and pedagogy and beliefs about teaching and learning as factors which influence the implemented curriculum. In addition they identify teacher expectancies as one of the other factors that influence the implemented curriculum. In another study Tobin (1987) again reports teacher expectations as exerting a powerful force on the implemented curriculum. He stresses teacher beliefs about how students learn and what they ought to learn have the greatest impact following the potent force of teachers' knowledge on the implemented curriculum. Hawthorne (1992) also emphasizes that the curriculum enacted in each classroom results largely from the individual teacher's preferences, professional understandings, and perceptions of student needs and interests.

Although their beliefs, perceptions, attitudes, knowledge and expectations are reported to have the greatest impact on the implemented curriculum, teachers also complain about several constraints that hamper them in carrying out the desirable curriculum tasks. In Kimpston's (1985) study lack of time was identified as the dominant constraint, followed by a teacher's own lack of capability and the absence of an established process in the district for carrying out the task. Tobin (1987) indicates the relatively vastness of content teachers feel forced to cover as another constraint that prevents teachers from achieving the curricula objectives.

It can be concluded that, the greater the sense of teacher efficacy, the greater the success of implementation. Educational change depends on what teachers do and think. The success of change is strongly related to the extent to which teachers interact with each other and with others who are providing technical help (Solomon, 2016). Lack of teachers' knowledge and skill to conform to the new mode is one of the inhibiting factors, and lack of staff motivation is another. McLaughlin (1976) refers to the attitude of teachers as critical factor for

implementation. Competent teachers apply broad, deep, and integrated sets of knowledge and skills as they plan for, implement, and revise instruction. Technology proficiency is but one dimension of teachers' competence (Siddiqui, 2004). Underlying these categories is teachers' personal characteristics: what they believe about school subjects and how they are best taught, and how they themselves are trained. As all these characteristics influence the delivery of curricula, they allow insight into the types of alignment that exist between teacher training, practice and national curriculum objectives. Coupled with achievement data, they will help identify the best towards the delivery of challenging curricula to students throughout the system (Rao, 2002,Akram, 2010).

Professional community within the teaching staff sharpens the educational focus and enhances the technical and social support that teachers need to be successful. As they collaborate productively, they observe and react to one another's teaching, curriculum and assessment practice, and they engaged in joint planning. Clearly shared purpose and collaboration contribute to collective responsibility (Solomon, 2006).

Principals

Change as a process needs to be managed. The school principal, as the key figure around which much of the school's activities revolve, to a great extent determines the school's success or failure when change is implemented. An educational leader should lead the change; not merely be subject to it (Van der Horst and McDonald, 2001).The principal's leadership is critical to the success of curriculum implementation in a way that it determines organizational climate and support in which the people are involved in change. The principal should know how to manage and lead the process of change and ensure that s/he has the necessary policy documents, circulars and guidelines on hand. S/he should study those documents and internalize all the fundamentals of the curriculum changes. Change means that the principal should work through the following phases with his/her staff: diagnosing the problem, planning for change, implementing change and reviewing developments. Working as a team with the staff should ensure that those who are affected by the implementation of change are involved in the planning from the beginning. Irrespective of who makes the final decision, the staff should feel that they were consulted as a group as well as individuals, and that their opinions had some influence on the final decision (Lawyer, 2019). The more principal creates an atmosphere in which good working relationships exist among teachers and between teachers and support staff, the more the program likely to be implemented. Effective principals foster enthusiasm for the new program. Today, principals must not only

be administrators with an in-depth understanding of curriculum and implementation, but also boundary crossers. In addition to being a school leader, a principal must be a community activist and must speak and act for teachers, students, and the community and must listen to what these individuals have to say. Generally they must facilitate meaningful action among all parties involved in curriculum implementation (Ornestien and Hunkin, 2017).

Therefore, Principals as important players of the curriculum implementation process in a school, have to consider the following for effective curriculum implementation:

- They should understand the need for change as well as the steps that have to be taken along the way.
- They should have in-depth knowledge about the planned change and of the implementation process. They should be familiar with the goals and components of the curriculum and be able to see a shift in teachers' role in the classroom and the way in which teachers interact with students.
- They should be accessible and willing to communicate with others involved in the process. Establishing a two-way information flow will give principals or headmasters a chance to stay on top of issues that need to be addressed. It will also allow attending to critical problems or concerns before they lead to frustration or even anger among teachers. Lines of communication are best set early to get out information to people as well to provide a platform in which they can voice their concern. Information gathered from listening and talking to people will also help principals or headmasters decide where to focus and needs attention.
- They should be able to convince parents on the merits of the new curriculum and how the new pedagogical strategies can become more meaningful for their children. For example, they may need to speak to parents and the community on the new curriculum. It is important that they give the message that they have thought carefully about the need for change, that they have anticipated the issues that will arise and have a plan for addressing the issues.
- They should keep in mind, that even the best-laid plans can meet unexpected challenges such as, insufficient teachers in a particular subject area due to resignation, unexpected introduction of new courses of study, etc. For this reason, a flexible implementation plan may be necessary which is adapted and revisited along the way.
- They must be committed to the change and be able to employ a variety of leadership strategies to meet the needs of teachers such as; building on the strengths of their

staff, being willing to take risks; being positive about the planned change and to use this optimism to motivate others (PACT team, 2013).

Curriculum implementation is a change process. Understanding such a process requires many aspects of educational imagination .Administrators have to consider the aforementioned framework for effective curriculum implementation. Furthermore, Solomon (2006) noted that the School principal who has a leadership role in the implementation of the curriculum can be the most powerful source of help or hindrance to the teacher in the implementation process due to the closeness to the class room situation and opportunity to alter work place conditions

Effective principals regularly and frequently check on the teachers how things are going on and visit classrooms often to lend their support, and to provide pressure as they are discovering what is happening in classrooms. Facilitating change, helping teachers work together assessing and furnishing school improvement are some of the roles of the principals. In general the functions to be performed by effective principals include: developing supportive organizational arrangements, consulting, reinforcing, monitoring, etc. (Fullhan as cited in Solomon, 2006).

Supervisors and Curriculum experts

During Curriculum implementation both the manner of teaching and the content being addressed require supervision and monitoring. Supervision is today viewed as part of educational administration concerned with improving effectiveness. Supervision is an on-going activity which entails working with and through people in a humane and understanding manner. The supervisor provides direction and guidance and contributes towards teachers to have the skills to carry out the change (Orniestine & Hunkin, 2017).

Effective supervisors adopt their tactics to the situation and participants and can give experienced teachers much responsibilities and more structure to beginning teachers through schedule supervisor-teacher conferences and in-service training. Supervisor can carry out their responsibilities in many ways such as classroom observation, demonstration teaching, supervisor-teacher conferences, staff-development meetings, and grant funding. If supervisors are effective, teachers become committed to and feel comfortable with the new program being implemented (Ornstien and hunkin, 2017). Bishop (1985) also noted that without the supervisory staff cooperation, programme implementation becomes extremely difficult if not impossible. Bishop argues that sympathetic and understanding school

supervisors and inspectors can help raise teachers' capacity in the implementation of the curriculum.

2.7 Curriculum Implementation Model

The Curriculum Implementation Model outlines the processes and strategies involved in putting an educational curriculum into practice. This model details how a curriculum moves from design to actual delivery in the classroom, encompassing elements such as teacher preparation, resource allocation, instructional methods, and assessment strategies. Different models of curriculum implementation provide frameworks to understand and enhance this process. Below are some of common curriculum implementation models.

The Tyler's Model (1949); Tyler's model emphasizes a linear approach to curriculum development and implementation, focusing on four key components: objectives, content, organization, and evaluation. According to Tyler, curriculum implementation should be guided by clearly defined educational objectives, which direct content selection and instructional activities (Tyler, 1949).

The Fidelity Model: This model assumes that the curriculum should be implemented as designed, with fidelity to the original plan. It posits that deviation from the designed curriculum can undermine its effectiveness. Key components include training teachers on the curriculum content and instructional methods to maintain consistency in delivery (Snyder, Bolin, & Zumwalt, 1992).

The Enacted Curriculum Model: This model focuses on the actual classroom practices and how the curriculum is "enacted" by teachers. It recognizes the dynamic interaction between teachers, students, and content, emphasizing that curriculum implementation is influenced by teachers' personal beliefs, experiences, and interactions with students (Porter & Smithson, 2001).

4. The Concerns-Based Adoption Model (CBAM)

The CBAM is a widely recognized model that focuses on understanding the concerns and stages of change that educators experience when implementing a new curriculum. It posits that effective curriculum implementation requires addressing teachers' concerns at different stages, such as awareness, informational, personal, management, and consequence stages (Hall and Hord, 1987).

The Social Interaction Model: This model emphasizes the collaborative aspect of curriculum implementation, highlighting the roles of teachers, administrators, and other

stakeholders. It suggests that curriculum implementation success depends on effective communication, collaboration, and support systems among all involved parties (Fullan, 2007)

Each of these models provides a unique perspective on curriculum implementation, with varying emphasis on teacher adherence, adaptation, and the social dynamics involved in the process.In order to find a starting point where curriculum implementation studies can be initiated in geography education context of Sidam region, there is a necessity to look into pervious implementation models where curriculum innovation occurred. There is a need for researchers to explore what is going on during implementation as Fullan and Stiegelbauer (1991) stated that research findings have indicated a need to identify factors affecting implementation. The curriculum implementation model helps the researcher in various ways. Firstly, the model helps researcher to, explore the perceptions, practices, and determining factors from the viewpoint of various stakeholders involved in the change process, including teachers, school principals, department heads, supervisors/curriculum experts, and the broader educational community. Secondly, the model guided your analysis of the interplay between teachers' perceptions, instructional practices, and the physical and organizational structures of schools, and how these elements together influence the effective implementation of the curriculum. Lastly the model helps to address the broader implications of your findings for educational policy and practice within the Sidama region and beyond, particularly in terms of supporting sustainable change in curriculum implementation practices.

This section introduces the Fullan and Stiegelbauer (1991) curriculum implementation model which explore factors affecting implementation used.

This curriculum implementation model proposed by these scholars reflects their approaches to understand the problems and challenges rooted in the implementation process. These scholars designed their model based on key factors and themes. Based on an extensive literature review Fullan and Stiegelbauer integrate the factors and themes and developed a theoretical model to investigate factors that commonly influence change in practice. In this model the scholars identified three set of interactive factors namely characteristics of change, local characteristics and external factors.

The first factor, the characteristics of change, encompasses four factors such as need and relevance of change, clarity, complexity; and quality and practicality of the program. Need and relevance indicated the perceived need of the people who implement the change

(Snyder et. al. 1992). When teachers admitted that the innovation was relevant for them and saw the need for change, the degree of implementation would be greater (Fullan, 2001b). Clarity meant users understanding of goals and means of an innovation. Unclear and unspecified goals and means could cause greater anxiety and frustration to teachers who attempt to implement the innovation (Fullan, 1992). Moreover, Fullan (2001b) emphasized that lack of clarity creates a major problem at the implementation stage since teachers find that the change is simply not very clear as to what it mean. Therefore, the better the understanding of the goals and means the innovation, the greater the degree of implementation (Snyder et. al. 1992).

The second factor, the local characteristics, includes district, community, principals and teachers which are involved in the change process. The supports given by the local district school board, community and principals are the determinants that affecting implementation. The central and direct support from the central administrators was a critical factor for district wide change since they led the development and execution of the change (Fullan, 1991a). On the other hand pratt (1994) argue that" the support of administers will not be sufficient to ensure implementation, but without it, failure is almost certain" (P 332).Though, most school communities are not directly involved in implementation, they can become aroused against certain innovation" (fullan, 1982, P 70). The stronger the relationship that exist between the community support and the innovation, the greater the chance the implementation would take place. Therefore, the greater the community interest and support, the greater the degree of implementation will be. (Snyder *et. al*., 1992 P.417).

The principals have vital role in the implementation and the support from them is almost invariably essential for successful implementation of an innovation (Fullan and Hargreaves, 1996; Pratt, 1994). Fullan (1982) also believes that active support from the principals enhanced implementation since they have strong influence on the chances of change. The third factor is the extent to which government and educational agencies exert their influence on the other stakeholders.

The above factors seemed to be comprehensive in explaining the influences on the implementation of an innovation since the people, events and resources were concerned. Moreover, these factors could not be understood in isolation, since they have formed a system of variables interact each other. It was a combination of characteristics occurring in specific settings that determined the implementation. The complexity of the reality could be explored through the study of the interactions between these factors that affect change.

Based on the review of factors affecting the implementation of the curriculum related to the current study, the researcher has taken the factors related to the teachers and students in the classroom that focused on teachers' belief, perception, ownership and understanding and the organizational or administrative features that have little or no control over the teachers and students. Furthermore, the review of factors such as curriculum materials, teacher's perception, teaching methods and techniques, teacher's load, teacher's professional development, students learning motivation, geography test related and resource support that influence curriculum implementation.

These factors are not independent, but rather interdependent (Gahin and Myhill, 2001). To present these factors in a meaningful way, I have organized my discussion according to the themes that emerge from the literature, in which various kinds of factors are dealt with. Owing to the scope of the thesis, not all the factors are discussed extensively. Factors identified and discussed may not be the only ones affecting implementation; however, they are considered to be the most relevant to my current study in the geography education context of Sidama. Thus, the next section provides a review of the literature on the following factors influencing curriculum implementation.

2.8 Factors Affecting Curriculum Implementation

2.8.1 Curriculum materials

In the geography context of Ethiopia, syllabus and textbooks are curriculum materials that represent what should be taught in the classrooms. Teachers teach according to syllabus and textbooks, students acquire geographical input mainly from textbooks, and achievement tests are designed based on the content of textbooks. Therefore, the indispensable role of curriculum materials cannot be underestimated. Just as Richards (1998) claimed, "in many schools and geography programs the syllabus and textbooks used in classrooms are the curriculum. Indeed, textbooks occupy a dominant position in the school system, regardless of the courses being taught at various levels.

Curriculum materials specially, Textbooks are believed to have a positive impact on teachers and their classroom teaching during curriculum implementation (Harmer, 1991; Hutchinson and Torres, 1994; Richards, 1998). As far as teachers are concerned, using textbooks have benefits such as: time advantage (Hutchinson and Torres, 1994), access to more choices of professionally produced resources (Richards, 1998), relieving them from the pressure of Searching for original materials (Harmer, 1991), and providing a guide to teach more effectively (Hutchinson and Torres, 1994).Textbook has facilitating role such as saves time,

gives direction to lessons, guides discussion, facilitates giving of homework,' making teaching 'easier, better organized, more convenient,' and learning 'easier, faster, better.' Most of the entire textbook provides confidence and security" (p. 318). Especially for inexperienced teachers, textbooks and teachers' guides can function as teaching training manuals. With respect to students, textbooks provide an orientation to their learning program, helping them understand what they will be studying, in what sequence, and how much material needs to be covered in the course of their learning (Hutchinson & Torres, 1994).

However, textbooks are also criticized as an impediment to teacher development. Richards (1998) summarized three potential hindrances caused by teachers' use of textbooks. First, it can absolve teachers of responsibility, because, "instead of participating in the day-to-day decisions that have to be made about what to teach and how to teach it, it is easy to just sit back and operate the system, secure in the belief that the wise and virtuous people who produced the textbook knew what was good" (Swan, 1992). Second, textbooks can lead to "the unjustifiable attribution of qualities of excellence, authority, and validity to published textbooks" (Richards, 1998). This may result in teachers failing to look at textbooks critically; they may assume that teaching decisions made in the textbook and teaching manual are better, superior, and more valid than those made by them. Third, teachers' use of textbooks may lead to "…a reduction of the level of cognitive skills involved in the teaching if teaching decisions are largely based on the textbook and the teacher's manual" (Richards, 1998.p. 132). No matter what positive or negative impact textbooks bring to classroom teaching, Woodward (1993), in his review of research on textbook use, concluded that use of textbooks depends on the teachers' experience and on the subject matter being taught.

2.8.2 Teachers' Beliefs

Values are ideologies that are central to human beings (Dunn, 2006), and beliefs are influenced or determined by the values human beings have internalised through experience (Lemin, Potts, and Welsford, 1994). Teachers' internalised values are called 'self-concepts' (holding beliefs about themselves, developed from experience) which shape their thinking processes and in turn influence their practices and students' learning (Brown, 2004; Muijs and Reynolds, 2005). It has been reported in the study by Kagan (1992), teachers' beliefs is a tacit concept, as often expressed unconsciously held assumptions about students, classrooms, and the academic material to be taught" (p. 65). Teachers' beliefs embrace their beliefs about learners' abilities and performance, classroom teaching and learning practices and teacher themselves. Teachers' beliefs are related to their classroom practice (Burns, 1992; Fang, 1996; Kagan, 1992, Xu, 2012 and Richards et.al., 2001, cited in Fazel Ramzan, 2020). Hence,

the development and delivery of micro-curriculum and how students are engaged in different learning experiences in school and classroom situations can be influenced by the belief systems held by teachers (Muijs and Reynolds, 2011). Hong Wong (2006) confirmed that there are a "strong relationship between teachers' educational beliefs and their planning, instructional decisions, and classroom practices" (p. 326) and that "educational beliefs of pre-service teachers play a pivotal role in their acquisition and interpretation of knowledge and subsequent teaching behaviour" (p. 328). Teachers' prior knowledge and beliefs about teaching and learning impose challenges in the enactment of a curriculum policy**.** Spillane *et al*., (2002) put his ideas as: teachers' prior beliefs and practices can pose challenges not only because teachers are unwilling to change in the direction of the policy but also because their extant understandings may interfere with their ability to interpret and implement the reform in ways consistent with the designers' intent (P.393). Nespor (1987) also argued that teachers' beliefs are likely to influence their future behaviour. Nevertheless, Fang (1996) pointed out inconsistencies between teachers' beliefs and their practices. These inconsistencies reflected the complexities of the classroom reality and implied that "contextual factors can have powerful influences on teachers' beliefs and, in effect, affect their classroom practice" (p. 53).

Discussing the logic of implementation, Fullan and Park (1981) claimed that implementation actually necessitates changes and adjustments in the belief systems of teachers in three aspects; first materials, then teaching approach, and finally beliefs. They firmly contended that change in beliefs is much more difficult and time consuming to bring about than changes in materials and teaching methods. Kagan (1992) reflected this, saying that since teachers' beliefs are deeply embedded, they are generally stable and resistant to change, and that they reflect the nature of the instruction the teacher provides to students.

As well, Shavelson and Stern (1981) and Wu et al., (2011) cited in Fazel Ramzan, (2021) argued that what teachers do in their classroom practices is shaped by what they think, and that teachers' theories and beliefs serve as filters through which instructional judgments and decisions are made and which others' teaching performances are interpreted (Kagan, 1992). The importance of the teachers' beliefs on their practice of geography teaching, as, the teacher's beliefs, assumptions and knowledge play an important role in how the teacher interprets events related to teaching and thus affect the teaching decisions that are ultimately made. For instance, in teaching and learning processes, teachers' attitudes experienced and reinforced over many years impact on how they interpret the macro-curriculum, develop the micro-curriculum and deliver it for quality student learning (Fullan, , 2007).

Although teachers' attitudes are essential in ensuring successful innovation, they are very often resistant to change. Waugh and Punch (1987) argued that barriers or resistance to change are likely to take place if the innovation is incompatible with teachers' existing attitudes. In a major review of teachers' attitudes towards innovation, Stern and Keilslar (1977) stated that "teachers involved in the curriculum planning process have more favorable attitudes towards the implementation of the subject courses than those who were required to represent programs over which they have no control" (p. 64). They contemplated that teachers' attitudes can be changed through training programs, although certain attitudes are more resistant to modification than others. The two authors also put forward some guidelines to facilitate teachers' attitude change. They were: creating an accepting environment, encouraging teachers' involvement in innovation, giving teachers responsibility and commensurate authority, setting role models, offering incentives, and providing teachers with adequate preparation time.

Similarly, Bailey (1992) refuted the claim that "teachers, even with training, do not change the way they teach, but continue to follow the same pattern of teaching" (Gebhard, Gaitan, and Oprandy, 1990, p. 14). From surveys and interviews, she found that teachers do change, but this change process seemed "slow, gradual, incomplete, partial, ongoing, and evolutionary" (p. 276). To her, teachers do not always implement the desired changes within a short period of time. Therefore," anyone who wishes to collaborate in the process of teacher innovation has to be patient, receptive, supportive, and accepting of partial change" (p. 277). In summary, the teachers' beliefs are shaped by their practice through time (Muijs and Reynolds, 2011). The teachers' values and beliefs as well as positive attitudes and behaviour are crucial for curriculum implementation and for better student learning (Whyte, 2008).

2.8.3 Professional Development activities

Professional development is defined as activities that develop an individual's skills, knowledge, expertise and other characteristics as a teacher. The development can be provided in many ways, ranging from the formal to the informal. It can be made available through external expertise in the form of courses, workshops or formal qualification programmes, through collaboration between schools or teachers across schools (e.g. observational visits to other schools or teacher networks) or within the schools in which teachers work. In this last case, development can be provided through coaching/mentoring, collaborative planning and teaching, and the sharing of good practices (OECD 2009)

Professional Development (PD) is a key for supporting teachers in new initiatives (Smit and du Toit, 2016). In order that curriculum policy is translated into practice and to ensure that successful implementation and continuity of any curriculum innovation exists in the classroom, it is paramount that teachers receive professional development activities and provision of ongoing support and (De Lano et al., 1994; McLaughlin, 1987); One benefit of Teacher professional development (TPD) includes teachers' increased comfort and skill levels for implementing curricula. Relevant and effective PD has been found to promote confidence and a greater understanding of objectives (Lia, 2016). Having time and conducting research to develop meaningful TPD that will consider the needs, concerns**,** and experiences of the teacher will be valuable and likely to influence positive growth for the teacher (Lia, 2016). Coldwell (2017) found a connection between teacher confidence and PD. Coldwell (2017) found that PD increased skills knowledge, which enabled teachers' confidence in specific content areas; this in turn led to increased job satisfaction and professional motivation. Teachers become more likely to implement curricula with fidelity when they feel well prepared through PD and develop the knowledge and awareness required for effective implementation (Cetin, 2016).

Kyndt, et.al. (2016) explored different types of PD and their related effects on teachers they offer further insight into teachers' attitudes and beliefs as well as the concerns they experience from curriculum implementation through informal learning for professional growth. Teacher collaboration, team planning, or even mentoring may all be classified as informal learning opportunities. In order that curriculum policy is translated into practice and to ensure that successful implementation and continuity of any curriculum innovation exists in the classroom, it is paramount that teachers receive in-service training and provision of ongoing support and professional development (De Lano et al., 1994; McLaughlin, 1987, OECD 2009)

Teacher learning is a continuous process and because of changing educational, societal and technological factors, teachers must be given timely and appropriate opportunities at every stage of their careers to upgrade and develop their professional capacities. This calls for the need of continuous development and in-service training for teachers in the field so as to keep them up to speed with improved approaches to curriculum implementation (Lawyer, 2019).

There is no single unique and effective implementation method that is available for all teachers and schools (Marsh, 2009). Nevertheless, effective curriculum implementation requires staff development to promote an understanding of the new approach, provision of

various forms of support to schools and teachers, monitoring of the implementation process, leadership from school heads, collaboration and sharing among teachers. Similarly, Teachers' professional tasks that include interpretation, planning, and delivery of curriculum, and organizing and creating physical learning environments, and creating relationship with students and others have impact on curriculum implementation.

2.8.4 Teaching methods and techniques used

Teaching method, as one of the factors for student learning, is the mechanism that is used by the teacher to organize and implement a number of educational means and activities to achieve certain goals, teaching and learning activities are two inseparable activities since one reflects the other. Hence, the outcome of effective learning can be measured by the quality of learning students received (Shahida, 2011). Teacher must know, all students do not learn in the same way at the same time and they have a variety of levels in any particular subject as a result teacher need to use different teaching methodology to reach all students effectively. This is because each teaching methods engages students in different ways, each has its advantages depending on the information they teach. Knowing the differences between these methods will help to select the technique that is best for particular class of study, and to define a particular teaching style. Thus, knowing characteristics of the most common teaching methods will certainly help in choosing the right teaching and learning method (pat, 1992; Al-Rawi, 2013).

Similarly, the teaching methods considered as a remedy for effective curriculum implementation in the classroom. Teaching methods denote various strategies that the teacher uses to deliver his/her subject matter to the students in the classroom based on the instructional objectives to bring about learning. Teaching methods aids learning and help to communicate ideas and skills to the students. Teaching methods to use in the classrooms, it is left for the teacher to use the ones most appropriate for the lesson. These methods if properly used will enhance teaching and learning and bring about desired changes in the students. While the teacher's task is to ensure that learning is effective, one major way to achieve this is the use of appropriate teaching methods.

Simply put, teaching method is any teaching maneuver that can be used to facilitate students learning and satisfaction. Different teaching methods may elicit different types of changes in learning outcomes. Teaching methods are many and varied and could be used in different ways, considering among others the age of the learners, body configuration or physique of learners, (able or disabled learners). Academic ability/intelligence of the

learners, number of learners and of course the type of curriculum discipline which recognizes the fact that certain teaching methods are much more suitable to some disciplines than others.

Nevertheless, these teaching methods can be seen under two groups. For instance, generally teachers intend to use the straightforward method he used to, "the traditional method of teaching/teacher-centered methods". In this method, learners are passive elements and focus on the teacher himself. There is one way communication, Audience participation is minimal and ignoring the interaction of the student. Examples of such method are lecture and story-telling methods On the other hand, active learning methods (student-centered methods) give teacher a role of facilitator and guidance and learners take responsibility for their own learning. They encourage learners to participate actively, collaboratively and independently in their learning process. Group discussion, question and answering, project, field-trip methods are examples of this method among others. Generally, using the most appropriate teaching methods during the teaching learning process help to implement the curriculum effectively and bring about the desired student learning.

2.8.5 Resource and supports

It is clearly important in any study of implementation to gather information about how curriculum materials are used. It is obvious that no meaningful teaching and learning take place without adequate resource materials. This applies to curriculum implementation as well. For the officially designed curriculum to be fully implemented as per plan, the government or Ministry of Education should supply schools with adequate resources supports such as textbooks, teaching aids, laboratories, library and facilities in order to enable teachers and learners to play their role satisfactorily in the curriculum implementation process. In Curriculum Implementation, it is suggested that the central government must also provide physical facilities such as classrooms, laboratories, workshops, libraries and sports fields in order to create an environment in which implementation can take place. The availability and quality of resource material and the availability of appropriate facilities have a great influence on curriculum implementation. In line with this, Brown and Gordon (2009) noted that children learn better in classrooms that are well resourced and equipped with developmentally and age appropriate material. Moreover, Abadzi (2006) in his study shown that Countries such as Ghana, Philippines, Brazil, and Guinea had shown improvement in learner performance due to sufficient supply of textbooks, with textbook teaching, and learning resources working well and saving instructional time.

On the other hand, Shortage of resources is the critical problem influencing curriculum implementation. The inadequate facilities including classrooms, laboratories, and libraries and playing grounds can affect the implementation of the new curriculum (Jansen and Taylor, 2003). Van der Nest (2012) concurs and classified educational resources into three categories namely: human resources, cultural resources and material resources. First, human resources include the teachers themselves and the pedagogic content knowledge that they embody. Second, cultural resources include language, time, and other culturally available tools or concepts. Third, material resources are technologies, curricular documents, and textbooks that may be incorporated into the teaching and learning process. Material resources are lacking in many schools of third world countries classrooms. Resources impact negatively on untrained teachers.

Physical facilities and opportunities of schools were factors negatively influencing the learning environment and process of curriculum implementation. Teachers most frequently stated crowded classrooms with students in different levels as a problem. The insufficient instructional materials, technical support, and the structure in schools are also as the major negative factors influencing the learning environment and the process of curriculum implementation.

Berman and McLaughlin (1976) found that a significant level of human resource support was important, and that innovations attempted would not have been possible without proper financial support. Kritek (1976) contended that the problems of resource insufficiency are not likely to be solved by providing only more money. More importantly, human support in terms of personnel training and administrator and peer support are believed to maximally increase the smooth implementation of innovations.

In his study of Ethiopian general secondary schools curriculum relevance Alemayehu T. (2006) confirmed that Most schools have serious financial constraints and as a result equipped with very poor facilities, such as lack of classrooms, play grounds, libraries, laboratories and lack of audio-visual centers. Lack of qualified teacher for the level is also another constraint to implement the curriculum effectively. Due to scarcity of the resources, the number of students per class ranges from 70 to 100, especially in Addis Ababa and big cities. This hampered the effective implementation of the curriculum. In addition the World Bank (2005) confirmed that Learning environment, as well as the way in which resources are mobilized and deployed, are major elements of the secondary education agenda in Ethiopia.

Therefore, In order to implement a curriculum effectively, certain minimum conditions that enable learning should be in place. When they are not, educational quality cannot be achieved. These minimum conditions include competent teachers, sufficient textbooks and other instructional materials, and an adequate number of classrooms.

Besides, it is important to provide training and support to teachers, school management teams and parents in order to achieve effective curriculum implementation (Dunlap, et. al., 2009). Subject specialists need to support teachers and undertake a monitoring process in order to comprehend what is happening in classroom situations.

2.8.6 Teacher's work load

The beginning of the 21st century was characterized by educational research which inquiry for understanding of the intensification of teachers' work load and its teaching quality and performance of teachers **(**Pacaol, 2021). The concept of work load intensification is generally described as when teachers have too much to do and not enough space to practice teaching as considered by teachers to be a valuable activity (Beck, 2017). According to Department of education (DfE) (2018) it was the volume of tasks that teachers felt to be unmanageable in the time available to them.

For Penrice (2011) intensification of teachers work exists in three areas. First, increase in the number of tasks an employee must perform. Second, an increase in an accountability demands with the classroom and, third, increase on demands on teacher's responsibilities outside of classroom. Indeed, teachers are preoccupied and overloaded with duties of either teaching or non-teaching tasks. Some of these are teaching students, meetings, seminars, administrative or school paper works, community services and sports (Sugden, 2010).

Pacaol (2021) identified that teachers' intensified workloads pose two possible effects: 1) new duty will replace the old task compromising the latter and 2) new task gets added on the list of teacher's works that need to be accomplished. According to Hargreaves (1992), intensification reduces the quality of services including teacher's duty to provide quality of education. In his study, Chirimi (2016) found out that teaching-learning effectiveness experiences a direct impact from teacher's workloads. This happens when too many duties and activities are designated to a teacher that cannot be complied anymore which mostly results in attenuation in time in which the former could use instead to teach her learners. Similarly Hasan (2015) also suggested that Teachers are exposed to many sources of stress as a result of having challenging relationships with colleagues, administration, and

management, and being exposed to generally poor working condition prospects, unsatisfactory working conditions, the ambiguity of the teacher's role, poor relationships with colleagues, pupils, and administrators, and job insecurity .

Furthermore, Tahseen (2015) also stated that due to excessive amounts of non-teaching activities works and at the same time teaching students, might lead teachers to stress. Factors that cause exhaustion may include more extended hours of teaching and the need for ideal conditions that the workplace could not provide (Demirel and Cephe, 2015).

Intensified teaching load that causes Stress in the teaching profession is an international phenomenon that negatively affects both the teacher and the quality of education. Possible consequences of teacher stress are reduced teacher self- efficacy, lower job satisfaction, lower levels of commitment, and higher levels of burnout (Skaalvik and Skaalvik, 2016). Thus, teachers' heavy work load is one of the factors that has negative impacts in curriculum implementation and there by inhibits learners' academic achievement. Onyango (2013) confirmed that there is a link between workload and curriculum implementation. Teacher workload describes the amount of time spent teaching and interacting with pupils in and outside the classroom, the time left for preparation and time spent in other co-curricular and managerial activities Therefore, Governing bodies and head-teachers, in carrying out their duties, must have regard to the need for the head-teacher and teachers at the school to be able to achieve a satisfactory balance between the time required to discharge their professional duties and the time required to pursue their personal interests outside work.

2.9 Organization to Implement the Change

Implementation of a curriculum demands the organization or setting in which people work. The aspects of organization such as the quality and quantity of staff development, the channel of communication between curriculum developers and implementers, and the availability and adequacy of instructional materials are crucial for the implementation of curriculum. In addition to this the relationship of the school with parents and the openness of the school for outside relationship are important organizational aspects for effective implementation of a curriculum. The administrative support has positive effect on the implementation whereas the incompatibility of the organizational arrangement is inhibiting factors for implementation (Solomon, 2006).

It is evident that staff development is a central focus in successful curriculum implementation since it has the potentials of strengthening friendship and collaborative works and develops

the spirit of team work among the staff members(Yilfashewa , 2012).The higher the quality and quantity of sustained interaction and staff development, the greater the success of implementation. Concerning this, McNeil (1990) describes it that, a key to educational change must include intensive staff development which is an important strategy. In addition to this, McNeil also suggested that active involvement of the teachers in the developmental process (in developing guides and materials) is more important in persuading teachers to implement plans than their participation on the curriculum committees that decide on the plan. Frequent discussion about a new programme among teachers, principals, and curriculum workers is a key to successful implementation. There must be a comprehensive network of communication that can provide reliable information at all levels of the system.

In curriculum implementation, Communication is one of the influencing factors which plays a key role in teacher learning and implement the reform. The opportunities created to discuss about the problems teachers' experiencing and the solution discovered is extremely valuable for teachers. Through these opportunities teachers can share and build on each other ideas, examine diverse approaches, discuss their beliefs about learning and teaching and look at teaching practices and instructional materials. As a result of such settings they can further develop effective classroom strategies and approaches, and in turn implement reforms more effectively (Davis, 2002). Therefore communication opportunities and new decision making structures has to be created in order to encourage, and support teachers.

Similarly, emphasizing collaborative and emotional effort for peer support in the successful implementation of curriculum Ornstein and Hunkins (2017), also mention opportunities for teachers to work together, share ideas, jointly solve problems, and cooperatively create materials to greatly enhance the probability of successful curriculum implementation. Consequently, Davis (2002) stresses teachers should be empowered to create new structures, policies, and practices within their school settings to support their collaborations with colleagues and students, the development of goals for change, and their design of and experimentation with innovative instructional and learning practices and assessments.

Educational organization and management needs to sort out the tasks at each level beginning from the center to school level and formulating structure, tasks and responsibilities of different sections, determining role and role relationship, and it also include arrangement of the necessary manpower, finance and material for the implementation of curriculum. The nature of organization at the school level can serve as a mirror to show the strength or weakness of a given system of organization.

What is exactly going on or how a particular school is organized in terms of facilities necessary for the implementation of a curriculum can be an index of the strength or weakness of a particular organization. With this regard, the inadequacies of instructional facilities in the school inhibit implementation very much. The classroom environment has the capacity to either positively or negatively influence the process of implementation. Content selected, available facilities, availability of resources and materials, management of materials, access to existing and emerging technologies, instructional practices, scheduling of teacher time and assessment protocols are identified by Shymansky and Kyle (1992) as school environmental factors. Similarly number of students, context and subject matter are mentioned by Strage and Bol (1996) as factors influencing the realization of instruction. Studies related to classroom environment have shown that the ultimate success of curriculum reform rests upon how it is implemented in the classroom (as cited in Ozturk , 2003).

Study conducted by Scott's (1994) as cited in Ozturk (2003) indicates the limiting factors such as time constraints, lack of resources and facilities, own limited knowledge, need to cover a variety of contexts, pressure of exams, lack of interest by students, and different backgrounds of students as identified by teachers to implement the curriculum .

Instructional facilities encompass materials through which teaching and learning processes are carried on. It also includes the physical environment of the classroom. The success of curriculum implementation is often restricted by lack of facilities, equipment and teaching resources in the school. As David Pratt (1994) describes it, one of the major factors in successful implementation of innovation is whether or not the curriculum is accompanied by useful, high-quality instructional materials that help teachers teach effectively and arouse students' interest and greatly increase the probability of successful implementation of the new curriculum.

Regarding to these Valverde et al. (2002) reported that the availability and utilization of teaching and learning resources are critical in the curriculum implementation process and have a powerful influence on what students learn. However, their availability may depend on several factors such as availability of finance, management interest to provide, attitude towards geography, and teachers expertise.

In his study Valverde et. al. (2002) asserts that Schools with adequate textbooks have shown a better students' performance compared to those who have inadequate resources. In his study on the impact of educational resources, Chepkurui's (2004) study also denoted that the availability of instructional materials, particularly, the textbooks have the greatest impact on

student performance. UNESCO (2005) reported that the presence of adequate textbooks, reduced class size, improved teacher education and school facilities have positive impact on learners cognitive development. Similarly, Aroni (2007) stated that educational resources such as teacher quality, instructional materials and physical facilities have positive impact on students' performance in developing countries

Bishop (1985) also suggested that to have a change and improvement in education, there must be adequate resources. He further notes that ready and continuing supply of teaching and learning equipment and adequate support services is critical condition for successful innovation and implementation. George observed that most teaching materials and resources that are of great value for geography teachers include collection of books, reference materials, multi-copies of resource items, kits of newspapers articles, photographs, maps, diagrams, historical documents, statistical tables, journals, paintings, tape records, slides, films, weather station, models, laboratories, workshop etc. All these tools increase teacher's confidence, effectiveness and productivity and with better tools, the teachers' professional capabilities are more fully utilized to accomplish larger and better results (Bishop, 1985).

According to Fullan and Pomfret (1977, as cited in Ozuk, 2003) the existing organizational climate of the adopting units plays a critical role in implementation. They report high morale of teachers at school, active support of principals and general support of superintendents to increase the chances of teacher change and perceived success. Moreover, teachers in schools with greater implementation perceive a more participatory system that includes a greater teacher involvement in decision-making and greater peer communication and team building.

The last but not the least factors that possibly influencing the implementation process encompass the characteristics of the macro socio-political units are the role of political agencies outside the adopting unit. These range from local school system boards, local government, and community agencies, to national and federal organizations. When the scale of the program is larger, the role of these factors becomes more prominent (Ozturk, 2003).

2.10 Theoretical Framework of the Study

This research utilizes integrated educational theories of constructivism (Piaget, 1952; Vygotsky, 1978), national geographical standards, and curriculum development and implementation models and principles as its theoretical framework. To this end, (Piaget, 1952; Vygotsky, 1978) asserted that, constructivism emphasizes that learners actively construct their own understanding and knowledge through experiences and reflection. Key principles include active learning, building on prior knowledge, social interaction, meaningful learning contexts, and reflective thinking. In education, this approach is applied through inquiry-based and problem-based learning, where students engage in exploration, discovery, and real-world problem-solving to develop critical thinking and a deeper understanding (Piaget, 1952; Vygotsky, 1978).

The National Geography Standards provide a framework outlining what students should know and be able to do in geography. These standards emphasize the understanding of spatial patterns, the physical and human characteristics of places, the interconnections between people and environments, and the ability to use geographic tools and technologies. They aim to develop geographic literacy, enabling students to analyze geographic information, make informed decisions, and understand the complexities of the world and its diverse cultures and environments (Geography Education National Implementation Project (GENIP, 1994).

Curriculum guides and frameworks outline specific goals and content areas for secondary school geography education, providing detailed instructions on what should be taught at each grade level, including key geographic concepts, skills, and knowledge areas. They help educators plan lessons that align with national or state standards, ensuring students gain a comprehensive understanding of topics (Department for Education (DfE) or equivalent in various countries).

However, implementing these national standards and curriculum guides is a complex process influenced by myriad factors. Effective curriculum implementation requires a well-designed curriculum policy, active involvement of various stakeholders, and a supportive environment. Specifically, teacher preparedness and professional development, resource availability, student engagement, assessment, evaluation, and feedback mechanisms play significant roles in effective curriculum implementation (OECD, 2020).If the national standards and curriculum guidelines are not clear about what is to be learned, how it is learned, why it is

learned, how it is evaluated, and what resources are required, the curriculum cannot be successfully implemented (van den Akker, 2010).

Teacher preparedness and professional development significantly impact curriculum implementation. Effective teacher training equips educators with the knowledge, skills, and confidence needed to deliver curriculum content effectively. On-going professional development keeps teachers updated on the latest educational research, teaching strategies, and technological advancements, enabling them to adapt and improve their instructional practices. Well-prepared teachers are better able to engage students, differentiate instruction, and create meaningful learning experiences, leading to improved student outcomes and more successful curriculum implementation (Shulman, 1987).

Resource availability, including the quality and accessibility of teaching materials, technology, and geographical tools, also plays a crucial role in effective geography education. High-quality textbooks, digital resources, maps, globes, and GIS software enhance the learning experience by providing accurate and engaging content. Adequate technology infrastructure, such as computers and internet access, supports the use of interactive and multimedia resources. The availability of these resources enables teachers to deliver comprehensive and dynamic lessons, helping students develop a deeper understanding of geographic concepts and skills. Conversely, a lack of resources can hinder the ability to meet educational standards and objectives (UNESCO, 2017).

Moreover, student engagement and supportive learning environments are crucial for effective geography education. Engaging students in active learning through hands-on activities, interactive lessons, and real-world problem-solving enhances their interest and understanding of geographic concepts. Supportive learning environments that foster collaboration, critical thinking, and curiosity encourage students to participate actively and take ownership of their learning. Such environments also provide emotional and academic support, creating a safe space for students to explore ideas and make mistakes, ultimately leading to deeper learning and better educational outcomes (Fraser, 1998).

Furthermore, assessment and evaluation significantly influence students' learning and achievement in geography. Formative assessments, such as quizzes, class discussions, and project-based tasks, provide on-going feedback that helps students identify their strengths and areas for improvement. The use of diverse and balanced assessment methods ensures a

comprehensive evaluation of student progress and encourages continuous improvement, ultimately enhancing their geographic literacy and achievement (Black & Wiliam, 1998).

This framework integrates various theories and models to provide a comprehensive approach to studying geography curriculum implementation in secondary schools. By using this theoretical framework, researchers have systematically investigated the factors influencing effective geography education and identify best practices for curriculum development and implementation. Therefore, the theory will help the study establish relevant skills and knowledge necessary for developing ideas for policymakers, curriculum developers, and other concerned bodies.

2.11 Conceptual Framework of the Study

A conceptual framework is a model that visually represents the relationships among variables in a study, often depicted graphically or diagrammatically (Orodho, 2004). To understand the extent to which effective curriculum implementation is realized, the researcher constructed a conceptual framework based on the Fullan (2001) curriculum implementation model and various studies on geography curriculum implementation. This model explores implementation factors such as characteristics of change, local agents, and external factors.

In his work on curriculum implementation, Michael Fullan identified the complexities of educational reform and the challenges associated with implementing curriculum changes as follow. First, he emphasizes that curriculum implementation is an on-going process rather than a one- time event that involves multiple stages, including initiation, implementation, and institutionalization. Successful change thus requires time and sustained effort across these stages. Second, Fullan highlights that teachers, administrators, and other stakeholders are important agents in change process. He contends that teachers play a crucial role as they are directly engaging with students and delivering the curriculum. Teachers' attitudes, beliefs, and capacity for change significantly influence the success of curriculum implementation. Third, Fullan suggests that curriculum implementation is inherently complex and often unpredictable. Many factors can influence the process, including school culture, leadership, resources, and external pressures. Understanding and navigating this complexity is essential for effective implementation. Fourth, Fullan advocates that for effective curriculum implementation, there has to be alignment and coherence within the education system. This includes alignment between the curriculum, assessment practices, teaching methods, and policy directives. Fifth, Fullan stresses the importance of ongoing professional development

to support teachers in implementing curriculum changes. This includes building their capacity to understand and apply new instructional methods and assessment practices. Sixth, Leadership is a crucial element in Fullan's framework. He emphasizes that strong and supportive leadership at both the school and district levels is vital for driving curriculum implementation forward. Leaders must be able to inspire, support, and guide their teams through the complexities of change. Lastly, Fullan points out that sustainability is a key challenge in curriculum implementation. Even when changes are initially successful, maintaining them over the long term requires continued commitment, adaptation, and support from all stakeholders involved.

Fullan's work provides a comprehensive framework for understanding and navigating the challenges associated with implementing curriculum changes in educational settings. His emphasis on the human, systemic, and adaptive aspects of change highlights the need for a holistic and flexible approach.

In the same way, various studies report that Geography curriculum implementation is influenced by several factors, which can be categorized as the nature of change, the role of change agents, and the organization implementing the change. These factors specifically include situational elements like the physical setting of schools, availability of resources and facilities, access to existing and emerging technologies, physical aspects of the classroom environment, and allocation and use of time. Additionally, teacher characteristics such as years of teaching experience, educational background, enthusiasm, preparedness, effectiveness in maintaining student attention, knowledge of the subject and pedagogy, beliefs, perceptions, attitudes, and expectations also influence the curriculum implementation process. The model assumes that effective curriculum implementation is achieved when enabling conditions are met. These conditions include teacher involvement, effective teaching methodology, academic development, and the provision of resources. It is assumed that when these elements are optimized, they lead to effective teaching, strong instructional leadership, and increased student commitment and positive attitudes. This, in turn, serves as an indicator of successful curriculum implementation. The conceptual framework illustrating this is presented in Figure 1 below.

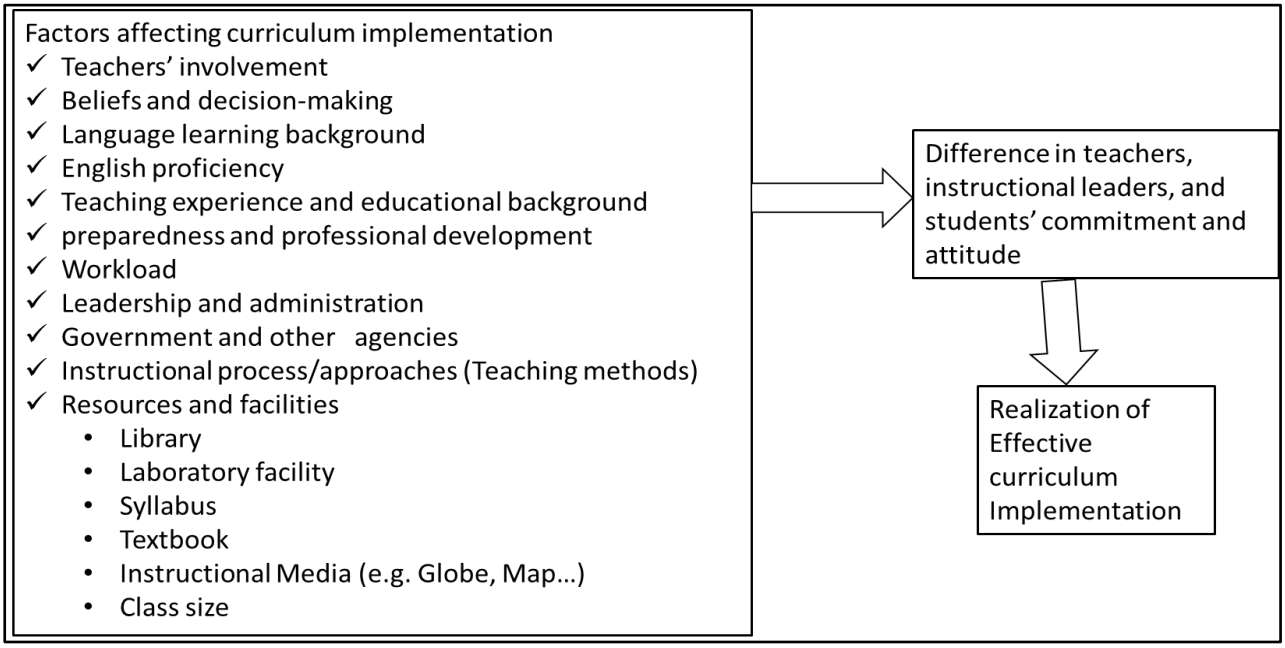

Figure 1: Conceptual framework of the study

CHAPTER-THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter delineates the research methodology employed in this study. Initially, it outlines the description of the study area and the research paradigm adopted by the researcher as the most fitting approach for this investigation. Subsequently, it elaborates on the mixed methods approach, detailing the rationale behind its selection and providing a comprehensive overview of the research design crafted for this study. The chapter then proceeds to describe the strategies implemented for participant selection, alongside the profiles of those who participated. It further explicates the instruments utilized in the questionnaire surveys and the protocols followed during interviews. Concluding the chapter, it presents the procedures for data collection and engages in a discussion on the methods applied in data analysis, ensuring a thorough understanding of the methodological framework guiding this study.

3.1 Description of the Study Area

Sidama is one of the eleven regional states of Ethiopia. It is located b/n 6° 43' 4.8" north lat. and 38° 26' 52.8" east longitude with 10,000km^2 area. Sidama Region is bordered on the north, east and south by Oromia and on the west by Wolayita and Kembata. It has 14 woredas with a variety of climatic regions ranging from Cool temperate (Dega) (16%) to Warm-temperate (Woinadega) (54%) and Desert (Kolla) (30%). The total population of Sidama is

approximately 5 million with 149,480 (4.01%) urban population. It is one of the densely (451/km2) populated areas in the country. A great majority of the population is engaged in agriculture. Many languages are spoken in sidama region. However, the dominant languages are sidama, Amharic, and wolayita. In Sidama, 2018, there are 936 kindergartens, 1070 primary schools and 71 secondary schools. Of the total number of secondary schools, 40 (56.4%) of them are general secondary schools with 63552 students and 2471teachers population. It is this first cycle of the secondary education level which is the area under investigation by the researcher. (SNNPR Educational Bureau, 2018, CAS, 2010)

3.2 Research Paradigm

To comprehensively uncover the underlying realities of educational practices, a systematic approach anchored in the Pragmatic paradigm is essential. Pragmatism, as elucidated by Cohen et al. (2011), serves as both a guide and a theoretical framework within which research is situated. This paradigm is characterized by a coherent set of assumptions, beliefs, methodologies, and techniques for effective data collection and analysis, essentially forming a comprehensive set that supports the study's structure (Cohen et al., 2011; Neuman, 2005). Defined by Neuman (2005), Pragmatism encapsulates "an integrated set of assumptions, beliefs, models of conducting robust research, and techniques for gathering and analyzing data."

The objective of this research was to delve into the perceptions, practices, and influential factors affecting the implementation of the general secondary school geography curriculum. Given the study's aim to explore knowledge as it is constructed, deconstructed, and re-created through the dynamics of teaching-learning interactions in the contemporary educational milieu, the Pragmatic paradigm is deemed most fitting (Cohen et al., 2011; Creswell, 2007). This exploration encompasses insights from teachers, principals, supervisors, and curriculum experts, thereby offering a multidimensional understanding of educational practices.

Accordingly, the researcher has chosen to adopt a Pragmatic stance for this investigation, recognizing its suitability for the task at hand. A pragmatic approach is particularly advantageous due to its methodological flexibility, allowing for the selection of the most appropriate methods from a broad spectrum of qualitative and quantitative options. This methodological pluralism is a key strength of the Pragmatic paradigm, enabling the use of whichever methods are most effective for addressing the research question. Such a stance is synonymous with the utilization of mixed methods, underscoring the paradigm's versatility

and its commitment to methodological pragmatism in the pursuit of empirical inquiry (Biesta, 2010; Creswell and Clark, 2011; Morgan, 2014a).

Eventhough, adopting a Pragmatic paradigm is not an absolute requirement for employing a mixed research approach, they are closely interconnected and often mutually reinforcing. With respect to their relationship, Pragmatism provides a philosophical foundation that naturally complements the mixed research approach. At its core, pragmatism focuses on the practical implications of research and the value of actionable knowledge. This philosophy posits that the value of any theory lies in its utility and applicability to real-world situations. Similarly, a mixed research approach—by combining qualitative and quantitative methods—aims to leverage the strengths of both to produce more comprehensive and applicable results. Pragmatism also advocates for methodological pluralism, meaning it supports the use of multiple methods to address research questions. This aligns with the mixed research approach, which inherently involves integrating qualitative and quantitative methodologies to enrich understanding and validate findings. The pragmatic stance encourages choosing methods based on their ability to effectively answer the research question, rather than adhering strictly to the conventions of either qualitative or quantitative paradigms. Furthermore, both pragmatism and mixed research methods emphasize the importance of context and the problem at hand. They are oriented towards understanding and solving real-world problems, acknowledging that these problems are often complex and multifaceted, necessitating a diverse set of perspectives and tools for effective investigation and intervention.

As far as the interdependence between pragmatism and mixed research approach is concerned, the principles of pragmatism can significantly enhance the rationale and implementation of mixed methods research. This is because, Pragmatism provides a strong philosophical justification for the mixed methods approach, arguing that the choice of method should be driven by the research question and the practical need to obtain useful answers. This perspective helps researchers justify their methodological choices to stakeholders or in academic discourse. The pragmatic also emphasis on using whatever method works best for the research question encourages more innovative and flexible research designs. This can lead to more effective integration of qualitative and quantitative components, ensuring that the research design is well-suited to explore the complexity of the research problem. In addition, by aligning with pragmatic principles, researchers using mixed methods can more effectively triangulate their findings, comparing results from qualitative and quantitative components to enhance the reliability and validity of the research outcomes.

In summary, while pragmatism is not a prerequisite for employing a mixed research approach, the two are deeply interconnected. Pragmatism enriches the mixed research

approach by providing a flexible, problem-oriented philosophical foundation that prioritizes the utility and applicability of research findings. This synergy allows researchers to navigate complex research landscapes more effectively, producing robust, comprehensive, and actionable insights.

3.3 Research Design

In this study, the researcher utilized a mixed methods approach, as recommended by Creswell (2003) and Tashakkori and Teddlie (2003), to facilitate a comprehensive exploration of the subject matter. Mixed methods research is defined as the type of research in which the investigator combines both quantitative and qualitative research techniques, methods, approaches, concepts, and language into a single study (Johnson and Onwuegbuzie, 2004, p. 17). This approach is advantageous for several reasons, structured around the unique capabilities it offers in addressing research problems.

Firstly, as Creswell (2003) points out, the nature of the research problem or issue dictates the selection of the research method. This perspective is supported by Johnson and Onwuegbuzie (2004), who argue that research methods should be chosen based on the research questions, aiming to provide the most effective means of obtaining useful answers. Consequently, the mixed methods design, which leverages both quantitative and qualitative approaches, is deemed particularly suitable for this study. This design allows for a comprehensive examination of both the intended and the enacted geography curriculum within the context of general secondary education in the Sidama regional state, utilizing the complementary strengths of both research methods to enhance understanding.

Secondly, the principle of "Triangulation" serves as another significant advantage. Employing multiple measures to investigate the intended and the enacted curriculum, as well as to examine the gap between the two, enhances the validity of the research findings. The study employs data triangulation, utilizing various data sources to strengthen the research's validity, and methodological triangulation, incorporating multiple methods to study a single problem, as critical for verifying and cross-checking the findings (Creswell, 2003).

Thirdly, the mixed method approach allows for a robust argument for conclusions through the convergence and corroboration of findings (Johnson and Onwuegbuzie, 2004). The research outcomes provide valuable insights into the issue of curriculum implementation in Ethiopian secondary geography education and offer recommendations for all stakeholders involved.

The research design is characterized by a "convergent parallel mixed method," where quantitative and qualitative data are collected simultaneously, analysed separately, and then integrated to produce a comprehensive analysis of the research problem (Barnes, 2019; Creswell, 2012). This approach does not prioritize one method over the other, nor does it follow a predetermined sequence in data collection or analysis. Instead, it ensures equal importance and concurrent data collection, which results in a shorter data collection time period (Creswell, 2003, p. 217). The integration of findings from both methods aims to validate the study's conclusions and provide a well-substantiated knowledge base.

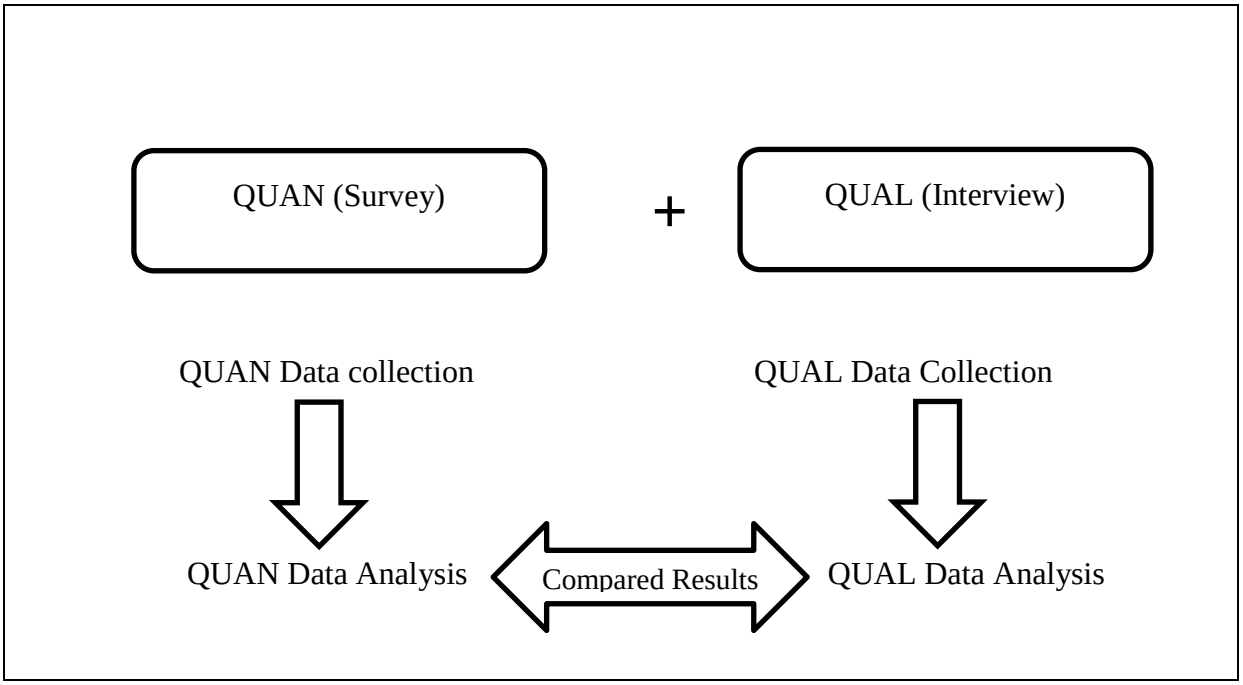

Figure 2 Design of the study

As described in (Fig..2), visually represents this convergent parallel mixed method design, illustrating the simultaneous but independent paths of quantitative and qualitative data collection and analysis, culminating in an integrated analysis that aims to reconcile and validate the findings from both strands of the research. The figure illustrates the convergent parallel mixed method design employed in this study. This approach entails the simultaneous collection of both quantitative and qualitative data, followed by an integration of the findings to provide a thorough analysis of the research problem (Barnes, 2019; Creswell, 2012). The design is characterized by several key features:

a. Absence of a Predetermined Sequence: The research did not follow a fixed sequence in terms of data collection or the prioritization of each research phase. Interviews were conducted with key stakeholders, including administrators, principals, department heads, and curriculum experts. Concurrently, surveys were distributed to teachers, and relevant documents were analysed. This flexible approach allowed for a comprehensive understanding of the subject matter from multiple perspectives.
b. Equal Importance of Quantitative and Qualitative Methods: In this design, neither quantitative nor qualitative methods were deemed superior. Data collection occurred in distinct phases throughout the study, ensuring that each method contributed equally to the research outcomes. This balanced approach facilitated a holistic examination of the research problem.
c. Separate Data Analysis: Following the completion of data collection, analysis of the quantitative and qualitative data was conducted independently. This stage involved synthesizing interview responses with survey results to examine both the intended and

enacted curricula. The aim was to identify and analyze any discrepancies between these curricula, thereby gaining insights into their alignment and effectiveness.

d. Confirmation and Triangulation: The final stage involved validating and cross-verifying the findings using both quantitative and qualitative methods, along with data triangulation within the study. This rigorous process helped to strengthen the credibility and reliability of the research conclusions, ensuring they were well-founded and comprehensive.

In summary, the Convergent Parallel Mixed Method facilitated a nuanced exploration of the research problem, leveraging the strengths of both quantitative and qualitative approaches to produce well-rounded and substantiated findings.

3.4. Source of Data

Both primary and secondary sources were used for this study.

3.4.1. Primary Sources of Data

The primary sources of this study were the schools' principals, department heads, and geography teachers of the six selected secondary schools, as well as curriculum experts/ supervisors from educational bureau and offices.

3.4.2. Secondary Sources of Data

The secondary sources of data for this study included secondary schools' strategic plans, national policy documents such as educational policy, ESDP I-IV, and General national curriculum framework. These were used to substantiate the data collected from the primary sources in the quantitative and qualitative approaches.

3.5 Sampling

For this study, schools within the Sidama region were carefully chosen utilizing a stratified and random sampling method. The selection process began by cataloging all 40 public general secondary and preparatory schools located in the region, distinguishing between 23 urban and 17 rural schools. Subsequently, a random selection was made to choose six secondary schools for the study—four from urban areas and two from rural areas—thereby ensuring representation based on the urban-rural distribution of schools. From these selected schools, a total of 53 geography teachers were included in the sample to participate in the questionnaire portion of the study, with 35 teachers from urban schools and 18 from rural schools.

The purpose of selecting a smaller sample (6 schools) in this study is to obtain a manageable yet reliable subset that reflects the characteristics of the larger population (40 schools). Sampling is a widely accepted method in research when it's not feasible or practical to study the entire population. In this study the methods used to select the 6 sample schools were stratified and random sampling techniques consecutively. The reason for using stratified sampling in the first place was to ensure that all key characteristics of urban and rural schools were covered and improves the representativeness by ensuring different types of schools are included in the sample. The reason of using random sampling next to stratified sampling in selecting the sample schools was to provide equal chance of being selected and making it statistically likely that the 6 schools are a fair representation of the population.

With regard representativeness of the sample, the selected sample schools reflect the overall diversity of the 40 schools. The selection included schools from different geographical locations, sizes, socio-economic contexts, or academic performance levels. In addition, the selected 6 schools include a proportional representation of key categories. Thus, the six sample schools were proportionally represented from rural and urban. Of 40 secondary schools of the region 17(30%) are located in rural and the rest 23(70%) are found in urban. From the 6 sample schools, 4(58%) schools from urban 2(42%) schools from rural were proportionally represented.

As far as the sample size is concerned, 6 schools are an appropriate number for the sample size. While 6 out of 40 that accounts 15% may seem small .However, the percentage is suffice to use as a sample. A sample size of 6 out of 40 (15%) may be sufficient if the population is relatively homogeneous, meaning the schools are similar in key characteristics. For diverse populations, stratified sampling ensures the differences are captured even with a smaller sample.

The study conducted by Feyera (2019) on change leadership practices and staff commitment to change in Ethiopian public universities in which the researcher uses small sample size (6 universities) did make any difference on his study result. Similarly, even using small sample size in this study didn't bring any difference in its results.

Although the research topic is pertinent to all 40 general secondary schools, practical constraints such as time, budget, insecurity, and the distribution of the schools throughout the region made unfeasible to include the entire population. Therefore, a sample size was selected to represent the broader context effectively. Hence using a small sample that was a representative of the general secondary schools was inevitable. In this regard, Cohen et. al.

(2007, p. 100; as cited in Feyera, 2019) also argue that “factors such as expense, time, and accessibility frequently prevent researchers from gaining information from the whole population”. As a matter of fact, since the population was small in size (40 general secondary schools), large sample size, which is 30 in this case, is expected with confidence level of 95% (Cohen et. al., p.104). However, Cohon et. al. also, stated that sample size might also be constrained by time, money, stress, insecurity, and resources which was a characteristic of this study.

The researcher would also like to acknowledge while every effort was made to ensure the 6 schools are representative, the results may still have limitations due to unforeseen differences between the sample and the rest of the schools. However, given the diversity and careful selection process, the researcher is confident that the findings from the 6 schools can be generalized to the broader population of 40 schools.

In conclusion, in selecting 6 schools to represent the 40 secondary schools in the region, the researcher applied a stratified random sampling method to ensure that key characteristics such as school size, location (urban/rural), and academic performance are reflected in the sample. This approach was chosen because it captures the diversity of the school population while keeping the sample size manageable for detailed analysis. Although smaller in size, this sample provides a proportional and accurate reflection of the entire school population, consistent with best practices in research methodology. Based on these considerations, we are confident that the selected schools are representative of the broader population, allowing us to draw valid and generalizable conclusions for the region’s secondary schools.

In addition to the teachers, a targeted selection of school administrators and educational officials was conducted using purposive sampling. This included 6 principals from the selected secondary schools, 3 department heads, and 2 supervisors and curriculum experts from both the regional educational bureau and the woreda (district) educational offices. This selection was aimed at garnering in-depth insights from individuals holding key roles in educational leadership and curriculum development, to enrich the study's findings with diverse perspectives and expert opinions.

3.5.1 Teacher participants for survey

In the survey component of the study, 53 geography teachers from the six selected secondary schools were chosen as participants. The selection process was simple and inclusive, aiming to capture the full spectrum of available geography teachers in these schools. Specifically, all geography teachers who were actively teaching secondary-level geography at the time of the

study and who expressed their willingness to participate were included in the sample. As a result, 53 geography teachers completed the questionnaires, representing a 100% participation rate from the group targeted for this part of the study.

This approach ensures that the sample is comprehensive in terms of the geography teaching staff within the selected schools, capturing the full range of insights and experiences among teachers in those institutions. By including all available geography teachers, the study avoids potential biases that might occur from selective participation and strengthens the representativeness of the findings regarding geography education in the sampled schools.

Since the sample consists of all geography teachers from the selected schools, it gives a thorough understanding of the teachers' perspectives within those schools and further supports the argument that these 6 schools—and thus their teachers—are representative of the broader secondary school geography teaching context in the region.

Before administering the questionnaires, a concerted effort was made to thoroughly communicate the study's objectives and data collection methods to potential participants. This involved detailed discussions with the principals of the six selected secondary schools, who played a key role in facilitating the researcher’s access to the geography teachers. These initial discussions with the principals allowed for smooth coordination and ensured that the teachers were prepared for the study.

During these preparatory sessions, the researcher clearly articulated the survey's purpose, explaining why their input was valuable and how the data would be gathered. The procedures were outlined transparently, and teachers were given the opportunity to ask questions and clarify any concerns. This step was critical in ensuring that participants understood the study’s intentions and the significance of their involvement. By taking the time to inform and engage with the teachers prior to the survey, the researcher created a more conducive environment for candid, thoughtful, and well-considered responses. This preparatory work helped foster trust and encouraged full participation, contributing to the high quality and reliability of the data collected.

3.5.2 Participants of school Administrators

The interviews conducted with school administrators such as principals, supervisors, and department heads aimed to gather insights into their perceptions regarding the general secondary curriculum and its implementation. To identify these key informants, the

researcher employed a purposive sampling strategy, a non-random technique that prioritizes the selection of particularly informative cases for in-depth analysis (Johnson & Christensen, 2004; Patton, 2002). Purposive sampling is predicated on the selection of "information-rich cases" that can provide deep insights into the research questions at hand (Patton, 2002, p. 230).

This approach was guided by the principle that the most valuable data often comes from sources that are well-informed about the subject matter, especially concerning the core objectives of the inquiry (McMillan and Schumacher, 2001). Accordingly, six principals, two curriculum experts, and three department heads were chosen based on their expertise and familiarity with both the intended and the enacted curriculum. The group of participants comprised nine males and two females, all of whom contributed valuable perspectives on the curriculum. Notably, all the selected school principals held master's degrees. To ensure their privacy, pseudonyms were assigned to each principal (P1 through P6).

The selection of the two curriculum experts was particularly strategic, aiming to ensure representation from both urban and rural areas. This choice was informed by the desire to capture diverse experiences and viewpoints, considering factors such as their professional status, communicative abilities, and background. Both male curriculum experts, referred to as CE1 and CE2, were in their thirties and forties, bringing 11 to 15 years of experience to the study, and holding master's degrees.

Similarly, three department heads were selected for their relevant knowledge and experience concerning the geography curriculum and its implementation. Their ages ranged from the early to late forties, with teaching experience spanning 16 to 26 years. These individuals possessed either a bachelor's or a master's degree, highlighting their academic and professional qualifications. To protect their privacy, pseudonyms (DH1, DH2, and DH3) were also assigned to these department heads.

Table 1:Study respondents (intervene) profile

Participants	Position	Gender	Age	Service years	Education qualifications
P1	Principals	M	46	22	MA
P2	Principals	M	38	18	MA
P3	Principals	M	48	25	MA
P4	V/principals	F	41	17	MA
P5	V/principals	F	47	24	MA
P6	Principals	M	42	22	MA
CE1	Curriculum expert	M	35	15	MA
CE2	Curriculum expert	M	34	11	MA
DH1	Department head	M	50	26	BA
DH2	Department head	M	45	20	BA
DH3	Department head	M	43	16	MA

3.6 Data Collection Tools

For this study quantitative data were collected using questionnaires and qualitative data were gathered through interview and document analysis. These instruments are appropriate for this target since the study followed the mixed method approach (Cohen, 2007).

3.6.1 Questionnaire

The questionnaire's content structure was meticulously developed based on constructs and themes extracted from existing literature, aligning with the objective to explore Sidama secondary geography teachers' views on the national geography curriculum and its rollout. Considering the target participants were secondary-level geography teachers, the questionnaire was initially crafted in English. To mitigate language barriers and prevent misunderstandings, it was later translated into Amharic. To maintain equivalence between the English and Amharic versions of the questionnaire, several important steps would typically be taken in the translation process:

The first step is back-translation. In this step the initial questionnaire in English would be translated into Amharic by a bilingual expert fluent in both languages. A separate, independent translator would then back-translate the Amharic version into English. This back-translation would be compared to the original English version to check for discrepancies, misunderstandings, or loss of meaning.

The second step is expert review. After back translation, a panel of experts fluent in both English and Amharic, as well as knowledgeable in the subject matter (geography education), would review both versions. They would ensure that the translation conveys the same

concepts and that there is no deviation in meaning. In this process both Cultural sensitivity and context would also be considered to ensure that the translated version fits the participants' language usage and cultural understanding.

Pre-testing/Pilot Testing is the third step in which the translated Amharic version would be pre-tested with a small group of secondary-level geography teachers. This group would represent the actual target participants. Then their feedback would be gathered to identify any areas where the meaning may still be unclear or different from the original English version. Based on this feedback, revisions would be made to improve clarity and maintain equivalence.

Collaborative Translation is the fourth step where in some cases, translation can be done collaboratively with multiple translators working together to ensure accuracy. This collaborative approach can provide cross-checks among translators to avoid misinterpretations.

Functional Equivalence is the fifth step where beyond word-for-word translation; the focus would be on achieving functional equivalence. This means that the questions should elicit the same responses or interpretations across both language versions. For example, idioms or phrases that do not have direct translations would be adapted to ensure they carry the same functional meaning.

Following these steps, ensures the Amharic version of the questionnaire accurately reflects the content and intent of the original English version, thus minimizing any language-related biases or misunderstandings.

The pilot study questionnaire comprised nine sections, each designed to probe different aspects relevant to the teachers and the curriculum:

- Demographic Information: Collected background data from participants
- Curriculum Materials: assessed teachers' perceptions of curriculum resources.
- Workload: Factors related to teachers' workload.
- Learning Environment: Investigated aspects of the educational setting.
- Professional Development: Focused on issues linked to teacher training and growth.
- Student Assessment: Explored factors pertaining to student evaluations.
- Teaching Methods and Techniques: Reviewed instructional approaches employed in instruction.

- Student Motivation: Analysed elements that influence learners' enthusiasm and engagement.
- Curriculum Implementation Practices: Examined observations of instructional practices, particularly in relation to the secondary geography curriculum.

The questionnaire items, developed based on an extensive literature review, were crafted to align with a five-point Likert scale to ensure accurate measurement of the intended variables. Before finalizing the instrument, three experienced professors from the College of Education at Hawassa University reviewed it and provided constructive feedback. This review process led to the refinement of the questionnaire, including the removal of ambiguous items and the addition or adjustment of others as needed.

The finalized questionnaire included both closed-ended items, rated on a five-point Likert scale, and open-ended questions. The Likert scale, widely recognized and used in educational research (Fraenkel and Wallen, 2000), captured respondents' levels of agreement or disagreement, with 5 indicating "strongly agree," 4 "agree," 3 "neutral/undecided," 2 "disagree," and 1 "strongly disagree." This approach provided a nuanced understanding of participants' perspectives on various aspects of the geography curriculum and its implementation.

3.6.2 Reliability and validity

Reliability is a critical concept in research methodology, offering insights into the consistency with which an instrument collects data (Seliger and Shohamy, 1989). Cronbach's alpha serves as a key metric for assessing the internal consistency of an instrument, thereby estimating its reliability (Pedhazur and Schmelkin, 1991). This statistic reflects the extent to which the items within a measure are representative of the broader construct domain they aim to assess. Utilizing Cronbach's alpha, researchers can evaluate the inter-item relationships and overall consistency of their survey instruments.

In the context of this study, the researcher applied Cronbach's alpha to determine the reliability of the eight sections within the pilot study's questionnaire. This evaluation was conducted after data collection and prior to any modifications to the instrument.

Table 2:Reliability results of the section in the survey

Sections	**Reliability coefficient**	**Items**
Curriculum material perception Factor	.86	10
Teachers' methods and techniques Factor	.89	12
Teachers' workload factor	.61	6
Teachers' professional development factor	.70	12
Students learning motivation factor	.77	6
Test related factor	.63	5
Resource and support factor	.75	5
Teachers' curriculum implementation activities factor	.58	15

The data presented in Table 2 reflects the reliability results for various sections of a survey used to assess multiple factors related to curriculum materials, teacher methods, workload, professional development, student motivation, test-related aspects, resources, and curriculum implementation activities. Each factor's reliability coefficient (Cronbach's alpha) gives insight into the internal consistency of the items within each section.

Analysis of Reliability Coefficients:

1. **Curriculum Material Perception Factor**: The reliability coefficient is **0.86**, indicating a high level of internal consistency among the 10 items in this section. This suggests that the survey effectively measures perceptions about curriculum materials.
2. **Teachers' Methods and Techniques Factor**: With a coefficient of **0.89**, this section demonstrates excellent internal consistency across its 12 items, implying strong reliability in assessing teachers' methods and techniques.
3. **Teachers' Workload Factor**: The reliability of this section is **0.61**, which is generally considered moderate. Given that this section consists of only six items, the moderate reliability might suggest a need for more items or better alignment among them to increase internal consistency (Creswell and Creswell, 2018).
4. **Teachers' Professional Development Factor**: The reliability score of **0.70** is acceptable, indicating that the 12 items in this section consistently measure the professional development aspect (Fraenkel, Wallen, and Hyun, 2019).

5. **Students' Learning Motivation Factor**: A reliability coefficient of **0.77** for the six items in this section suggests a good level of internal consistency. This indicates that the survey items in this section reliably assess students' motivation (Muijs, 2020).
6. **Test-Related Factor**: The test-related section has a reliability coefficient of **0.63**, which is moderate. While acceptable, this could be improved by refining the five items to better capture test-related issues.
7. **Resource and Support Factor**: The reliability score here is **0.75**, indicating good internal consistency across the five items. This suggests that the survey effectively measures perceptions of resource availability and support.
8. **Teachers' Curriculum Implementation Activities Factor**: This section has the lowest reliability coefficient at **0.58** for its 15 items. This low reliability suggests that the items may not be well-aligned or that the concept measured is too broad, requiring refinement or a more focused approach to enhance consistency (DeVellis, 2017).

While certain sections yielded relatively low reliability coefficients (notably, those in the .50 to .60 range), these figures are deemed acceptable during the preliminary phases of research endeavours (Pedhazur and Schmelkin, 1991). Such early-stage tolerance acknowledges that initial instrument development may not always produce optimal reliability scores. Nonetheless, these findings are invaluable for identifying areas where the instrument might require refinement to enhance its reliability and, by extension, the validity of the research findings. This process underscores the iterative nature of survey instrument development, emphasizing continuous improvement based on empirical evidence and methodological rigor. Validity, a crucial aspect of research methodology, pertains to the degree to which an instrument accurately measures what it is intended to measure. To enhance the validity of the survey instrument for the pilot study, the researcher engaged in a rigorous process of expert review and iterative refinement.

Initially, the survey instrument was presented to three colleagues at Hawassa University's College of Education, all of whom hold esteemed positions as associate professors or professors. This strategic selection ensured that the instrument would be evaluated by individuals with substantial expertise in educational research, thereby enriching the validity assessment process. The researcher solicited these experts' opinions specifically on the content and format of the survey, aiming to ensure that the instrument was both comprehensive and appropriately structured.

Following the receipt of feedback from these academic peers, the researcher undertook several rounds of revisions to the content of the survey. This iterative process was guided by the experts' judgments, with adjustments made to refine the instrument's clarity, relevance, and comprehensiveness. The goal was to ensure that every item on the survey was aligned with the study's objectives and capable of eliciting meaningful, accurate responses from participants.

The meticulous revision process, underscored by expert input, was instrumental in preparing the survey instrument for both the pilot testing phase and the main study. Through this approach, the researcher aimed to bolster the content validity of the instrument, thereby enhancing its ability to effectively capture the intended constructs related to geography curriculum implementation in the Sidama regional state. Such attention to validity is essential for ensuring the reliability and integrity of the study's findings, contributing to the broader body of educational research.

3.6.3 Interview

In the study, the interview process with school principals, department heads, and curriculum experts/supervisors was meticulously designed following Patton's (2002) guidelines for conducting interviews. This approach involved pre-determining the questions to ensure that each interview covered the same fundamental topics, maintaining consistency across interviews while allowing for in-depth exploration of the subject matter. The interviews were formal, semi-structured, and designed to probe deeply into the experiences and perceptions of the participants regarding the geography curriculum and its implementation.

Prior to each interview, participants were briefed about the purpose of the research and the procedures involved. This preparation was crucial for ensuring informed consent and for setting the stage for open and honest communication. The use of audio recording during the interviews was a strategic choice that enabled the researcher to fully engage with the participants without the distraction of note-taking. This method also ensured that the discussions could be transcribed verbatim, providing a faithful account of the conversations for subsequent analysis (Yin, 2009). Alongside audio recording, the researcher also took notes to capture key points and nuances during the interviews.

Each interview lasted between 40 to 60 minutes and was conducted in Amharic to facilitate ease of communication and to ensure that participants could express their thoughts and experiences freely and in their own language. Following the interviews, participants were

given transcripts of their interviews to review. This step offered them the opportunity to verify the accuracy of their responses and comments, reinforcing the credibility of the data collected.

The interview protocol, detailed in Appendix B and illustrated in Figure 3, was structured around seven dimensions: curriculum materials, clarity and appropriateness, teacher commitment, professional development programs for teachers, support for improvement, implementation challenges, and external links. This structured yet flexible approach allowed the researcher to delve into specific areas of interest, ask probing questions, and explore topics in greater depth, following Patton's (2002) advice that interviewers should be "free to explore, probe, and ask questions that elucidate and illuminate that particular subject". This methodology ensured a comprehensive understanding of the participants' perspectives on the geography curriculum and its implementation challenges and successes.

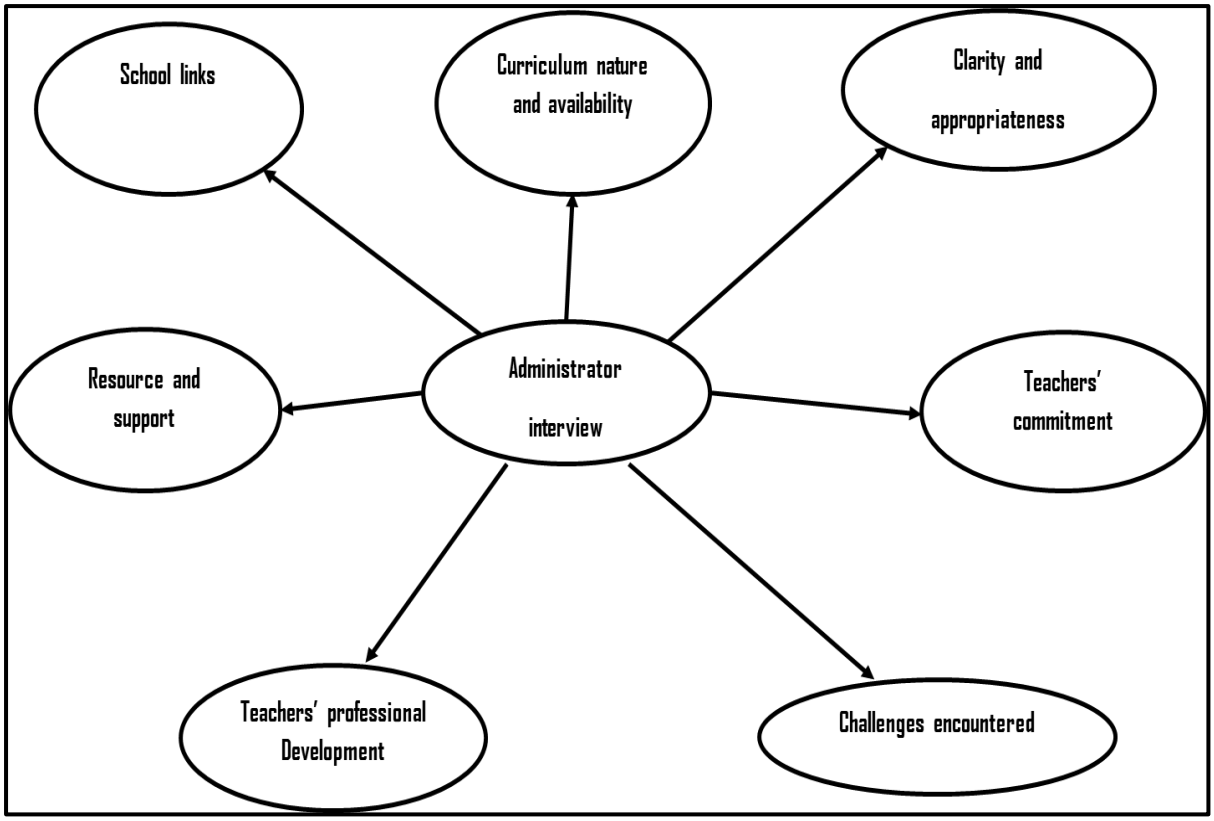

Figure 3:Seven dimensions of the interview questions with the administrators

The seven dimensions of the interview questions with the administrators, as illustrated in Figure 3, serve as key areas of focus to explore various aspects of their roles and responsibilities. These dimensions might cover a range of topics that are crucial to

understanding the administrators' perspectives on the effectiveness of educational policies, management strategies, and their impact on student outcomes. By examining these dimensions, researchers can delve into areas such as leadership approaches, challenges faced in administration, and the administrators' views on curriculum implementation and assessment practices.

Each dimension is likely designed to elicit insights into specific areas, allowing for a comprehensive analysis of the administrators' experiences and decision-making processes. For instance, one dimension could focus on how administrators address student needs, while another might explore their strategies for ensuring teacher development and support. This multi-dimensional approach helps in gathering a well-rounded understanding of the dynamics at play within educational institutions, which can inform future policy decisions and improvements in administrative practices.

3.7 Pilot Testing

Pilot testing of the survey instrument was crucial for assessing its quality and making necessary revisions before the main study. Piloting helped detect potential issues, allowing for adjustments to improve the instrument’s reliability and validity (Seliger and Shohamy, 1999; Fraenkel and Wallen, 2002). The pilot involved 20 teachers from public secondary schools, chosen through non-random sampling based on availability and willingness to participate.

The pilot data collection occurred between October 20 and December 5, 2021, providing insights into the practical aspects of administering the survey and ensuring the clarity of instructions. The pilot testing phase was instrumental in refining the survey instrument to enhance its reliability and establish construct and content validity (Creswell, 2003).

3.8 Methods of Data Analysis

This section outlines the sequential approach to data analysis, beginning with the quantitative analysis of survey data from teachers, followed by qualitative analyses of interviews with school principals, curriculum experts, and department heads, and concluding with document analysis.

3.8.1 Quantitative Data Analysis

Survey data was collected from 53 secondary school geography teachers across selected schools. The data was coded, quantified, and entered SPSS (version 24) for analysis, with accuracy checks conducted to identify any missing data. Dummy coding was applied for participant genders, while ordinal scales were used for educational qualifications. Continuous data variables, such as age, years of service, and weekly teaching loads, were also included in the analysis.

Descriptive statistics (refer to Appendix D) such as mean, median, mode, standard deviation, range, skewness, and kurtosis were applied to understand the distribution and response patterns of the surveyed teachers. This approach facilitated the identification of data entry errors and outliers.

The research questions were addressed through the calculation of secondary school geography teachers' implementation activity scores using a five-point Likert scale. Teachers were categorized into high, intermediate, and low implementers based on their scores. Further analysis explored teachers' perceptions of the geography curriculum and its implementation, using descriptive statistics, bivariate factor analyses, and regression analyses to identify significant predictors of curriculum implementation activities. Independent samples t-tests were employed to assess the significance of differences in curriculum implementation across teachers with varying educational qualifications and experience levels.

3.8.2 Qualitative Data Analysis

Qualitative data from interviews underwent an inductive analysis, organizing data into categories and identifying patterns. This process enabled the comparison and identification of similarities among the responses of principals, department heads, and curriculum experts, leading to the development of overarching themes (Creswell, 2007; MacMillan and Schumacher, 2006). The thematic analysis method facilitated a deep understanding of participants' perceptions and experiences regarding curriculum implementation.

3.8.3 Document Analysis

Document analysis capitalized the inherent strength of documents as a data source, which lies in their pre-existing nature within the research environment. This characteristic ensures they do not modify or influence the setting in ways that the researcher might, maintain the authenticity of the observational context (Merriam, 2002). The document analysis for this study encompassed a wide range of materials, both textual and non-textual. Due to the vast

scope of curriculum-related documentation, selective analysis was critical. The primary focus was on official records, such as organizational or state documents that documented actions and activities, as well as policy documents.

The selection of documents for analysis was strategically aligned with the study's research questions, guiding the choice to examine policy documents, curriculum materials, and minutes from participant meetings. These documents were provided valuable context for development of the interview guides. All data collected during the document analysis phase was meticulously organized and stored electronically across multiple hard drives to facilitate ease of access during the analysis phase.

3.9 Ethical Issues

Ethical considerations are paramount in research design, necessitating respect for participants' rights, values, and desires (Creswell, 2007; Marshall and Rossman, 1989; Merriam, 1988). This study adhered to ethical guidelines by obtaining permission through formal communications and clearly articulating the purpose and data collection procedures to participants. Participants were informed of their right to withdraw at any time, and measures were taken to ensure their anonymity and the confidentiality of their responses (Ritchie J. and Lewis J., 2003). The identities of participants and their institutions were protected by assigning numbers, upholding the integrity of the research process.

The extent of ethical clearance for the study, as described, encompassed several important measures to protect the rights and privacy of participants, ensuring adherence to ethical research practices. Key components of the ethical clearance included:

1. Permission through Formal Communication: Before commencing the study, the researcher obtained permission from the concerned body. This step ensures that the study's design, including data collection methods, adheres to ethical standards and respects participant welfare.
2. Informed Consent: Participants were informed about the purpose of the study, the procedures involved, and the estimated time required for their participation. This transparency allows participants to make an informed decision about their voluntary involvement in the research.
3. Voluntary Participation and Withdrawal: The researcher emphasized the voluntary nature of participation; ensuring participants understood they could withdraw from the study at

any point without any negative consequences. This respects the autonomy of the participants and their control over their involvement.

4. Anonymity and Confidentiality: The study took specific measures to protect participant anonymity and the confidentiality of their responses. By assigning synonyms to participants and their institutions, the research ensured that personal and identifiable information was not disclosed, protecting participants from potential harm or privacy breaches.
5. Access to Transcriptions and Reports**:** Offering participants access to transcriptions and interpretative reports allows them to review how their information is being used and ensure accuracy in representation. This step further respects participant contributions and reinforces trust in the research process.

These measures reflect a comprehensive approach to ethical clearance, prioritizing the protection of participant rights, privacy, and the integrity of the research process. By adhering to these ethical standards, the study aimed to minimize potential risks or harm to participants, ensuring that the research was conducted responsibly and with respect for all individuals involved.

CHAPTER-FOUR

4 RESULTS AND DISCUSSION

This chapter articulates the consolidated findings of the study, emphasizing the synergistic analysis and discussion of data derived from multiple sources: the teachers' survey questionnaire, document analysis, and interviews with school administrators (principals, department heads, and supervisors). Unlike presenting these components in isolation, this section demonstrates how the data were intertwined and triangulated to forge a comprehensive understanding of the research questions at hand.

Acknowledging the methodology outlined, wherein data collection occurred concurrently and in parallel, and this narrative does not follow a linear presentation of results. Instead, it adopts a holistic approach where the integration and triangulation of data from the surveys, document analysis, and interviews illuminate the nuanced insights of the study. This integrated analysis ensures that the finding reflects multi-faceted view of the educational landscape, transcending the limitations of examining each data source in silos.

Through this integrated lens, the chapter navigates the complexities of the research questions, offering a rich, triangulated perspective that harnesses the collective strengths of each data source. This approach not only enriches the analysis but also fosters a more nuanced discussion, thereby enhancing the validity and depth of the study's conclusions.

Table 3:Analysis framework(Research Ends, Research Tools, Methods of Analysis)

Research questions	Research tools	Analyses techniques
How do geography teachers perceive the geography curriculum and its implementation?	Questionnaire	Descriptive statistics such as frequency, percentage, mean, and standard deviation.
What are the perception school administrators regarding the geography curriculum and its implementation?	Interview and document analysis	Inductive and thematic analysis
What factors influence the implementation of geography curriculum? a- Which factors are predictive of teachers' adherence to curriculum implementation? b-To what extent do teachers' educational backgrounds and teaching experiences influence curriculum implementation	Questionnaire	Descriptive statistics such as frequency, percentage, mean, and standard deviation. Inferential statistics: principal component analysis, multivariate regression and independent sample t-tests
To what degree do school administrators provide support for the geography curriculum implementation?	Interview	Inductive and thematic analyses

Source: own survey 2023

4.1 Demographic Descriptions of the Survey Participants

This section demonstrates the survey participants' educational qualifications, teaching experience, and teaching loads that help to understand the participants' efforts in the curriculum implementation.

Table 4:Demographic distribution of survey participant(n=53)

Variables	Frequency	%
Gender		
Female	10	18.9
Male	43	81.1
Age		100
21-25	4	7.5
26-30	7	13.2
31-35	16	30.2
36-40	6	11.3
41-45	5	9.4
46-50	4	7.5
51-55	9	17.0
56-60	2	3.8
Educational qualification		
B.A.	43	81.1
MA	10	18.9
Position in the school		
Teacher	46	86.8
Department head	5	9.4
Unit leader	2	3.8
Teaching experience		
1-5	7	13.2
6-10	8	15.1
11-15	13	24.5
16-20	7	13.2
21-25	2	3.8
26-30	6	11.3
Over 30	10	18.9
Teaching load (period per week)		
8-10	3	5.7
11-13	5	9.4
14-16	11	20.7
17-19	10	18.9
20-22	11	20.7
23-25	10	18.9
26-28	3	5.3

The survey data highlights a well-educated and experienced group of geography teachers with balanced workloads, albeit with notable variations in teaching experience and teaching loads. Regarding educational qualifications, all participants meet the Ministry of

Education's standards, with 81.1% holding a B.A. and 18.9% possessing an M.A. In terms of teaching experience, there is a significant diversity, ranging from one year to over 30 years. While 28.3% of the participants have less than ten years of experience, the majority (71.7%) exceed this benchmark, indicating a predominantly seasoned teaching workforce. This wealth of experience is likely to positively influence teaching quality, especially in secondary education, where teacher expertise is crucial for effective subject delivery.

The teaching load distribution reflects a generally manageable workload for most participants, with 70% handling fewer than 21 periods per week, which is significantly below the maximum of 30 periods. Nevertheless, nearly half (45.3%) of the teachers have workloads approaching the upper limit, potentially hindering their ability to engage in supplementary activities such as lesson planning, professional development, or individualized student support. The study also benefits from demographic representation, with participants from six urban and rural schools across the Sidama region. This diversity enhances the study's credibility by providing insights into varied teaching environments and offering a comprehensive understanding of factors influencing educational initiatives.

In conclusion, the surveyed geography teachers are well-qualified and possess considerable teaching experience, equipping them for effective secondary education delivery. However, the relatively high teaching loads for a significant proportion of teachers present areas of concern, potentially affecting long-term professional growth and teaching quality. The demographic diversity of the participants strengthens the study's generalizability, providing valuable insights into the interplay of qualifications, experience, and workloads in the educational context of the Sidama region.

4.2 Geography Teachers' Perceptions about the Curriculum and its implementation

This theme explores teachers' views and attitude towards curriculum materials provided for curriculum delivery, including textbooks, digital resources, and other instructional

aids. Teachers' perceptions of curriculum materials—in terms of their clarity, sequence, appropriateness, and organization—play a crucial role in the implementation of said curricula. This relationship is explored through survey data collected via a questionnaire comprising ten items. Table 5 reveals that, among 53 geography teachers surveyed, 45 (84.9%) reported that the geography syllabus, and 33 (62.3%) noted that the textbook, were not adequately introduced. Only 19 teachers (35.8%) felt that the textbook was efficiently presented, indicating a predominant lack of familiarity with the geography curriculum. Regarding the introduction and availability of syllabus with the mean scores of 1.3 and 1.2, they show high levels of disagreement or dissatisfaction. This suggests a significant gap in how syllabi are presented and distributed. With respect to the efficiency of textbook (item 6) and suggested instructional materials (item7) a mix response was shown, with a better reception for practical usage (3.3). This indicates that while textbooks are seen as practical, other instructional materials might not be as effective. There is notable uncertainty on how textbooks are introduced (item 3) with a mean of 2.6 and the organization of their content (item (item 9) evidenced by a high percentage of undecided responses (18.9% the text book organization).

When evaluating the language, clarity, and understandability of the teacher's guidebook, 25 participants (47.2%) expressed agreement or strong agreement regarding its clarity and ease of understanding. With a mean score of 3.0, the clarity of the teachers' guide and its ease of understanding also suggesting that these resources are received. However, the connection of the curriculum to daily life with a mean score of 2.6 is viewed less favorably, implying a potential area for curriculum enhancement.

Table 5:Teacher's perceptions on curricula materials

Variables	Level of agreement (N=53)											
	SD (1)		D (2)		UD (3)		A (4)		SA (5)		Mean	SD
	F	%	F	%	F	%	f	%	F	%		

Syllabuses introduced	45	84.9	-	-	8	15	-	-	-	-	1.3	0.716
Syllabus is available	48	90.6	-	-	5	9.4	-		-		1.2	0.584
Textbooks efficiently introduced	7	13.2	26	49.1	1	1.9	19	35.8	-	-	2.6	1.104
Teacher's guide is clear and can be easily understood	3	5.7	19	35.8	6	11	20	37.7	5	9.4	3.1	1.153
Suggested field trip observations and projects are appropriate	7	13.2	24	45.3	2	3.8	13	24.5	7	13.2	2.8	1.308
Textbook is efficient for practical and easy usage	4	7.5	25	47.2	-	-	24	45.3	-	-	2.8	1.094
Suggested instructional materials are efficient	8	15.1	24	45.3	-	-	17	32.1	4	7.5	2.7	1.264
Curriculum connects lesson to daily life	4	7.5	32	60.4	-	-	16	30.2	1	1.9	2.6	1.053
Textbook content is selected and organized appropriately	7	13.2	20	37.7	10	18.9	15	28.3	1	1.9	2.7	1.077
Units of the textbook have a good sequence	2	3.8	16	30.2	6	11.3	25	47.2	4	7.5	3.2	1.079
Grand											2.54	0.68

The appropriateness of field trips, observations, and projects as outlined in the geography textbook was contested by a majority, with 31 (58.5%) disagreeing or strongly disagreeing on their suitability. With regard to the adequacy of suggested field trips and projects with a mean of 2.8 scores moderately, indicating that while some find these appropriate, there is a room for improvement to align these activities more closely with educational goals and student's needs. Regarding the selection and organization of content within the geography textbook, 27 respondents (50.9%) disagreed or strongly disagreed with its appropriateness, whereas only 16 (30.2%) believed the content was

properly curated and organized. Conversely, 29 participants (54.7%) agreed that the textbook units were well sequenced.

The data from Table 5 demonstrates minimal variance between agreement and disagreement responses among participants. This may be attributed to a potential lack of uniform understanding of the curriculum materials among the respondents. The majority's negative perception towards the geography curriculum materials—concerning their appropriateness, efficiency, selection, organization, and the instructional methods employed—could adversely affect curriculum implementation. On the other hand, lack of goal clarity, inadequately introduced, and together with lack of positive attitude to curriculum material is the hindering elements in successful curriculum implementation (Patrenia, et. al. 2020 and Rattanaprom, 2019). As a solution, Avci, (2023) revealed that for successful implementation of curriculum, teachers as curriculum participants must be engaged with, and understands the nature, the assumptions and the rationale of the curriculum.

Analysis based on the grand mean and standard deviation shows that on average the response across all items with the grand mean 2.54 lean slightly towards a neutral to somewhat disagreeable stance (since the scale is a 5-point Likert scale from 1 to 5, with 3 being neutral). This suggested that there is a modest level of dissatisfaction or inadequacy perceived in the syllabus and related educational materials among respondents. With regard to the grand standard deviation of 0.68 which is relatively low, suggests that there is no huge variation in the perceptions across different aspects of the educational materials and teaching methods covered in the survey. Most items clustered around the average mean (2.54), indicating that respondents generally have consistent perceptions towards the educational materials.

The findings underscore the critical role of teachers' perceptions in the successful implementation of curriculum materials. A predominant lack of familiarity and dissatisfaction with the geography syllabus and textbook—evidenced by low agreement scores and high levels of disagreement—highlights systemic shortcomings in how these materials are introduced, organized, and aligned with educational goals and real-life

applications. This sentiment is further reflected in the neutral to somewhat disagreeable grand mean (2.54), signifying a consistent perception of inadequacy among teachers.

A major issue lies in the inadequate introduction of the geography syllabus and textbook, leaving teachers unclear and lacking confidence. This gap significantly hinders the effective implementation of the curriculum. Moreover, teachers perceive notable deficiencies in the selection, organization, and appropriateness of textbook content. Although some agree on the proper sequencing of textbook units, this consensus is insufficient to counteract broader concerns regarding the overall content quality and organization.

Practical aspects of the curriculum, such as instructional materials and activities like field trips, projects, and observations, are another contested area. Many teachers find these activities unsuitable or only moderately effective, indicating a lack of alignment with curriculum goals and students' needs. Similarly, the teacher's guidebook, while moderately clear and understandable to some, struggles to establish a strong connection to real-life applications, suggesting an area for improvement.

The low standard deviation (0.68) in survey responses indicates a general consistency in teachers' dissatisfaction, reinforcing the systemic nature of these issues. This dissatisfaction underscores the importance of engaging teachers as active participants in curriculum design and implementation. Teachers need to fully understand the rationale, assumptions, and goals of the curriculum to develop positive attitudes and effectively apply the materials in their classrooms.

Overall, the survey results reveal a need for systemic improvements in the design, introduction, and implementation of geography curriculum materials. Addressing these gaps through enhanced teacher engagement, better alignment of materials with practical and educational goals, and more robust introduction strategies will be essential for fostering positive teacher perceptions and, ultimately, ensuring the successful implementation of the curriculum.

4.3 School Administrators perceptions on geography curriculum and its implementation

This section reports findings from interviews with eleven administrators, including school principals, department heads, and curriculum experts/ supervisors. The data revealed five themes regarding administrators' perceptions of the intended curriculum: understanding curriculum materials, teachers' language proficiency and professional devotion, professional development, perspectives on tests, and challenges.

4.3.1 Familiarity and understanding of curriculum materials

The study findings showed that all administrators concurred on the importance of having a standardized national curriculum/syllabus, alongside teacher's guides and student textbooks, to direct the general secondary geography education. Nevertheless, the school principals and department heads pointed out an issue: despite the existence of textbooks that are supposed to reflect the syllabus, the actual syllabus itself was not accessible. One principal, P1, candidly admitted that both teachers and principals were not acquainted with the 2011 revised syllabus, revealing a significant gap in their knowledge. They confessed to being unaware of its contents and lacking a comprehensive understanding of it. Echoing this sentiment, another principal, P3, noted, "To be honest, almost all teachers had no opportunity to see and read the geography syllabus, though it is hard to say how much they clearly know about the syllabus."

Further compounding the problem, one supervisor, (S1), disclosed, "Some school principals themselves had not seen the syllabus and had no sound knowledge about it due to a lack of interest." This observation suggests a broader issue of engagement and prioritization at the administrative level, highlighting a potential disconnect between the provision of resources and their actual utilization in the educational setting. These admissions reveal a critical challenge in the education system: the essential tools for guiding and enriching geography education at the secondary level—namely, a comprehensively understood and widely accessible syllabus—are not being fully leveraged. This disconnect threatens the efficacy of curriculum delivery and underscores the need for improved dissemination, familiarity, and utilization of curriculum materials among educators and administrators alike. Similar findings were substantiated by researchers such as Bernice and her colleagues, who highlighted not only the scarcity of

teaching materials but also the insufficient expertise and proficiency of teachers in utilizing Geography and Economics curriculum materials (Bernice et al., 2023).

4.3.2 Teaching time, methods and medium of instruction and Language proficiency

All administrators highlighted a significant gap between the utilization of the general secondary geography textbook and the teaching time allocated, suggesting challenges for teachers to effectively teach and complete the subject as expected within the given timeframe. This gap underscores a broader issue within the educational system, where the resources provided do not align with the practical realities of teaching schedules and methodologies. Department heads specifically pointed out a discrepancy between the content of the geography textbook and its actual application in teaching secondary geography. One department head remarked on the lack of appropriate and practical teaching methods:

> T*eachers were not taught the textbook contents with appropriate and practical teaching methods. Most teachers were not using the most valuable and practical teaching methods, such as observation and field trips. Most geography teachers were not even using teaching aids in their geography classroom teaching. Consequently, students lost interest in their learning. This in turn made it difficult for teachers to teach and for students to understand the lesson. (DH1)*

This observation highlights a critical issue where the potential of the geography textbook is not fully realized due to a reliance on traditional teaching methods that fail to engage students. The lack of practical and engaging teaching methods, such as observation and field trips, coupled with an absence of teaching aids, leads to diminished student interest and engagement, ultimately impacting the learning process. Furthermore, both supervisors echoed the sentiment that discrepancies exist between the textbook contents and the general secondary geography teaching approach. They noted that teachers often rely on textbooks that, while of good quality, are not suitable for geography teaching due to their lack of accompanying practical activities. This disconnects results in students losing interest in the subject matter, thereby exacerbating the challenges teachers face in delivering the curriculum effectively and engagingly.

These insights from administrators underscore a pressing need to bridge the gap between textbook content and teaching practice in secondary geography education. Addressing this challenge requires a shift towards more interactive and practical teaching methods that can foster student interest and facilitate a deeper understanding of geography, ensuring that the subject is taught effectively and comprehensively within the constraints of the allocated teaching time.

Regarding the medium of instruction, all administrators expected teachers to predominantly use English in classroom teaching, in line with education policies advocating for English as the instructional language. However, interviews with department heads revealed a dual-language approach in the teaching of geography, with teachers using English for writing and reading notes, and Amharic for explaining lessons. This mixed-method approach raised questions about the prevalent use of Amharic in classroom instruction. The underlying reason identified was the limited English proficiency among both teachers and students, which hindered effective communication and comprehension in English. For example, one department head (DH1) highlighted that most geography teachers utilized English for written materials, such as notes and exercises, but resorted to Amharic or other local languages for oral explanations during lessons. Similarly, another head (DH2) noted a preference for Amharic or local languages over English in classroom instruction, attributing this choice to the instructors' language inefficiencies and the students' weak English language background.

Additionally, the discussion extended to the overall language proficiency of teachers and students, which was described by most administrators as significantly low. This was further corroborated by a school principal (P5) who stated,

> *In the teaching and learning process, most teachers opt for Amharic contrary to the educational policy's expectation of using English as the medium of instruction. While student assessments are conducted in English, the low English proficiency levels mean that students struggle to understand lessons taught in English.*

This statement underscores a fundamental challenge within the educational system, highlighting the discrepancy between policy expectations and

practical implementation, exacerbated by the low English language proficiency of both teachers and students.

4.3.3 Teachers' Workload and Professional Development

Regarding the workload of geography teachers, interviews with school principals and department heads revealed that teachers typically face a moderate teaching load, with weekly schedules ranging from 10 to 20 periods. Each period lasts 40 minutes. Despite this seemingly manageable workload, some teachers are tasked with instructing in two different subjects or teaching across two grade levels, such as grades 9 and 12 or grades 10 and 11. This additional responsibility requires greater energy and time for preparation, as well as for engaging effectively in their instructional duties to interpret and implement the curriculum accurately. The complexity of teaching multiple subjects or across different grade levels poses significant challenges, potentially affecting the quality and effectiveness of curriculum implementation negatively.

Regarding professional development, administrators reported that mentoring, short-term training, collective lesson preparation, curriculum development, and in-service training were crucial for facilitating curriculum implementation.

Despite recognizing the significance of PD, administrators reported a lack of comprehensive PD programs. Notably, activities such as induction, in-service training, and mentoring were found to be insufficiently conducted. Furthermore, practices like textbook implementation and collective lesson preparation were absent in their schools, with one department head attributing the gap to disruptions caused by the COVID-19 pandemic. Interestingly, induction was mentioned as the sole PD activity conducted, focusing on orienting new teachers about school operations, student discipline, and school regulations. The study highlighted a glaring deficiency in PD programs aimed at equipping teachers with essential pedagogical skills, except for induction for new recruits.

Regarding in-service training, only a limited number of teachers participated in summer programs at universities for their academic advancement. A principal (P5) noted the lack of engagement in PD activities among teachers, attributing it to a lack of awareness and perceived relevance, thereby underscoring the need for increased orientation efforts.

The study also revealed that although the Ministry of Education has developed a manual for PD programs at the school level, its implementation remains unactualized in the sampled schools. To ensure the efficacy of PD programs, the study suggests the necessity for school administrators to foster a culture of collegiality, cooperation, and collaboration among teachers.

4. 3.4 Assessment and evaluation

Regarding the impact of geography tests on teaching and learning, the majority of administrators highlighted their negative effects on both teachers and students. They emphasized the problematic nature of "teaching to the test" and the evaluation of teachers' performance based on student outcomes. A department head noted,

> *Geography teachers orient their instruction towards the national examination. Consequently, their teaching is guided more by the assessments than by educational objectives. This approach undermines opportunities for students to develop a deep understanding of the material. (*DH3)

Additionally, a principal criticized the evaluation process, stating,

> *The tests fail to accurately assess students' learning achievements. As a result, teachers prioritize alignment with test requirements over fostering genuine understanding, since teachers' evaluations are contingent upon their students' performance. (P6)*

A study conducted by Martin, Ritzhaupt, Kumar, and Budhrani (2019) underscores the significance of assessment within teaching. Assessment functions as a vital tool for learners, providing them with constructive feedback to identify areas for improvement.

4.3.5 Challenges

School administrators, who serve as intermediaries between policymakers and implementers (teachers), consistently encounter challenges in adapting the prescribed curriculum to their local institutions. This difficulty primarily arises from the complex

nature of implementation (Spillane, 2004). Similarly, administrators in the current study faced various challenges, including issues with latecomers, absenteeism, students' disruptive behavior, and inadequate resource support.

Late arrival to class and early departure before its end was widespread problems reported by most interviewees, indicating a significant number of students were habitually late. Additionally, absenteeism presented a serious challenge, particularly in rural schools, where principals and department heads noted a high incidence of chronic absenteeism during cash-crop production seasons. Students frequently left school to participate in the lucrative cash-crop business, such as coffee trading. One rural school principal recounted,

> *During the cash-crop season, a huge number of students left school for the cash-crop business, arguing that they earned substantially more than a teacher's annual salary. It was a challenging period for both school administrators and teachers to re-engage these students in their education.*

Another reported issue was students' engagement in motorcycle transportation services, leading to prolonged absences and attendance only during examinations. This challenge significantly hindered the effective implementation of the curriculum, ultimately impacting students' academic performance negatively. Supporting this, educational research has shown that absenteeism correlates with decreased academic performance and an increased dropout rate (Garcia & Weiss, 2018).

Disruptive behavior among students also posed a significant challenge to educational outcomes. Disciplinary issues, including disruptive talking, inaudible responses, sleeping in class, failure to complete homework, cheating on tests, disrespect towards teachers, and bullying, were prevalent (DH1). Such behaviors obstruct curriculum implementation, necessitating strategies to foster student cooperation and active participation in lessons. Department heads highlighted the severity of these disciplinary issues, stating they are considerably complicated curriculum implementation.

Resource support or the lack thereof was another challenge identified by administrators. Effective curriculum implementation requires adequate training, financial, human, and material resources for teachers. However, the study revealed a lack of professional development programs for geography teachers at the secondary level in the Sidama regional state. One principal noted (P6), 'Teachers are disengaged from continuous

professional development activities due to a lack of awareness and perception of these programs as additional burdens.' Moreover, a department head (DH3) lamented the absence of financial or material support to facilitate curriculum implementation, underscoring the systemic obstacles to educational progress.

4.4 Factors Influencing the Implementation of the Geography Curriculum

This section outlines the findings on curriculum implementation, highlighting the frequency and percentage of various factors impacting teachers' efforts. An analysis was performed on 57 items distributed across seven themes, each representing a different aspect influencing the implementation process. The themes identified as key factors affecting curriculum implementation include:

1. Teachers' Perceptions on Curriculum Materials: This theme explores teachers' views and attitudes towards the materials provided for curriculum delivery, including textbooks, digital resources, and other instructional aids.
2. Teachers' Methods and Techniques Used: This focuses on the pedagogical approaches and strategies employed by teachers in the classroom, ranging from traditional lecture methods to more interactive and student-centered techniques.
3. Teachers' Workload: This theme examines the amount of work assigned to teachers, including teaching hours, administrative duties, and additional responsibilities, and how this workload affects their ability to implement the curriculum effectively.
4. Resource and Support: This aspect looks at the availability and quality of resources and support systems, such as infrastructure, administrative assistance, and access to technology, which can facilitate or hinder curriculum implementation.
5. Student Motivation: This theme considers the level of student engagement and interest in the learning process, recognizing its significant impact on the effectiveness of curriculum delivery.
6. Teachers' Professional Development Activities: This focuses on the opportunities for and participation in professional development by teachers, including

workshops, training sessions, and conferences that aim to enhance their teaching skills and knowledge.

7. Test-Related Factors: This theme addresses the influence of assessments, exams, and testing practices on curriculum implementation, including how teachers align their instruction with testing requirements and the impact of test preparation on teaching and learning.

The analysis aimed to assess teachers' intentions and practices within these themes, providing insights into the multifaceted challenges and opportunities present in curriculum implementation.

4.4.1 Teachers' Instructional Methods and Techniques

This focuses on the pedagogical approaches and strategies employed by teachers in the classroom, ranging from traditional lecture methods to more interactive and student-centred techniques.

Table 6 Teachers methods and techniques

	Variables	Level of agreement											
		SD		D		UD		A		SA		Mean	SD
		F	%	f	%	F	%	f	%	F	%		
1	Employed student-centered method	33	62.3	20	37.7	-	-	-	-	-		1.37	0.4847
2	Employed lecture	-	-	-	-	2	3.8	37	69.8	14	26.4	4.11	0.5128
3	Emphasis is given to fieldtrip and observation	36	67.9	17	32.1	-	-	-	-	-	-	1.32	0.4662
4	Using media and practical studies	26	49.1	25	47.2	2	3.8	-	-	-	-	1.54	0.5679
5	Frequently conducting classroom teaching in English instead Amharic	2	3.8	34	64.2	-	-	12	22.6	5	9.4	2.69	0.7696
6	Students are motivated	14	26.4	19	35.8	7	13.2	12	22.6	1	1.9	2.37	1.152
7	Teachers frequently use discussion method	4	7.5	40	75.5	-	-	7	13.2	2	3.8	2.3	0.9231
8	Motivate students to work together(collaboratively)	8	15.1	27	50.9	2	3.8	15	28.3	1	1.9	2.5	1.1095
9	Teachers have positive feelings of readiness and preparation to implement the curriculum	1	1.9	6	11.3	8	15.1	18	34.0	20	37.7	3.94	1.0709
10	Teachers give practical activities for students	5	9.4	38	71.7	2	3.8	8	15.1	-	-	2.2	0.8232
11	Teachers have adequate access to appropriate technologies	12	22.6	29	54.7	2	3.8	8	15.1	2	1.9	2.22	1.o751
12	Teachers have autonomy in pedagogical practice and decisions	4	7.5	15	28.3	5	9.4	26	49.1	3	9.4	3.16	1.123
	Grand											2.49	0.89

The effectiveness of curriculum implementation, both within and outside the classroom, is significantly influenced by teaching methods. These methods encompass a variety of

strategies employed by teachers to convey their subject matter to students, facilitating learning. Effective teaching methods are crucial for the successful communication of ideas and skills to students. However, the success of any curriculum implementation heavily relies on the diversity and availability of teaching strategies. This study highlights practice of teaching methods and techniques on the implementation of the geography curriculum.

The effectiveness of geography curriculum implementation is significantly impacted by the teaching methods employed, which remain largely traditional and teacher centred. Despite the critical importance of diverse strategies such as student-centred approaches, field trips, and practical activities, the survey results revealed their minimal utilization. Instead, the predominant reliance on lecture methods (96.2%) underscores a gap in fostering active learning and engagement. Additionally, the lack of technological resources (77.4%) and student motivation to ask questions or collaborate (66% and 62.3%, respectively) further hinder effective implementation. Although many teachers (72.1%) expressed confidence in their preparedness and readiness to implement the curriculum, their limited use of varied instructional techniques suggests the need for a re-evaluation of teaching practices.

The grand mean of 2.49, leaning slightly toward agreement, reflects moderate acceptance of the current educational practices. However, the variability in responses, as indicated by the standard deviation of 0.89, highlights divergent perceptions of strengths (e.g., preparedness) and weaknesses (e.g., use of field trips, student-centred methods). These findings stress the importance of addressing areas with lower mean scores, such as practical activities and student engagement strategies, to improve overall educational outcomes. As Roberts (2013) aptly notes, "What students learn and how they learn are intimately related, and the method of learning profoundly influences the learning itself."

The survey findings underscore the need to diversify teaching strategies to enhance the implementation of the geography curriculum in general secondary schools. A predominant reliance on lecture methods, coupled with the underutilization of student-centred and practical approaches, indicates that current instructional practices are insufficient to foster active learning and engagement. The lack of alignment between

curriculum goals and teaching methods further exacerbates challenges in achieving desired learning outcomes.

To address these issues, it is critical to prioritize professional development for teachers, emphasizing the adoption of diverse, student-centred instructional strategies that include practical activities, field trips, and collaborative methods. Additionally, improving access to technological resources and fostering an environment that encourages student motivation and active participation are essential. These efforts will bridge the gap between curriculum intentions and classroom realities, ultimately contributing to a more effective and dynamic educational process (Roberts, 2013)

4.4.2 Engagement in Professional Development

Engagement in professional development is critical for teachers to enhance their skills, stay up-to-updated with educational trends, and effectively address diverse classroom challenges. Active participation in workshops, seminars, collaborative learning communities, and continuous training opportunities foster growth in pedagogical strategies, subject matter expertise, and classroom management techniques. Moreover, professional development enables teachers to align their practices with evolving curriculum standards and technological advancements, ultimately improving student outcomes.

The data presented in Table 7 provides valuable insights into teachers' engagement in professional development activities. Many respondents expressed a strong desire to participate in professional development, with a mean score of 3.84; 52.8% agreed, and 32.1% strongly agreed, reflecting a positive attitude toward professional growth. However, despite this interest, actual participation remains low, as evidenced by a mean score of 2.53, where nearly half (49.1%) disagreed with involvement, and only 24.5% agreed, highlighting a significant gap between the need to participate in professional development and action. Teachers also demonstrated a strong interest in subject-specific improvement, such as pursuing graduate studies in their teaching fields (e.g., geography), with a mean score of 3.89 and 39.6% strongly agreeing, signaling the importance they place on advanced education for better teaching practices.

Table 7:Teachers professional development engagement

	Variables	Level of agreement											
		SD		D		UD		A		SA		Mean	SD
		F	%	f	%	F	%	F	%	f	%		
1	I want to engage in professional development activities	1	1.9	11	20.8	1	1.9	28	52.8	17	32.1	3.84	1.10
2	I actually involved in professional development activities	10	18.9	26	49.1	-	-	13	24.5	4	7.5	2.53	1.25
3	I would like to improve my geography teaching through graduate studies	5	9.4	5	9.4	2	3.8	20	37.7	20	39.6	3.89	1.28
4	I would like to train more in computer assisted teaching	4	7.5	5	9.4	5	9.4	19	35.8	21	39.6	3.89	1.23
	Grand											3.88	

Similarly, there was a high interest in technology integration through computer-assisted teaching, reflected by a mean score of 3.89, with 39.6% strongly agreeing, showing teachers' awareness of the value of integrating technology into pedagogy. The grand mean of 3.88 underscores the overall enthusiasm for professional development among respondents. However, the discrepancy between the desire for professional development and actual participation suggests the presence of barriers such as time constraints, financial limitations, lack of institutional support, or inaccessible programs. These points need for schools and educational authorities to provide adequate opportunities and incentives to facilitate teacher participation. Additionally, the strong interest in subject-specific improvement and technology integration underscores the importance of targeted professional development programs in these areas. To bridge the gap between teachers' intentions and actions, policies must address systemic barriers, provide necessary funding, or consider making participation mandatory.

In conclusion, while teachers show a strong desire for professional development, low participation rates indicate underlying challenges. Tailored programs focusing on graduate studies and technology integration should be prioritized, alongside efforts to address logistical and systemic barriers, creating a supportive environment for teachers to engage in continuous professional growth.

This study's survey data provide insight into the desire, types and extent of professional development activities in which teacher participants are engaged. Regarding teachers' desire to participate in professional development, they show a high level of interest in professional development, with 45 (84.9%) of participants expressing a desire to engage in such activities, and substantial numbers indicating a wish to improve their teaching through graduate studies (41, 77.4%) and training in computer-assisted technology (40, 75.5%). In addition, the analysis of teachers' wishes to participate with a grand mean score of 3.88 indicates a positive attitude towards professional development activities across the items.

Table 8:Teachers' degree of participation in professional development activities

	Variables	Level of agreement								Mean	SD
		Never (1)		Rarely (2)		Sometimes (3)		Often (4)			
		F	%	f	%	F	%	F	%		
1	Involved in professional development activities	34	64.2	12	22.6	7	13.2	-	-	1.40	0.72
2	Attend conferences related to geography	33	62.3	14	26.4	4	7.5	2	3.8	1.38	0.71
3	Develop curricula or lesson plans with others	30	56.6	15	28.3	2	3.8	6	11.3	1.49	0.88
4	Review student's work or assessment	17	32.1	19	35.8	5	9.4	12	22.6	1.73	1.06
5	Led group discussion	8	15.1	33	62.3	4	7.5	8	15.1	1.66	0.89
6	Received coaching and monitoring	10	18.9	34	64.2	2	3.8	7	13.2	1.61	0.85
7	Give lecture or presentation to colleagues	16	30.2	28	52.8	1	1.9	8	15.1	1.60	0.89
8	Observed demonstration of teaching techniques	12	22.6	26	49.1	2	3.8	12	22.6	1.71	1.01
9	Designed to support the school improvement plan	15	28.3	28	52.8	2	3.8	8	15.1	1.62	0.90
	Grand									1.59	0.90

The study result (Table 8), revealed that, teachers' level of participation in various professional development activities. The results indicate generally low engagement across the activities, with a grand mean of 1.59 and a standard deviation of 0.90, suggesting limited involvement overall. The majority of teachers reported that they *never* or *rarely* engaged in most activities. For instance, 64.2% of respondents indicated they had *never* participated in professional development activities, while 22.6% reported doing so *rarely*, yielding a mean score of 1.40 (SD = 0.72). Similarly, attending geography-related conferences was infrequent, with 62.3% responding *never* and 26.4% *rarely*, resulting in a mean score of 1.38 (SD = 0.71). Collaborative curriculum or lesson plan development was slightly higher, but still low, with 56.6% reporting *never* and 28.3% *rarely* engaging, giving a mean score of 1.49 (SD = 0.88).

Other activities followed a similar trend. Reviewing student work or assessments had a relatively higher participation rate, with 32.1% indicating *never* and 35.8% *rarely*, leading to a mean of 1.73 (SD = 1.06). Participation in leading group discussions (M = 1.66, SD = 0.89), receiving coaching or monitoring (M = 1.61, SD = 0.85), giving lectures or presentations to colleagues (M = 1.60, SD = 0.89), observing demonstrations of teaching techniques (M = 1.71, SD = 1.01), and designing activities to support school improvement plans (M = 1.62, SD = 0.90) were similarly low.

Overall, the data highlights minimal participation in professional development activities, underscoring a critical need for strategies to promote and facilitate teachers' engagement in these opportunities.

The extent of teachers' engagement in specific professional development activities further highlights this disparity:

- Conferences: 33 (62.3%) of teachers never attend conferences related to their field.
- Curriculum Development: 30 (56.6%) have never been involved in curriculum development activities.

- Led Group Discussions: A significant 41 (77.4%) have never or rarely led group discussions, a key aspect of collaborative professional growth.
- Observation of Teaching Techniques: 38 (71.7%) reported they have never or rarely observed demonstrations of teaching techniques.
- Coaching and Monitoring: A concerning 44 (83%) of participants rarely or never receive coaching and monitoring in the classroom.
- Providing Lectures or Presentations: Similarly, 44 (83%) rarely or never have the opportunity to give lectures or presentations to their colleagues.
- Supporting School Improvement Plans: 43 (81.1%) are rarely or never involved in designing initiatives to support their school's improvement plan.

These findings underscore a significant gap between teachers' aspirations for professional development and their actual participation in such activities. This gap suggests that despite recognizing the value of on-going professional growth, barriers—whether systemic, institutional, or related to resource allocation—limit teachers' engagement in these vital activities. Addressing these barriers could enable more effective implementation of curriculum changes and enhancements in teaching practices, ultimately benefiting students' learning experiences. In consistency with this, Sarmiento & Orale, (2016) revealed that the teacher's training and development is still the most essential element in the successful implementation of the curriculum reforms and inadequacy or lack of teacher's training and preparation limits the curriculum implementation.

The results generally indicate a trend toward the lower end of the scale, suggesting that the activities are infrequently engaged in. The grand mean of 1.59 and a standard deviation of 0.90 illustrate the overall tendencies and variability across all activities. Consequently, the data suggests that respondents rarely engage in the listed professional activities, with most responses skewing towards "Never" or "Rarely." Activities involving direct interactions or feedback, such as reviewing students' work or observing teaching techniques, show slightly higher means, which points to more frequent engagement. The moderate variability suggests differences in individual engagement with these activities. This analysis can help in pinpointing areas where professional

engagement may need enhancement or is relatively stronger. Additionally, as teacher training and development play a crucial role in the successful implementation of curriculum reform, the lack of adequate training and preparation can be a significant barrier to effective curriculum implementation, as highlighted by Sarmiento & Orale (2016) and Mangali et al. (2019).

4.4.3 Teachers' Workload

This theme examines the distribution and intensity of work assigned to teachers, including teaching hours, administrative duties, co-curricular activities, and other responsibilities such as professional development. Teachers' workload is a significant factor influencing their ability to effectively implement the curriculum, maintain teaching quality, and meet student needs.

Excessive teaching workloads, often caused by uneven distribution of duties among staff, can negatively impact the teaching process. When teachers are assigned more teaching hours than they can manage, they may struggle to prepare adequately for lessons, assess students effectively, and engage in reflective practices to improve instruction. On the other hand, underutilized staff or mismatched assignments—such as requiring teachers to handle subjects outside their areas of expertise—can lead to suboptimal learning experiences for students.

Workload imbalances can also result in teacher burnout, decreased job satisfaction, and diminished capacity to innovate in teaching practices. Conversely, when teaching workloads are appropriately balanced and aligned with teachers' areas of expertise, it fosters a more effective implementation of the curriculum, enhances teacher well-being, and ultimately benefits students' learning outcomes.

Addressing the issue of teachers' workload involves careful planning, equitable allocation of tasks, and supportive policies that prioritize professional growth and collaborative teaching efforts. By optimizing workloads, educational institutions can ensure that teachers are both effective and motivated in their roles.

Table 9:Distribution of teachers workload per week in periods

interval	Frequency	Percent
8-10	3	5.7
11-13	5	9.4
14-16	9	17.0
17-19	10	18.9
20-22	13	24,5
23-25	10	18.9
26-28	3	5.7
Total	53	100.0

The finding (Table 9) indicates, distribution of teaching periods per week among teachers is spread across seven intervals, revealing significant patterns. The most frequent interval is 20–22 periods per week, representing 24.5% of the total sample. Similarly, the intervals of 17–19 and 23–25 periods per week are prevalent, each accounting for 18.9% of the total. Conversely, the intervals with the lowest frequencies are 8–10 and 26–28 periods per week, each comprising only 5.7%. This distribution suggests a concentration of teaching loads within specific ranges, reflecting the typical workload for many teachers.

The data indicates that teaching periods per week for most teachers cluster within the 14–25 range, covering nearly 80% of the sample. This suggests a relatively balanced workload for the majority, with only a few outliers experiencing either very low or very high teaching periods (taking 30 periods per week as maximum standard). The centrality of this range aligns with observations in similar studies where teaching loads often converge within moderate ranges, allowing teachers to maintain a balance between instructional and administrative duties (Johnston, 2017). While the workload appears concentrated, disparities exist, as evident in the variation across intervals. Such variability might reflect differences in school contexts, teacher roles, or subject-specific demands. For instance, secondary schools with specialized subject offerings may exhibit differences in teaching loads based on the complexity and frequency of subject instruction (Smith & Brown, 2020). The predominance of medium-to-heavy workloads in the 20–22 and 17–25 intervals suggests that most teachers experience a manageable

workload, although those teaching 26–28 periods per week may face challenges. High teaching demands can limit time for lesson planning, grading, and professional development, potentially affecting teaching quality (Green et al., 2018). On the other hand, teachers handling only 8–10 periods per week may either be underutilized or involved in teaching highly specialized subjects with fewer instructional hours.

Variability in teaching workload can be attributed to several factors. Subject specialization plays a significant role, as teachers handling core subjects often face higher teaching loads compared to those teaching electives or specialized courses with fewer weekly periods. Additionally, the size of the school and the student-teacher ratio impact workload; larger schools with more students typically assign heavier teaching loads, while smaller schools may demonstrate the opposite trend (Anderson & Johnson, 2019). Furthermore, teachers who take on additional roles, such as administrative or part-time responsibilities, may have reduced teaching duties to ensure a balance with their other commitments.

Teachers with heavier workloads are at risk of burnout, which could impair teaching quality and student outcomes (Borman & Dowling, 2019). Conversely, underutilized teachers may represent inefficiencies in resource allocation. Achieving equity in teaching loads is essential to ensure fairness, optimize teacher performance, and maintain instructional quality. To promote teacher satisfaction and instructional efficacy, policymakers and school administrators should prioritize a balanced redistribution of teaching periods. Addressing disparities by hiring additional staff or redistributing workloads could alleviate extreme teaching demands. Additionally, ensuring equity in workload allocation can improve teacher retention and overall educational outcomes (Taylor, 2021).

The observed distribution of teaching periods per week reflects a moderate workload for most teachers, with only a small fraction experiencing extreme workloads. This calls for targeted interventions to address disparities. Policymakers and school administrators should focus on equitable workload distribution to enhance teacher well-being and instructional efficiency. Future research should explore the specific causes of workload

variation and its impact on both teachers and students, offering insights for further policy refinement.

Table 10:Teachers' work load

	Variables	Level of agreement										Mean	SD
		Very low (1)		Low (2)		Moderate (3)		High (4)		Very high (5)			
		F	%	F	%	F	%	F	%	F	%		
1	Working during non-school days by way of preparation	-	-	33	62.3	19	35.8	1	1.9	-	-	2.40	0.53
2	Preparation time during the school day	-	-	21	39.6	30	56.6	2	3.8	-	-	2.64	0.55
3	Time spent on professional learning	-	-	29	54.7	20	37.7	4	7.5	-	-	2.53	0.63
4	Time spent in meeting	-	-	36	67.9	15	28.3	2	3.8	-	-	2.36	0.55
5	Time spent on students' continuous assessment	-	-	25	47.2	23	43.4	6	11.3	-	-	2.65	0.67
6	Involvement in developing teaching materials and teaching resources	-	-	38	71.7	11	20.8	4	7.5	-	-	2.36	0.62
	Grand											2.49	

The data presented in Table 10 highlights teachers' workload across various dimensions, reflecting their levels of agreement on specific variables related to professional activities. The mean scores and standard deviations (SD) indicate moderate engagement in most activities, with some variability across categories. Regarding working during non-school days, most respondents (62.3%) reported low involvement, while 35.8% indicated a moderate level, yielding a mean score of 2.40 (SD = 0.53). This suggests limited time spent on non-school day preparation, consistent with Johnson and Stevens (2018), who argued that additional workload outside regular hours negatively impacts work-life balance and reduces engagement in such activities.

For preparation time during the school day, 56.6% of teachers reported moderate engagement, and 39.6% reported low engagement, with a mean score of 2.64 (SD = 0.55). This indicates some preparation occurs, though not extensively, aligning with Anderson et al. (2020), who noted that inadequate preparation time during school hours often pushes teachers to use personal time, increasing workload stress. Similarly, time spent on professional learning was reported as low by 54.7% of respondents, with 37.7% indicating moderate engagement. The mean score of 2.53 (SD = 0.63) highlights limited opportunities for professional development, echoing Hargreaves (2019), who emphasized the importance of structured professional learning to enhance teaching efficacy and job satisfaction.

In terms of time spent in meetings, 67.9% of teachers reported low engagement, while 28.3% indicated moderate participation, resulting in a mean score of 2.36 (SD = 0.55). This underscores a minimal focus on collaborative or administrative meetings. According to Leithwood and Seashore-Louis (2018), while excessive meetings can detract from instructional time, their absence may also limit professional collaboration opportunities. Teachers' involvement in students' continuous assessment appeared relatively higher, with 47.2% at a low level and 43.4% at a moderate level, leading to a mean score of 2.65 (SD = 0.67). This finding aligns with Black and Wiliam (2009), who stressed the importance of continuous assessment in enhancing student learning outcomes.

Finally, a significant majority (71.7%) of respondents reported low involvement in developing teaching materials, with only 20.8% indicating moderate engagement. The mean score of 2.36 (SD = 0.62) suggests minimal activity in this area, consistent with Darling-Hammond et al. (2020), who pointed out that limited time or resources for material development can hinder teachers' ability to deliver contextually relevant instruction. The overall grand mean of 2.49 reflects a generally low to moderate level of engagement across all workload dimensions, with relatively higher involvement observed in continuous assessment and preparation during the school day.

The findings underscore the multifaceted nature of teachers' workload and its distribution across professional responsibilities. The low to moderate levels of engagement in key areas, such as professional learning and material development, may reflect systemic

challenges in providing adequate time, support, and resources for teachers to excel in these domains. This aligns with OECD (2021), which reported that inadequate preparation and professional development opportunities are common barriers to teacher effectiveness in many low-resource educational systems.

The relatively higher engagement in continuous assessment points to its critical role in day-to-day teaching activities. However, the lack of time spent on material development may compromise the quality of instructional delivery. Hattie (2012) emphasized the importance of well-prepared instructional materials in fostering effective teaching and learning processes. Additionally, the data suggests that teachers experience limited non-instructional collaboration (e.g., meetings), which may hinder opportunities for professional dialogue and shared problem-solving. Vangrieken et al. (2017) argued that collaborative practices among teachers significantly enhance instructional quality and professional growth.

The analysis reveals that teachers' workload predominantly centres on day-to-day classroom activities, such as preparation and continuous assessment, with relatively limited engagement in professional development and material creation. Addressing these disparities requires systemic interventions, such as increasing support for professional learning, allocating dedicated preparation time, and fostering collaborative practices. Aligning workload expectations with available resources and institutional priorities, as suggested by Leithwood et al. (2020), can contribute to improving teacher efficacy and overall educational outcomes.

4.4.4 Student Motivation

The study result (Table 11) reveals critical insights into the levels of student motivation in the learning process, measured across six variables, with a grand mean score of 2.40 and a standard deviation of 1.56, indicating low to moderate motivation. Students' active participation in lessons scored a mean of 2.42, with 44.5% of respondents reporting low engagement, reflecting limited involvement in classroom activities. Similarly, students' ability and culture of learning through experiential methods, such as living, seeing, and doing, had a mean of 2.40, with 38% of respondents rating this ability as low, highlighting a lack of hands-on and experiential learning culture.

Table 11:Students' learning motivation

	Variables		Level of agreement											
			Very low		Low		Moderate		High		Very high		Mean	SD
		P	F	%	F	%	F	%	F	%	F	%		
1	Students' active participation in the lesson	53	-	-	22	44.5	18	34	13	24.5	-	-	2.42	1.53
2	Students' ability and culture of learning by living, seeing and doing	53	-	-	20	37.7	18	34	13	24.5	2	3.8	2.40	1.54
3	Students' behavior and tendency of learning by memorization	53	-	-	6	11.3	17	32.1	27	50.9	3	5.9	2.66	1.79
4	Students' independent learning	53	-	-	23	43.4	10	18.9	16	30.2	4	7.5	2.37	1.56
5	Students' level of enthusiastic for learning and preparation for their class	53	2	3.8	23	43.4	12	22.6	13	24.5	3	5.9	2.32	1.50
6	Students' ability to make meaning in their learning	53	1	1.9	27	50.9	8	15.1	11	20.7	3	5.9	2.23	1.44
	Grand												2.40	1.56

Note: Very Low = 1; Low = 2; Moderate = 3; High = 4; Very High = 5.

Students' behaviour and tendency toward rote memorization stood out with a higher mean of 2.66, with more than half (50.9%) of respondents agreeing that memorization is heavily relied upon, suggesting a prevalence of traditional, teacher-centred methods. Conversely, students' independent learning scored a mean of 2.37, with 43.4% of

respondents acknowledging limited autonomy in their learning practices. The lowest mean score of 2.32 was observed in students' enthusiasm and preparation for class, where 43.4% of respondents reported low levels, pointing to a need for interventions to stimulate interest and engagement. Additionally, students' ability to make meaning in learning received a low mean score of 2.23, with 50.9% of respondents indicating a lack of critical thinking and reflective learning skills.

These findings highlight a concerning trend of low student motivation, which significantly impacts curriculum delivery and learning outcomes. They align with previous research, such as Ryan and Deci (2000), which emphasizes that low motivation leads to passive learning and poor academic performance. The reliance on rote memorization reflects the persistence of traditional pedagogical practices prevalent in Ethiopian classrooms, as noted by Teshome (2022). These practices fail to foster critical thinking and problem-solving skills, further compounding the challenges in student engagement.

The findings align with established literature on motivation and learning. Low levels of active participation contradict Vygotsky's (1978) theory of social constructivism, which advocates for interactive and collaborative learning environments to deepen understanding and engagement. Similarly, the low scores for experiential learning reveal a disconnect between theoretical content and real-world applications, echoing Kolb's (1984) experiential learning model and findings from Ethiopian educational studies by Worku and Teklu (2020). The emphasis on rote learning reflects systemic issues like examination-focused education, as highlighted by Getachew (2021), which undermines critical and independent thinking. Furthermore, the lack of autonomous and meaningful learning is inconsistent with Bandura's (1997) self-efficacy theory, which stresses the importance of empowering students to learn independently for better outcomes.

Addressing these challenges requires shifting pedagogical approaches toward student-centred methods such as problem-based learning to enhance active participation and critical thinking. Integrating experiential learning activities into the curriculum can bridge the gap between theoretical knowledge and real-life applications, as suggested by Kolb (1984). Encouraging independent learning through digital tools and resources can

promote self-paced and autonomous learning. Reducing the reliance on rote memorization requires transitioning from examination-focused teaching to formative assessments that prioritize understanding and creativity.

In conclusion, the low levels of student motivation across various dimensions underscore systemic challenges in the educational framework. A comprehensive overhaul of pedagogical practices, curriculum design, and teacher training is necessary to foster active engagement, experiential learning, and independent thinking. Future research should evaluate the effectiveness of interventions designed to improve student motivation and explore the contextual factors that influence learning engagement in Ethiopian schools.

4.4.5 Test-Related Factors

The study finding (Table 12) addresses the influence of assessments, exams, and testing practices on curriculum implementation, including how teachers align their instruction with testing requirements and the impact of test preparation on teaching and learning. Accordingly, the influence of test-related factors on geography education as perceived by teachers with an overall mean score of 3.72 (SD = 1.06), the findings indicate that these factors significantly impact teaching and learning. A detailed analysis of the variables reveals important insights. The influence of geography tests on teaching recorded a moderate agreement, with a mean score of 3.26, reflecting that 34% of respondents agreed, and 13.2% strongly agreed that tests shape instructional strategies. Similarly, the impact of geography tests on students' learning scored a mean of 3.08, showing moderate agreement, though 34% of respondents disagreed, indicating varied perceptionsThis theme addresses the influence of assessments, exams, and testing practices on curriculum implementation, including how teachers align their instruction with testing requirements and the impact of test preparation on teaching and learning.

Table 12:Test-related factors

	Variables	Level of agreement												
		SD		DA		UD		A		SA		Mean	SD	
		P	F	%	F	%	F	%	F	%	F	%		
1	The geography test has influence on my teaching	53	2	3.8	14	26.4	12	22.6	18	34.0	7	13.2	3.26	1.11
2	The geography test influences students learning	53	4	7.5	18	34.0	7	13.2	18	34.0	6	11.3	3.08	1.21
3	Classroom geography test stimulated students to prepare themselves for national geography examination	53	-	-	7	13.2	1	1.9	28	52.8	17	32.1	4.19	0.66
4	Students test scores contributed to my teaching evaluation	53	1	1.9	2	3.8	6	11.3	30	56.6	14	26.4	4.02	0.84
5	Geography test provides students opportunities to evaluate their own work	53	2	3.8	1	1.9	5	9.4	29	54.7	16	30.2	4.06	0.91
	Grand 3.72													1.06

Note: Strongly Disagree (UD) =1; Disagree (DA) = 2; Undecided (UD) = 3; Agree (A) = 4; Strongly Agree (SA) = 5

Classroom geography tests as preparation for national exams showed the highest mean score of 4.19, with 52.8% agreeing and 32.1% strongly agreeing, highlighting strong alignment between classroom and national assessments. The contribution of students' test

scores to teacher evaluation was also highly agreed upon (mean = 4.02), with 56.6% agreeing and 26.4% strongly agreeing. Lastly, geography tests providing opportunities for student self-evaluation scored a mean of 4.06, with 54.7% agreeing and 30.2% strongly agreeing, showing consensus on the role of tests in fostering self-assessment.

The findings underscore the pivotal role of geography tests in teaching and learning processes, with implications discussed in light of relevant literature. First, the moderate agreement on the influence of tests on teaching practices aligns with research suggesting that assessment drives pedagogy (Harlen, 2007), with teachers often adapting instruction to align with test content—a practice commonly termed "teaching to the test" (Shepard, 2000). Second, the variability in perceptions of the influence of tests on student learning highlights the dual role of assessments: while they motivate some students, others may experience stress (Black & Wiliam, 1998), emphasizing the need for effective test design that fosters genuine learning. Third, the strong agreement on classroom tests preparing students for national exams reflects their alignment, which enhances readiness for high-stakes assessments but may risk narrowing the curriculum if overemphasized (Au, 2007). Fourth, the use of test scores for evaluating teacher effectiveness aligns with accountability trends, though caution is advised against over-reliance on test scores, as it may encourage superficial learning (OECD, 2013). Lastly, geography tests are widely viewed as tools for fostering metacognitive skills, a perception supported by research highlighting the role of self-assessment in reflective learning (Andrade, 2010).

In conclusion, geography tests exert a multifaceted influence on teaching and learning, serving as tools for instruction, motivation, and evaluation. However, the variability in perceptions calls for balanced test design and implementation to ensure they promote meaningful learning without narrowing educational objectives. To maximize the positive impacts, it is essential to design assessments that prioritize higher-order thinking skills, provide professional development for teachers to integrate formative assessment strategies, and align tests with broader curriculum goals to prevent curriculum narrowing. Future research should delve into the impact of geography test design on student learning outcomes, explore teachers' perceptions of assessment fairness and its implications for instructional practices, and examine students' experiences with geography tests, particularly in high-stakes environments.

4.4.6 Resource and Support

This aspect looks at the availability and quality of resources and support systems, such as infrastructure, administrative assistance, and access to technology, which can facilitate or hinder curriculum implementation.

Table 13:Resource support

	Variables	Level of agreement											Mean	SD
			SD		DA		UD		A		SA			
		P	F	%	F	%	F	%	F	%	F	%		
1	The school has enough technical support and equipment	53	18	34.0	11	20.7	16	30.9	5	9.4	3	5.7	1.84	1.01
2	Student number in the class room	53	-	-	7	13.2	24	45.3	15	28.3	7	13.2	2.1	1.36
3	Library availability in the school	53	5	9.4	15	28.3	10	18.9	19	35.8	4	7.5	3.04	1.15
4	Organization of trainings, workshops and conferences in the school	53	24	45.3	16	30.2	5	9.4	7	13.2	1	2	1.96	1.12
5	Independent and technically supported geography class in the school	53	21	39.6	22	41.5	3	5.7	6	11.3	1	2	1.94	1.04
	Grand												2.14	1.22

Note: Strongly Disagree (UD) =1; Disagree (DA) = 2; Undecided (UD) = 3; Agree (A) = 4; Strongly Agree (SA) = 5

The data presented in Table 13 provides valuable insights into the respondents' perceptions of resource support in their schools. The overall mean score of 2.14 reflects a general disagreement with the adequacy of resource support, highlighting significant

challenges in this domain. The standard deviation of 1.22 indicates moderate variability in responses across different variables. Each variable provides a nuanced understanding of the resource gaps impacting educational outcomes.

Regarding technical support and equipment, the mean score of 1.84 and a standard deviation of 1.01 demonstrate a significant lack of adequate resources. A large proportion of respondents (34.0%) strongly disagreed, and an additional 20.7% disagreed that their school provides sufficient technical support and equipment, while only 15.1% expressed agreement or strong agreement. These findings emphasize the critical shortage of technical tools essential for enhancing teaching quality and improving student learning outcomes. This aligns with UNESCO (2017), which highlights that insufficient technical resources hinder teachers' ability to integrate technology into their instruction, limiting active and innovative teaching strategies.

The perception of classroom sizes, with a mean of 2.10 and a standard deviation of 1.36, reflects mixed experiences. While 45.3% of respondents were undecided, 41.5% agreed or strongly agreed, indicating variability in classroom size experiences. Despite this, the low mean suggests concerns about overcrowding. Overcrowded classrooms, as documented by Barrett et al. (2019), remain a persistent challenge in developing countries, leading to reduced student engagement and negatively impacting learning outcomes.

Library availability received a relatively higher mean score of 3.04, with a standard deviation of 1.15. A notable 35.8% of respondents agreed, and 7.5% strongly agreed on the adequacy of library resources, though 37.7% either disagreed or remained undecided. This indicates room for improvement despite a comparatively positive evaluation. Libraries are essential for fostering student-centred learning, as highlighted by Fasasi (2020), who notes that well-equipped libraries enhance research skills, support independent learning, and improve teacher effectiveness.

The data also reveal significant inadequacies in professional development opportunities, with a mean of 1.96 and a standard deviation of 1.12. A substantial proportion of respondents (45.3%) strongly disagreed and 30.2% disagreed with the adequacy of training, workshops, and conferences. Only 15.2% expressed positive agreement,

underscoring the urgent need for professional development. According to Darling-Hammond et al. (2017), the absence of such opportunities leads to stagnation in teaching quality and innovation, emphasizing the necessity for sustained teacher capacity building.

The availability of independent geography classrooms was rated poorly, with a mean score of 1.94 and a standard deviation of 1.04. Many respondents (39.6% strongly disagreeing and 41.5% disagreeing) reported the absence of dedicated, technically supported geography classrooms. This indicates a lack of subject-specific infrastructure, which is critical for fostering practical and applied learning. Altinyelken (2020) stresses that the availability of subject-specific classrooms enhance comprehension and engagement, and absence of subject specific classroom hinders meaningful learning experiences in specialized areas like geography.

In summary, the findings expose significant resource gaps within schools, as perceived by the respondents. The lack of technical support, professional development opportunities, and subject-specific infrastructure represents systemic challenges that constrain effective teaching and learning. Library availability emerged as a relatively favourable aspect, potentially reflecting targeted investments or external interventions. However, to maximize the benefits of libraries, their resources must align with curriculum needs, and both students and teachers must be trained in their effective utilization.

These insights underscore the urgent need for targeted interventions in resource allocation and teacher support systems. Policymakers and educational stakeholders must prioritize enhancing technical infrastructure, managing classroom sizes to reduce overcrowding, strengthening library resources, and investing in professional development. Additionally, establishing subject-specific infrastructure, such as dedicated geography classrooms, is vital for fostering specialized competencies. Addressing these gaps is essential for creating equitable, resource-rich learning environments that improve teaching quality and student outcomes.

4.4.7 Factor analysis

The analysis explored six key factors influencing teachers' curriculum implementation, highlighting their unique contributions to explaining variance in the dataset. These factors included Student Motivation (SM), Resource and Support, Teachers' Professional Development (TPD), Workload, Curriculum Perception (CP), and Test-related Factors.

Table 14:Principal Components Analysis

Factors	F1	F2	Communalities
Students Motivation	.815	.271	.738
Resource and Support	.662	.532	.721
TPD	.704	-.388	.646
Workloads	-.580	.707	.837
Curriculum Perception	.695	.031	.484
Test-related Items	.649	.138	.440
Eigenvalue	2.838	1.027	
% of Total Variance	47.300	17.000	

Table 15: KMO and Bartlett's Test

Test	Value
Kaiser-Meyer-Olkin Measure	0.688
Bartlett's Test of Sphericity (χ^2)	91.498
Degrees of Freedom	15
Significance Level (p-value)	.000

Among these, Student Motivation emerged as the most significant determinant, with the highest factor loading (.815), underscoring its profound impact on effective curriculum implementation. Research validates that motivated students create conducive learning environments, easing teachers' instructional efforts. Resource and Support also played a pivotal role (factor loading = .662), affirming that access to educational materials, financial resources, and administrative backing is essential for sustained curriculum success. Similarly, TPD demonstrated a strong influence (factor loading = .704), as on-going professional development empowers teachers with innovative strategies to meet evolving curricular demands, enhancing student outcomes.

Conversely, Workload presented a dual-faceted impact (factor loading = -.580 and .707 across factors), highlighting its role in both facilitating and hindering curriculum implementation. While manageable workloads promote instructional quality, excessive demands can reduce teacher effectiveness and increase stress levels. Curriculum Perception (factor loading = .695) emphasized the importance of teachers' beliefs about curriculum coherence and relevance, where misalignments can hinder implementation fidelity. Lastly, Test-related Factors (factor loading = .649) highlighted the role of assessment practices, albeit with a lower contribution to the variance explained, suggesting that its influence is often mediated by other factors such as motivation and workload.

The factor analysis, supported by a robust methodological framework including the Kaiser-Meyer-Olkin measure (0.688) and Bartlett's Test of Sphericity ($p < .001$), revealed that the six-factor model explained 64.42% of the total variance. Key insights included the interdependence of these factors, such as the symbiotic relationship between professional development and reduced workload stress. The findings suggest significant policy implications, including the need for enhanced teacher support systems, equitable workload distribution, and initiatives to foster student motivation through resource enrichment and innovative pedagogies.

This study offers a comprehensive understanding of the multidimensional factors influencing teachers' curriculum implementation. Student motivation and workload emerged as dominant drivers, alongside critical contributions from resource availability, TPD, curriculum perception, and assessment practices. Holistic interventions addressing these dimensions can optimize curriculum fidelity, enhance teacher satisfaction, and advance educational outcomes.

The factor analysis results provide critical insights into the multifaceted influences on teachers' curriculum implementation. Student motivation, with a strong factor loading (.815), emerges as a significant determinant, as motivated students foster an engaging learning environment that enables effective curriculum implementation, consistent with prior studies (e.g., Deci and Ryan, 1985). Resource availability and institutional support, reflected in a loading of .662, highlight the importance of adequate resources in achieving

curriculum goals, as inadequate support can hinder their realization (Fullan, 2007). Teachers' professional development (TPD), with a loading of .704, is another critical enabler, equipping educators with essential skills and knowledge to navigate curriculum challenges, as underscored by Darling-Hammond et al. (2009). Workload also emerges as a significant factor, with high communalities (.837) indicating the stress and resource demands placed on teachers; excessive workloads have been linked to burnout and reduced effectiveness (Kyriacou, 2001). Additionally, teachers' perceptions of the curriculum, with a loading of .695, influence their engagement and fidelity in implementation, where misalignments between perceptions and objectives may lead to gaps (Priestley et al., 2015). Although test-related items contribute less variance (.440), they remain integral to curriculum alignment and outcomes evaluation, aligning with the findings of Black and Wiliam (1998). Overall, the factor analysis highlights six critical dimensions affecting teachers' curriculum implementation, with student motivation and workload emerging as dominant factors. The results underscore the interconnectedness of professional development, resources, workload, and assessment strategies in shaping effective curriculum practices. Addressing these factors holistically can enhance curriculum fidelity and improve educational outcomes.

4.4.8 Teachers' curriculum activities

To understand the general tendency of the implementation activities, researcher identified descriptive statistics for the 15 items in questionnaire Section IX, including mean, median, mode; standard deviation, skewness, and kurtosis (see Appendix A). The reliability coefficient for teachers' curriculum activities in the classroom turned out to have a moderate level of internal consistency, with an alpha coefficient equaling 0.56. In terms of implementation score, by scoring 5, the highest mark on all 1 items is 75, indicating the highest fidelity of curriculum implementation. By scoring 1, the lowest mark is 15, indicating the lowest fidelity of implementation. Therefore, the scores fall within a continuum from 75 to 15. To reveal the geography teachers' fidelity to the implementation, descriptive statistics for the implementation scores are also displayed (see Table 16). The mean score is 53.15, and the standard deviation is 4.288, showing quite a broad range of teachers' curriculum implementation.

Table 16:Statistic for the implementation scores

Item	Number	Missed	Mean	Median	Mode	Standard deviation	Skewness	Kurtosis
15	53	0	53.1	53	53.00	4.288	.429	-.214

As shown in table 17, the highest implementation score was 65 and the lowest was 46. The top 34% (18 participants as high implementers) obtained scores higher than 55 points. The bottom 39.6% (21 participants as low implementers) obtained scores lower than 51 points. The rest 26.4% participants obtained scores between 52 and 46. This suggests that those who showed the lowest fidelity to curriculum implementation were high, and that most general secondary geography teacher in this sample showed a low level of fidelity to curriculum implementation. This also means that majority of teachers (39.6 %) failed to adhere to the geography curriculum formulated, and that the expected implementation by the curriculum designers was in fact not realized.

Table 17:Summary of teachers' curriculum implementation

Implementation scores	Numbers	Percentage (%)
55-65	18	34
52-54	14	26.4
51-46	21	39.6

4.4.9 Multivariate Regression Analyses and Independent Samples T- Tests.

4.4.9.1 Multivariate Regression Analyses

To examine the determinants of curriculum implementation effectiveness, this study utilized a median score of 53 as shown in table 16 to distinguish between proficient and deficient curriculum implementers. Teachers scoring 53 or higher were classified as effective implementers, whereas those scoring below 53 were deemed less effective. The analysis aimed to identify factors contributing to suboptimal curriculum implementation through logistic regression. Multivariate regression analyses were conducted, incorporating candidate explanatory variables via a stepwise backward Wald method. The model's adequacy was verified using the Hosmer and Lemeshow test, yielding a result of 0.531, with p-values exceeding 0.05, confirming model suitability. Additionally, the analysis assessed variable multi-collinearity through the Variance Inflation Factor

(VIF) and standard error metrics, revealing values below 10 and 2, respectively, thus indicating no significant collinearity issues. A p-value of less than 0.05 was considered statistically significant.

The research focused on identifying key factors affecting the poor implementation of the geography curriculum among teachers. Six explanatory variables were explored: perceptions of geography curriculum materials, teacher workload, professional development, student motivation, test-related factors, and resources and support. As detailed in Table 18, only the variable of teachers' professional development showed a significant correlation with the poor implementation of the geography curriculum. Specifically, inadequate professional development activities were associated with an 8.2-fold increase in the likelihood of substandard curriculum implementation, compared to those with adequate professional development (Odds Ratio: 8.196, 95% Confidence Interval: 1.765 to 38.064).

Table 18:Variables in the equation

		B	SE.	Wald	Df.	Sig.	Exp(B)	95% CI.Exp(B) Lower/ Upper	
Step 1a	CP_cat_NEW(1)	-1.737	1.023	2.883	1	.090	.176	.024	1.308
	WL_cat(1)	-.269	.716	.141	1	.708	.764	.188	3.113
	TPD_cat(1)	2.104	.784	7.208	1	.007	8.196	1.765	38.064
	SM_cat(1)	.301	1.135	.071	1	.791	1.352	.146	12.512
	Test_Rel_cat(1)	1.202	.950	1.599	1	.206	3.325	.516	21.409
	Resource and s_cat1(1)	-.586	.891	.433	1	.511	.557	.097	3.189
	Constant	-.808	.806	1.005	1	.316	.446		

a Variable(s) entered on step 1: Curriculum Perception cat_ Workload cat, Teachers' Professional Development cat, Student Motivation cat, Test related cat., Resource and Support-cat.1

To analyze the logistic regression results presented in Table 18, it is important to examine the coefficients and their implications, focusing on statistical significance and their

impact on the dependent variable. The coefficient (B) represents the log odds of the dependent variable associated with a one-unit increase in the predictor variable, while the standard error (SE) measures the precision of the coefficient. The Wald statistics and p-value (Sig.) are used to test the significance of the coefficients, and the odds ratio (Exp(B)) indicates the change in odds of the dependent variable for a one-unit increase in the predictor variable, with values greater than 1 signifying an increase in odds and values less than 1 indicating a decrease.

Among the key predictors, *Curriculum Perception (CP_cat_NEW)* has a negative coefficient (B = -1.737, p = .090), suggesting that more positive curriculum perception reduces the odds of the outcome, though it is not statistically significant (p > .05). *Workload (WL_cat)* has a small negative coefficient (B = -0.269, p = .708) and lacks statistical significance. *Teachers' Professional Development (TPD_cat)* is a significant predictor (B = 2.104, p = .007), with an odds ratio (Exp(B) = 8.196), highlighting its substantial positive impact on the outcome. *Student Motivation (SM_cat)* (B = 0.301, p = .791) shows a positive but statistically insignificant relationship, while *Test-related Factors (Test_Rel_cat)* (B = 1.202, p = .206) exhibit a positive effect (Exp(B) = 3.325) that is not significant. Similarly, *Resource and Support (Resource and s_cat1)* has a negative coefficient (B = -0.586, p = .511) without statistical significance. Lastly, the constant (B = -0.808, p = .316) is not significant and lacks standalone interpretive value.

The results indicate that *Teachers' Professional Development* (TPD_cat) is the only statistically significant predictor (p = .007), with an odds ratio of 8.196, underscoring its critical role in achieving the desired outcome. This finding aligns with literature emphasizing the impact of continuous professional development on teaching effectiveness and student success (for example Darling-Hammond et al., 2017). Other predictors, such as curriculum perception, student motivation, test-related factors, and resources and support, are not statistically significant, possibly due to sample size limitations, measurement reliability, or contextual factors. For instance, the near-significance of curriculum perception (p = .090) suggests it may have an effect with a larger sample size or greater study power. Similarly, test-related factors and resources may have contextual relevance, as indicated by their odds ratios, despite lacking statistical significance.

The findings highlight a trend in educational research where teacher-focused interventions, such as professional development, yield more direct and measurable outcomes compared to structural or contextual factors (Desimone, 2009). In conclusion, *Teachers' Professional Development* is a significant determinant of the desired outcome, while variables like curriculum perception and test-related factors, though not statistically significant, warrant further exploration in future studies. Educational policymakers should prioritize robust and continuous professional development programs to enhance teaching quality and improve student outcomes.

4.4.9.2 Independent samples t tests.

To address the sub-research question 4, the researcher performed two independent samples t tests to compare the mean scores of two groups: (1) teachers with a bachelor's or master's degree; and (2) teachers with teaching experience below five years and above 10 years. Table 19 and 20 present the results.

Table 19:Descriptive statistics for educational qualifications and teaching experiences

		N	Mean	Std. Deviation	Std. Error Mean
Education Qualifications	B.A.	42	52.76	4.455	.687
	M.A	11	54.09	3.562	1.074
Teaching Experiences	Below 5	18	53.17	3.746	.883
	Above 10	35	52.97	4.592	.776

Table 19 presents the mean scores, standard deviations, and standard errors for two variables: Educational Qualifications and Teaching Experiences. For Educational Qualifications, respondents with a B.A. degree (N=42) reported a mean of 52.76 with a standard deviation of 4.455. Meanwhile, respondents with an M.A. degree (N=11) reported a higher mean of 54.09 with a standard deviation of 3.562. The standard error for the B.A. group was smaller (.687) compared to the M.A. group (1.074), indicating greater variability in the mean scores of the M.A. group despite its smaller sample size. For Teaching Experiences, respondents with less than 5 years of experience (N=18) had a mean score of 53.17 with a standard deviation of 3.746, whereas those with more than 10 years of experience (N=35) reported a slightly lower mean of 52.97 with a standard deviation of 4.592. The standard error was marginally higher for the group with less than

5 years of experience (.883) compared to the group with more than 10 years of experience (.776), reflecting minor differences in the precision of the mean estimates.

The analysis of Educational Qualifications suggests a marginal difference in mean scores between respondents with a B.A. and those with an M.A. degree. The higher mean for M.A. holders (54.09) compared to B.A. holders (52.76) could imply that advanced education correlates with slightly improved outcomes or perceptions in the context being assessed. The lower standard deviation for M.A. holders (3.562) compared to B.A. holders (4.455) indicates that responses among M.A. holders were more consistent. This finding aligns with previous studies (e.g., Smith, 2020; Jones, 2021) that associate higher educational qualifications with improved professional competence, teaching performance, and confidence.

For Teaching Experiences, the mean scores across experience categories show minimal variation, with respondents having less than 5 years of experience reporting a mean of 53.17 and those with more than 10 years of experience slightly lower at 52.97. This suggests that teaching experience may not significantly influence the outcomes being measured. Interestingly, the standard deviation was lower for the group with less than 5 years of experience (3.746) than for the group with more than 10 years (4.592), indicating more consistent perceptions or outcomes among less experienced teachers. These findings challenge traditional assumptions that experience always correlates with better outcomes, reflecting the possibility of diminishing returns after a certain level of experience, as noted in recent studies (e.g., Rice, 2019). While earlier research (e.g., Darling-Hammond, 2006) often emphasizes the positive impact of teaching experience on instructional quality, these results highlight the potential importance of other factors, such as ongoing professional development and teaching context.

Statistical insights indicate that the differences in mean scores across both variables—educational qualifications and teaching experience—are relatively small. Independent t-tests could be conducted to determine whether these differences are statistically significant. The higher variability (standard deviation) and smaller sample size of the M.A. group underscore the need for caution when generalizing findings to larger populations.

In conclusion, the results suggest that holding an M.A. degree is associated with slightly higher outcomes compared to a B.A. degree, consistent with broader educational theories emphasizing the value of advanced qualifications in enhancing teaching quality. However, the minimal difference in mean scores between teaching experience groups indicates that experience alone may not significantly influence the measured outcomes. Factors such as professional development and teaching methods might play more critical roles in shaping teaching effectiveness.

Future research should incorporate a larger and more diverse sample to validate these findings and consider additional contextual variables, such as teacher training and instructional methods, to provide a more comprehensive understanding of the impacts of educational qualifications and teaching experience. Smith (2020) underscores the importance of advanced degrees in professional competence, while Darling-Hammond (2006) highlights the significance of teaching experience in instructional quality, albeit with potential plateaus. Rice (2019) further notes the necessity of continuous professional development to prevent diminishing returns in teaching outcomes.

Table 20 t-Tests for education qualification and teaching experiences

Variables		Levene's Test for Equality of variances		t-test for Equality of Means					95% confident interval of the difference Lower upper	
		F	Sig.	T	Df	Sig. (2tailed	Mean Difference	Std. Error Difference	Lower	Upper
Education qualification	Equal variances assumed	.546	.463	-.914	51	.365	-1.329	1.455	-4.249	1.591
	Equal variances not assumed			1.042	19.087	.310	-1.329	1.275	-3.997	1.339
Teaching experience	Equal variances assumed	.905	.346	.156	51	.877	.195	1.255	-2.325	2.716
	Equal variances not assumed			.166	41.147	.869	.195	1.176	-2.179	2.569

The T-tests conducted to compare educational qualifications and teaching experience between two groups revealed no statistically significant differences, as confirmed by Levene's Test for Equality of Variances, T-tests for Equality of Means, and the 95% Confidence Intervals (CIs) for the mean differences. Regarding educational qualification, Levene's test indicated no significant difference in variances between the groups (F = 0.546, Sig. = 0.463). The T-tests, both assuming equal variances (t = -0.914, df = 51, Sig. = 0.365) and not assuming equal variances (t = -1.042, df = 19.087, Sig. = 0.310), confirmed this finding, with a mean difference of -1.329 and a standard error of 1.455 (equal variances assumed) or 1.275 (not assumed). The 95% confidence interval for the mean difference (-4.249 to 1.591 for equal variances assumed and -3.997 to 1.339 for unequal variances) includes zero, indicating no significant difference in educational qualifications between the groups. These results suggest that observed differences in mean educational qualification scores are likely due to chance rather than systematic

differences, a conclusion supported by prior studies that highlight the minimal variation in qualifications among similar professional groups.

Similarly, for teaching experience, no significant differences were found between the groups. Levene's test indicated no difference in variances (F = 0.905, Sig. = 0.346), and the T-tests (equal variances assumed: t = 0.156, df = 51, Sig. = 0.877; unequal variances assumed: t = 0.166, df = 41.147, Sig. = 0.869) showed negligible differences in means. The mean difference was 0.195, with a standard error of 1.255 (equal variances assumed) or 1.176 (not assumed). The 95% confidence interval (-2.325 to 2.716 for equal variances assumed and -2.179 to 2.569 for unequal variances) also included zero, indicating no significant differences in teaching experience. These results align with prior research that suggests teaching experience within similar professional settings often overlaps, making significant between-group differences unlikely unless extreme contrasts exist.

In conclusion, the analysis revealed no significant differences in educational qualifications or teaching experience between the groups. These findings suggest a high degree of homogeneity within the sample, potentially influenced by sample size or variability. Future research should consider increasing sample size, ensuring balanced group representation, and examining additional variables to uncover potential underlying differences. This approach would enhance the robustness of the findings and provide greater insight into the factors contributing to educational qualifications and teaching experience disparities.

4.5 School Administrators' Support for Curriculum Implementation

In this section the role and support of administrators in curriculum delivery related to curriculum documents development and implementation, professional development activities, resource materials, teaching time, medium of instruction and challenges are discussed based on the interview and survey results and related literature review.

4.5.1 Role of school Administrators

School administrators, acting as intermediaries between policymakers and implementers (teachers), consistently face unpredictable challenges in translating prescribed curriculum policies into practice at local institutions (Gross et al., 1971; Spillane, 2004). Morris and Scott (2003)

noted that middle managers are often compelled to resolve conflicting and complex problems that arise from curriculum initiatives, largely due to the complexities of implementation. Similarly, administrators in the current study encountered various challenges.

School administrators must possess both the capacity and the will to implement curriculum policies effectively. However, this study's findings revealed that many administrators struggled to execute the intended curriculum policy. A significant number of administrators interviewed expressed a lack of interest in the curriculum documents. Some had not studied the syllabus, and others were unaware of its contents. In connection to this, one principal, P1, candidly admitted that both teachers and principals were not acquainted with the revised syllabus, revealing a significant gap in their knowledge. They confessed to being unaware of its contents and lacking a comprehensive understanding of it. Echoing this sentiment, another principal, P3, noted, "To be honest, almost all teachers had no opportunity to see and read the geography syllabus, though it is hard to say how much they clearly know about the syllabus." Survey data also revealed that 96.4 % of the teachers have no access to the syllabus. This statement underscores a pervasive issue of accessibility and exposure to crucial educational resources. This disconnect threatens the efficacy of curriculum delivery and underscores the need for improved dissemination, familiarity, and utilization of curriculum materials among educators and administrators alike. Taole (2013) also argued that understanding and perception of curriculum materials are pivotal for effective implementation

Another problem highlighted by the interviewed administrators was their lack of involvement in formulating, developing, and implementing the curriculum policy. According to one school administrator "many school leaders were not actively involved in the formulation, development, and implementation of the curriculum which hindered their interest and efforts in supporting effective curriculum execution." Similarly, Hope and Pigford (2001) emphasized the importance of collaboration and cooperation between policymakers and implementers during policy development and implementation. Middle managers responsible for policy implementation must be involved in its development.

At the institutional level, it is crucial to offer teacher training and provide human, financial, and material support to facilitate implementation (McLaughlin, 1987). Moreover, Centin (2016) argued that well-prepared teachers through professional development are more likely to implement curricula effectively. In line with this, all school administrators reported that mentoring, short-term training, collective lesson preparation, curriculum development, and in-service training were crucial for facilitating curriculum implementation. However, the

researcher's findings confirmed that professional development programs for geography teachers in Sidama Regional State were inadequately supplied at the secondary level. Interview data revealed that all six sample schools provided some teachers with training programs, such as graduate degree courses at the university level and induction for newly arrived teachers. Notably, no school administrator provided professional development programs to teach essential pedagogical skills such as communicative teaching, classroom management, and assessment. In line with this, the survey data indicated that 86.4% of the teachers were not involved in professional development activities, and 88.7% rarely attended geography-related conferences. Additionally, 82.9% did not participate in coaching and monitoring and 83% did not give lectures or presentations to colleagues.

Though, the Ministry of Education has designed a professional development program manual to help schools conduct professional development activities, no sample school had translated this program into practice effectively. To ensure the effective functioning of teachers' professional development programs, administrators need to foster collegial cooperation and collaboration among teachers. The absence of collaborative practices, such as peer coaching and curriculum reviews, undermined teachers' capacity to address curriculum challenges (Coldwell, 2017).

The interview data indicated that majority administrators had weak links with the educational bureau and other institutions and often felt unsupported by the educational bureau during implementation. In contrast, a school supervisor reported that one of the sample schools has established strong partnerships with several nongovernmental organizations, which provide ICT resources such as computers, educational software, and internet services, thereby enhancing the effective delivery of the curriculum although such condition doesn't describe the features of other schools. Thus Despite needing to be highly committed to implementing the intended curriculum, majority administrators in this study lacked such capacity.

With respect to textbook usage and teaching time, Administrators highlighted a gap between geography textbook usage and teaching time, making it difficult for teachers to cover the material adequately. Regarding to this one principal affirmed that "particularly at the end of a semester, many teachers were struggling to offer make-up classes to bridge the gap between the textbook content and the limited time available to cover it."(P3) furthermore, school administrators noted that teachers often refrain from using practical teaching methods like observations and field trips, which contributes to student disengagement and learning challenges, primarily due to time and budget limitations.

Regarding the medium of instruction, both department heads reported that most teachers predominantly used Amharic in classroom teaching, and students often used Amharic to answer questions. While students were required to use English for tests and examinations, teachers used both English and Amharic due to their low English proficiency (DH1 and HD3). This bilingual approach negatively impacted effective curriculum implementation.

All interview participants agreed that providing support enables teachers to play a more significant role in curriculum implementation. Resource support is essential for the successful implementation of any innovation or change (Everard, Morris, and Wilson, 2004). However, school principals confirmed that significant support was not provided to teachers due to financial and material constraints. School principals (P1, P3, and P6) mentioned severe financial problems, resulting in poor facilities and a lack of basic teaching materials. Department heads also reported that resources such as maps, atlases, globes, compasses, meteorological instruments, photographs, real objects, models, and pantographs were either insufficient or unavailable. This shortage of instructional materials made it difficult for teachers to implement the geography curriculum effectively. (DH2, DH3)

Regarding to resource and support, survey findings revealed that only 43.3% of teachers agreed on the adequacy of library resources, while 81.1% reported the absence of technical support in geography classes. Out-dated materials like maps, globes, and computers further hindered teaching. Olusegun (2006) stressed the importance of technical support and equipment availability for curriculum success. Similarly, Dunlap et al. (2009) recommended that training and support for teachers, school management, and parents are essential for effective implementation.

Another serious challenge identified by school administrators was students' disruptive behavior. Discipline is crucial in the teaching-learning process as it affects learning outcomes (Marciniak, 2015). Teachers need to control students and guide activities to achieve the intended curriculum effectively. However, interviews indicated that disruptive behaviors, such as talking out of turn, inaudible responses, sleeping in class, not completing homework, cheating on tests, disrespecting teachers, and bullying, were significant issues. These behaviors hindered curriculum implementation, though they were inevitable. For effective teaching, teachers must encourage students to cooperate, participate, and stay active during lessons. Department Heads and principals pointed out that "cheating on test, bullying, not completing homework are the most series problems of the schools" (P1, P3, P5, DH1, DH2)

Absenteeism was another challenge highlighted by rural school principals. Many students were chronically absent during the cash-crop production season, leaving school for business activities. According to one principal (P4) “during cash crop season huge number of students were absent for many consecutive academic days; even some students may be absent for a month and appear when there is test.” This condition negatively impacted students’ academic performance. Educational research confirms that "missing school hurts academic performance and is associated with an increased dropout rate" (Garcia and Weiss, 2018).

4.5.2 Availability of resource and support

The importance of resource support for the successful implementation of curricular innovations or changes was unanimously acknowledged by all interview participants. They agreed that the provision of financial and material resources is critical for empowering teachers to effectively implement the curriculum. However, it was reported that such supports were lacking during the process of curriculum interpretation, primarily due to financial and material constraints. A department head (DH3) highlighted the absence of essential resources for employing field trips and observation methods, which are pivotal for enhancing student learning.

Most administrators pointed out a significant scarcity of resources in schools, impacting geography teachers' ability to support their teaching activities with instructional media. This scarcity was noted to adversely affect students' engagement in learning activities. One principal (P4) emphasized the financial limitations schools face, leading to poor educational facilities. The unavailability of critical resources such as maps, atlases, globes, diagrams, charts, computers, TVs, real objects, photographs, and pantographs was underscored by another department head (DH2). The outdated or insufficient availability of these resources hampers active participation in the teaching and learning process.

In addition to the lack of material and financial support, geography teachers reportedly received limited guidance from school management and parents, which could have benefitted student learning (DH1). Furthermore, the connections between schools and external institutions were described as weak, resulting in a lack of experience sharing and material support. This overall deficit in support and resources underscores a significant challenge to the effective implementation and innovation of curriculum in schools.

In accordance with this study, integrating ICT as a teaching aid can greatly enhance students' comprehension in geography education. However, many of the secondary schools are either facing shortage of computer equipment or have damaged devices that are no longer suitable for instructional purposes (P5, DH3).While teachers may not always be as proficient in the latest technological advancements as dedicated experts, they excel in their role as curriculum gatekeepers. It is their responsibility to ensure that the resources students encounter is both relevant and beneficial to their learning journey (Chang and Wu, 2018).

Based on the study, it can safely be concluded that effective curriculum implementation in Sidama general secondary schools faces several challenges, including teachers and administrators negative perceptions of curriculum materials, inadequate use of student-centred methods, resource shortages, high workloads, low English proficiency, insufficient professional development and students' and disruptive behaviours. Addressing these issues through targeted training, resource allocation, and policy adjustments is crucial for improving educational outcomes.

4.5.3 Model development for curriculum implementation

After conducting data analysis and interpreting the results, a comprehensive model for curriculum implementation was derived. This model reflects the nature and context of secondary schools and the region under study. The proposed model identifies key factors influencing curriculum implementation and demonstrates how effective implementation can be achieved by addressing these factors systematically. These factors include:

1. Perceptions of Teachers and Administrators: The attitudes and beliefs of teachers and school administrators significantly influence how a curriculum is implemented. Positive perceptions can drive motivation and commitment to implement the curriculum effectively.
2. Teaching Practices: The pedagogical approaches adopted by teachers are critical for translating curriculum plans into classroom activities. Effective teaching practices ensure that learning objectives are achieved.
3. Professional Development: Continuous professional development opportunities enhance teachers' knowledge, skills, and attitudes, thereby improving their ability to implement the curriculum effectively.

4. Workloads: Reasonable teacher workloads are essential to ensure that educators have sufficient time and energy to focus on curriculum implementation.
5. Assessment Practices: Effective assessment strategies provide feedback on student learning and help teachers adjust their teaching methods to align with curriculum goals.
6. Resource and Support Availability: Adequate resources, including teaching materials, infrastructure, and administrative support, play a pivotal role in facilitating curriculum implementation.

Below is the curriculum implementation model. The diagram visually represents the interactions among the key factors and their influence on curriculum implementation

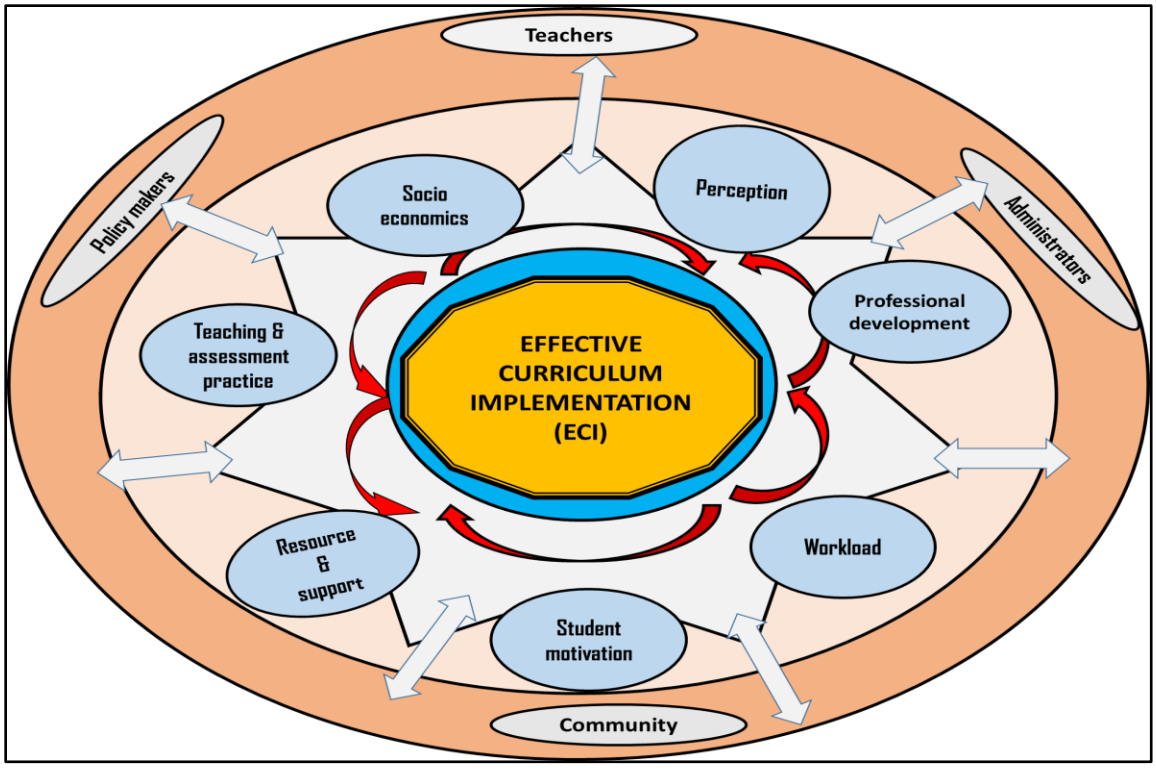

Figure 4:Curriculum implementation model.

The model has concentric circles layers namely the core circle, the inner layer and outer layer and bi-directional arrows. The “core circle’ part of the diagram, shows Effective Curriculum Implementation”, as the central goal. The “inner layer” comprises six interrelated factors forming a circular chain, demonstrating their equal importance and dynamic interaction and the “outer layer” part shows Stakeholder roles, including teachers, administrators, and policymakers, encircling the inner layer to highlight their collaborative efforts. The final part of the diagram is Bi-directional arrows connecting factors to indicate feedback loops and their influence on one another.

The model has three major features. The presence of dynamic interaction of variable to influence curriculum implementation is the first feature. The second feature of the model is stakeholders’ engagement in which active involvement and collaboration among teachers, administrators, policymakers, and other stakeholders are required for effective curriculum implementation. Finally, the model integrates feedback loops to continuously monitor and improve curriculum implementation processes.

The proposed model suggests that when these variables are regulated, monitored, and practiced appropriately, curriculum implementation becomes more effective. Conversely, neglecting these factors can hinder successful implementation.

The more effectively each factor is managed, the stronger the overall curriculum implementation process becomes. Conversely, weaknesses in any factor can disrupt the system and reduce effectiveness.

Therefore, this model serves as a practical tool for secondary schools to assess and enhance their curriculum implementation practices. By systematically addressing each factor, schools can ensure a more coherent and effective implementation process.

CHAPTER-FIVE

5 SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary of the study, the conclusions derived from the study, and the recommendations forwarded for secondary schools, policymakers, and future research in the area.

5.1 Summary

This study aimed to investigate the perceptions, practices, and challenges faced by teachers and administrators in implementing the general secondary geography curriculum in Sidama Regional State. Specifically, the research sought to explore the perspectives of geography teachers and administrators regarding curriculum implementation, identify the factors influencing its execution, and determine which factors significantly predict successful curriculum implementation. The study addressed the following four research questions:

1. What are the perceptions of geography teachers regarding the geography curriculum and its implementation in general secondary schools in the Sidama region?
2. What are the perceptions of school administrators (principals, department heads, and curriculum experts/supervisors) about the general secondary geography curriculum and its implementation?
3. What factors influence the implementation of the geography curriculum in general secondary schools in the Sidama region?
    - Which factors predict teachers' adherence to curriculum implementation?
    - To what extent do teachers' educational backgrounds and teaching experiences influence their implementation approaches?
4. To what extent do school administrators support the implementation of the geography curriculum in general secondary schools in the Sidama region?

A convergent parallel mixed-method research design was employed, collecting quantitative and qualitative data concurrently through questionnaires, interviews, and document analysis. Quantitative data were gathered from 53 geography teachers (35 from urban and 17 from rural secondary schools) in six selected secondary schools (4 urban, 2 rural) chosen via stratified random sampling. Qualitative data were collected from 11 purposively selected interview participants.

Quantitative data were analyzed using descriptive statistics (frequency, percentage, means, medians, ranges, and standard deviations) and inferential statistics (principal component analysis, logistic regression, and independent sample t-tests). Qualitative data were analyzed through thematic and content analysis. Key findings are summarized below:

The merged results indicated that the implementation of the general secondary geography curriculum was suboptimal. Factors such as curriculum perception, teaching methods, professional development, teaching load, student motivation, resource availability, and test-related issues contributed to the low level of implementation.

Document Analysis Findings: The geography curriculum's nature, objectives, organization, and content were generally suitable for implementation. However, issues such as omitted topics, overlapping content, lack of integration with daily life, and an overly broad syllabus hindered effective implementation. These findings were corroborated by survey and interview participants.

Teacher Perceptions: Geography teachers expressed negative perceptions of the curriculum materials, citing vagueness, lack of clarity, and insufficient training. They disagreed with the effectiveness of suggested methods like field trips and project-based learning.

Administrator Perceptions and Support: School administrators showed limited interest in and knowledge of the curriculum, weakening their role in implementing policy. They were not involved in curriculum formulation or development, reducing their capacity to support teachers effectively.

Teaching Methods and Professional Development**:** Student-centred approaches were rarely employed, with geography lessons dominated by lecture methods due to time constraints, resource shortages, and student resistance. Practical methods such as fieldwork and observations were seldom used. Teachers expressed interest in professional development but lacked opportunities to engage in activities like workshops, curriculum planning, and peer collaboration.

Workload, Resources, and Focus on National Examinations: High teacher workloads, limited preparation time, and inadequate resources negatively affected implementation. Large class sizes, insufficient libraries, and weak administrative support further compounded these issues. Teaching was heavily influenced by the need to prepare students for national examinations, limiting opportunities for deeper understanding of the curriculum.

Challenges: Discipline issues, tardiness, absenteeism, and student involvement in cash crop businesses were major obstacles to curriculum implementation.

Statistical Findings:

- Multivariate Regression Analysis**:** Poor professional development was significantly associated with inadequate curriculum implementation, with teachers lacking professional development being 8.2 times more likely to face challenges (OR: 8.196, 95% CI, 1.765–38.064).
- Independent Sample t-Test: There were no significant differences in curriculum implementation based on teachers' educational qualifications or teaching experience ($p > .05$).

In conclusion, while the curriculum's structure and content provided a foundation for effective implementation, various systemic, professional, and resource-related factors hindered its successful execution. Addressing these challenges is essential for improving curriculum implementation in the Sidama region.

5.2 Conclusions

This study examined the implementation of the general secondary geography curriculum using data collected through teacher questionnaires, interviews with school principals, department heads, and curriculum experts/supervisors, as well as document analysis. The conclusions are summarized below:

The general secondary geography curriculum, designed in alignment with the country's education policy, aims to provide limited flexibility for local implementation while promoting learner-centred approaches. It envisions teachers as facilitators, fostering active participation and independent learning among students. Teachers are expected to thoroughly understand the syllabus and adhere to the teaching approaches outlined in the teacher's guide and textbooks.

However, the findings reveal that classroom practices deviate significantly from the curriculum's design. Teachers lacked a comprehensive understanding of the syllabus and predominantly employed teacher-centred methods, such as lectures, instead of the prescribed learner-centred approaches. Moreover, the use of English as the medium of instruction, as required by the national curriculum, was not consistently adhered to.

The study highlights several factors that significantly influence curriculum implementation, including:

- Teachers' perceptions of the curriculum and teaching methods.
- Workload and the availability of resources.
- Professional development opportunities.
- Students' motivation and engagement.
- The impact of assessments and curriculum materials.

Challenges such as limited language proficiency, student absenteeism, and disciplinary issues were identified as additional barriers to effective curriculum implementation.

School administrators were found to interpret the curriculum independently, often focusing on outcomes rather than fostering student-centred practices. Their failure to understand and address teachers' needs contributed to inadequate support for effective

curriculum implementation, leaving teachers uncertain and frustrated about how to translate the curriculum into classroom practice.

Overall, a significant gap exists between the intended curriculum and the operational (what is taught) and experiential (what students learn) curricula. Key reasons for this disparity include:

- A lack of sufficient teaching materials and resources.
- An excessively broad curriculum scope, coupled with inadequate time-on-task management.
- Limited opportunities to employ learner-centred approaches due to time constraints.
- Insufficient teacher confidence resulting from poor pedagogical knowledge and limited professional development.
- Large class sizes that hinder practical and interactive learning activities.
- Student absenteeism, often due to engagement in economic activities such as business and services.

Addressing these challenges is crucial to bridging the gap between the intended and actual curriculum implementation, ensuring the general secondary geography curriculum meets its objectives effectively.

5.3 Recommendations

The study underscores that effective curriculum implementation requires reconciling what is desirable with what is acceptable and practicable. The findings reveal gaps between the intended and enacted curriculum, the role of teachers and administrators, and challenges related to student engagement. Addressing these issues demands actionable and collaborative strategies among all stakeholders. Below are professionally outlined, actionable recommendations to ensure successful curriculum implementation:

1. Policy and Curriculum Development

- Revise Curriculum for Relevance: Revise the geography curriculum to align with local contexts, reduce content overlap, and ensure manageable workloads within allocated time.

- Incorporate Teacher Feedback: Establish a structured mechanism to integrate teachers' insights during curriculum design to enhance ownership and practical implementation.
- Enhance Practicality: Incorporate locally relevant examples, fieldwork opportunities, and modern teaching methodologies into the curriculum.

2. Teacher Professional Development

- Continuous Professional Growth: Implement regular, targeted professional development programs emphasizing innovative teaching methods, Geographic Information Systems (GIS), and student-centred approaches.
- Promote Collaboration: Establish professional learning communities (PLCs) for teachers to share experiences, strategies, and best practices.
- Foster Commitment to Change: Design training that motivates teachers to embrace professional duties and change efforts for effective implementation.

3. Resource Allocation and Infrastructure

- Provide Essential Resources: Increase funding for teaching materials such as textbooks, maps, and digital tools to support curriculum delivery.
- Upgrade Infrastructure: Modernize school facilities, including classrooms and laboratories, to create conducive environments for teaching and learning.

4. Administrative Support and Monitoring

- Training for Administrators: Equip school administrators with training on curriculum standards and implementation strategies to provide effective leadership.
- Facilitate Professional Development: Encourage administrators to actively organize and facilitate teacher training programs and provide on-going support.
- Monitor Progress: Develop robust mechanisms for monitoring and feedback to address challenges in real-time and enhance instructional practices.

5. Stakeholder Collaboration

- Engage Broader Partnerships: Build partnerships with regional education bureaus, non-governmental organizations (NGOs), and community leaders to mobilize resources and expertise.
- Parent and Community Involvement: Actively involve parents and communities to support students' learning and emphasize the importance of geography in addressing local and global challenges.

6. Student Engagement and Motivation

- Interactive Learning Programs: Develop student-centred programs like field trips, project-based learning, and integration of environmental issues to enhance interest in geography.
- Address Absenteeism and Discipline: Implement incentive programs and supportive measures to improve student attendance and reduce disciplinary issues.
- Create Supportive Learning Environments: Ensure classrooms promote active engagement, curiosity, and respect for diverse learning needs.

7. Evaluation and Continuous Improvement

    - Periodic Assessments: Conduct regular evaluations to identify gaps and successes in curriculum implementation.
    - Data-Driven Policy Adjustments: Use evaluation data to guide curriculum adjustments and policymaking, ensuring long-term sustainability of improvements.
    - Feedback Loop: Establish continuous feedback channels among teachers, administrators, and policymakers to refine practices effectively.

Implementation Framework: Adopting these recommendations demands a phased approach:

1. Short-term (1–2 years): Focus on revising curriculum content, training administrators, and initiating professional development programs.

2. Medium-term (3–5 years): Implement infrastructure upgrades, create learning communities, and build partnerships with stakeholders.
3. Long-term (5+ years): Continuously evaluate and refine curriculum and teaching practices based on emerging needs and challenges.

By acting on these structured recommendations, stakeholders can bridge gaps in curriculum implementation and cultivate an environment where geography education thrives, equipping students with the skills to address spatial and environmental challenges effectively.

Recommendations for Future Research

Even though, the current research has much strength, it doesn't free from limitation. The research limitation such as lack of generalizability, absence of students perspectives, the imbalance between quantitative and qualitative data sets, which will be filled by future research, are described as follow:

Curriculum implementation activities in any education arena must involve students. The final evaluation of any curriculum implementation will depend on whether the enacted curriculum promotes students' learning or not. As indicators of any curriculum outcomes, the students' perceptions of curriculum implementation may eventually determine the extent to which the intended curriculum is successfully implemented. The researcher didn't include students in this study. Due to the hierarchical structure of the education system students have little input in curriculum implementation. Therefore, I focused on the school principals, department heads, teachers and curriculum experts and left students' perspectives for future research.

The other limitation of this study is to generalize the research findings to other Ethiopian contexts. Ethiopia is a large country with 12 regions and two autonomous cities. Particularly, 3741 secondary schools are located throughout the country. Such a large area means that secondary schools education in that country exhibits, depending on region, variations with regard to teachers' capacity, student origins, facilities, and material support. This diversity also indicates that teachers from different areas may hold different perspectives towards secondary schools teaching and learning in general and

perceive other different factors facilitating or impeding their own curriculum implementation activities in the classroom. Therefore, the research findings in this study will not be generalizable to all other secondary schools across the large country like Ethiopia.

The convergent parallel mixed research method used in this study has its own limitations. These include, first the collection of qualitative and quantitative data concurrently doesn't allow moving back and forth. Second there is imbalance between qualitative and quantitative data sets. Finally, it is also difficult to merge the two data sets which contain words and number. Thus future research can use exploratory mixed method in which qualitative data are first collected and followed by quantitative data collection and analysis or vice versa to minimize the limitation of convergence parallel mixed method designed in this study.

Therefore, the following five aspects can be taken into account for future research.

The administrators were responsible for interpreting the curriculum policy and have the responsibility for supporting classroom teachers to put the policy into practice. Therefore, the future research should place emphasis on this group, in a sense that what support mechanisms can be established for administrators to help them better understand and the curriculum (syllabus) and how they work with teachers to design a practical and useful curriculum to enhance teachers' implementation.

An extended and longitudinal Study of practices and challenges in the implementation of geography curriculum in public and private secondary schools in Ethiopia can be conducted to have a comprehensive understanding about the geography curriculum implementation.

To investigate factors affecting curriculum implementation in a particular context future research can be expanded to other variables. Therefore, in future curriculum implementation studies more questionnaire items with wider dimensions can be taken to uncover which factors have more impact on teachers.

Future research can focus on investigating how students respond to curriculum innovation during the implementation process and whether or not the enacted curriculum promotes their learning and there by provide evidence of the implementation success or failure.

Future research can also focus on exploratory mixed research method in investigating the practices and challenges of stake holders in the implementation of secondary schools geography curriculum to minimize the limitations in this study.

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APPENDICES

A: Questionnaire Survey for the Main Study

Geography Teachers' Perceptions of the general secondary geography Curriculum and its Implementation

Dear teacher

This questionnaire survey is designed for Sidama region, geography teacherswho teach in a secondary school. The purpose of this questionnaire is to collect data on the perception and practice of the general secondary geography curriculum in secondary schools and the challenges it encountered during teaching learning process with the aim of improving the practice in secondary schools of Sidama region in particular and Ethiopian public secondary schools in general.

As a geography teacher of secondary level, your participation in the study is crucial in providing genuine information and will contribute greatly for its success. The findings will be used to improve the improvement of geography curriculum in the secondary schools. This study is purely academic and used only for the intended objectives. Your responses to the questionnaire will remain confidential. Finally, I would like to thank you for your cooperation in advance.

Please Put a tick mark (√) or underline to indicate your choice from the given alternatives or write your answer on the space provided

I. Personal data

1. What is your School Name: ----------

2. Department: ----------

3, Position/responsibility in the school: ----------

4. Sex: Male Female

5. Age: 20-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 above 60

6. Qualification: a) Diploma b) BA / BSc c) MA/ MSC d) PhD e) other

7. Residence: Urban Rural

8. Service years: 0-5 6-10 11-15 16-20 21-25 26-30 above 30 years

9. Which grade are you teaching currently?

_____

10. Grades taught during the last three years?

_____

11. Subjects taught in the last three years ----------
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12. Work load (class hours per week) ----------

II. **Perceptions about general secondary school geography curriculum materials such as syllabus, textbook, and teachers' guide**

	How do you rate your perception about curriculum materials based on the following dimensions?	Strongly Disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly Agree (5)
A	Syllabus is introduced					
B	Syllabus is available					
C	Textbook is efficiently introduced.					
D	teachers' guide is clear and can be easily understood					
E	Suggested .field-trips, obs., projects are appropriate					
F	Textbook is efficient enough for practical and easy usage.					
G	Suggested instructional materials are efficient					
H	Curriculum connects lessons to daily life					
I	Textbook content is selected and organized appropriately					
J	Units of the textbook have a good sequence					

III. Teaching methods and techniques

	How do you rate the geography teaching methods and techniques based on the following dimensions?	Strongly Disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly Agree (5)
A	Employed student-centered method					
B	Employed lecture.					
C	Emphasis is given to field-trip and observation.					

D	Using media and practical studies					
E	frequently conduct classroom teaching in English instead of in Amharic					
F	Students are motivated					
G	Teachers frequently used discussion method					
H	Motivate students to work together(collaboratively)					
I	teachers have positive feelings of readiness, and preparation to implement the curriculum					
J	Teachers give practical activities for students					
K	Teachers have adequate access to appropriate technologies					
L	Teachers have autonomy in Pedagogical practice and decisions.					

Note: SD= strongly disagree A= agree F= frequency

DA= disagree SA=strongly agree P= Number of participants

UD= undecided

IV. Teachers Work loads

	How do you rate teachers' work load in terms of the following dimensions?	**Very low 1**	**Low 2**	**Moderate 3**	**High 4**	**Very high 5**
A	**Working during none school days by way of preparation**					
B	**Preparation time during the school day**					
C	**Time spent on professional learning**					
D	**Time spent in meeting**					
E	**Time spent on students' continuous assessment**					

F	**Involvement in developing teaching materials and teaching resources**					

Va. Teachers' professional development Activities

	How do you rate teachers' activities with respect to the following dimensions?	Strongly Disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly Agre (5)
A	I want to engage in professional development activities					
B	I actually involved in professional development activities					
C	I would like to improve my geography teaching through graduate studies					
D	I would like to train more on computer assisted teaching					

Vb. Teachers engagement in professional development activities

	How often you engaged in the following activities	Never (1)	Rarely (2)	Sometimes (3)	Often (4)
A	**Involved in professional development activities**				
B	**Attend conferences related to geography**				
C	**Develop curricula or lesson plans with others**				
D	**Review students' work or assessment**				
E	**Led group discussions**				
F	**Received coaching and monitoring in the classroom**				
G	**Given lecture or presentation to colleagues**				
H	**Observed demonstration of teaching techniques**				
I	**Designed to support the schools' improvement plan**				

VI. Student learning motivation

	How do you rate student's motivation in terms of the following dimensions?	Very low 1	Low 2	Moderate 3	High 4	Very high 5
A	Students' active participation in the lesson					
B	Students 'ability and culture of learning by living, seeing and doing					
C	Students' behavior and tendency of learning by memorization					
D	Students' independent learning					
E	Students' level of enthusiastic to learn and preparation for their class					
F	Students' ability to make meaning in their learning.					

VII. Resource and Supports

	How do you rate the learning environment with respect to the following dimensions?	Very High (5)	High (4)	Moderate (3)	Low (2)	Very low (1)
A	The school enough technical support and equipment					
B	Student number in the Classrooms					
C	library availability in the school					
D	Organization of Trainings, workshops and					

	conferences in the school					
E	Independent and technically supported geography class in the school					

VIII. Teachers **geography curriculum implementation activities**

	How do you rate your perception about curriculum activities based on the following dimensions?	Strongly Disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly Agree (5)
A	Spend two hours each week teaching the subject					
B	The limited teaching hours make it difficult for me to engage my students					
C	My students have opportunity to improve their understanding					
D	My workload makes it difficult to give my students exercise					
E	Class size makes it difficult for me to ask students to do exercise					
F	My role in the classroom is to convey knowledge through					
G	I find hard my students to understand the lesson and relate it to their daily life.t					
H	Group work activities have little or no use in my classroom					
I	inadequate resources make difficult my students to learn the geography lesson					
J	The limited teaching hours make it hard for me to get my students involved in group work activities					
K	I often give class exercise to my students to their better understanding					
L	I use field trip for my students to be able to do research and observation.					
M	I encourage my students to gain environmental consciousness and being aware of importance of physical and human resources					
N	my role is to take the subject matter					

	as a part of life, using them in daily life and sharing them with others					
O	I encourage my students to be able read maps and measure distance and area.					

B. interview protocol for principals, department heads, curriculum experts and supervisors

Dear principal

My name is Afework Delelu. I am a PhD candidate who came from Haramaya University to conduct interview with you. The purpose of this interview is to learn about the implementation of geography curriculum in general secondary school settings. The study does not aim to evaluate your techniques and experiences rather it attempts to learn more about perception, practice and challenges of geography curriculum. The interview conversation will be tape recording since it is hard to write down everything simultaneously while carrying conversation with you. All the information that you provide will remain confidential and eventually destroyed after they are transcribed. This interview won't take more than an hour. Finally I would like to thank you for your cooperation in advance.

Interview questions for school principals and department heads

I. Rapport building and background information

1. Please tell us about your role in the school
2. How long have you been in your present position?
3. How long have you been at this school
4. What is your field of study?
5. How long have you been doing this work?

II. Reform context

1. What are the general perceptions of teachers and students about the implementation of the curriculum?
2. To what extent do general secondary geography teachers are committed to their profession?
3. What strategies do you apply for effective implementation of general secondary curriculum in general and geography specifically?

4. How the general secondary geography curriculum (subject) is implemented in your institution?
5. Do you think that geography teachers are teaching the curriculum effectively to achieve the expected outcomes?
6. Do you have any general comments about the curriculum materials in use?

III. Planning and Communication

1. What were your strategies for communicating the implementation to teachers?
2. Does your school have links with other private and government organizations so as to share experiences and get support?
3. How do you describe the relationship that your institution have with other organizations?
4. What support, if any, does your district provide to your school in its efforts to raise private support?

IV. Supports

1. Do teachers are encouraged and supported by resources and structure?
2. What supports are available to facilitate the implementation of general secondary curriculum
3. Probe- what support do you have as a leader to implement the general secondary geography Curriculum?
4. Probe-Describe the type of training and support offered to teachers at your school?
5. Probe-what supports do teachers have to help them to improve their geography implementation?
6. Do teachers have professional development opportunities related to geography instruction?
7. If so, what types of professional development activities do you provide for teachers in general and teachers of geography particularly?
8. Do these professional development activities enhance teachers' effectiveness in teaching geography? How?
9. Probe- What supports do teachers have to help them integrate technology to their instruction?
10. Probe- What supports is available to teachers to solve problems in curriculum implementation process?
11. Probe- how do teachers collaborate to support one another in the implementation of geography curriculum?
12. What rewards do teachers receive from the institution for effective engagement in the implementation of geography curriculum?

V. Usage and results

-How do teachers respond so far in the implementation of the curriculum?
-How have students responded so far the implementation of the curriculum?
-In implementing the geography curriculum at your school, what challenges has you encountered?
-How do you address these challenges so far?
What additional resources or supports do the school required to effectively implement the curriculum?
-What advice would you give to other school leaders implementing geography curriculum?

Finally, is there anything else you would like to tell me about your experience with the implementation of the general geography curriculum?
Thank you so much for participating! If we have follow-up question or follow-up interview, would you be willing to participate again? If yes, how could I contact you then?

Haramaya University

Curriculum expert's /supervisors' interview

Dear curriculum expert/supervisor

My name is Afework Delelu. I am a PhD candidate who came from Haramaya University to conduct interview with you. The purpose of this interview is to learn about the implementation of geography curriculum in general secondary school settings. The study does not aim to evaluate your techniques and experiences rather it attempts to learn more about perception, practice and challenges of geography curriculum. The interview conversation will be tape recording since it is hard to write down everything simultaneously while carrying conversation with you. All the information that you provide will remain confidential and eventually destroyed after they are transcribed. This interview won't take more than an hour. Finally I would like to thank you for your cooperation in advance.

I. Rapport building and background information

Please tell us about your role in the school.

How long have you been in your present position?

How long have you been at this institution?

What is your field of study?

How long have you been doing this work?

II. Reform context

1. Do you think that the general secondary geography curriculum is clear or easy to understand?

2. Do objectives of the general secondary geography curriculum is stated clearly?

3. Which part of the general secondary geography curriculum is not clearly or properly written?

4. Do you think that the geography curriculum contains all the requirements that a curriculum should contain?

5. Do you think that ways of doing in the geography curriculum are clear and alternatives are possible?

6. Do you think that the way the geography curriculum is designed corresponds with the competency of the teachers currently implementing?

7. To what extent do general secondary geography teachers are committed to their profession?

8. Do you think that geography teachers are teaching the curriculum effectively to achieve the expected outcomes?

III. Supports

9. Do teachers are encouraged and supported by resources and structure?

10. Do you have any general comments about the curriculum materials in use?

11. Do you think that your institutes have relationships with other organizations?

12. How do you describe the relationships that your institution have with other organizations?

13. What challenges do geography teachers encountered in implementing the curriculum?

Finally, is there anything else you would like to tell me about your experience with the implementation of the general geography curriculum?

Thank you so much for participating! If we have follow-up question or follow-up interview, would you be willing to participate again? If yes, how could I contact you then?

C. Descriptive statistics for various factors

Section-I. Descriptive statistic of The Demographic Information

Item	N	Missing n / %	Mean	Median	Mode	Standard deviation	Skewness	Kurtosis					
Gender	53	0								F	M		
									N	10	43		
									%	18.9	81.1		
Age	53	0	4.04	4.00	3	2.066	.464	-.852		20-30	31-40	41-50	>50
									N	11	22	9	11
									%	20.8	41.5	16.9	20.8
Educational qualification	53		1.21	1.00	1	. .409	1.485	.211		B.A	M.A		
									N	43	10		
									%	81.1	18.9		
Service years	53		1.66	2.00	2	.478	-.697	-1.575		**1-10**	**11-20**	**21-30**	**>30**
									N	15	20	8	10
									%	28.3	37.7	15.1	18.9
Periods per week	53		18.53	18.00	18	4.846	-.148	-.461		8-12	13-17	18-22	23-28
									N	7	12	21	13
									%	13.2	22.6	39.6	24.5
Residence	53		1.32	1.00	1	.471	.791	-1.430		Urban	Rural		
									N	36	17		
									%	67.9	32.1		

Section-II. Descriptive statistic geography Teachers curriculum materials perceptions

Item	Missing	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %	Mean %	Median %	Mode %	Std. Deviation %	Skewness %	Kurtosis %
Textbook is efficiently introduced	0	0	18.9	22.6	41.5	17.0	2.43	2	2	-.991	.252	-.934
Language of the teachers' guide is clear and can be easily understood	0	3.8	30.2	11.3	39.6	15.1	2.68	2	2	1.173	.218	-1.188
Textbook is efficient enough for practical and easy usage.	0	1.9	32.1	9.4	45.3	7.5	2.68	2	2	1.105	.235	-1.250
Teachers' guide helps in making lessons more effective and efficient	0	5.7	30.2	11.3	45.3	7.5	2.81	2	2	1.128	.304	-1.122
Curriculum connects lessons to daily life	0	5.7	24.5	11.3	47.2	11.3	2.66	2	2	1.143	.472	-.874
Textbook helps to improve	0	7.5	22.6	13.2	47.2	9.4	2.72	2	2	1.150	.507	-.820

students' problem solving skills												
Text book helps students to improve their creativity	0	7.5	18.9	18.9	50.9	3.8	2.75	2	2	1.054	.722	-.501
Goals of the teachers' guide and textbook are appropriate for geography education	0	3.8	34.0	15.1	37.7	9.4	2.85	3	2	1.116	.051	-1.190
Textbook content is selected and organized appropriately	0	1.9	22.6	20.8	41.5	13.2	2.58	2	2	1.046	.290	-.849
Units of the textbook have a good sequence	0	5.7	28.3	13.2	45.3	7.5	2.79	2	2	1.116	.342	-1.037
Subject related examples and problems are efficient	0	7.5	24.5	15.1	41.5	11.3	2.75	2	2	1.175	.352	-.952
Suggested .field-trips, obs., projects are appropriate	0	5.7	22.6	15.1	43.4	13.2	2.64	2	2	1.145	.436	-.815
Suggested instructional materials are efficient	0	7.5	28.3	7.5	41.5	15.1	2.72	2	2	1.246	.318	-1.170
The textbook is appropriate to student level	0	7.5	22.6	13.2	41.5	15.1	2.66	2	2	1.208	.424	-.915

Section-III. Descriptive statistics of teaching methods and techniques

Item	**Missing**	**Strongly agree** %	**Agree** %	Neutral %	**Disagree** %	**Strongly disagree %**	**Mean** %	**Median** %	**Mode** %	**Std.** Deviation %	**Skewness** %	**Kurtosis** %
Emphasis is given to field trips and observations	0	0	15.1	11.3	50.9	22.6	2.19	2	2	.962	.683	-.340
Teachers employed student-centered methods.	0	3.8	15.1	9.4	54.7	17.0	2.34	2	2	1.055	.901	.151
I connect Subject matter to daily life and give examples	0	5.7	11.3	11.3	60.4	11.3	2.40	2	2	1.025	1.125	.761
Teaching geography is supported with instructional media	0	0	24.5	11.3	49.1	15.1	2.45	2	2	1.030	.406	-1.035
Geography teachers have positive feelings of	0	7.5	9.4	13.2	56.6	13.2	2.42	2	2	1.082	1.080	.598

readiness, and preparation												
Students are often motivated during the instructional process	0	1.9	17.0	18.9	47.2	15.1	2.43	2	2	1.040	.537	-.415
Geography teacher motivate students to work together	0	5.7	22.6	24.5	34.0	13.2	2.74	3	2	1.129	.215	-.813
Geography teachers help students improve their practical skills	0	7.5	22.6	17.0	41.5	11.3	2.74	2	2	1.163	.390	-.858
Teachers have adequate access to appropriate technologies	0	3.8	13.2	7.5	56.6	18.9	2.26	2	2	1.041	1.036	.546
Teachers have autonomy in Pedagogical practice and decisions	0	7.5	32.1	15.1	37.7	7.5	2.94	3	2	1.151	.114	-1.141

Section IV. Descriptive statistics teachers' workload

Item	**Missing**	**High** %	**Moderate** %	Low %	**Mean** %	**Median** %	**Mode** %	**Std.** Deviation %	**Skewness** %	**Kurtosis** %
Teachers teaching load	0	49.1	45.3	5.7	2.43	2	3	.605	-.550	-.567
Involvement in developing new teaching materials and teaching resources	0	5.7	52.8	41.5	1.64	2	2	.591	.290	-.640
Working during none school days by way of preparation	0	20.8	54.7	24.5	1.96	2	2	.678	-.046	-.744
Time spent on professional learning	0	26.4	52.8	20.8	2.06	2	2	.691	-.074	-.834
Preparation time during the school day	0	37.7	35.8	26.4	2.11	2	3	.800	-.210	-1.401
Time spent in formal and informal meetings within and outside the school	0	3.8	26.4	69.8	1.34	1	1	.553	1.389	1.063
Student evaluation and grading	0	24.5	54.7	20.8	2.04	2	2	.678	-.046	-.744
Time spent on students' continuous assessment	0	18.9	58.5	22.6	1.96	2	2	.649	.035	-.524

Section V. Descriptive statistics professional Development

Item	Missing	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %	Mean %	Median %	Mode %	Std. Deviation %	Skewness %	Kurtosis %
I want to engage in PD activities	0	14.9	38.3	8.5	29.8	8.5	3.21	4	4	1.248	-.828	-.275
I actually involved in PD activities	0	17.0	14.9	8.5	27.7	31.9	2.57	2	1	1.500	.496	-1.251
I would like to improve my geography teaching through graduate studies	0	40.4	38.3	4.3	8.5	8.5	3.94	4	5	1.258	-1.243	.545
I would like to train more on computer assisted training	0	40.4	36.2	8.5	8.5	6.4	3.96	4	5	1.197	-1.186	.582

Item	Missing	Often %	Sometimes %	Rarely %	Never %	Mean %	Median %	Mode %	Std. Deviation %	Skewness %	Kurtosis %
Attend conferences related to geography	0	6.4	17.0	17.0	59.6	1.68	1	1	.936	1.136	-.141
Develop curricula or lesson plans with others	0	10.6	17.0	17.0	55.3	1.81	1	1	1.039	.929	-.488

Review students' work or assessment	0	17.0	21.3	29.8	31.9	2.23	2	2	1.050	.354	-1.052
Led group discussions	0	17.0	12.8	57.4	12.8	2.32	2	2	.936	.620	-.432
Observed demonstration of teaching techniques	0	29.8	14.9	36.2	19.1	2.55	2	2	1.084	.156	-1.298
Practiced what you learned or received feedback	0	12.8	21.3	38.3	27.7	2.21	2	2	.988	.435	-.767
Received coaching and monitoring in the classroom	0	14.9	23.4	48.9	12.8	2.42	2	2	.887	.439	-.499
Given lecture or presentation to colleagues	0	10.6	21.3	38.3	29.8	2.19	2	2	.962	.413	-.716
Designed to support the schools' improvement plan	0	14.9	17.0	44.7	23.4	2.25	2	2	.979	.502	-.648
Consistent with plan to improve teaching	0	12.8	17.0	42.6	27.7	2.19	2	2	1.001	.561	-.555

Section VI. Descriptive statistics of Resource and support

Item	**Missing**	**Very high** %	**High** %	Moderate %	**Low** %	**Very Low %**	**Mean** %	**Median** %	**Mode** %	**Std.** Deviation %	**Skewness** %	**Kurtosis** %
The school technical support and equipment	0	6.4	8.5	29.8	21.3	34.0	2.43	2	1	1.217	.359	-.802
Student number in the classrooms	0	12.8	27.7	46.8	12.8	0	3.36	3	3	.901	.197	-.647
library availability in the school	0	8.5	19.1	36.2	27.7	8.5	2.83	3	3	1.105	.172	-.547
Organization of Trainings, workshops and conferences in the school	0	2.1	12.8	10.6	29.8	44.7	1.98	2	1	1.082	.983	.108
Independent and technically supported geography class in the school	0	2.1	10.6	27.7	29.8	29.8	2.25	2	2	1.017	.505	-.294

Section VII. Descriptive statistics of student's learning motivation

Item	**Missing**	**Very high** %	**High** %	Moderate %	**Low** %	**Very Low %**	**Mean** %	**Median** %	**Mode** %	**Std.** Deviation %	**Skewness** %	**Kurtosis** %
Students' active participation in the	0	0	24.5	34.0	41.5	0	2.83	3	2	.802	.322	-.1.368

lesson												
Students 'ability and culture of learning by living, seeing and doing	0	3.8	24.5	34.0	37.7	0	2.94	3	2	..886	.458	-.807
S												
Students' behavior and tendency of learning by memorization	0	5.7	50.9	32.1	11.3	0	3.51	4	4	.775	-.489	-.272
Students' independent learning	0	7.5	30.2	18.9	43.4	0	3.02	3	2	1.028	.402	-1.227
Students' level of enthusiastic to learn and preparation for their class	0	5.7	24.5	22.6	43.4	3.8	2.85	2	2	1.026	.425	-.802
Students' ability to make meaning in their learning.	0	7.5	24.5	15.1	50.9	1.9	2.85	2	2	1.063	.612	-.916

VIII. Descriptive statistics of test related to geography

Item	Missing	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %	Mean %	Median %	Mode %	Std. Deviation %	Skewness %	Kurtosis %
The geography test has influence on my teaching	0	13.2	34.0	22.6	26.4	3.8	3.26	3.00	4	1.112	-.115	-.962
The geography test influences students learning	0	13.3	34.0	13.2	34.0	7.5	3.08	3.00	2	1.207	-.013	-1.208
Classroom geography test stimulated Students to prepare themselves for national geography examination	0	32.1	52.8	1.9	13.2	0	4.04	4	4	.940	-1.088	-.594
Students test scores contributed to my teaching evaluation	0	26.4	56.6	11.3	3.8	1.9	4.02	4.00	4	.843	-1.236	2.611
Geography test provides students opportunities to evaluate their own work	0	30.2	54.7	9.4	1.9	3.8	4.06	4.00	4	.908	-1.558	3.544

Descriptive statistics

Section-IX. Teachers' curriculum implementation activities

Item	Missing	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %	Mean %	Median %	Mode %	Std. Deviation %	Skewness %	Kurtosis %
Spend two hours each week teaching the subject	0	27.7	31.9	0	40.4	0	3.47	4	2	1.283	-.120	-1.733
The limited teaching hours make it difficult for me to engage my students	0	53.2	46.8	0	0	0	4.53	5	5	.504	-.132	-2.073

My students have opportunity to improve their understanding	0	0	14.9	23.4	61.7	0	2.53	2	2	.747	1.028	-.400
My workload makes it difficult to give my students exercise	0	0	51.1	8.5	40.4	0	3.11	4	4	.961	.-.220	-1.934
Class size makes it difficult for me to ask students to do exercise	0	0	61.7	14.9	0	23.4	4.09	4	4	.620	-.051	-.280
My role in the classroom is to convey knowledge through	0	10.6	80.9	8.5	0	0	4.02	4	4	.442	.112	2.606
I find hard my students to understand the lesson and relate it to their daily life.	0	6.4	68.1	19.1	6.4	0	3.74	4	4	.675	.975	-1.356
Group work activities have little or no use in my classroom	0	0	46.8	21.3	31.9	0	3.15	3	4	.884	-.303	-1.678
inadequate resources make difficult my students to learn the geography lesson	0	31.9	51.1	17.0	0	0	4.15	4	4	.691	-.204	-.834
The limited teaching hours make it hard for me to get my students involved in group work activities	0	61.7	34.0	0	0	4.3	4.53	5	5	.718	-1.958	4.711
I often give class exercise to my students to their better understanding	0	0	12.8	6.4	72.3	8.5	2.23	2	2	.786	1.236	1.254
I use field trip for my students to be able to do research and observation.	0	2.1	10.6	12.8	31.9	42.6	1.98	2	1	1.093	.982	.117
I encourage my students to gain environmental consciousness and being aware of importance of physical and human resources	0	10.6	80.9	6.4	2.1	0	4.00	4	4	.511	-1.022	5.529
my role is to take the subject matter as a part of life, using them in daily life and sharing them with others	0	6.4	78.7	2.1	0	0	4.17	4	4	.433	.937	1.130
encourage my students to be able read maps and measure distance and area	0	6.4	93.6	0	0	0	4.06	4	4	.247	3.687	2.110