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NELSON MANDELA

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RE-THINKING TEACHERS EDUCATION CURRICULA FROM INDIGENOUS CURRICULUM CONSTRUCTION PRINCIPLE: A CASE STUDY OF COLLEGEE OF TEACHERS' EDUCATION IN SNNPRS AND SIDAMA REGIONAL STATE, ETHIOPIA

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Abstract

Currently, integrating primary teachers' education curricula with the school curriculum through indigenous knowledge is a means of decolonizing the western curriculum and contextualizing it by assisting learners to understand and synthesize their own environments. The purpose of this study is to explore the extent to which indigenous knowledges are reflected in the college of teachers' education Science and Mathematics curricula in light of indigenous knowledges. To this end, mixed research design with exploratory sequential method was employed. Data were gathered from 58 Science and Mathematics teacher educators, 91 Primary school Science and Mathematics teachers, 7colleges of teacher' education deans and vice deans, 4 regional education bureau officials, and 4 regional education bureau senior curriculum experts. Among four colleges of teacher' education in SNNPR, Bonga and Hosaena colleges were selected by simple random sampling technique and the Hawassa College of teacher education was selected from Sidama Region regional state. The instruments used to collect data were: questionnaires, interview, FGDs and document analysis. The data obtained through questionnaires were analyzed quantitatively by using frequency, percentage and mean. Whereas the information gathered by interview guide, FGD, and documents analysis were transcribed qualitatively analyzed, interpreted and expressed thematically. The study finding revealed that the extent to which indigenous knowledge are reflected in the existing colleges of teachers' education Science and Mathematics courses is very minimal, the colleges of teachers' education curricula are dominated by the Western curricula knowledge. Furthermore, there are teacher educators who perceive IKs as old, traditional and contributing nothing. Teacher educators' commitment and motivation in applying IKs in the classroom instruction, lack of organized indigenous resources was also identified as hindering the inclusion and implementation of indigenous knowledge, Besides, the effort to include indigenous knowledge in the curricula has remained unpractical. To this end, education stakeholders such as policy makers, educators, curriculum developers, and parents shall work together to overcome the challenges in the inclusion and implementation of indigenous knowledge in both the college of teachers' education and primary education Science and Mathematics curricula. It is recommended that both Western and Indigenous knowledges must co-exist in the college/school Science and Mathematics curricula in order to serve the current needs of society.

Keywords: *Indigenous knowledge, curriculum indigenization and curriculum alignment*

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Introduction

Every child has the right to an education and to a system of education that values the child's culture, language, and community, as well as unrestricted access to schooling and participation (UNICEF, 2004). UNESCO(2011) mentioned the importance of Indigenous knowledges for sustainability by saying "Education program that promote Indigenous knowledges, sustainable lifestyles and sustainable development will further enhance these capacities such as critical thinking and problem-solving skills (UNESCO, 2011)

Indigenous knowledges are knowledges that arise directly out of the children's real-life experiences, and its incorporation into the school curriculum can motivate and bolster the intellectual fortunes and interests of the learners as students realize that recognition is given to what they already do, know, and say in their own communities (Mawere, 2015). Indigenous knowledges are resources that can help to solve local problems, to prevent conflict, to build solidarity in communities, to manage local affairs, and thus contribute to global solutions (World Bank, 2004a).

Indigenous knowledges are a critical component of the economical low-income people social capital and a key asset in their efforts to reclaim control of their lives. Indigenous knowledge, like any other type of knowledge, must be constantly applied, challenged, and adapted to changing local contexts. To be liberating, education must focus on relevant contexts and local African knowledge(s) that can assist African society in coping with the challenges of a rapidly changing global economy (Msila, 2016)

The basic component of any country's knowledge system is its IKs. It encompasses the skills, experiences and insights of people, applied to maintain or improve their livelihood (World Bank, 1998).Semali and Kincheloe (1999) define IKs as "The dynamic way in which the residents of a certain area have come to understand themselves in relationship to their environment and how they organize that folk knowledge of flora and fauna, cultural beliefs, and history to enhance their lives" (Semali and Kincheloe, 1999).

There is a growing consensus that some of the solutions to problems that currently plague developing societies and communities must proceed from understanding the dynamics within the local context. Such dynamics include the role of IKs(Indigenous knowledges) and practices in the development processes (Dei, 2002; Angioni, 2003; UNESCO, 2003).

There have been robust debates on the integration of IKs into national curricula (O'Hern& Nozaki, 2014; Breidlid, 2013) and initial attempts to include IKs in the curriculum have sometimes met with resistance from different people who have varied views about the specific knowledge items which should be included (Hodson, 2009).

Mpofu and Vhurumaku (2017) suggested that to achieve the education goals in African countries, integrating IKs with science, technology, engineering, and mathematics is the key. These shows including IKs both in colleges of teacher education and primary school science and mathematics curricula became imperative. Based on this background, the study intended to analyze the college of teachers' education science and mathematics curricula through indigenous Curriculum Construction perspectives.

1. Statement of the Problems

Indigenous knowledges are the social capital of the people, their main asset to invest in the struggle for survival, to produce food, to provide for shelter or to achieve control of their own lives (Ellen and Harris, 1996). They are developed and adapted continuously to gradually changing environments and passed down from generation to generation and closely interwoven with people's cultural values. Significant contributions to global knowledge have originated from indigenous people, for instance, in medicine and veterinary medicine with their intimate understanding of their environments.

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The current global discourse on the value of incorporating indigenous knowledges in formal education systems in Sub-Saharan African countries, has been a central theme by scholars, African governments, and the United Nations Organizations (Angioni, 2003; Dei, 2002; UNESCO, 2006) particularly its potential contribution to sustainable development at the micro level and poverty alleviation. It is argued that if African states are to play a central role in directing the goals of education for sustainable development, then there is need to integrate the African perspectives of knowledge as a reciprocal body of knowledge to western education in order to ensure relevance and practicality in addressing local problems affecting societies especially the devastating effects of HIV/AIDS pandemic (Dei, 2002; Mudimbe, 1988; Shiva, 2002; UNESCO, 2006).

Indigenous knowledges have now become the central issue in global discourses as a strategy to solutions on social, economic, and political proble ms of African states (Owuor, 2007) The indigenous approach to Education for Sustainable Development advocates for educational process that are based on a holistic perspective, practically based, and conceptualized to the local, national, and international needs of the students (Owuor, 2007).

In many Sub-Saharan African countries, there is tension between Eurocentric Western science and the IKs of African students, though both of which are products of their respective socio-cultural constructs. These two worldviews, when experienced by students in science classrooms, do not complement each other. If not properly mediated during science lessons, this could potentially lead to "complicating the learning process and potentially resulting in cognitive conflict" (Le Grange, 2007).

Ethiopia is a country of more than 80 ethnic groups with diverse languages. Ethiopian society has diverse knowledge that relate to the natural and human built environment. Before the introduction of a western oriented curriculum, Ethiopians had their education curriculum mainly offered by religious institutions. This ancient Ethiopian knowledge and curriculum are underestimated in the present western-oriented curriculum. However, the ancient curriculum was rich in equipping students with knowledge from both natural and human-built environments. Failure in investing in IKs and its integration into the school curriculum marginalizes the importance of IKs to contribute to the national endeavor of the country in all aspects (Teshome and Sobha, 2017).

In the Ethiopian, IKs are marginalized in the existing school curriculum and it needs de-marginalization of IKs by incorporating them into the existing curriculum (Teshome and Sobha, 2017). Furthermore, the Ethiopian Education Development Roadmap (2018) confirms the emphasis given to Ethiopian IKs in the general education curriculum is very minimal and efforts to incorporate them into the existing are still at infancy stage. Moreover, the FDRE, GECF (2020), mention the current curriculum of Ethiopia was not able to give appropriate space for the teaching and learning of indigenous knowledges and emerging and nationally pressing issues. Similarly, the ten year general education development plan (MoE, 2020) reveals that there IKs are lack in the existing general education curriculum.

The findings of the National Learning Assessments conducted in the years 2000, 2004 and 2008 for grades four and eight students of Ethiopia show that the average score for mathematics was less than 40% while science subjects was less than 50% (MOE, 2008). This is very contradictory with the Ethiopian Education and Training Policy which states that every student should score at least 50% in all subjects as a minimum requirement. In Ethiopia, the percentage of primary school teachers who passed the licensing examination is 24.3% (MOE 2020). Similarly, the SNNPR percentage of primary school teachers who passed the licensing examination is only 10% (SNNPR, 2020). This implies that primary school teachers who failed in the examination have been deployed to teach primary school mathematics and science subjects. This implies the low achievement of the students is because of the integration and the alignment of curriculum by indigenous knowledge.

The Ethiopian Education Development Roadmap (2018) identifies that the frequent changes in teacher training modalities for primary schools is a serious handicap in teacher training and the existing teachers training modality is neither aligned to the country's primary school education structure nor produces effective graduates for the specified level. Furthermore, it shows the medium of instruction in CTE's as well as university teacher training faculties

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is English. In the case of CTE's, graduates are deployed to teach in the mother tongue of the primary school students. As a result, it is difficult to deliver a subject matter in the mother tongue of the students. It also shows that graduates of English, mathematics and natural science are found to be least competent to teach their subjects were identified as the gaps and challenges in teachers' preparation and development were identified (MOE, 2018).

The current pressing issues in the teacher education program are mentioned as follows: issues related to the quantity and relevance of subject matter knowledge, nonalignment between pre-service teacher education program and the school curriculum, challenges related to program structure, relevance and effectiveness of professional courses, pedagogical content knowledge and concerns related to incentives for good teachers (SNNPREB 2020). These mismatches are related to content, skills in handling hands-on and minds-on activities, the use of a wide range of teaching and learning strategies, the use of methods for continuous assessment and methods of meeting the needs of students with special educational needs.

Although, there are some researchers who have done about IKs in Ethiopian general education (from 'O' class- grade12) curricula, it is hard to get research result for the college of teachers' education science and mathematics curricula. Thus, the researchers want to fill the gap by explore the extent to which IKs are integrated in the colleges of teachers' education science and mathematics curricula and the alignment between college and school curricula in light of the IKs curriculum construction principle.

1.1.Basic Research questions

To what extent do the mathematics and science curricula at colleges of teacher education include IKs content in the light of curriculum construction principle?

How do colleges of teacher education instructors perceive IKs and its inclusion in mathematics and science subjects?

1.2.Objectives

General objective

The overall objective of the study is to explore the extent to which IKs are reflected in the college of teachers' education science and mathematics curricula, and how the colleges of teachers' education and primary school natural Science and mathematics curricula are aligned with the light of IKs.

The specific objectives of the study are: -

Investigate the extent to which the existing colleges of teachers' education science and mathematics curricula reflect the IKs.

Explore perceptions of teacher educators' on IKs and its inclusions in mathematics and science subjects.

1.3.Significance of the study

The study analyzes the extent to which IKs are integrated into the existing college of teachers' education science and mathematics curricula and the alignment between college and primary education Science and Mathematics curricula. In doing so, the study will possibly have the following significance: -

It informs the Ministry of Education, Regional Education Bureau, policy makers and experts, and other concerned bodies of the importance and inclusion of IKs in the colleges' Science and Mathematics curricula.

It provides information to the Ministry of Education, Regional Education Bureau, collage of teachers' education, and other concerned bodies on the alignment between college and primary school Science and Mathematics curricula in the light of IKs.

It helps the Ministry of Education and regional education bureaus to take remedial measures so as to produce critical citizens.

It provides information for further studies on IKs related to Science and Mathematics subjects.

1.4.Delimitations of the Study

The study is delimited to the extent to which IKs are integrated into the existing college of teachers' education Mathematics and Natural science (Physics, Chemistry, and Biology) courses. Moreover,

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conceptually the study is delimited to only grades four and eight Science and Mathematics subject to get an insight into the alignment between the college and primary school Science and Mathematics curricula in light of IKs. Geographically it is delimited to Bonga and Hosaena CTEs and Hawassa CTE in Sidama Regional state. Science and Mathematics subjects were selected due their contribution to national development and professional background and work experiences of the researcher.

RESEARCH DESIGN AND METHODOLOGY

2.1. Research Design

The position of the researcher is pragmatism perspectives and apply explanatory mixed research design so as to collect, analyz, interpret and report the data scientifically (Creswell & Plano Clark, 2007:58). It is the overall plan for connecting the conceptual research problems with the pertinent (and achievable) empirical research. In other words, the research design sets the procedure on the required data, the methods to be applied to collect and analyze this data, and how all of this is going to answer the research question (Grey, 2014).

Creswell (2009) defines research designs as plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis. He says that the selection of a research design is based on the nature of the research problem, the researchers' personal experiences and the audiences for the study (ibid.).

In order to achieve the objectives of the research, the researcher employed an exploratory mixed method. A mixed methods research design is a procedure for collecting, analyzing, and "mixing" both quantitative and qualitative methods in a single study or a series of studies to understand a research problem (Creswell & Plano Clark, 2011). The basic assumption is that the uses of both quantitative and qualitative methods, in combination, provide a better understanding of the research problem and questions than either method by itself.

The purpose of an exploratory sequential mixed method design involves the procedure of first gathering qualitative data to explore a phenomenon, and then collecting quantitative data to explain relationships found in the qualitative data. A popular application of this design is to explore a phenomenon, identify themes, design an instrument, and subsequently test it (Creswell 2009). In the exploratory sequential approach, the researcher first begins with a qualitative research phase and explores the views of participants. The data are then analyzed, and the information used to build into a second, quantitative phase (Creswell 2009). The purpose of the exploratory study is to elaborate a concept, build up a model or advocate propositions (Yin, 1984).

In an exploratory design, qualitative data is first collected and analyzed, and themes are used to drive the development of a quantitative instrument to further explore the research problem (Creswell and Plano Clark 2011; Teddlie and Tashakkori 2008; Onwuegbuzie, Bustamante, and Nelson 2010). As a result of this design, three stages of analyses are conducted: after the primary qualitative phase, after the secondary quantitative phase, and at the integration phase that connects the two strands of data and extends the initial qualitative exploratory findings (Creswell and Plano Clark 2011).

2.2 Population, Sample Size and Sampling Techniques

2.3. Target Population

Creswell (2012) defines a target population or the sampling frame as a group of individuals or a group of organizations with some common defining characteristic that the researcher can identify and study. The target populations for the study are CTEs (Arbaminch, Dilla, Bonga, Hosaena and Hawssa) and Science and Mathematics teacher educators.

2.4. Sample Size and Sampling Techniques

Creswell (2012) defines a sample as "It is a sub-group of the target population that the researcher plans to study for generalizing about the target population" Creswell (2012: 142). In this study, two types of sampling techniques; simple random and purposive sampling were used. Before determining the sample size of the study, it is essential to consider some aspects of determining the sample size.

According to Cohen et.al (2018), the number of respondents acceptable for a study depends on the type of research design involved. He suggest a sample should be 30% if the population is large, while 35% may be required if the population is small.As a result, Bonga and Hosaena CTEs from SNNPR were selected using random sampling

method (lottery method) and Hawassa CTE is selected based on availability sampling. Furthermore, the sample size for science and mathematics teacher educators was determined using Cohen et.al (2018) suggestion and out of two hundred eight (208) science and mathematics teacher educators in the three sample colleges of teachers' education sixty-two (62) were sampled using availability random sampling method. Furthermore, to get the insight of primary school science and mathematics teachers on alignment between the colleges' and primary education science a total of ninety one (91) primary School science and Mathematics teachers from twelve (12) nearby schools to the selected CTEs were sampled based on availability sampling technique.

Moreover, four senior curriculum experts (Mathematics, Physics, Chemistry and Biology) from SNNPR education Bureau and four Education officials, seven college deans and vice deans were sampled to get their insight concerning the major challenges that affects the inclusion of indigenous knowledges into the existing colleges' Science and Mathematics curricula. The total number of the research target group and sample was presented as follow in table 1 below.

Table.1 Target population and Sample size

S.no	Target group	Total population	Sample	Sampling techniques
1	Science and mathematics teacher educators.	208	62	Simple random
2	Primary school science and mathematics teachers		96	Availability sample random
3	College deans/vice deans	9	7	Simple random
4	Regional Education Bureau Officials	6	4	Purposive
5	Regional Education Bureau science and mathematics subject curriculum experts	4	4	purposive
	Total population		173	-

2.5. Sources of Data

To get valid and reliable information, the uses of appropriate data sources were vital. In this study, two sources of data namely primary and secondary data were used. The primary source of data includes the colleges' science and mathematics teacher educators, primary school chemistry, mathematics, physics and biology teachers, the colleges' deans and vice deans, and regional education bureau officials and senior curriculum experts.

Secondary data sources were considered from the college of teachers education curriculum frame framework, syllabi, and training modules and grade four and eight textbooks, teachers guides, minimum learning competencies for science and mathematics subjects. Moreover, Ethiopian Education and training policy (1994), Ethiopian Education Development Road map (2018), Ethiopian general education curriculum framework (2002,2020), and SNNPR Education Bureau reports (2020) were considered.

2.6. Data Collection tools

The types of data used for the study were both quantitative and qualitative. Accordingly, the instruments, questionnaires, in-depth interview, focus group discussions, documentary analyses checklists were used as data collection tools.

2.6.1. Questionnaire

Questionnaires for colleges' science and mathematics teachers and primary school teachers were designed to collect the necessary data. The questionnaires were developed based on the review of relevant literatures and the researcher's knowledge and experience on the issues under the study. The items contained the background information about the respondents, their views on the extent to which IKs are included both in college and primary school science and mathematics curricula, their perceptions on IKs, the alignment of the college and primary school science and mathematics curricula, and major challenges to

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include and implement IKs into the colleges' science and mathematics curricula. The questionnaires were translated from English to Amharic before administered to both the teacher educators and primary school teachers to make easy and better understating of the contents of the questionnaires for the respondents.

2.6.2. In-depth interview

Using interview, one can explore and probe participants' responses to gather in-depth data about their experiences and feelings (Gay, Mills and Airanian, 2009). Interviews are useful to elicit factual data (Patton, 1990, Wallace, 1998) and are a very useful way of collecting data. Patton (1990) notes that people are more willing to talk in an interview than the case would be if they were asked to write. In order to explore a topic before designing for the details and to identify potential problems, conducting interviews with the key informants is crucial.

We have conducted the total of 15 interview sessions with the colleges' deans and vice deans and regional education bureau officials and senior curriculum experts. The discussions were mainly focused on their perceptions' on IKs and its relation with students' academic achievement, the effects of globalization on IKs, the relation between medium of instruction and IKs, and the major challenges to include and implement IKs in the colleges' science and mathematics curricula. The interviews were made face-to-face in Amharic language and then translated in to English.

2.6.3. Focus Group Discussion (FGDs)

Kothari (1992) states that the focus group discussion is meant to focus attention on the given experience of the respondents and their effects. Under it, the interviewer has freedom to decide the manner and sequence in which the questions would be asked and also offers the opportunity to explore reasons and motives of the respondents. Hence, I have had conducted a total of fifteen (15) focus group discussions, FGDs, each group comprises of a total of members paying attention to gender balance, with college teacher educators and primary school science and mathematics teachers.

The FGDs were focused mainly on the extent at which IKs are included into the colleges' science and mathematics curricula, teacher educators' perception on IKs and the alignment between CTEs and primary schools' science and mathematics curricula, major challenges to integrate and implement IKs into the existing colleges' curricula. The FGDs were conducted entirely in Amharic language, since this is the language in which we can communicate each other's easily. The FGDs were first recorded by note-taking, and then translated and transcribed into English.

2.6.4. Document Analysis

Document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment topic. It includes gathering information used in a formal description of the electronic text, studying the content and structure of the documents, identifying and naming the components of some class of documents specifying their interrelationships and naming their properties. Weiss (1998:260) holds that documents are "a good place to search for answers. They provide a useful check on information gathered in an interview." He further adds that when "other techniques fail to resolve a question; documentary evidence can provide a convincing answer." Apart from providing evidence, Weiss (1998) has noted that documentary analysis also allows the analyst to become thoroughly familiar with the materials and helps to save on time.

The usefulness of documents as research tools is that they help corroborate and strengthen the evidence gathered using other tools. Document analysis observe Ary are a good source of data that can provide good descriptive information, are stable source of data, and can help ground a study in its context (Ary et al 2010).

The indigenous knowledges narrative is a policy issue and any study that tries to isolate it from that context may be deemed incomplete. We employed document analysis in this study not only as collaboration to other instruments and a way of strengthening evidence but more so to locate the study in its proper context.

This research made use of document analysis. The researcher collected and analysed the existing Ethiopian Education and Training Policy, 1994, Ethiopian Education Development Roadmap,2018, Ethiopian general education curriculum framework,

2020, ten year Ethiopian Education Sector development plan,2020, college of teachers' education Science and Mathematics courses curriculum framework, course outlines, grade four and eight Science and Mathematics subjects text books, teachers guides, syllabi, Ministry of education and SNNPR education bureau reports and SNNPR teachers licensing examination results.

2.7. Data collection Procedures

The data was collected through questionnaires, interviews, focus group discussions, and document analysis. After administering the tools, we have contacted colleges' deans and school principals to request for cooperation having an official support letter from SPNNREB. After getting the consent of the participants; first, the questionnaires were disseminated to selected respondents. Then after, the concerned participants also interviewed and FGDs were carried out simultaneously.

2.8. Validity and Reliability test

Validity explains how well the collected data covers the actual area of investigation (Ghauri and Gronhaug, 2005). Validity basically means measure what is intended to be measured (Field, 2005). Huck (2007), indicate testing for reliability is important as it refers to the consistency across the parts of a measuring instrument. Moreover, Wilson (2010) suggests although reliability is important for study, it is not sufficient unless combined with validity. In other words, for a test to be reliable, it also needs to be valid.

Hence, the validity of the questionnaires designed for teacher educators and primary school teachers, the interview guides for the colleges' deans and vice deans, regional education bureau official and curriculum experts, and the guiding questions for FGDs was checked by my research advisors, SNNP education bureau senior English language expert (colleague), education specialist (friend).

Furthermore, the reliability of the questionnaires, which were commented by my research advisors and then modified by the researcher, administered to seventeen (17) primary school science and mathematics teachers selected and nine (9) science and mathematics teacher and checked the reliability using Cronbach alpha coefficient. Cronbach Alpha coefficient is the most appropriate measure of reliability when making use of Likert scales (Whitley, 2002, Robinson, 2009). No absolute rules exist for internal consistencies, however most agree on a minimum internal consistency coefficient of .70 (Whitley, 2002, Robinson, 2009).

Accordingly, the Cronbach alpha coefficient for the primary school teachers and teacher educator's questionnaire values were 0.78 and 0.83 respectively. These values are supported with Straub et al. (2004) suggestion; the reliability should be equal to or above 0.60. Furthermore, Hinton et al. (2004) have suggested four cut-off points for reliability, which includes excellent reliability (0.90 and above), high reliability (0.70-0.90), moderate reliability (0.50-0.70) and low reliability (0.50 and below) (Hinton et al., 2004).

However, as it is seen see from Appendixes F and G there were items both in the questionnaires developed for primary school teachers and teacher educators which need content and translation. Such as from primary teacher questionnaire items related teacher perceptions on the inclusion of IKs in the existing school science and mathematics curricula, items P1 (0.79), A5 (0.79) and C6 (0.80) and also from questionnaire developed for teacher educators, items P9 (0.853) and C7 (0.85) were revised in content wise, translation and rearrangement of the items so as make them clear for the respondents.

2.9. Method of data analysis

Data analysis is the vehicle used to generate and validate interpretations, formulate inferences, and draw conclusions" (Scherman, 2007: 147). In this study, both quantitative and qualitative data analysis techniques were employed.

2.9.1. Quantitative analysis

To analyze the quantitative data, both descriptive and inferential statistics were used. Depending on the nature of the basic research questions the descriptive analysis such as percentage, mean score, standard deviation was used to guide the analysis and interpretation of the findings. I have applied SPSS software version 26 for quantitative analysis purpose.

2.9.2. Qualitative analysis

Data collected from open-ended questionnaires, interviews, FGDs, and from documents were

analyzed qualitatively. Content analysis was used to explore the extent to which IKs are integrated into the existing colleges and primary school mathematics and science curricula and also the alignment between the college and school mathematics and science curricula. Content analysis is a strict and systematic set of procedures for the rigorous analysis, examination and verification of the contents of written data (Flick, 1998; Mayring, 2004). Krippendorp (2004) also defines content analysis as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" Krippendorp (2004: 18).

2.10. Ethical consideration

Blanche et al. (2009) asserted that the purpose of research ethics is to protect the welfare of the research participants. They argued that research ethics also involved not only the welfare of the informants but extend to areas such as scientific misconduct and plagiarism. The ethical consent was obtained before collecting information from respondents through formal communication. In conducting the study, I could consider different ethical issues. These are: the purpose of the research and who the researcher is and the study's potential benefits to the profession in the field of education. The responses were anonymous, they were offered to withdraw if and when they felt uncomfortable to continue, and how long they would be required to respond to the instruments them to participate in the study as ethical issues.

After going through the consent with the participants, the participants were also advised that the final copy of the research study would be made available to them through the regional education bureau and college of teachers' education in case they needed to see it.

3. Result and Discussion

This section includes the presentation, analysis and interpretation of data collected on re-thinking college of teachers' education curricula through indigenous curriculum construction principles: College of teachers' education in focus in SNNPRs and Sidama Regional state. Questionnaires were distributed to Science and Mathematics teacher educators and primary school teachers. Moreover, FGDs, and interviews were conducted with teacher educators, primary school teachers, regional education bureau officials and curriculum experts, college deans and vice deans.

Content analysis of the college Science and Mathematics courses' curriculum framework mainly the courses outline, description, and general objectives has been done. Moreover, grade four Environmental science and Mathematics subjects and grade eight Sciences; Physics, Chemistry, and Biology and Mathematics syllabi and text books were analyzed in relation to IKs.

The data gathered from document analysis, interview and FGDs were analyzed and discussed thematically whereas, data gathered from questionnaire was organized in tabular and narrative form and interpreted by descriptive statistics using frequency, percentages and mean to substantiate the qualitative analysis to answer the basic research questions of the study. Thus, this section presents the data analysed and its interpretation based on the research questions.

3.1. General Characteristics of the Study Respondent

The background of participants were from five groups of sample populations, namely: College Science and Mathematics teacher educators, primary school science and mathematics teachers, college deans and vice deans, regional education bureau official and senior curriculum experts.

A total of 158 (100%) questionnaires were distributed to respondents (college teacher educators and primary school science and mathematics) and 149 (94.31%) were filled and returned. Of these respondents 58 (38.93%) were college teacher educators and 91 (61.07%) were teachers. Selected teacher educators and primary school teacher were participated in the FGDs.

Table 2. Sex of the Respondents

Sex	**Participants**

		CTEs Teacher Educators	Primary school teachers	CTEs Deans and Vice deans	REBs Official	REBs curriculum experts
Male	N	55	75	7	3	3
	%	94.8	82.4	100.0	75.0	75.0
Female	N	3	16	0	1	1
	%	5.2	17.6	0.0	25.0	25.0
Total	N	58	91	7	4	4
	%	100	100	100	100	100

Source: Field survey, 2021

From table 1 above, it can be shown that, the total number of the study respondents from the five groups were 58 (female =3) College teacher educators, 91 (female=16) primary school teachers, 7 College dean and vice deans, 4 (female=1) regional education bureau officials and 4 (female=1) regional education bureau Science and Mathematics subjects senior curriculum experts. Hence, a total of 164 participants were involved in the study.

The place of IKs in the college of teachers' education Science and Mathematics curricula.

This section presents data analysis and a discussion of the extent to which IKs have been incorporated into the college of teachers' education science and mathematics curricula. The focus is to ascertain how much IKs contents are included in the curriculum frame work, course description general objective, and the courses outline of the college science and mathematics subjects. In doing so, first we presented and discuss the data gathered from all secondary sources and then, substantiated by the primary sources of data.

We critically investigate the current Education and Training policy document regarding the place of IKs in it and the results are discussed as follow: Sub-article 3.6.7 it states "traditional education will be improved and developed by being integrated with modern education" and sub-article 2.2.8 states it is important "to make education a supportive tool for developing traditional technology, and for utilizing for technology". Moreover, sub-article 3.1.3 states "ensuring the curriculum developed and textbook prepared at the central and regional levels are based on sound pedagogical and psychological principles and are up to international standards, giving due to attention to concrete local conditions and gender issues", and sub-article 3.5.1 reads "cognizant of the pedagogical advantage of the child in learning in mother tongue and the rights of nationalities to promote the use of their languages, primary education will be given in nationality languages" (ETP,1994:10-26).

From the above provisions of the existing Education and Training Policy (1994), we can understand that there is an effort to include Ethiopian IKs in the curriculum, of Ethiopia. This is in line with Teshome (2017) who argue that there is an attempt to include IKs in the school curriculum in Ethiopia though there is problem of implementation. Furthermore, the new general education curriculum framework of Ethiopia, EGECF, (2020) revealed that "the existing general education curriculum framework was not able to give appropriate space for the teaching and learning of indigenous knowledges and emerging and nationally pressing issues (EGECF, 2020:8). Here we focused to investigate the EGECF, because the college of teachers' education curriculum in Ethiopia is designed based on general education curriculum framework. "In order to ensure the successful implementation of the general education curriculum, the framework basically envisages the alignment of the teacher education curriculum in both its pre-service and in-service modalities with the dictates of general education curriculum framework" (EGECF, 2020:3).

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To get data regarding the inclusion of IKs in the colleges' science and mathematics subjects, we have collected data from mathematics and science (Biology, Chemistry, and Physics) subjects' curriculum framework focusing on the courses description, the general objective/s of each course and the course outlines. The findings are:

According to the Ethiopian ministry of education revised curriculum for Biology major students in the linear program (2007), would -be teachers are expected to take a total of fourteen (14) biology courses as major courses. The extent to which IKs are included into the BIOLOGY courses are analyzed thematically (content analysis) and discussed as follow:

In Biology 113, Introduction to Algae and Fungi course, the course description states that 'practical activities such as identification of some algae and fungi in their locality'. This implies the course allow students to appreciate and use some economically important groups of algae and fungi found in their localities. However, it is difficult to get components of IKs in all the course's objectives. Therefore, since the existing education in Ethiopia is categorized under objective based education system, we argued that IKs lack appropriate place in this course.

In Biology 221, Introduction Invertebrate Zoology, there is only one course objective related to IKs which reads as 'at the end of the course students are able to identify the importance of invertebrates to man, his crops and domestic animals'. Implies, the course helps students to be familiar with their day-to-day life activities.

In Biology 204, Ecology and Conservation, the course description states the following: field trips to appropriate ecosystems in the country to enhance students understanding on the ecosystems of Ethiopia and introduction to the area of conservation biology. It also includes an examination of the historical and ethical background underpinning the current conservation movement, the values of biodiversity and ecosystem services, and threats to biodiversity due to the impact of human use. Furthermore, it includes ecological concepts that are utilized in conservation management practices, the role of national policy and institutions in implementing conservations.

And also, in Subject Area Methods II, TECM 242, course, there are concepts related to IKs like preparation and improvisation of instructional media, preparing appropriate teaching aids from locally available materials and develop better social skills.

From the above, it is clearly understood that the colleges' Biology subject curriculum framework try to includes some IKs components, such as identification of some algae and fungi in their locality, identifying the importance of invertebrates to man, his crops and domestic animals, practical knowledge on Ethiopian ecosystems, national policy and institutions in implementing conservations and the future directions of conservation, and preparation and improvisation of teaching aids from locally available materials and develop better social skills.

However, the findings from the FGDs with the colleges' teacher educator reveal that the extent to which IKs are included and implemented in biology courses at almost negligible; Participant **BL1** highlighted the inclusion of IKs in the colleges' biology courses saying:

> *"To speak genuinely, it is not common to find components of IKs in the colleges' Biology courses because the college curriculum is developed at the national level and it is copied from other countries like America and Europe. We, college educators, are forced to implement it accordingly".*

Participant **HOL1** shared his views on the extent to which IKs are included in the college Biology courses and he narrated that:

> *"Although I believed in the importance of inculcating IKs in the college curricula not only in Biology courses but also in all the courses provided as the college level, I can assure that, there are no IKs components in the existing college biology courses".*

However; participant **HAL1** dis- agreed with the above responses and he said that:

> *"It will be difficult to reach on such conclusion without researching the issues, in my opinion there are some components of IKs in the colleges' Biology courses like beekeeping, natural resource conservation, I am afraid of their inclusion and implementation in the actual classes by lecturers".*

Similarly, the course breaks down for diploma Chemistry major linear program would be- teachers are expected to take a total of sixteen (16) major Chemistry courses. The extents to which IKs are included in each of these courses are examined critically and discussed as follow:

In general Chemistry I, Chem 101, one of the general objectives for the course reads as 'After completing this course, the student will be able to explain the role of chemistry in the society' and practical Organic Chemistry, Che 243, one the general objective for the course states 'after completing this course, the student will be able to prepare ordinary soap and examine its properties'. The, course description for applied chemistry, chem 351, states the following:

> *"The course involves the study of energy resources and consumption, chemical industries and production of some important chemicals (acids, bases, salts, fertilizers, petroleum, detergents, plastics, textiles, leather, food, and drugs), local chemical factors, agricultural (fertilizers, pesticides) chemistry environmental Chemistry (soil, water, atmosphere), environment, impact of anthropogenic chemicals on the environment" (2007:65).*

Moreover, two of the general objectives of the course stated as 'At the end of the course students will be able to explain environmental impacts of local industries and suggest possible ways of safe use of natural resources.

In Methods of Teaching chemistry, TeCh 242, general objectives of the course read as "At the end of the course students will be able to show implications of the objectives of education and training policy of the country and prepare instructional materials for teaching chemistry from local sources".

The finding shows there are some components of IKs in the colleges' chemistry courses like, chemistry in industry, agriculture, health, food and environment sectors indicating some efforts so far done to include IKs. This is in line with participant **HAL2** views' read as:

> *"Even if there are some component of IKs in the colleges' Chemistry courses such as in practical general chemistry, solution and solubility, in practical organic chemistry, distillation of "local Araki", in chem 245, extraction of local "Dataa", coffee leaf and how it is extracted, I cannot say IKs have appropriate place in the college chemistry courses".*

This is further strengthen by participant **HOL2** by saying,

> *"There are a lot of IKs in our locality which can easily incorporate in the colleges' chemistry courses, unfortunately, the course doesn't allow and motivate us to include, it is coped from some Western counties, [silent…] we Ethiopian have so many rational herbal medicines like 'ginger, garlic, 'Tenaadam', 'Feto'…..but they lack attention to include in our education".*

The investigation on the Physics courses confirmed that in all the thirteen (13) courses would - be are expected to take , it is hardly found word, phrases, and concepts related to IKs neither in the course's description nor in the general objectives of each courses. This is supported with the result of FGDs with teacher educators and their response for the open-ended questions of the questionnaire. Participant **HOL3** mentioned his views' as:

> *"I have more than 15 years' experience as physics lecturer in the colleges, still now; I didn't get a single concept related with IKs both in content and methodology part".*

Furthermore, **HAL3** and **BL2** agreed with the above response and they anchor the ideas by saying:

> *"The college physics courses didn't include concepts related to IKs though there are contents like*

Simple machine, energy and renewable energy sources which could easily include IKs".

Therefore, from the result of content analysis and teacher educators' views, I strongly argued that the college of teacher education physics curricula strongly ignored the IKs though there are practical and related to the communities' day to day life activities.

Finally, the result of content analysis of the all the ten (10) mathematics courses would be teachers enrolled in mathematics department are expected to take confirms that it is hard to find words, concepts, and phrases about IKs in all courses. This is in line with the result of the FGDs with teacher educators. Participant **BL3** explained that:

"During my experience as college mathematics lecture, I did not find IKs in the colleges' mathematics courses both in the content and methodological aspects, and I haven't applied the concept of IKs in my classes. Though, I believe that it is possible to include IKs in the college mathematics courses like, in unit of measurements, geometry, measurement, functions, and arithmetic and geometric progression".

Moreover, to get data regarding the place of IKs in the courses (in the unit, objectives, examples, activities, exercise, projects) and the curriculum framework, course outline, syllabi of the courses' science and mathematics teacher educators are currently teaching and the extent to IKs are included and implemented into their teaching-learning strategies, assessment techniques, and practical activities, I have collected quantitative data from them using a five point rating scales. The results are summarized into three categories, Disagree (DA), Undecided (UN) and Agree (AG) in table 6 and the findings are discussed in percentage and mean.

Table 6. Teacher educators' views on the extent IKs contents are included into the college science and mathematics courses

S/No	Statements	Frequency				Total	Mean
			DA	UD	AG		
1	The course you are currently teaching contains elements of indigenous knowledges (units, objectives, examples, exercise)	N	30	5	22	57	2.70
		%	51.7	8.6	38	98.3	
2	The syllabi, curriculum framework, and courses in Science and Math's subjects in colleges allow you to teach indigenous knowledges concept in your classes	N	33	9	15	57	2.51
		%	56.9	15.5	25.8	98.2	
3	Assessment techniques and project works practiced in your college Math's and Science curricula include IKs content	N	34	11	11	56	2.43
		%	58.6	19	18.9	96.5	
4	I believe practical examination in Science and Mathematics is based on modern science/academic scenario of learning.	N	11	6	40	57	3.72
		%	19	10.3	69	98.3	
5	The practical activities of Math's and Science subjects have incorporated indigenous knowledges and they promote to use locally available materials to perform the activities	N	26	10	20	56	2.88
		%	44.8	17.2	34.5	96.5	

S/No	Statements	Frequency				Total	Mean
			DA	UD	AG		
6	The content of Math's and Science subjects and teaching methodologies is western curricula dominated with no /little local IK contents and methodologies	N	9	7	41	57	3.80
		%	15.5	12.1	70.7	98.3	

Source: Field survey, 2021

As show in table 6 above, the college science and mathematics teacher educators were asked to express their views on the extent to which the course they are currently teaching contain IKs in the units, objectives, examples, exercises, projects and their responses are as follow: The majority 30 (51.7%) replied IKs have no place in the colleges' mathematics and science curricula, 22(38.0%) said IKs have place, and 5 (8.6%) of the respondents were unable to decide whether IKs are included or not. Furthermore, as shown from the table the mean for the item (2.70) indicate that the respondents were disagreed on the issue; the courses they are teaching have components of IKs in the units, unit objectives, examples, and exercise.

As indicated in the table in item2, they were also asked to express their views on the colleges' science and mathematics courses curriculum framework and syllabi allow them to teach IKs concept for learners, and their responses are: The majority 33(56.9%) of the respondents dis-agreed, 15(25.8%) agreed, and 9(15.5%) said it is difficult for them to response the question. The mean value for the item (2.51) tells us the respondents dis-agreed with the discourse the current colleges' science and mathematics courses curriculum framework and syllabi allow teacher educators to teach IKs concept for learners.

Teacher educators were asked to express their view on the current assessment techniques they are practicing in their teaching and learning include IKs contents and their responses are as follow; the majority of them 34 (58.6%) replied the assessment techniques they are practicing in their college do not consider IKs contents, 11 (18.9%) stated the assessment techniques consider IKs, and the remaining 11 (19.0%) were not able to decide on the issue raised. And also the mean value for the item (2.43) indicate that teacher educators disagreed with the notion the assessment techniques currently practiced by college teacher educators considered IKs contents.

As item 4 indicate in table 6 above, teacher educators were asked to express their views on practical examinations in science and mathematics are based on modern science/academic scenario of learning. The majority 40 (69.0%) of the respondents agreed that the practical examination in the colleges' science and mathematics courses are based on the modern /Western style of learning, 11(19%) dis-agreed, and 6(10.3%) were kept silent. Moreover; the mean value for the item (3.72) shows they agreed on the practical activities/ examination in science and mathematics courses are based on Western knowledge production systems.

Item 5, about the inclusion of IKs in the practical sessions and can perform using locally available teaching-learning materials, their responses are the majority 26 (44.8%) dis-agree, 20 (34.5%) agree, and 10 (17.2%) were unable to response. The mean value for the item (2.88) tells us teacher educators are dis-agreed with the discourse that the practical activities found in the colleges' science and mathematics courses includes IKs and can be performed using locally available resources.

In the last item 6, teacher educators were asked about the domination of the Western knowledge at the expense of IKs in the colleges' science and mathematics courses both in subject matter and methodology, the majority of the respondents 41(70.7%) agreed that the curriculum is western dominated and it does not give space for IKs, on the other hand, 9 (15.5%) dis-agree with the domination of Western knowledge in the colleges' science and mathematics curricula, and 7(12.1%) of the respondents were not able to decide whether there is domination of Western knowledge or not. The mean value for the item (3.80) clearly indicates teacher

educators agreed that in the colleges' science and mathematics courses there is a domination of Western knowledge at the expense of IKs.

The findings above show that, though, the existing Ethiopian education and training policy, 1994, provides an opportunity for the inclusion of local or IKs, the above findings and discussions on the extent to which IKs are included into the existing colleges' science and mathematics curricula, clearly shows IKs are alienated. It is in the words of Breidlid, (2013:97) "probably intentionally so vague and ambiguous that one wonders what was to be included and excluded from the variety of values, worldviews and knowledge systems…". While on one hand, the national education and training policy is fairly considerate of the localization process, curriculum content on the other hand is not locally sensitive and thus not reflective of the indigenous policy decision. This is in line with (Kedir, 2007 and Semela,2017) who argue that the teacher training system is characterized by frequent reforms due to the global influences associated with lack of emphasis on local contexts and absence of genuine societal participation.

The domination of Western knowledge over IKs in sub- African countries is also supported with Shazha (2013) who states that in sub-Saharan Africa, curriculum, both in content and pedagogy continues to teach students a foreign culture and worldview in a foreign language that inhibit learning experiences of students. Shava, (2016) also claims that the western education system denies learners space to bring into the educational processes knowledge from their own lived experiences. Instead, their experiences are considered inferior and their accumulated IK as valueless and insignificant. Therefore, curriculum content is still predominantly dominated by the western hegemonic epistemology at the expense of IKs (Dei, 2002; Shiza, 2010).

This is evidence that science and mathematics curricula still predominantly represent the Western Scientific paradigm at the expense of local knowledges. It confirms Ngũgi's (1981) notion of "colonization of the mind". Despite considerable strides of inclusion of IKs especially at policy level, de-colonization of the education system has not quite come to realization and still carries signs that are demonstrative of a colonized curriculum.

Therefore, including and implementing IKs, in the colleges' science and mathematics curricula, means acknowledging the social identities of the learners and developing positive experience and the attitude of learners towards science and mathematics. It brings students' school experiences closer to their home lives and gives them the opportunity to develop their talents and abilities to full potential, gain confidence and self-esteem, use their initiative and creativity, gain life skills and make informed decisions, and to understand and experience pluralism and democratic coexistence (UNICEF, 2004). Thus, the current science and mathematics curricula of the college of teachers' education should need immediate attention to inculcate IKs and implement so as to encounter the Western hegemonic knowledge.

Perceptions of colleges' Science and Mathematics Lecturers on IKs and Its inclusion

In this sub- section we present, analyse and discuss the findings of the data obtained by questionnaires, FGDs, and interviews from the research participant perceptions on IKs and its inclusion into the colleges' science and mathematics curricula. Respondents were asked to define the notion 'IKs' in their own words and some of their definitions are summarized and discussed as follows:

- "IKs are traditional knowledges" this definition indicates IKs as 'tradition' which is an inherited or customary pattern of thought, action, or behaviour. Traditions are just a component of IKS.
- "IKs are knowledges that have been created by the locals out of their own experiences locally". It doesn't necessary give a definition but describes how these knowledges are generated and brings the idea of local to the discussion.
- "IKs are knowledges to do with ancestors". This definition positions IKs in the past as something that ended historically.
- "It's the knowledge that deals with the culture". Culture knowledge is more embracing because of its broad nature that imply the whole way of life of a given people which may include, their language festivals, values, beliefs and traditions. Culture, includes all aspects of a people's way of life such as their

sporting activities, music, dance, economic activities, education system, their legal and political system, the fundamental rights of a human being, spiritual, material, intellectual and emotional aspects of a human being.

- They also define IKs by giving various examples of medicinal herbs, fishing and farming methods, methods of food preservation, traditional methods of conserving wild life, knowledge of trees and their uses, beer brewing, and weaving and handicraft.

Although, some of their definitions fit with the United Nations (2004) view that IKs as a body of knowledge that indigenous people of a historical and geographical locality have lived on for a prolonged period and have developed and transmitted to future generations. we argued that this perception could be problematic to multicultural communities such as Ethiopia in that it tends to exclude inhabitants of that particular area who may not be otherwise indigenous to the area and may not have used the IKs of the people of that area. Similarly, associating IKs to the long occupancy of a given people to a given place could be thought-provoking.

They were also asked what they understand from the concept 'Indigenous knowledges' and some of the concepts stated are summarized as: tradition, orally passed on from generation to generation, knowledge created out of a sustained stay to a locality, local, ancestral, static knowledge, and cultural. While the key terms listed maybe somewhat accurate in their description of IKs, they are also problematic and posse a challenge when used in the context of the locals.

As Semali&Kincheole (1999), describe the terms, local, traditional, ancestral, and orally passed on tend to reflect the Western perspective of the concept of IKs which is mainly associated with the ideas of primitive, static, inferior, wild and the natural. Furthermore, Hopper describes this as "inverted mirr or of Western identity" (Hoppers, 2002:8) which bree ds negative connotation about IKs and significantly contributes to the deviation of IKs in science education. The West often seems to perceive indigenous practices as irrational, mythical, unscientific and superstitious and incapable of contributing to 'development'.

While the conception of IKs as a preserving national heritage came out prominently among respondents, the aspect of it being a national resource was missing. Odora Hopers (2002) sees IKs as a combination of knowledge systems encompassing technology, social, economic and philosophical learning, or education, legal and governance systems. Indigenous knowledges are dynamic, and enables people to live harmoniously with their environment and as Breidlid (2013) observes, many people and majority population groups in Africa still adhere to cultures, belief systems and epistemologies that differ from the hegemonic Western ones.

Furthermore, we have asked college of teacher educators to express their perceptions specifically focusing on IKs and colleges' science and mathematics curricula, IKs and students learning achievement, IKs and societies' need, IKs and nations', and development through four scale Likert scale questionnaire and their responses are presented, analysed and discussed as follow:

Table 7: Perceptions of teacher educators on IKs content and application

S/No	Statement	Frequency				Total	Mean
		N/ %	DA	UD	AG		
1	I believe that there is a room to include IKs in the existing college science and mathematics subjects.	56	36	8	12	56	2.41
		%	62.1	13.8	20.7	96.6	
2	I have a positive perception that IKs enhance critical thinking and logical reasoning of learners if the contextualized in Science and Mathematics courses at college level	57	6	4	47	57	4.26
		%	10.4	6.9	81	98.3	

3	I believe integration of IKs and practices into Science and Mathematics teaching enhances students' understanding and improve learning achievement	57	2	1	54	57	4.47
		%	3.4	1.7	93.1	98.2	
4	I believe that if IKs are systemically and holistically included into school's curriculum contextually, students' achievement will be improved.	56	2	2	52	56	4.39
		%	3.4	3.4	89.7	96.5	
5	I believe IKs shall be considered to be an essential body of knowledge that can be integrated into the school curriculum to make teaching and learning contextual and meet the dynamic needs of the society.	57	2	4	51	57	4.37
		%	3.4	3.9	87.9	95.2	
6	I believe practical examination in Science and Mathematics should include IKs and connected to practical life of the societal problems.	57	2	1	54	57	4.49
		%	3.4	1.7	93.1	98.2	
7	I feel teacher educators are responsible to connect IKs in their actual classroom setting while teaching	57	1	3	53	57	4.26
		%	1.7	5.2	91.4	98.3	
8	Medium of instruction will play vital role for promoting and teaching IKs contents	58	4	7	46	57	4.18
		%	6.9	12.1	79.3	98.3	
9	I believe it is impossible to include IKs in the existing curricula.	57	47	5	6	58	2.01
		%	81.0	8.6	10.4	100.0	
10	Inculcating IKs in the curriculum helps for holistic development of a nation	56	3	2	52	57	4.4
		%	5.1	3.4	89.7	98.2	

Source: Field survey, 2021

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From table 7 above, Item 1, teacher educators were asked to express their beliefs on whether there is a room to include IKs in the current colleges' science and mathematics curricula or not, and, in this regards, the majority of the respondents 36 (62.1%) replied that the existing colleges' science and mathematics curricula have no place to include IKs, 12 (20.7%) replied that there is a room to include IKs in the current colleges' science and mathematics curricula, and 8(13.8%) replied that they cannot decided whether there is a space to include or not. From the mean value of item 1, (2.41) it is clearly understood that the respondent strongly dis-agreed with the discourse that teacher educators believed that there is a room to include IKs in the existing college science and mathematics subjects. Furthermore; Participant **BL3** stated the following:

> *"Science the current colleges' curricula are copied from other counties like America, Germany, and Great Britain and pasted. How can we talk about the space for IKs if all the colleges' teaching and learning materials are brought from Western counties?"*

Item two in the table is about perceptions of teacher educators on the positive effects of IKs on enhancing the critical thinking and logical reasoning of learners' and their responses are analyzed and discussed: the majority 47 (81.0%) of replied that if IKs are included in the colleges' science and mathematics curricula in a contextualized way, learners' critical and logical reasoning power will enhanced. This is supported with UNESCO /UNEP (2011) which states "Education programs that promotes indigenous knowledges, sustainable lifestyle and sustainable development will further enhance critical thinking and problem-skills solving (UNESCO/UNEP, 2011; 61)". On the other hand, 6(10.4%) of the respondents disagreed and 4 (6.9%) said they do not know. From the mean value for the item (4.26) it is understood that the respondents are strongly agreed that if IKs are included in the colleges' science and mathematics curricula in a contextualized way, learners' critical and logical reasoning power will increase.

Item three in the table is about teacher educators' perceptions on integrating IKs contents and practices into science and mathematics and its positive effect on students' understanding and learning achievement. Almost all 57(93.1%) of the participants agreed on if IKs contents and practice are included and implemented in the colleges' science and mathematics courses the students understanding and hence academic achievement will improve. On the other hand, 2(3.4%) of the respondent dis- agreed with the above discourse, and one respondent cannot decide the relation between IKs and students understanding and academic achievements. Moreover, the mean value for the item (4.47) indicates the respondents are strongly agreed on the strong positive relation between IKs and students' understanding and academic achievement. During the FGDs session with teacher educators, participant **BL4** explained:

> "*Including and implementing IKs in the colleges' science and mathematics subjects will enhance students' understanding on both factual and conceptual knowledges and hence will improve their academic achievement".*

Furthermore, Participant **BL5** strengthened the above statement by saying:

> "*Including IKs in the colleges' curricula will make the teaching-learning process easy, students start their learning from what they know, that means it will promote a meaningful learning. Since it starts from the society's real problems, students' creativity and academic achievement will increase".*

The above responses are supported with Semali and Kinchelone (1999) who state that inclusion of IKs means that the students' own experience and home environment take on more importance. Since IKs are knowledges that arise directly out of the children's real-life experiences, its incorporation into the school curriculum can motivate and bolster the intellectual fortunes and interests of the learners as students realize that recognition is given to what they already do, know, and say in their own communities (Mawere, 2015). It also concurred with De Beer &Whitelock (2009) who state that by including indigenous knowledges in the science classroom, the social identities of learners can be acknowledged, learning might be turned into a positive experience and the attitude of learners towards science might change.

The above findings imply that if IKs and practices are included and implemented in the colleges' science and mathematics curricula, student's prerequisite knowledge, they have got from their environment and family will help them to foster understanding of the

formal education, this will help to improve their academic achievement.

Item four in the table above is about teacher educators' perception on systematically, and holistically, and contextually inclusion of IKs and its positive effects on students' academic achievement. The majority of the respondent 52(89.7%) agreed, whereas only 2(3.4%) disagreed, and 2(3.4%) were unable to react to the item. The mean value for the item (4.39) tells us the respondents were strongly agreed on IKs should include in the existing curricula systematically, holistically and contextually so as to improve the learners' academic achievement. The finding is aligned with the existing literature of the holistic nature of IKs and proposed that native knowledge should contain the complex set of technologies improved and sustained by the indigenous community (Battiste, 2002: 2).

Item five in the table above is teacher educator perceptions on considering IKs as an essential body of knowledge and should be integrated into the school curriculum to meet the dynamic needs of the society. Their response are analyzed and discussed below as follow: The majority of the respondents 51 (87.9%) agreed, 2 (3.4%) dis-agreed and 4 (3.9%) they do not know. Moreover, the mean value of the item (4.37) indicated that the respondents were strongly agreed that IKs should be considered as an essential body of knowledges and should integrated in the curriculum so as to meet the dynamic needs of the society. This finding is alighted with the existing literature that highlights IKs are essential knowledges and should be include in the curriculum so as to meet the dynamic needs of the society. Some of the solutions to problems that currently plague developing societies and communities must proceed from understanding the dynamics within the local context; such dynamics includes the role of indigenous knowledges and practices in the development processes. (Dei, 2002; Angioni, 2003).

Furthermore, the World Bank (2004a) states that indigenous knowledges is a resource that can help to solve local problems, to prevent conflict, to build solidarity in communities, to manage local affairs, and thus contribute to global solutions. Similarly, Van Niekerk (2004) states that curricula have to be contextualized in order to address problems, topics and issues that face the dynamic society.

In item six, teacher educators were asked about their perceptions on the importance of including IKs in practical examinations of science and mathematics courses that are connected to the practical life of the societal problems. The majority of the respondents 54(93.1%) agreed, 2 (3.4%) disagreed, and only 1(1.7%) was not able to respond on the issues. The mean value (4.49) for the item indicate the respondents were strongly agreed on the inclusion of IKs in the practical examinations of the colleges' science and mathematics courses and the examination should connected to practical life of the societal problems.

Item seven in the table above is about perceptions of teacher educators on the responsibilities of science and mathematics lecturers to connect IKs in their actual classroom setting and they replied as follow; 53(91.4%) of the respondent believed that science and mathematics lecturers have the responsibilities to connect IKs in their actual classes, 1 (1.7%) believed that it is not the responsibility of the educators, 3 (5.2%) of respondents were not decided on the issue at all. Furthermore, the mean value for the item (4.26) show that the majority of the respondents are strongly agreed on the concept that teacher educators have responsibilities' to include and implement IKs in their actual classrooms teaching-learning processes.

Moreover, During the FGDs participant **HOL3** explained that:

> *"Not only science and mathematics lectures are responsible to include and teach IKs in their classes but also other course lecturers should be responsible. We, teachers, must see indigenization not only as a way of making science a reality in the lives of the learners but also as a way of improving our students' academic performance".*

Item 8 is all about how teacher educators perceive the role of MOI in promoting and teaching IKs contents. The majority 46 (79.3%) of participants agreed that MOI will play a vital role in promoting and teaching IKs contents, 4 (6.9%) were dis-agreed on the importance of MOI, and 7(12.1%) were unable to respond the question. As we can see from the mean value for the item (4.18) the participants were agreed on MOI will play the vital role for promoting and teaching IKs contents in science and mathematics courses/subjects.

Even if, this finding is aligned with the existing literature on the importance of incorporating indigenous languages into the science curriculum in helping students to understand scientific principles and to link Western science to indigenous ways of knowing(McKinley,2005), studies on cultural beliefs and science in Africa conclude that the teaching and learning of science in school is not successful because the subject is not linked to everyday life experiences and the language of instruction alienates students (Clark &Ramahlape, 1999; Dlodlo, 1999; Dzama& Osborne, 1999; Shumba, 1999).

In item 9 above, teacher educators were asked to express their views on the possibilities of including IKs in the existing colleges' science and mathematics curricula and 47 (81.1%) replied that it is possible to include IKs in the existing college science and mathematics curricula, 6 (10.4%) replied it is impossible to include, and 5(8.6%) were not decided on the issue at all. Moreover, the mean value for the item (2.02) indicates that the respondents dis-agree on the thought of impossibility to include IKs into the existing colleges' curricula. Furthermore, participant **BL6** stated that:

> *"It is possible to include mathematics IKs in the existing college curriculum; the problem is that lack of knowledges and skills on the concept of IKs and how to include it. Mathematics lecturers commonly consider that mathematics knowledges as an objective, that means, mathematical knowledge is applied and produced from a deductive axiomatic logic and is often regarded as a neutral discipline, there is a challenge to look mathematics through non-Western lenses that is why mathematics courses lack components of IKs contents, there is a need for critical mathematics''.*

The participant' argument is supported by Ernest stated that "to empower learners as individuals' citizens- in- society, by developing mathematical confidence… and to foster critical awareness and democratic citizenship via mathematics" (Ernest, 2007: 34). Research shows that how different indigenous groups have developed mathematical competence and practices, in particular "quantitative and qualitative practices as counting, weighing and measuring, comparing sorting and classifying" (D'Ambrosio, 1999:51).

Finally, in item 10, respondents were asked about their perception on the concept that if IKs are included and implemented in the colleges' curricula, it will contribute for the holistic development of the nation. The majority 52 (89.7%) of the respondents agreed, 3(5.1%) dis-agreed, and 2 (3.4%) were unable to react for the item. From the mean vale (4.40) it is understood that the participants are agreed that if IKs are included and implemented in college curricula it will contribute to a holistic development of a nation. Their responses are supported by Asgedom (2005) and Woldeyes (2017) argument that modern education in Ethiopia does not play a meaningful role in the national development because it disregarded the IKs in Ethiopia. And also by Teshome (2019, 206) who argue that the "failure in investing in IKs and its integration into the school curriculum marginalizes the importance of indigenous knowledges to contribute to the national endeavor of the country in all aspects". Including and implementing IKs in the school curriculum will play a vital role for the holistic development of a nation. On the other hand, 3 (5.1%) of them replied that they did not agree about the positive relationship between IKs and nation development, and only 2 (3.9%) were neutral for the issue raised.

However, participant **HAL4**, replied for the open ended as follow:

> *"It is not possible to include IKs in in physics courses in all topics, in some topic there may be an opportunity to include IKs, I doubt, in social sciences, it may be possible. What I simply mean here is that certain topics and certain study areas can present these IKs to the learners. But it's not in every study area and certainly not in every subject*".

Conclusions

Indigenous knowledges are now being considered to be an essential body of knowledge that can be integrated in the school curriculum to make teaching and learning contextual and meet dynamic needs of the society. Therefore, college of teachers' education Science and Mathematics curricula should include IKs contents which learners are familiar with, and then gradually move to the knowledge about regional, national and global environments. This essentially follows the philosophy of embarking on teaching and learning 'from the known to the unknown', which could be adopted if quality and relevancy of education is to be achieved.

Although, the current education and training policy, ETP, has some provisions which supports the

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inclusion and implementation of IKs in the curriculum, the college of teachers' education curricula was not able to give appropriate space for the teaching and learning of indigenous knowledgess contents particularly in Science and Mathematics courses/ subjects. Therefore, the inclusion and implementation of IKs contents in the colleges' curricula need adequate attention

Furthermore, teacher educators lack basic philosophical and conceptual knowledge and skills of relevance of IKs to enhance critical thinking of learners and some teacher educators undervalued the effectiveness of indigenous knowledges in developing techno-scientific skills applicable to scientific principles that can lead to sustainable use of indigenous resources.

However, indigenous knowledges are knowledges which encompassing technology, social, economic and philosophical learning, or education, legal and governance systems. And are dynamic, and enable people to live harmoniously with their environment. Thus, both the pre-service and in-service teacher training program curricula should revise in the light of IKs contents and to address both overt and hidden biases against indigenous knowledges in the college of teachers' education much needs to be done to change the attitudes of teacher educators toward indigenous knowledges.
Therefore, since integration of the IKs into the colleges' and school curriculum provides the necessary foundation for sustainable education which requires education programs that are locally relevant and culturally applicable and the most efficient way of strengthening indigenous knowledges is integrating the knowledge into school curricula, the current curriculum of Ethiopia should revise in the ways that it provides space for including the country's indigenous knowledges in the education system.

Recommendations
Based on the study key findings the following recommendations are forwarded.

- The research finding shows that college of teachers' education science and mathematics curricula did not include IKs. Thus, failure in integration of IKs contents into the curriculum marginalizes the importance of IKs that contribute to the national endeavor of the country in all aspects. Therefore, revising the existing college curricula in light of IKs contents should be a top priority to policy makers and curriculum developers/ experts.

- Changes in the curriculum changes the knowledge discourse. Curriculum developers at all levels (national, regional, zonal) need equipped with the concepts and methodology on how to include IKs which are the essential attributes and skills required for the 21st century teaching profession. Therefore, the curriculum should be developed in a way that both Western and Indigenous knowledges systems co-existed which is important to realize sustainable education,

- The integration of indigenous knowledges helps the production of knowledges and social relation that were ignored and marginalized by Western dominated knowledges. It also allows knowledge production to give space for indigenous knowledges. This requires ways of incorporating IKs into colleges' science and mathematics curricula. Therefore, there should be national institutions working on surveying, selection, standardization, integration, and implementation and feedback on including the various Ethiopian IKs in colleges' curricula.

- In order to include and implement IKs contents in the curriculum, there should be a clear roadmap/ guideline consisting of the strategies, clear set of principles or rules that define the actions that all implementers and stakeholders should take to achieve the desired goals,

- Teacher educators' attitudes and perceptions are crucial and have implication for the inclusion of IKs contents and implementation in colleges' science mathematics courses. Therefore, a lot more work needs to be done in an effort to change attitudes, perceptions, institutions and communities, if inclusion is going be a success. To do these I recommend, Using Continuous Professional Development (CPD) as an opportunity and ideal platform for giving a renewed hope and attention to the discourse of IKs.

- It is necessary for teacher education programs to rethink ways in which to prepare teachers for effective integration of multiple forms of knowledge when designing and implementing the teacher education curriculum.

- Even if the current political system of Ethiopia is decentralization, and hence it's education system, the real decentralization education system should be exercised by regions and training institutions to address the local needs and inclusion of IKs contents,
- The study reveals that globalization has both negative and positive effects on IKs, Thus, indigenous value addition is key to the survival of IKs. People can only contribute and benefit from globalization if they are endowed with knowledge, skills, and values and with the capabilities and rights needed to pursue their basic likelihoods in IKs play a vital role.

- The policy goals of INGOs, NGOs, and development partners are achieved through two different ways. The first one is powers of persuasion and the second one is conditionalities attached to loans. Therefore, the government of Ethiopia in general and the education sector in particular should be very conscious and proactive to their hegemonic discourse on knowledge production and it should be counter balanced by including IKs contents in the curricula.
- Revitalizing the value of indigenous knowledges through curriculum reforms are vital if communities are to engage in sustainable economic development that is oriented to their local needs. This becomes necessary to reshape education framework in order to determine terms of development within the macro and micro levels.

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Research Original Article

Effectiveness of School Leaders in Leading their Schools in Kambata, Ethiopia

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Abstract

This article is an exploratory aiming at assessing the effectiveness of school leaders in leading their schools in Kambata. Descriptive survey research design was employed. It was conducted in a sample of 10 primary schools and on 66 school leaders (principals, deputy principals and department heads), and 90 teachers. Questionnaire and focus group discussions were employed for data collection from teachers, school leaders and Woreda education experts. Percentage and frequency were employed to analyze behavioral matrix items; weighted mean was computed to find out average values against each item score of organizational factors affecting the effectiveness of leaders. Spearman's rank order correlation coefficient (rho) was used to test the perceptual variations between teachers and school leaders regarding subordinate related factors affecting leadership effectiveness. It was revealed that most primary school principals value interpersonal relations; want to promote happiness of everybody, afraid to say no and want to live peacefully rather than giving attention for the work to be done. It was found that school leaders' overestimate their performance which, was not revealed by other participants. The study also revealed that there were internal (teacher and school leader related) and external(socio-cultural environment and organization related) factors affecting the effectiveness of school leaders in discharging their functions. It was concluded that effective school leadership is a function of presence of effective, supportive/participative leaders, presence of effective and matured followers/subordinates and presence of good organizational climate, social values, economic and political conditions.

Key words: Effectiveness, leadership style, organizational factors, school performance, school leaders

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Introduction

The problem of leadership has been one of man's major concerns since the days of antiquity. In modern days, leaders all over the world have taken their places in guiding the thoughts and efforts of people to the achievement of the common goals. In any organization people working there need leaders – individuals who could be instrumental in guiding the efforts of groups of workers to the achievement of goals and objectives both of the individuals and the organization.

The objectives may not be very far reaching and the actions of the leaders may not be so dramatic, but the successful performance of the leadership role is essential to the survival of the organization (Mamoria&Gankar, 2008: 690-691).Success in school administration depends on one's overall leadership ability. For Clark and Clark (2002), leadership entails working together. It is an activity that occurs in a group in organization, or institution and which involves a leaders and followers who willingly subscribe to common purposes and work together to achieve them. An administrator's leadership to a large extent determines how successfully his or her organization will be in delivering appropriate services and willing community support.

Mathews in Cunningham and Cordeiro (2006), describes educational leadership as giving purpose and direction for individual and group processes, shaping a school culture and values, facilitating the development of a strategic plan and vision for the organization, formulating goals and planning change efforts with staff, and setting priorities to student and staff needs. Research has begun to provide a more complete knowledge base regarding effective leadership (Susan, 1985). Susan (1985) developed an instrument to help people develop their own behavior style and to identify and understand the basic styles of others.

Among the earliest of the vast research completed on leadership effectiveness were the Ohio State Studies (Stogdill, 1974). These Studies helped shift thinking away from a single-axis paradigm of leadership, often with democratic and autocratic at either ends of the continuum, to the two-dimensional paradigm of leadership that includes two continuums: consideration and initiating structure. Over hundred studies of leadership have examined this model. The general findings suggest that consideration and initiating structure are positively related to various measures of group effectiveness, cohesiveness and harmony. A leader who score high on both of these dimensions would be considered more effective based on traditional values held by organizations (Cunningham &Cordeiro, 2003).

Fiedler (cited in Cunnigham & Cordeiro, 2006) found that a leader's effectiveness in a given situation depends on the fit between his or her style and the task, authority level, and nature of the group. An effective leader, according to situational theory, is one who understands the facts of a situation and deals with them effectively (Mamoria&Gankar, 2008). To these authors, effective educational leadership largely depends on team work and participation of the staff within the organization. That means that effective and efficient utilization of human and other resources in the organization is not possible without active involvement of the staff. In addition, the intended educational objectives of the organization cannot be realized if there is no effective team work and involvement of the staff in leadership activities.

Cunnigham and Cordeiro (2006:141) noted that, effective leaders use knowledge from many sources to inform and guide their actions and those of their subordinates. This information does not prescribe practice, but it does provide the impetus for important discussion, action, and ultimately organizational success. Leaders pay close attention to theory, research and successful practice in order to enhance judgment and improve the quality of decision making.

According toCunninghan and Coredeiro(2006:15), effective leaders help to develop and support commitment of exemplary practice among the staff. The ideas that exist within the organization are key, and therefore the leader must work to help shape those ideas by what has been successful in the past and what might be successful in the future.

In general, identifying and recognizing the factors which impede leadership effectiveness is crucial for the effective operation of the organizational activities. It does not only ease the work, but also creates a good mentality toward educational leadership and mutual understanding among the staff and leaders. Thus, the problem of effective school leadership has become a great concern of this study in the Primary Schools of Kambata.

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In this study many questions have been addressed to develop a design for effective leadership in Primary schools of Kambata. Thus, to guide the study, attempt was made to address the following basic questions.

- Does the leadership that the school principals employ affect their effectiveness in Kambata? Which ones?
- What are subordinate related factors affecting effectiveness of principals in Kambata?
- Does socio- cultural environment affect theschoolleadership effectiveness in the study area?
- Which organizational factorsaffect the leadership effectiveness of school principals most or least?

The main purpose of the studywas to explore the leadership practices and factors affecting leadership effectiveness of primary school principals in Kambata, Ethiopia.

This study is expected to be useful and important for the following reasons.

1. It may give school leaders, supervisors and other education officials some ideas regarding the importance of team activities and participative/supportive leadership in schools and educational organizations, and it may strengthen their interests and attitudes to obtain professional satisfaction.
2. It may increase awareness among the school leaders, supervisors and other concerned education officials about the existing problems of school leadership in the area.
3. It may provide some alternative solution or remedy that may help to improve leadership effectiveness, so that school performance might be efficient and effective.
4. It may contribute additional information and document base for researchers who want to conduct further study in the area.

Methods of the study

The Research Design

Since this is an exploratory study aimed at examining and identifying factors affecting leadership effectiveness as well as assessing the practices of school principals' leadership, descriptive survey research design was employed. To this end, the study employed two approaches. The first approach was reviewing and discussing some principles, theories, models and literature relevant to leadership and leadership effectiveness. This part dealt with the analytical framework most important and appropriate to the analysis and understanding of the general leadership effectiveness in the organizational functions. The second approach was gathering the relevant data to determine factors affecting the effectiveness of school principals'leadership. This section ~~was~~ focused on both qualitative and quantitative data about the respondents perception regarding leadership practices and factors contributed to the effectiveness of leadership in the Primary Schools under study.

The Sample and Sampling Techniques

Out of seven Woredas and Three Town Administration found in Kambata, threeworedas and two town administrations were included in the study. Because of larger number of teachers and school leaders in the study area, the sample representation in the study was set by a technique of simple random sampling. In the questionnaire part, 66 school leaders (principals, deputy principals and department heads) and 90 teachers were participated in this study as sources of data. Besides, 10woreda education officers and experts were participated in focus group discussion from three randomly selected woredasand two town administrations purposively since they were assumed to have rich information on the problem under study.

Instrumentation

Since the sample size was relatively large, the main data gathering tool was questionnaire. Besides, focus group discussion was held with woreda education officers and experts to triangulate, illuminate and deepen the data collected through the questionnaire.

A questionnaire used to survey a behavior matrix of leaders that is developed by Susan (1985) called "North West- Regional Educational Laboratory (NREL)" was adapted and administered to teachers, school leaders (Principal, deputy principals and department heads). Besides, a focus group discussion was held with some woreda education officers and

experts. The Purpose of the focus group discussion was to compare the reality about leadership styles school principals employ and factors affecting their effectiveness.

Techniques of data analysis

Both quantitative and qualitative techniques of data analysis were employed. Percentage and frequency were employed; weighted mean was computed to find out average values against each item score of organizational factors affecting leadership effectiveness. Spearman's rank order correlation coefficient (rho) was used to test the perceptual variations between teachers and school leaders regarding subordinate related factors affecting leadership effectiveness.

Conceptual and theoretical frameworks

Success in school mostly lies in a series of action steps that school leaders should implement. It is evident that effective leaders are healthy, intelligent, tactful and resourceful. Leaders are furthermore characterized by their use of different leadership styles and their ability to choose the right leadership style to fit the specific situation. Bush (2008) defined leadership in terms of leadership as influence and leadership ashaving vision. According to him, *a* central element in many definitions of leadership is that there is a process of influence. Leadership then refers to people who bend the motivations and actions of others for achieving certain goals; it implies taking initiatives and risks. Ogawa and Bossert (1995) see this influence as an organizational quality following ~~the~~ differing internal networks of the organization.Leadership may also be understood as 'influence' but this notion is neutral in thatit does not explain or recommend what goals or actions should be soughtthrough this process. However, certain alternative constructs of leadershipfocus on the need for leadership to be grounded in firm personal and professionalvalues. Greenfield and Ribbins (1993), claim thatthe primary role of any leader is the unification of people around key values. The writers add that leadership begins with the 'character'of leaders, expressed in terms of personal values, self-awareness andemotional and moral capability.

As has been mentioned, the function of leadership seems to influence the overall performance of organizations. However, the lack of a unique definition of the concept of a principal's leadership, which is broadly accepted, creates problems in the examination of this impact. Indeed, leadership has been conceptualized and operationalized in many different ways. The fact that researchers have provided inconclusive results is not a sufficient argument for rejecting the concept of "leadership" altogether. For example, Gronn (2000:318) argues that leadership is still needed but a fundamental reconceptualization of the nature of leadership within organizations is overdue.

A first step to this reconceptualization is the identification of the causes of the lack of a universal definition of the concept of leadership (Hallinger& Heck, 1998:190). A second step is the identification of the main assumptions about effective leadership which seems to be a very difficult task. However, the main assumption that could be broadly accepted is presented by Riley and Louis (2000:47) who argue that "there is no package for school leadership, no one model to be learned and applied regardless of culture or context, though leadership can be developed and nurtured".

According to Terry and Franklin (2002), three main theoretical frameworks have dominated leadership research at different points in time. These included the trait approach (1930s and 1940s), the behavioral approach (1940s and 1950s), and the contingency or situational approach (1960s and 1970s).

Contingency and situational leadership theorists reject the conclusion that there is one best approach to leadership effectiveness. They suggest that time available, task specificity, competence and maturity of the staff, need for involvement, authority, and dynamics of the situation determine what style should be used (Cunningham &Coredeiro, 2006). These writers went on saying that other situational factors like groups size, rewards, leader status, method of appointment and technical background have also a contribution on leadership effectiveness. Although considerable conceptual and methodological progress has been made, little is known about the paths through which school leaders can enhance organizational and student outcomes and about the interplay with contextual factors (Hallinger, 2003:330).

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The leadership style that is adopted by a leader can have a positive or negative influence on the effectiveness with which an aim is achieved, performances are executed, staff development is conducted, and job satisfaction is experienced in a school, all of which impact on the instructional program and academic achievement (Prinsloo, 2003:141).

Day, Harris and Hadfield's research in 12 'effective' schools in England and Wales concludes that 'good leaders are informed by and communicate clear sets of personal and educational values which represent their moral purposes for the school' (cited in Bush,2008). Others consider effective leaders who have vision for their schools.

Hersey and Blanchard (cited in Terry & Franklin, 2002) in their leadership research confirmed that successful leadership depends on the relationship between organizational situation and the leadership style. According to them, organizational situation include such variables as the climate, managers and subordinate's values, attitudes, and experience; and the nature of the particular work to be done, including time and money.

The vast majority of studies investigating school leadership and its impact on school effectiveness were mainly focused on a principal's leadership. This tendency was based on the belief that the principal was the single source and direction of leadership in the school (Harris, 2003). Moreover, Kythreotis, Pashiardis&Kyriakides(2010:234) found principal's human leadership style has a direct impact on school achievement.

It is thus clear that the effectiveness of leaders who employ a situational leadership style depends on the fit between their brilliance of choosing the appropriate leadership style for the specific task to be executed, with cognizance of their level of authority, and the nature of the specific group that they are leading. There is therefore no fixed personality-based trait for effective leadership and management. School principals who employ a situational leadership style therefore continuously and instantly modify or change their leadership style to cope with changes in their staff's readiness and with cognizance of the maturity and professional development of each individual member of staff (Cunningham &Cordeiro, 2006:155; Hersey, Blanchard & Johnson, 2001:38). In sum and despite the descriptions of all the possible leadership styles engendering leadership effectiveness, there is not a single leadership style promoted as a model for fitting all contexts and all situations.

It is apparent from the preceding discussions that leadershipeffectiveness is a product of many forces that act and interact simultaneously. Every leader must achieve some degree of integration of these varying and complex forces; otherwise there is a void in the leader's leadership necessary to perform the managerial job effectively. Effective leaders must be clear in the set of beliefs they plan to practice and the impact their style has on the culture, ethos, and environment in which subordinates work. Leadership style guides the action and interaction of the work group serving as a catalyst for achievement while bringing together diverse people within an organization to work for the common good.

Findings and discussion

Two data gathering instruments were used to collect data for the study. Questionnaire was distributed to 100 teachers and 70 school leaders (principals, deputy principals and department heads) who are currently serving in primary schools of Kambata. The response rate was 66 (85.7 %) for school leaders and 90 (90%) forteachers.In addition, focus group discussion was held withworeda education experts. Hence, this section briefly presents the findings and discussions of the study.

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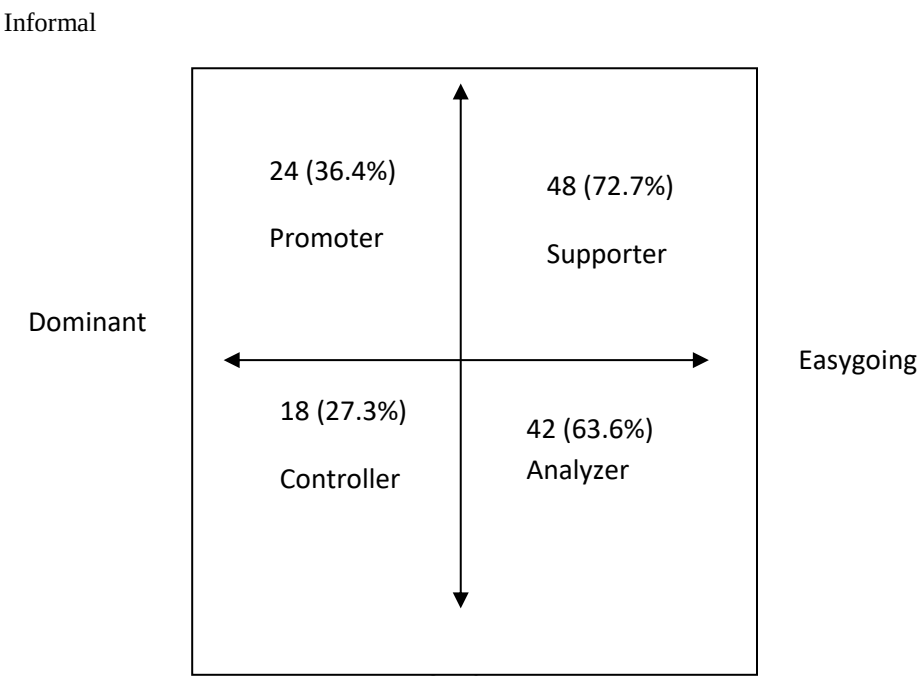

Figure 1: School leaders' perception regarding their most frequently applied leadership style

Graph 1

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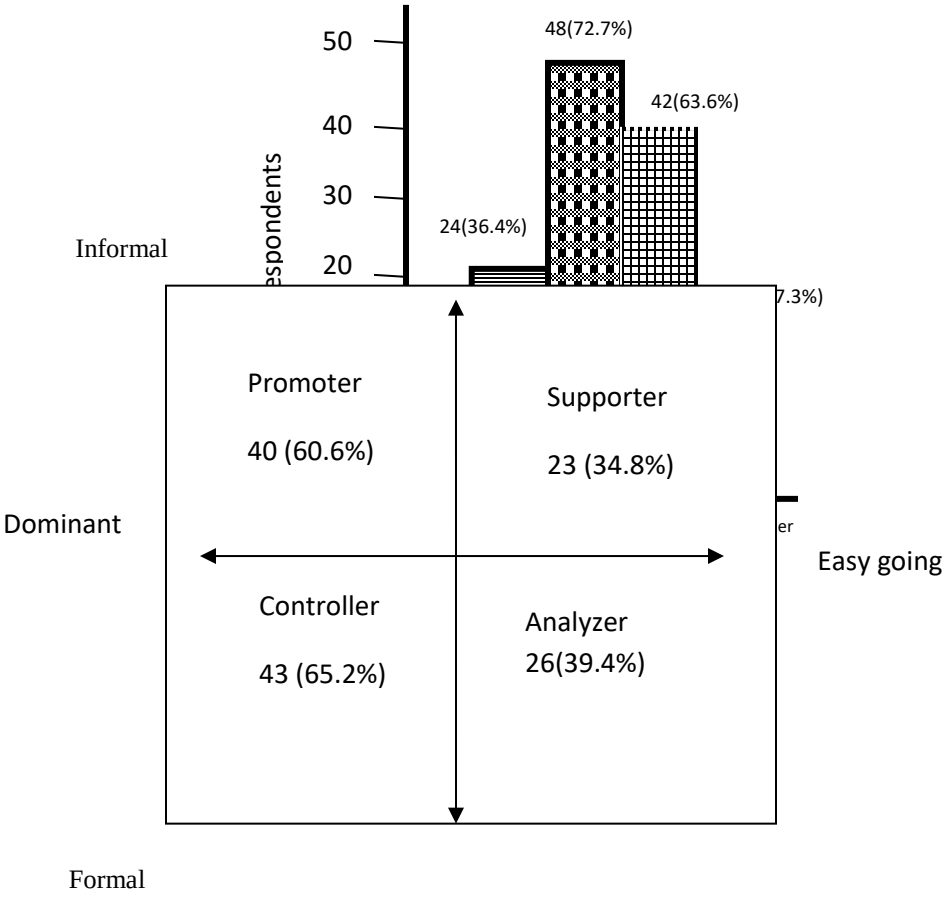

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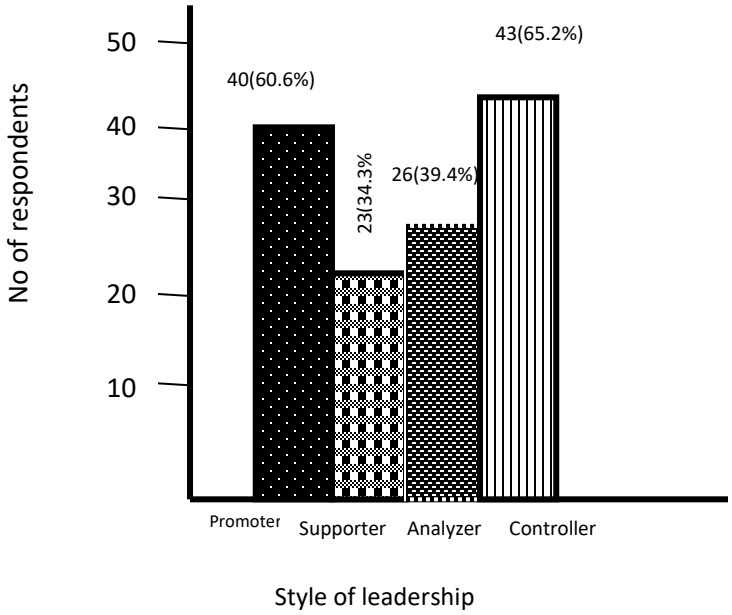
Figure 2: Leadership behavior of their superiors (bosses) as viewed by school leaders

Graph 2



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The above two figures depict how school leaders view themselves and their immediate supervisors in the work situation.

There are great deals of diversity in the personal styles that people bring to their organizations. These styles serve as screens through which the individual views people, tasks, and organizations. Accordingly, to identify the behavior style of school leaders and to identify and understand the basic styles of others, the Northwest-Regional Educational Laboratory (NREL) behavior matrix instrument was used and the following results were obtained.

The lines were next recognized in order to get four quadrants. Figure 1 and Figure 2 present the recognized lines in the form of behavior matrix. The marks were converted to axes and horizontal and vertical lines were drawn through the marks to determine the point where the two lines intersect. This placed the school leader and his/her supervisor into a quadrant on the behavior matrix.

As indicated in Figure 1, and Graph 1, 48 (72.7%) of the school leaders considered themselves as supporter, while 18(27.3%) of them considered themselves as controllers. At the same time, 42(63.6%) of them pointed out that they use analyzer style of leadership, whereas 24(36.4%) of them said as they apply promoter type of leadership style. Here it can be generalized, that most primary school leaders in the study area use supporter and analyzer styles of leadership.

On the other hand in Figure 2 and Graph 2, majority, that is (65.2%) of them revealed that their immediate supervisors are controllers and 23(34.8%) said that they are supporters. Besides, 40(60.6%) of the school leaders noted that their supervisors use promoter style of leadership, while 26(39.4%) of them pointed out that their supervisors apply the analyzer style of leadership From figure 2, one can easily understand that the immediate supervisors of school leaders frequently use controller and promoter style of leadership. When viewed in behavioral matrix.

Below are the descriptors for each of the quadrants in the behavior matrix. The description of the characteristics of school leaders and their immediate supervisors falling in each of these four quadrants starting with upper-left quadrant (promoters), according to Cunnigham and Cordeiro, (2003:139-140) are:

Promotional Style: promoters get involved with people in active, rapidly changing situation. These people are seen as socially outgoing and friendly, imaginative and vigorous. Some see promotional style as dynamic and energetic while others perceive the same behavior as egotistical. In the work situation, promoters can get things going but might sometimes settle for less that the best in order to get on to something else. They are frequently highly competitive and might need to learn to work with others in a collaborative manner.

Supporting Style:supporters value interpersonal relations.These people try to minimize conflict and promote the happiness of everybody. Some people see the supporting style as accommodating and friendly, while others describe it as "wishy- washy" and "nice." In the work situation, supporter might find it difficult to say "no," therefore frequently finding themselves overcommitted. Supporters are people-oriented and non-aggressive. They rely on others to give direction about how to get the tasks done.

Controlling Style: controllers want results. They love to run things and have the job done in their own way; "I will do it myself" is a frequent motto of the controller. These people can manage their time to the minute. Some see them as business like and efficient, while others refers to them as threatening and unfeeling. In work situation controllers make sure the job is done. Controllers are confident in their ability, take risks and push forward.

Analyzing Style:analyzers are problem solvers. They like to get all the data before making a decision. Some say they are through, but others complain that they are slow. These people are frequently quiet and prefer to work alone. In a work situation, analyzers bring valuable conceptual skills. They ask the difficult, important questions. Interpersonally, they might seem aloof and cool. Analyzers might miss deadlines, but they will have all the reasons to support the delay.

The school leaders revealed that they are more of supportive however their immediate supervisors are more of controllers. Similar fact was also revealed by the education office experts in the focus group discussion. That is most school leaders in Kambata value interpersonal relations, want to promote happiness of everybody afraid to say no and want to live peacefully rather than giving attention for the work to be done. Their compliant on their immediate

supervisors, might be associated with their characteristics of not disclosing their personal weaknesses.

Thus, from the above figures (1 and 2) and graphs (1 and 2) as well as from interpretation of the behavior matrix, it can be concluded that successful leaders come from all quadrants of the matrix and an organization needs all four types of people to be successful.

Table 2 A: School leaders' response on their behavior in relation to the staff

No	Items	Make a great effort to do this		Tend to do this		Avoid to do this		Make a great effort to avoid	
		No	%	No	%	No	%	NO	%
1	Closely supervise their subordinates	56	84.8	7	10.6	-	-	3	4.5
2	Set goals and objectives for their subordinates	46	69.7	15	22.7	4	6.1	1	1.5
3	Set up controls to ensure the job done	45	68.2	16	24.2	3	4.6	2	3.0
4	Encourage subordinates to set their own goals and objectives	50	15.8	16	24.2	-	-	-	-
5	Make sure that the subordinates work is planned	46	69.8	16	24.2	3	4.5	1	5.1
6	Check with subordinates daily to see if they need help	43	65.2	18	27.3	3	4.5	2	3.0
7	Step in as soon as reports indicate that the job is slipping	37	56.1	15	22.8	4	6.1	-	-
8	Push subordinates to meet schedules if necessary	50	75.8	12	18.2	3	4.5	1	1.5
9	Have frequent meetings to keep in touch with what is going on	41	62.1	19	28.8	4	6.1	2	3.0
10	Allow subordinates to make important decisions	50	75.8	8	12.1	6	9.1	2	3.0

Table 2A depicts the school leaders' response on their behavior in relation to their staff.

Accordingly, majority (over 95%) of the school leaders who participated in the study pointed out that they closely supervise subordinates, set goals and objectives for their subordinates, set up controls to ensure the job done, check with subordinates daily to see if they need help, step in as soon as reports indicate that the job is slipping and push people to meet schedules. However, very few of them indicated the opposite. On the other hand, a great majority (over 92%) of them indicated that they encourage subordinates to set their own goals and objectives, have frequent meetings to keep in touch with what is going on and allow subordinates to make important decisions.

Table 2B: Teachers Response on Leader's Behavior in Relation to the staff

No	Items	Make a great effort to do		Tend to do this		Avoid to do this		Make a great effort to avoid	
		No	%	No	%	No	%	NO	%
1	Closely supervise their subordinates	55	61.1	21	23.3	13	14.5	1	1.1

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2	Set goals and objectives for their subordinates	37	41.1	39	43.3	10	11.1	4	4.5
3	Set up controls to ensure the job done	47	52.2	23	25.5	13	14.5	7	7.8
4	Encourage subordinates to set their own goals and objectives	33	36.7	26	28.9	17	18.9	14	15.5
5	Make sure that the subordinates work is planned	53	58.9	17	18.9	17	18.9	3	3.3.
6	Check with subordinates daily to see if they need my help	32	35.6	26	28.9	19	21.1	13	14.5
7	Step in as soon as reports indicate that the job is slipping	36	40.0	26	28.9	22	24.4	6	6.7
8	Push subordinates to meet schedules if necessary	33	36.7	24	26.7	9	10.0	14	15.6
9	Have frequent meetings to keep in touch with what is going on	42	46.6	25	27.8	15	16.7	8	8.9
10	Allow subordinates to make important decisions	28	31.1	30	33.3	18	20.0	14	15.6

Majority (about 75% on average) of the teacher respondents revealed that their school leaders' closely supervise subordinates, set up controls to ensure the job done, set goals and objectives for subordinates, make sure that the subordinates work is planned, step in as soon as reports indicate the job is slipping and push people to meet schedules. While about quarter (25%) of them responded opposite to that i.e. they said that school leaders avoid doing these or making a great effort to avoid doing these things.

On the other hand, about 68% on average of the teacher respondents noted that the school leaders encourage subordinates to set their own goals and objectives conduct frequent meetings to keep in touch with what is going on and allow subordinates to make important decisions. However, significant number (about 32%) of them revealed that the school leaders' avoid or make a great effort to avoid doing these things.

Therefore, from the above two tables (Table 2A and 2B) one can conclude that school leaders are over estimating as if they possess and demonstrate such a behavior which was not witnessed by teachers. Thus, majority of the school leaders in the study area can be described as mild theory X advocators or believers.

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Table 3A: **School leaders' responses for leadership behavior survey questionnaire**

3A1- Initiating structure (Left-hand column)

	Column Totals		Weighted Factor Totals
Always (5)	550	X4=	33.33
Often (4)	244	X3=	11.89
Occasionally (3)	66	X2=	2.00
Seldom (2)	42	X1=	0.63
Never (1)	83	X0=	0
IS. Grand Total			47.05

3A2- Consideration (right-hand column)

	Column Totals		Weighted Factor Totals
Always (5)	598	X4=	36.24
Often (4)	276	X3=	12.54
Occasionally (3)	41	X2=	1.24
Seldom (2)	30	X1=	0.45
Never (1)	45	X0=	0
C. Grand Total			50.47

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3A3- Charting Leadership style matrix

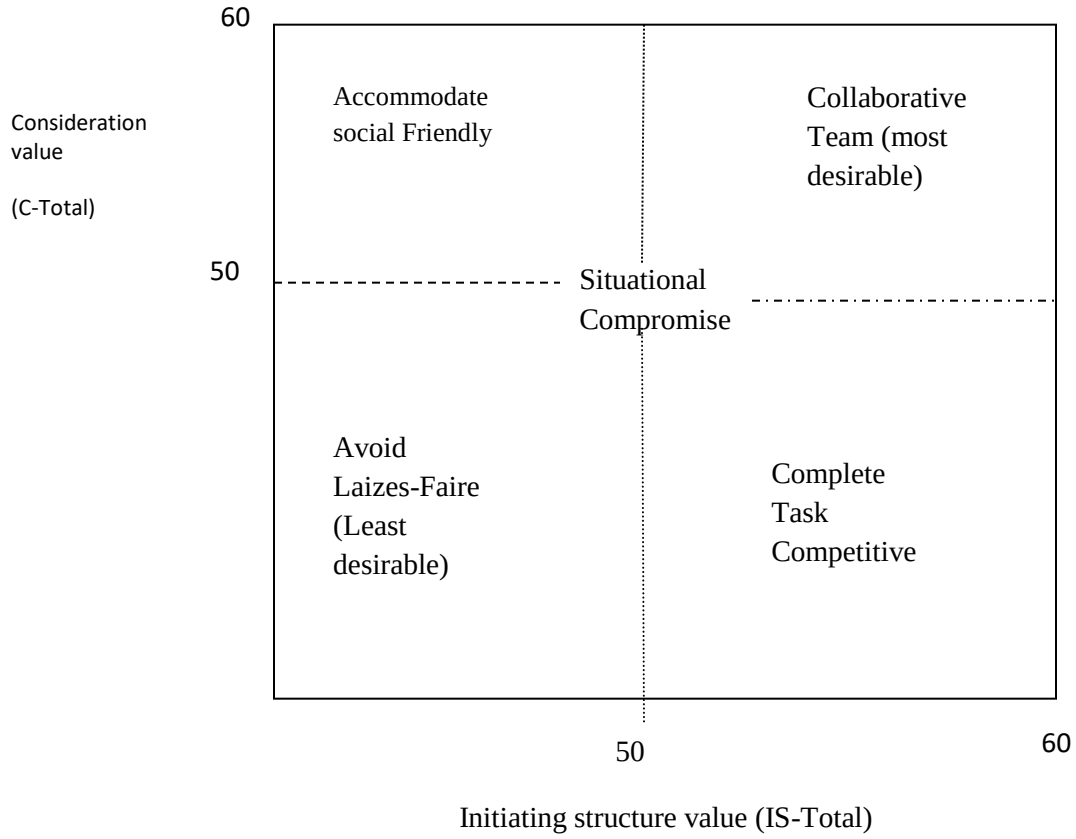

Table 3B: Teachers' Responses for Leadership Survey Questionnaire

3B1: Initiating Structure (Left hand Column)

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	Column Totals		Weighted Factor Totals
Always (5)	509	X4=	22.62
Often (4)	349	X3=	11.63
Occasionally (3)	257	X2=	5.71
Seldom (2)	170	X1=	1.89
Never (1)	120	X0=	0.0
IS. Grand Total			41.85

3B2 – Consideration (right-hand Column)

	Column Totals		Weighted Factor Totals
Always (5)	458	X4=	20.36
Often (4)	312	X3=	10.40
Occasionally (3)	202	X2=	4.49
Seldom (2)	208	X1=	2.31
Never (1)	170	X0=	0
C. Grand Total			37.56

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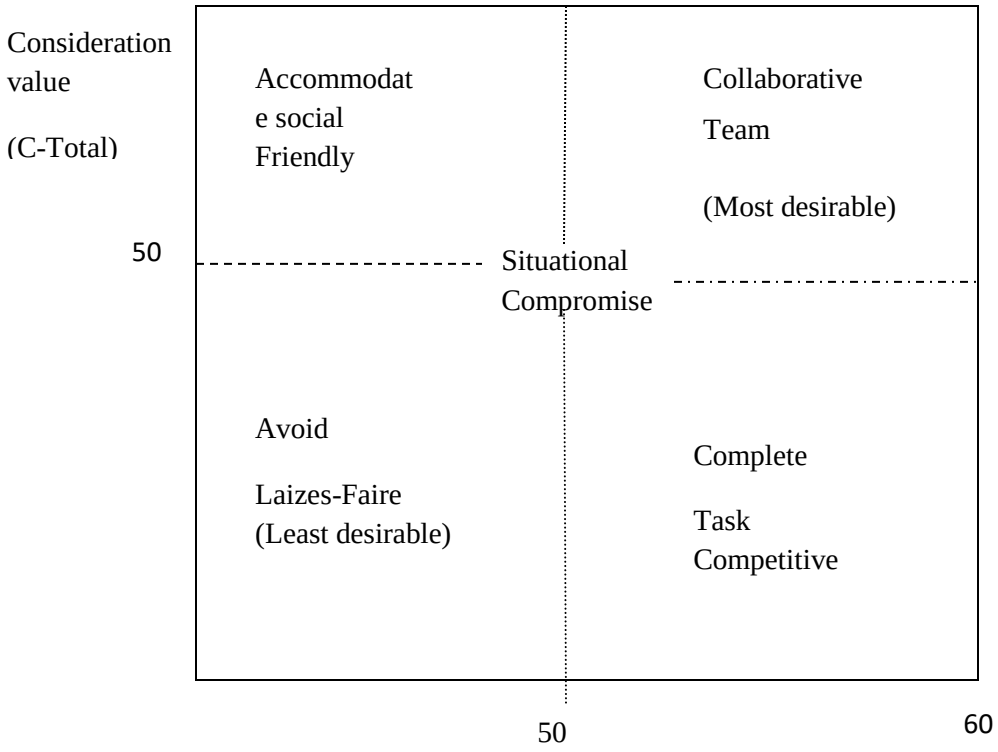
3B3- Charting Leadership style Matrix



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The above tables (3A1, A2, A3 and 3B1, B2, B3) show the styles of leadership in which school principals in Kambata Primary Schools most naturally apply in practice.

The columns on the left side of the survey questionnaire represent the initiating structure values. The right side columns represent consideration values. By recording the column totals in the initiating structure and consideration boxes above, (Total number of checks marked by respondents in each column of the leadership behavior survey, and by entering- the totals in the square for the appropriate column) multiplying each of these totals by the weighted factors indicated, the above results were obtained. Adding weighted factor totals for a grand total, representing the initiating structure grand total and consideration grand total.

Then charting both of these grand total values on the charting leadership style matrix to determine the quadrant of the selected leadership style, the above results were obtained. The results of initiating structure and consideration in both cases are almost similar.

According to the research participants (school leaders and teachers) the most naturally applied styles of leadership in the study area are situational balance and compromise type i.e. 5,5 of the new managerial grid developed by Blake and Mouton (1964 & 1978). This fact was exactly revealed by woreda education officers and experts that they said that the school leaders choose to leave with peace and compromise with everybody; they don't give maximum concern for work and people.

The 5,5 style is located in the middle of the Grid figure, with a medium level of concern for both results and people. Like the 9,1 and the 1,9, the 5,5 leader believes there is an inherent contradiction between the two concerns. This contradiction can be resolved by balancing the needs of people with results, through compromises and trade-offs rather than trying to achieve the soundest possible results. Here, the objective is not to strive for excellence but to play it safe and work toward acceptable solutions. The 5,5 is often very informed, but his/her efforts are weakened by the objective of filling in with popular trends. Information gathered is not used for challenging standards and searching for creative solutions but is used to reduce or suppress controversy. Research suggests that it is important to become a team-participation (contribute and committed) leader, i.e. 9,9 style of leadership (Cunningham &Cordeiro, 2003:146).

Table 4: Weighted mean values of organizational factors affecting effectiveness of leaders

No	Factors	Leaders (n=66)		Teachers (n=90)	
		Weighted Mean	Rank	Weighted Mean	Rank
1	How much confidence and trust does management place in subordinates?	3.21	15	2.92	14
2	How free do subordinates feel to talk to superiors about the job?	2.92	11	3.06	16
3	How often are subordinates' ideas sough and used constructively?	2.78	6	2.83	13
4	Is predominant use made of (1) fear, (2) threats, (3) punishments, (4) rewards, (5) involvement?	2.56	1	2.53	4
5	Where is responsibility felt for achieving organization's goals?	2.64	4	2.33	2
6	How much cooperative teamwork exists?	2.77	5	2.80	10
7	What is the usual direction of information flow?	3.26	16	3.01	15
8	How is downward communication accepted?	2.86	8	2.79	9
9	How accurate is upward communication?	2.95	12	2.80	10
10	How well do superiors know problems faced by subordinates?	2.89	10	2.29	1
11	Are subordinates involved in decisions related to their work?	2.62	3	2.70	8
12	What does the decision making process contribute to motivation?	2.88	9	2.61	5
13	How are organizational goals established?	3.00	13	2.80	10
14	How much personal resistance to goals is present?	2.58	2	2.67	7
15	Is there an informal organization resisting the formal one?	2.80	7	2.52	3
16	What are the cost, productivity, and other control data used for?	3.05	14	2.62	6
	Grand Mean	2.86		2.71	

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Sixteen variables of organizational functions which could be practiced by school leaders were listed in table 4. Out of these, only four items bear weighted mean scores that were above the minimum satisfactory point of the rating scale (3.0) for school leaders. The remaining twelve items hold values below the desired minimum point of the scale, i.e., 3.00.

The items described as " usual direction of information flow", "level of confidence and trust that management place on subordinates," " the cost, productivity and other control data used for", and "ways of organizational goal establishment" exhibited the biggest weighted mean values in the distribution i.e. 3.26, 3.21, 3.05 and 3.00 respectively for school leaders.

On the other hand, out of these sixteen organizational variables/factors, only two item bear weighted mean values that were above the minimum satisfactory point of the rating scale (3.0) by teacher respondents. However, fourteen items bear weighted means values that were below the minimum satisfactory point of the rating scale, i.e. 3.00.

Moreover, both groups of respondents reported that they were reasonably satisfied with the school variables/ factors concerning "accuracy of upward communication", "acceptance of downward communication", decision making process contribution to motivation", and "existence of cooperative team". The weighted mean values for these items for school leaders were 2.95, 2.86, 2.88 and 2.77 respectively and for teachers 2.80, 2.79, 2.61 and 2.80 respectively. Nevertheless, teachers were relatively dissatisfied and considered as hindering factors for leadership effectives on items indicated by numbers 10,5,15 and 4. The school leaders also indicated their dissatisfaction on items indicated by numbers 4,14, 11 and 5.

Furthermore, the overall level of effect of these factors could be determined by the combined or grand mean rates of the factors (variables). The grand mean computed for all the variables for the two groups of respondents (leaders and teachers) were 2.86 and 2.71 respectively. From the above table and discussions, it can be said that there are a number of organizational variables (factors) affecting the effectiveness of primary school leaders inKambata. In addition, among these as indicated by woreda education experts are: lack of the necessary support from woreda management bodies, lack of monitoring and supervision from woreda education office, lack of commitment of supervisors, external interferences and others.

Table 5: Rank order of the subordinate related factors affecting effectiveness of school leaders

No	Factors	Leaders (n=66)		Teachers (n=90)	
		Mean Rate	Rank	Mean Rate	Rank
1	Lack of motivation	0.15	2	0.17	14
	Lack of commitment to accept responsibility	0.21	6	0.18	4
3	Lack of training (knowledge and skills)	0.15	2	0.13	1
4	Poor morale of subordinates	0.18	4	0.20	7
5	Lack of cooperation among teachers	0.21	6	0.17	2
6	Poor relations between management and individuals	0.14	1	0.18	4
7	Lack of self-confidence	0.19	5	0.19	6
8	Poor communication abilities	0.23	8	0.21	8
9	Not striving for excellence	0.39	10	0.22	10
10	Fear to face challenges	0.36	9	0.22	9

The data in Table 5 depict the rank order of subordinate related factors adversely affecting leadership effectiveness. Respondents were requested to rank these factors in the degree of priority that they may hinder leadership effectiveness. As reported by school leaders, poor relation between management and individuals, lack of interest and motivation and lack of training (knowledge and skills) and lack of morale of subordinates were ranked 1 to 4 in that order.

However, teacher respondents ranked 1 to 4, lack of training in management principles, lack of interest and motivation, lack of cooperation, and poor relation between the management and individuals in that order. Both groups of respondents have similar views on poor communication abilities, fear to face the challenges and not striving for excellence, i.e. they ranked them 8 to 10 in that order. Some remarkable ranking differences were observed between the two groups of respondents in the area of poor morale of subordinates, lack of commitment to accept responsibilities, lack of cooperation, and poor relations between management and subordinates. The spearman's rank order correlation coefficient employed justified that there is significant difference between the rankings of school leaders and teachers (rho= 0.76, P<.05). Thus, the views of teachers didn't match with the views of school leaders, that is, both groups didn't share the same idea concerning subordinate related factors affecting effectiveness of school leaders. These differences might be emanated as a result of school leaders' poor ability of coordination, motivation and leadership.

Conclusion and Recommendations

As proved by the laboratory test questionnaire of North Western Regional Education Laboratory (NREL), the most frequently used leadership styles in the primary schools of Kambata are supporter styles, i.e they fall in the 1st quadrant in behavioral matrix, and that their supervisors or bosses mostly apply controller types of leadership styles, i.e their leadership styles fall under the 3rd quadrant on the behavioral matrix.

In group activities, as revealed by both groups (school leaders and teachers), through leadership survey questionnaire, the school leadership style fall under balance and compromise or the 5,5 style which was identified by Blake and Mc Canes (1991) out of seven leadership styles. Advocators of this style located it in the middle of the grid figure with a medium level concern for both result and people.

The organizational factors most affecting effectivenessof leaders were: presence of threats and punishments, presence of strong personal resistance to goals achievement in the organization, subordinates unwillingness to accept additional tasks and be involved in decisions related to their work, not knowing and being involved in the problems of subordinates, presence of informal organizationsresisting the formal one, and lack of motivation in the organization.

The subordinate related factors most affecting effectiveness in the schools according to their level of seriousness were: lack of training on management skills, lack of motivation, teacher and student migrations to other countries, and poor relations between school leaders and individual teachers and workers,

Some school leaders' related factors affecting their effectiveness depicted by most respondents were: lack of training (knowledge and skills) in educational management; lack of experience in the management of schools; lack of motivators or incentives for school leaders; lack of the necessary support from within and outside the school; personal characteristics of leaders like unfairness, not involving teachers in decision-making, fear for criticism, lack of commitment, lack of trust and respect; shortage of budget to run the planned school activities effectively, poor communication ability and skills, and lack of time due to school leaders' engagement in other duties.

Effective school leaders are expected to: communicate about instructional matters, pay attention to student results, discuss curriculum and instruction issues, focus on how well learning objectives were mastered in communication with students, teachers, and parents, and to be a visible

presence in and around the school. However as revealed by this study, most school leaders lack such skills to apply these basic things.

From all the findings, it can be concluded that effective school leadership is a function of presence of democratic or participative leaders, presence of matured subordinates and presence of good organizational climate, social values, economic and political conditions.

Practically, it is impossible to become effective school leader and achieve positive results though unfair and negative influence on teachers and other school personnel. Therefore, in order to be effective, school leaders and other education officials ought to:

- foster democratic, cooperative and collegial climate within the school system,
- provide motivators such as recognition, praise, encouragement, active support, trust and respect, and etc by acknowledging particular endeavor, and
- make a great effort to get cooperation and support of parents and the surrounding community.

One of the organizational factors which affect leadership effectiveness adversely was absence of rewards and incentive systems in the schools. Research in the field shows that when an organization voluntarily acts to benefit members, it signals a value placed on workers and concern for their well-being, which pays off through greater productivity and loyalty. Therefore, educational leaders at various levels of the education sector should provide incentives to attract competent teachers and workers, to develop and reward them, and to foster a relationship that retains them in the system.

In the study it was revealed that there is lack of support for teachers for performing various activities in the school, since the school leaders are not available in and around the school frequently. Therefore, school principals should be stationed at schools and create a supportive environment where people can thrive, grow and live in peace with others.

All other things being equal, individuals with more complex and varied information and knowledge are likely to be better performing than others. Trained school principals appear to have better professional attitude and relationships, less authoritarian and prepare better plans than untrained, and they seem to have more possible efforts on teacher performance and students achievements than untrained ones at all levels. Therefore, attention needs to be paid on the training of school leaders in current concepts and principles of educational management and leadership in continuous manner. At the same time the concerned government bodies are advised to make the salary of school leaders attractive for attracting experienced teachers to join the position.

As revealed by the study, lack of commitment and resistance to accept responsibility on the part of teachers is a serious problem for school leadership effectiveness. Nobody and nothing will motivate and raise the level of commitment of teachers except it comes from within. If teachers are intrinsically motivated, they will be committed and eager to work harder and accept any additional responsibility. Thus, teachers by themselves need to identify their pit falls, treat themselves and be intrinsically motivated to perform their duties effectively in their schools to promote student's achievements.

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THE CAUSES OF SCHOOL ABSENTEEISM AND DROPOUT RATES OF FEMALES IN PRIMARY SCHOOLS IN SOUTHERN NATIONS, NATIONALITIES, AND PEOPLES' REGION, ETHIOPIA

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ABSTRACT

The purpose of this study was to investigate the causes of school absenteeism and dropout among female students in selected primary schools in woredas (districts) of Southern Nations, Nationalities, and Peoples' Region. To achieve this purpose, a survey design was employed with a quantitative data analysis method. Primary data sources were obtained from sample areas of different zones in the region by using multi-stage sampling techniques. The data gathering tool was a questionnaire. The data were analyzed using descriptive statistics such as frequency, percentage and inferential statistics like means and standard deviation. The findings of the study revealed that the majority of respondents believed that girls have to study before finishing household jobs, whereas a few of respondents believed that girls should finish household jobs before going to school. Of the observed woredas, 48.1% of respondents do not encourage females to learn school. In Anlemo woreda, Wolaita-Sodo town, Sodo woreda and Wolkite woreda almost all of the respondents encourage females to marry rather than pursue education. Among the main reasons for school absenteeism of girls it was found that household workload and shortage of food at home were the most significant. As a result, a large number of girls were absent from school in Wolaita-Sodo town, Anlemo woreda and Wolkite town every two weeks. Furthermore, the study revealed that among the major causes of female school dropout were economic problems, marriage and distance to school. To reduce girls' school absenteeism and dropout, it is recommended that the regional government should advocate female education and create awareness on the drawback of early marriage through social media and school education.

Key Words: absenteeism, cause, dropout, education,

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INTRODUCTION

1.1 Background of the Study

Education is critical for human development and a central tool for enhancing the capacity of human beings by focusing on competencies (knowledge, attitudes and skills) in a formal setting. It is also a means to reduce poverty, enhance life expectancy, increase productivity and improve problem-solving skills. Thus, education can improve the productivity of individuals in particular and the development of a country in general. Moreover, the participation of girls' at all educational levels (from pre-primary to higher education) is a prerequisite to the sustainable socio-economic development of developing countries and thereby enables a narrowing of the gender gap in educational participation. All children, particularly girls, must have access to and complete quality education by the year 2015 to achieve the third United Nations' eight Millennium Development Goals, namely to promote gender equality and empower women (Dakar Framework for Action, 2000). This goal recommends that every citizen has a right to get equal access to a basic education irrespective of one's race, gender, ethnic group or other factors. However, it has been observed that in developing countries different causes aggravate students' absenteeism and dropout (Chimombo, 2005).

It has been established that students who attend school frequently were more successful in their knowledge acquisition and skills development and thereby improve the habit of working with classmate students to accomplish educational goals (Kearney & Graczyk, 2014). Therefore, students frequent school attendance helps them be successful in their academic performance, language improvement and social development. Research showed that students who attend school regularly have high academic success, more frequently complete the grade level they are enrolled in, pass the regional and national exam, and develop collaborative work habits, Balfanz & Byrnes, 2012; Ferrell, Nance, Torres, and Torres, (2013); Kearney & Graczyk, 2014).

In contrast to students who routinely attend school, students who are absent from school frequently achieve lower levels of academic performance. Moreover, they encounter limited future job opportunities and will experience social and emotional problems in adulthood (Buscha & Conte, 2014; Nolan et al., 2013; Şahin, Arseven & Kılıç, 2016). Missing classes regularly not only affects the academic performance of the student but also influences the in-class planning of teachers and the motivations of the other students in the class (Şahin, Arseven & Kılıc (2016).

Regular absenteeism has a significant effect on developing bad behaviour using addicted substances like chat, smoking, drinking alcohol, starting sexual intercourse at an early age as a result getting pregnant and finally, they will terminate their education (Ferrell et al., 2013; Gage et al., 2013; Kearney & Graczyk, 2014; Nolan et al., 2013; Thornton, Darmody & McCoy, 2013).

In Ethiopia, enrollment of females in education is low compared to their male counterparts. In this regard, Ayalew (2000) confirms that the attitude of the society which gives more value to men than women and various traditional sayings that suggest the women's place is in the home and that women are dependent on men were some of the major factors that hindered women from mainstream education. However, education has a great contribution to women to the wider social network, identification with the modern world encouraging innovation. It helps in improving mothers' well-being and that of their

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families (Kwesiga, 2002). Similarly, Baker (2003) summarizes that women and minorities had limited chance to reach school due to country and school characteristics (instruction type, teachers' expectations, curriculum materials, access to education, policy and program guidelines), parental attitudes and economic conditions of family and cultural factors (norms and values). Most countries in the world including Ethiopia have realized the importance of education for national development (FDRE, 1994). Students were considered as absent when they drop out and fail to complete the grade level they were enrolled (Dekkers & Claassen, 2001). Therefore, this research was intended to investigate the causes of girls' school absenteeism and dropout rate in Southern Nations, Nationalities, and Peoples' Region of Ethiopia (SNNPR).

1.2. Statement of the Problem

Educating females contributes to them in leading their successful life and the community at large in bringing multi socio-economic benefits. Thus, development can be realized through skilled citizens. The world in general and Ethiopia, in particular, has given due attention to a knowledge-based economy. Girls Participation in education is a guaranteed strategy for poverty alleviation, sustainable development and growth of the economy of any country. As to Lartigue (2005) investing in girls' education has an impact on increasing females' productivity at home, improving poverty reduction, ascending family health, increasing child survival rate and enhancing economic growth. However, for the last several years females were left behind in school. Still, several challenges can hinder the accomplishment of the policy to achieve the intended girls' education. More practically, the education of females enhances economic productivity, reduces fertility rates, lower infant and maternal mortality and improves the health and nutritional status of the family (Gachukia, 2000).

The position of females in society provides an exact measure of the development of the society, but females in third world countries like Ethiopia are subjected to gender discrimination in every walk of their life (Ayalew, 2000). The above idea shows that girls are not treated equally as boys. However, when Ethiopia is striving to be one of the middle-income countries and to achieve MDGs by (2010), one may ask about the status of women educational participation and successes as key priority areas in the development of Ethiopia. Olmos (2011) stated that educating girls is not only educating them but, it is also educating the nation that they contribute to development.

Hence, educating females improve not only women's productivity, but, also enhances the human capital accumulation of future generations. As a result, the participation of girls in education is greatly important in poverty reduction and socio-economic development. However, imparting knowledge in the schools alone is not enough for female students to become efficient and effective to improve their academic performances where the ground is not fertile at home to grow them up. To bring change and advancement to the nations needs the proper participation and empowerment of girls in all aspects. The researcher experience travels to different primary and secondary schools in SNNPRS; helped him to explore a variety of challenges facing female students. Therefore, based on the information mentioned researcher was initiated to conduct the study.

1.3. Objective of the Study

The study has the following objectives:

1. Examine the extent of girls' school absenteeism;
2. Scrutinize the main causes of female students' school absenteeism;
3. Analyse parents' perception for and against their daughters' education; and
4. Identify school and home- based factors that aggravate female students' dropout.

1.4. Research Questions

To achieve the stated objectives the following research questions were raised to be answered in the courses of the study. These are:

1. To what extent does the school absenteeism of girls' problematic?
2. To what extent do school and home-based factors worsen female students' dropout rate?
3. What are the perceptions of families towards their daughters' education?
4. To what extent do school and home-based factors exacerbate female students' school absenteeism?

2. MAERIALS AND METHODS

2.1. Research Method

The study employed survey research method with the assumption of getting the general picture of the causes of school absenteeism and dropout among female students in public primary school in SNNPR. This method was selected because it is helpful to show situations as they currently exist (Anderson, 1988). Moreover, survey method is cost effective and allowed quick data collection (Creswell, 2003). Therefore, the researcher believes that this method is appropriate to describe on-going processes.

2.2. Sources of Data

The main data sources for this study were generated from primary source and secondary sources. The bulk of the data for the study were generated through household survey questionnaires by using open and closed-ended survey questions. The household survey data were collected from women respondents and school principals in urban and semi-urban areas.

2.3. Samples and Sampling Techniques

The primary data sources were obtained from sample areas of different zones in the region by using multi-stage sampling techniques. Accordingly, the SNNPRS was selected by using purposive sampling technique in that the researcher's Home University is found in this particular region. Then, the zones were selected by using available sampling technique due to their accessibility. Consequently, the *woredas* were further selected by using stratified random sampling techniques. Finally, principals were selected by using purposive sampling technique because of their responsibility. School teachers were selected by using simple random sampling technique from all departments of female teachers. Students selected by using stratified sampling technique. A girl student was sampled from all the forms and in every classroom in the sampled schools. Random sampling was used at the classroom level to select the respondents (the first students to raise their hands). Students' parents were selected simple random sampling techniques. 302 households were selected from each *woredas*. Totally 29 *woredas* and 7 city administration, therefore, a total of 12,080 respondents were selected in the region by using Cochran's (1977) formula of sample size determination.

3. DATA ANALYSIS AND INTERPRETATION

3.1. Discussion of results of the study

The SNNPRS region is located in the southern part of the country. The region is consists of 13 zones, one city administration and five special *woredas*. These include Bench maji, Dawro, Gedeo, Guraghe, Gamgofa, Hadiya,

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Kefa sheka, Kambata-Tembaro, Sidama, Silti, South-Omon and Wolaita zone. Special *woredas* are Basketo, Halaba, Konta, and Yem Segen people. There are more than 110 *woredas* in the region. Thirty-six of them are selected for this study. Hawassa town is administrated under city administration. The region consists of 56 multi-ethnic groups living together, who have their tradition, language and culture. The region has implemented various packages that aimed to benefit women in education. Thus, this study intended to investigate girls' regular school participation at *the woreda* level.

In this section, the causes of absenteeism and school dropouts were discussed and interpreted based on the analysis of the collected data in themes as follows:

3.1.1. The Perception of Parents on Female Students' Education

Study skills are crucial for the academic success of students in each grade. The study is necessary for obtaining good academic results and for promotion. Through developing study skills students can comprehend what they learned in the classroom. Therefore, developing study skill help students to improve their academic performance in school. The study may require time at home in addition to school hours. Concerning female students studying at home, families have a different perception. The majority of the participants 77.43% (n=4917) believe that they have to study before finishing a household job. However, 22.57% (n=1433) respondents believe that they have to finish the household job before they study.

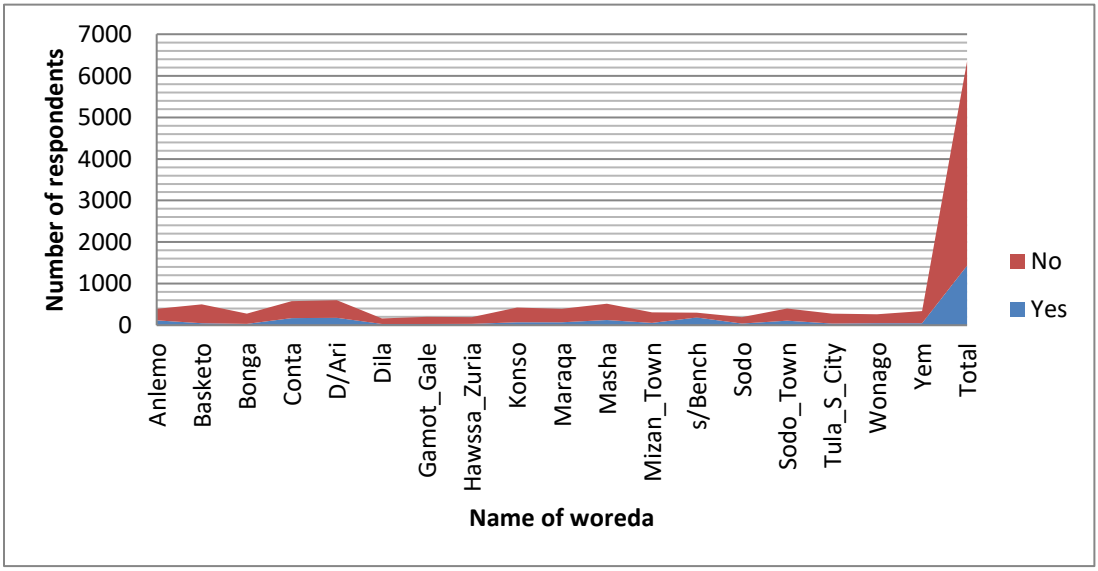

Fig 1: Respondents perception on female students study

As portrayed in Fig.1. Regarding female students studying before finishing a household job, respondents perception differences were observed within *woredas*. In South Bench (S/Bench) 2.90% (n=184) Debub Ari (D/Ari) 2.79% (n=177), Conta 2.69% (n=171) and Masha 2% (n=127) of the respondents believed that females have to finishing household job before studying. Whereas in Basketo 7.10% (n=451), D/Ari 6.74% (n=428) and Conta 6.47% (n=411) of respondents strongly believed that females have to study without any restriction like their male counter partner. Lack of having study time at home could affect students doing

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homework. McKelvie, Standing and Smith (2004) stated that to learn and understand the subject taught in the classroom students should take time to read the material during their spare time and should possess effective study skills. This enables them to store, retain and retrieve information when needed. Thus, one can understand that investing time in the study will enhance the academic performance of female students.

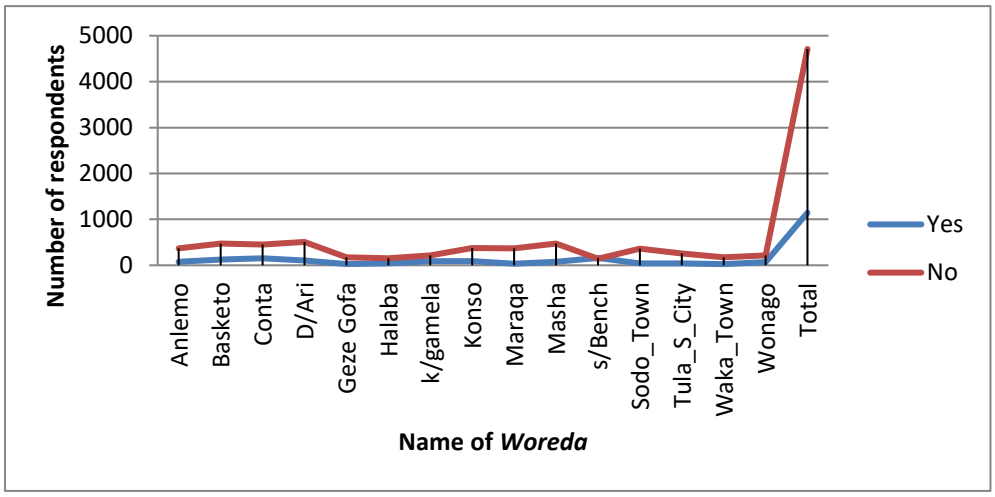

Figure 2: Respondents perceptions on female school time

As indicated in figure 2 most respondents 80.45% (n=4711) insist female students go to school before they finish a household job. However, 19.55% (n=1145) respondents believe that female students have to finish their household job before going to school. This shows that even though they are few in numbers some families do not encourage girls' education. In S/Bench *woreda 2.70% (n*=158), Conta 2.58%(n=151), Basketo 2.17% (n=127) of respondents claimed that girls have to work at home before they go to school. From the observation of the study sites, it is evident that girls in most *woredas* either stay out of the school system because of household responsibilities or are forced to combine school with a household job. Nije, Manion & Bajie (2015) confirmed that household work is considered a barrier to the overall schooling experiences of schoolgirls.

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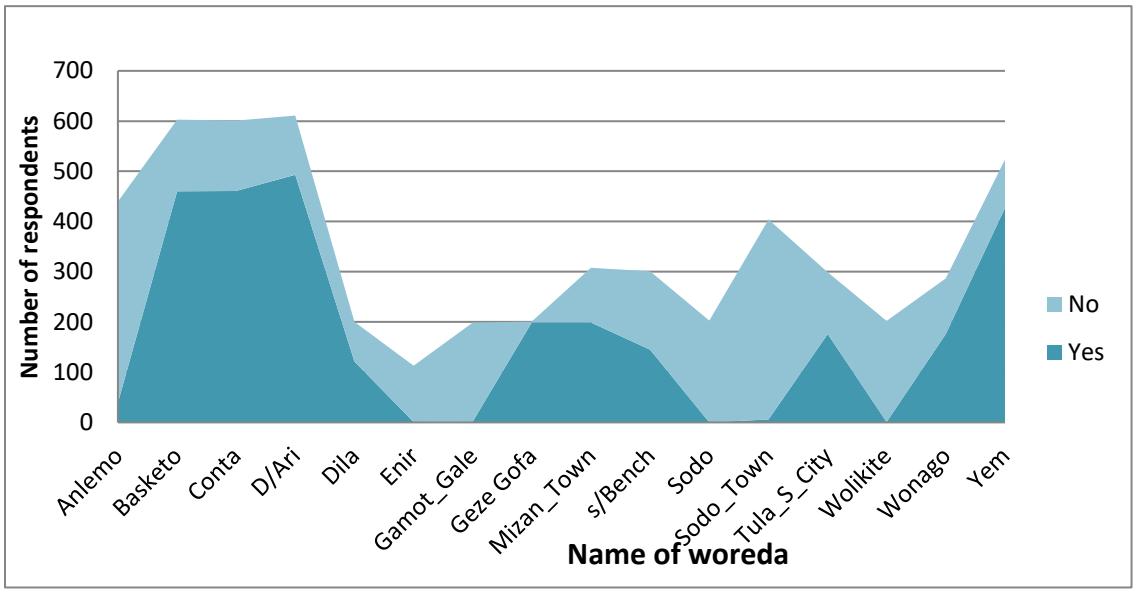

Figure 3: Community encouragement to female students to learn

As depicted in figure 3, 52.9% (n=2906) of respondents encourage females to pursue their education. On the other hand, 48.1% (n=2589) of them do not encourage females to learn. Nevertheless, differences are observed within *woredas* in supporting females to education. In some *woredas* majority of the respondents encourage females to learn such as D/Ari 493, Conta 461 and Baske to 460 but in some other *woredas*, a large number of respondents does not encourage them to learn such as Anlemo *woreda* out of 440 respondents only 401. In Wolaita-Sodo-town out of 404 respondents, 398 do not encourage females to learn. In Sodo *woreda*, all of the respondents (203) do not encourage females to learn but rather encourage them either to marry or get a job.

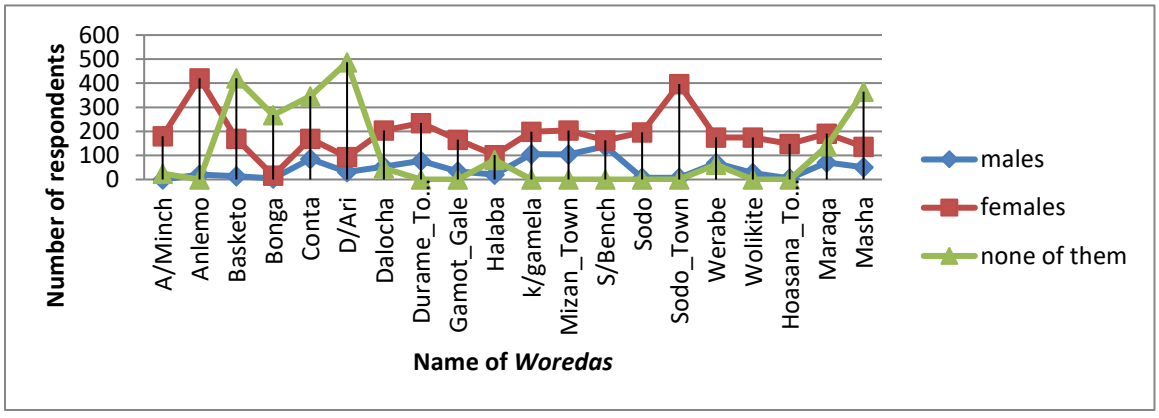

Figure 4: Respondents encouragement of first marriage

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Figure 4 shows that the majority of the respondents 54.16% (n= 3733) encourage females to marry first than males. Whereas 32.45% (n=2239) of respondents encourage none of them to marry before completing their education. On the other hand, 13.39% (n=923) of the respondents encourage males to marry first than females. Of which large numbers of respondents are from Anlemo and Wolaita-Sodo-town which accounts 6.09% (n=420) and 5.74% (n= 396) encourage females to marry first respectively. In Abra Minch (A/minch) *woreda* one of the respondents is encouraged males to marry first but 180 of them are in a fever of females to marry at an early age than boys. According to Umemoto (2001), early marriage inevitably inhibits girls to continue the education that they need for their personal development, their preparation for adulthood, and their effective contribution to the future wellbeing of their family and society. Moreover, research conducted by Jones et. al, (spell) (2016) in Ethiopia shows that women marry at an early age than men; they are most likely to be married by the age of 18 than men are by the age of 25. Married girls receive little or no schooling 80% of them have received any education, and 81% cannot read at all. This shows that marriage is one of the main factors that inhibit girls' education. The common factors cited by the study area respondents that lead girls to marriage were that marriage could alleviate poverty or the burdens of a large family living with many daughters.

3.1.2. Extent of Girls School Absenteeism

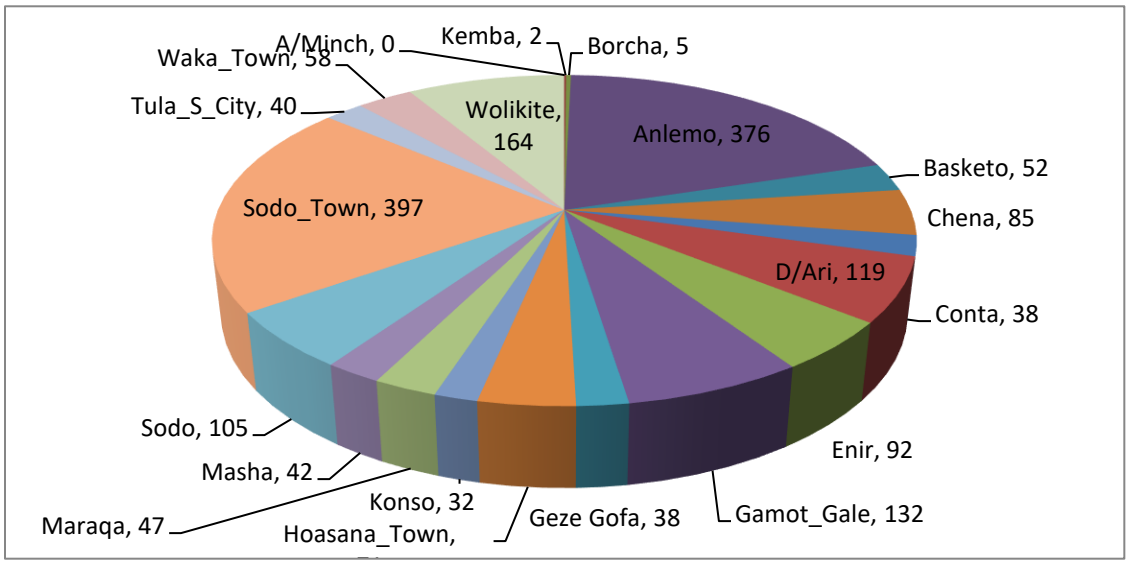

Figure 5: Number of female students' school absenteeism in two weeks' time

As shown in Fig. 5, the absenteeism of students varies from *woreda* to *woreda*. Relatively high absenteeism was observed in Wolaita-Sodo Town 17.24%(n=379), next to that the second-highest number was recorded in Anlemo 16.33%(n=376), and the third-highest number of absents was registered in Wolkite *woreda* 7.12%(n=164). On the other hand, low students' absenteeism were observed in two weeks' time in A/Minch 0% (n=0), Kemba 0.09 % (n=02) and Borcha 0.22 %(n=05) *woredas*. This shows that some factors cause girls to be absent from school. However,

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this needs further empirical examination to identify the underpinning factors.

Absenteeism is one of the contributing factors for students' poor academic performance and subsequently leads to dropout. Coelho, Fischer, McKnight, Matteson & Schwartz (2015) identified that attendance is one of the highest predictors of student academic achievement. Lamb (2011) stated that absenteeism is one of the factors that can predict students' dropout. Students who are regularly absent from school are most likely to be at risk of dropout. Thus, identifying the most significant factors behind it is an important precursor to effectively addressing the problem.

3.1.3. Causes of Girls School Absenteeism

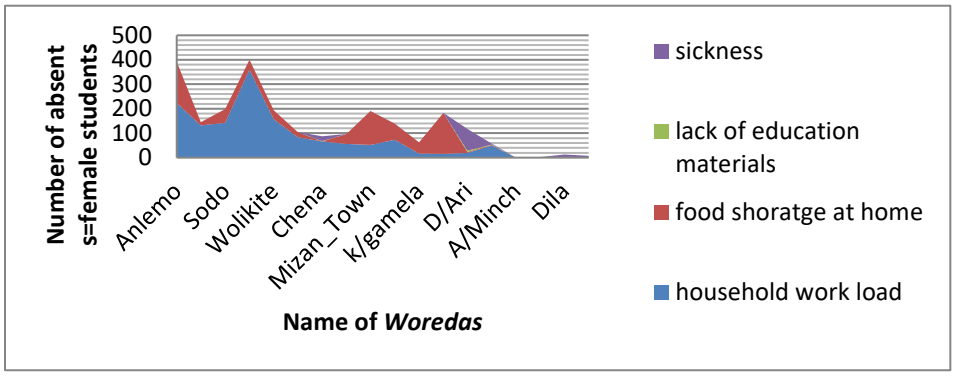

Figure 6: Female students' school absenteeism as a result of home related causes

Figure 6 show that household workload was the highest reason for girls absenteeism in most *woredas*. A large number of female students were absent from school because of household workload especially in the Sodo town 360, Anlemo 224, Wolkite 157 and Sodo 142 *woredas*. Comparatively, only a few female students were absent from school as a result of sickness these are from Debub Ari 89, Chena 20 and Dilla 13 *woredas*. The result of the study confirms that quite a large number of girls in SNNPR (1449) did not attend school because of household workload. Moreover, shortage of food contributed significantly to girls' absenteeism from school especially in Anlemo *woredas* 168, Durame town 167 and Mizantown 139. As a study result, Tefera, Hadley, Lindstrom, Abebe, Lachat and Kolsteren (2011) has affirmed that food insecurity in adolescents is one of the causes for school absenteeism in Jimma zone, Ethiopia. However, as shown in figure 5, none of the girls was absent due to a shortage of food in Arba Minch, Dalocha, Dilla and Wearable. This indicates that in some *woredas* poverty affects school attendance of girls. According to Jennings (2011), it was confirmed that, in SNNPR, the use of a child for household work is the major cause of school absenteeism and dropout. He identified that "*child labour is extensively practised throughout SNNPR. Highland girls fetch wood and water; do marketing and carry out household chores*". This directly coincides with the identified result in this study. This shows that the responsibility to cover care duties at home is laid down on girls than boys.

3.1.4. Causes of Female students' Dropout from Schools

One of the intentions of this study was to investigate major causes of school dropout in various woredas of the SNNPR. Therefore, in

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the survey, an attempt was made to identify potential causes for girls' dropout from school in the woredas. Accordingly, the major causes of dropout identified based on the household survey respondents are economic, social and health-related problems (see figure 7). Thus, each of the causes for school dropout is discussed as follows.

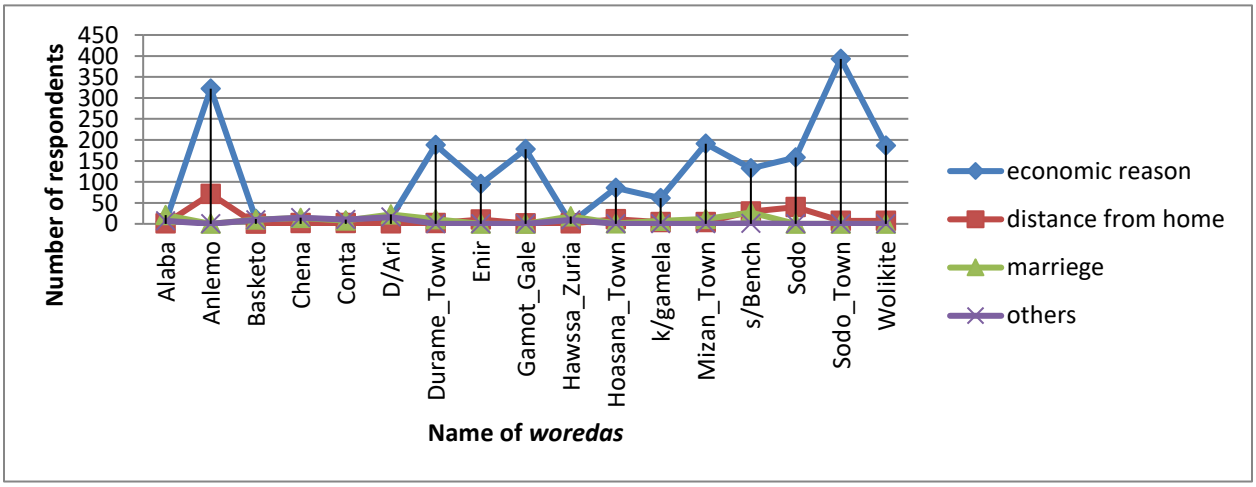

Figure 7: Causes of female students' schools dropout in 2014/2015 academic year

Figure 7 show that in most woreda economic reason is the highest for girls dropping out. Quite a large number of students have terminated their education because of economic reasons particularly in Sodo town 393, Anlemo 322 *woreda*, and Mizan town 191. The above result shows that a large number of girls in SNNPR (1965 girls) did not attend school because of economic problems. In most developing countries, the economic problem is the leading obstacle for children's education in general and girls in particular. Some studies show that low family income may reduce the chance of schooling for girls (Mitiku 2014). Moreover, according to the study participants' response, a distance of school contributed significantly to girls' school dropout especially in Anlemo 71, Sodo 40 and S/Bench 29 *woredas*. The above data in figure 7 shows that the distance of the school from home is not a reason for students' dropout in some *woredas*. For example, in Arba Minch, Dalocha, Geze Gofa, Kemba and Wolkite *woredas*, school distance is not the cause for girls dropping out. This shows that either schools' are built close to students' residences or people are densely populated. Yokozeki (1996) states that school distance to home has a significant impact on both the initial decision to attend school and the decision to drop out. Thus, in the surveyed *woredas* in SNNPR, most of them were not as such affected by school distance for termination of school. However, school distance affected the school attendance of girls in some *woredas*. The above result indicates that there is enormous progress in the region in school construction closer to students' residence. On the other hand, 209 girls were dropout because of marriage from different *woredas*. The highest number of girls' drop out because of marriage is found in S/Bench 27, Debub Ari 22 and Alaba 21. This indicates that in some *woredas* poverty affects school attendance of girls. Shahidul and Zehadul Karim (2015) confirmed that marriage is one of the causes for girls' dropout in rural areas. Jennings (2011) has explicitly identified one of the major factors that contribute to late arrival at school, absenteeism

and dropout from school at all levels, and dropout amongst girls was household work.

3.1.5. Conducive learning environment for girls

To assess school-related factors that hinder female students' school attendance and drop out this section examines access to basic facilities; namely adequacy and access to a textbook, drinking water and sanitation in particular reference to availability and safety of toilet facilities.

1. Teachers' Assessment of Adequacy and Safety of Water and Toilet

Apart from observational data and administrative data were collected from the surveyed schools. Teachers were requested to provide information as to the adequacy and safety of basic services such as the adequacy of water and toilets. The availability of separate toilets for girls were the information that was required from teachers**.** In general, the school observational data in the surveyed schools suggest that the schools have modest toilets.

Table 1: Adequacy of water and sanitation facilities and safety of school toilets (N = 625)

S.No	Items	Zone	N	Mean	SD	t
		BenchMaji	128	4.54	0.88	
		DebubOmo	99	3.81	1.48	
1	Female students have a separate toilet rooms	GamoGofa_AM	109	4.24	1.04	
		HawassaC.A	45	4.22	0.99	
		Hadeya	21	4.95	0.22	
		Sidama	143	3.78	0.49	
		Total	**545**	**4.27**	**1.15**	**20.91****
2	The toilets are clean and well maintained.	BenchMaji	128	3.68	1.16	
		DebubOmo	98	3.39	1.46	
		GamoGofa_AM	111	3.10	1.22	
		HawassaC.A	46	4.59	1.25	
		Hadeya	21	4.38	0.92	
		Sidama	143	3.88	1.01	
		Total	**547**	**3.46**	**1.29**	**6.74****
3	There is sufficient water for drinking and sanitation purposes.	BenchMaji	128	2.67	1.49	
		DebubOmo	97	2.25	1.53	
		GamoGofa_AM	108	2.67	4.13	
		HawassaC.A	46	4.20	0.99	
		Hadeya	20	2.25	1.37	
		Sidama	143	2.28	1.42	
		Total	**542**	**2.53**	**2.6**	**-3.39****
4	It is very safe for girls to use toilets at school.	BenchMaji	126	3.06	1.62	
		DebubOmo	97	3.11	1.51	
		GamoGofa_AM	110	2.67	1.44	
		Hawassa C.A.	46	2.82	1.12	
		Hadeya	20	1.30	0.73	
		Sidama	142	2.85	0.87	
		Total	**541**	**2.85**	**1.55**	**-1.83***

Note that: *p< .05; ** p < .001

With regard to have separate toilets for female students in the school, teachers generally agreed (Mean = 4.27, SD = 1.15; t = 20.91, p < .01; Item 1) that female students have separate toilets in their respective schools and they are clean and well maintained (Item 2: Mean = 3.46, SD = 1.29; t = 6.74, p < .01). Nevertheless, they were not in a position to say that the school latrines are safe for girls (Item 4: Mean = 2.85, SD = 1.55; t = -1.83, p < .05) as indicated by the negative coefficient of the t-statistics. Contrary to their ratings of availability and adequacy latrines, teachers disagreed with the idea: "There is sufficient water for drinking and sanitation purposes "(Item 3: Mean = 2.53, SD = 1.62; t = -3.39, p < .01).

Availability of sufficient textbooks was taken as proxy indicators of the causes of girls' dropout. Here, the researcher examined to what extent girls have access to these activities based on the data obtained from observation and questionnaires completed by 5636 respondents. Figure 8 presents the availability of basic sufficient books in the schools.

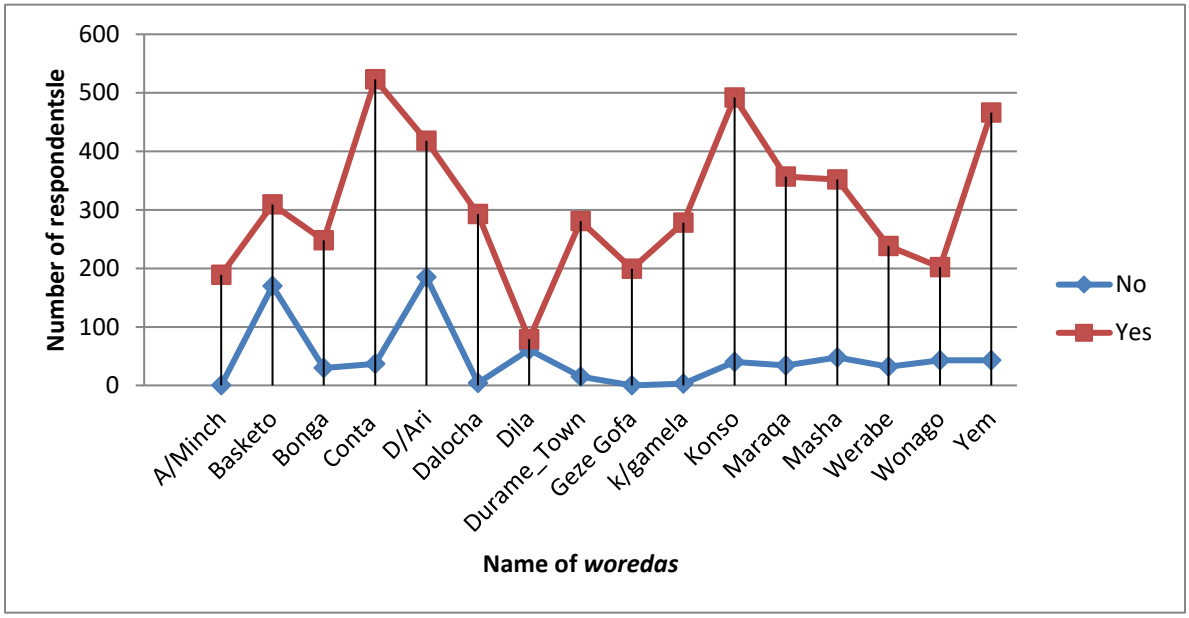

Figure 8: Availability of sufficient books for female students

Figure 8 shows that, the availability of textbooks for female students to support their education is varies amongst *woredas*. In A/Minch 189 and Geze Gofa 199 *woredas* respondents confirmed that there are sufficient textbooks for female students in the school. However, most *woredas* respondents reported that there is a shortage of textbooks for female students such as in Conta 523, Konso 492, Yem 466 and D/Ari 418. Thus the shortage of textbooks affects students learning in general female students in particular. Besides, it hinders the participation of students in-class activities and their academic performance. As stated in Zuze and Reddy, (2014) availability of textbook improves learning and students achievement, enhance the quality of education, and motivate students' participation in the classroom and knowledge sharing. Furthermore, research findings show that in South Africa, students, especially girls, do better on reading tests when they have their copies of textbooks. Thus lack of textbook influence female students educational participation.

4. CONCLUSIONS AND RECOMMENDATION

4.1. Conclusions

Female students are lag behind in school participation due to absenteeism and dropout in the SNNP region. The result of the study shows that most parents have a positive attitude towards girls education. However, it was confirmed from the study result that the causes of student absenteeism were household workload, food shortage at home, lack of educational materials and sickness. Among these factors, the household workload is found that as a major one that contributed to girls' school absenteeism. On the other hand, the findings revealed that the major causes of school dropout were economic problems, school distance and marriage. The highest numbers of girls were dropped out as a result of poverty concerning earning money for their survival.

4.2. Recommendations

The SNNP regional government should work on advocating female education to minimize their workload at home to have study time at home. The SNNPR government should increase awareness about the drawback of early marriage through social media and school education. The regional government education bureau should work on minimizing school absenteeism and dropout, especially for female students. The regional government should find ways of stopping child labour exploitation. Families of dropout students have to be supported economically to fulfill the needs of their children. The regional state considers either introducing economic support or creating job opportunities for the poor households to enable them to minimize female students' dropout. The economic support may take the form of an in-kind or cash support scheme targeting parents who were unable to send their daughters to school due to economic problems and a shortage of food. There is a remarkable achievement in narrowing the distance of the school from home in different areas of the country. However, the research result shows that in some places there is a problem that needs the effort of the government to narrow the school distance problem. Thus, the region has to exert efforts to build more schools closer to where students live. Finally, the regional education bureau of SNNPR should organize experience sharing forums taking as a model the achievements registered by successful *woredas* in the region.

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The Challenges of Inclusive Education in Ethiopia: The Reality on the Ground

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Abstract

Ensuring access to quality education for all acknowledges the intrinsic value of diversity and respect for human dignity. In this way, differences come to be seen in a positive light as the stimulus for fostering learning among all children. The principles of inclusion and equity in education are, then, not only about ensuring access to education, but also about having quality learning spaces and pedagogies that enable students to thrive, to understand their realities, and to work for a more just society. However, researches indicate that there are several challenges to implement Inclusive Education. Hence, the main purpose this article review was to investigate the major challenges that hinder the implementation of inclusive education in Ethiopia. Methodological wise, it employed a narrative review since the reviewer summarized the findings of empirical research which were conducted in different parts of Ethiopia at different time regarding challenges of Inclusive Education. The findings from the reviewed studies revealed that attitudinal barriers, skill/knowledge barrier, inflexibility of curriculum, policies barriers, economic barrier, and physical/ infrastructural barriers are the major hindrances to implement inclusive education in Ethiopia. And hence, it is recommended that ministry of education, non-government organizations working on education, families, schools and communities need to change and accept children with disabilities to be part of the system and refrain from expecting the children to adjust and conform to what the system provides.

Key words: attitudinal barrier, inclusive education, students with disabilities, curriculum, policy

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Introduction

Currently, promoting access to quality education for all is an international agenda through the underpinning principle is that all children have the right to be educated regardless of their special needs; disabilities and abilities with appropriate support provided. In order to realize this schema, every child should be able to go to school to be educated and to be granted the same opportunities as other children. However, it is known that about nine out of ten children with disabilities are not schooled in in Ethiopia (Unite Nations Educational Social and Cultural Organization [UNESCO], 2016). It is important to react to this situation in order to create equal possibilities for everyone through equity in education. This was supported by United Nations Convention on the Rights of the Child as education is human right for everyone children (Convention on the rights of the child [UNCRC], 1989). Hence, inclusive education is the most acknowledged approach to address the educational needs of all children (Ainscow, Booth & Dyson, 2006).

According to UNESCO (1994), inclusion means that students with special needs attend natural school program and are enrolled in age-appropriate classes for all of their schooling day. It is a widely accepted phenomenon for two reasons. Firstly, education is a right that is part and parcel of modern society. Inclusion can foster democratic values in the pursuit of social justice. Secondly, it is a feasible option, and an integral part of the principles of equality of opportunity in education (Mitchell, 2010; Thomas, 2013; UNESCO, 2009 & UNESCO, 2016). Recent studies show that inclusive education provides the best opportunities to support the development for people with disabilities (Thomas, 2013; Mitchell, 2008; & Yoshiko, 2019). This was **supported**by Save the Children (2014) as inclusive education is a rights-based quality education which emphasizes equity in access and participation, and responds positively to the individual learning needs and competencies of all children. Inclusive education is a child-centered approach and places the responsibility of adaptation on the education system rather than the individual child.

Despite the fact that the right to education for all is enshrined in Ethiopia national and international treaties, there are still many challenges for children with disabilities with regard to accessing to quality and equitable education. Even though, UNESCO (2019) identifies the disability prevalence rate in Ethiopia populations is to be more than 18 per cent, yet the reported number of children with disabilities in schools is much lower. UNESCO (2019) further pointed this as either a large number of children with disabilities are not attending in school in Ethiopia, or if they are, they are unidentified within current school populations.

In addition, the reality on the ground shows that despite the conceived efforts of the government and the initiatives of national and international non-governmental organisations to make education system to be Inclusive in Ethiopia, there is still a great need to work with children with disabilities towards their full inclusion in education (Belay, Fantahun, & Missaye, 2015). In other words, educational equity is a main pillar for creating equal chances for individuals to reach a certain quality of life. It is clear that differences, or inequalities, exist naturally amongst human beings. However, these inequalities have to be addressed and given special attention when

working towards educational equity and equality of opportunities in all aspects.

Hence, the researcher believes that it is sensible to conduct a review on different studies which had been conducted in different regions of Ethiopia regarding Inclusive Education implementation, its practices and opportunities. It is expected that this review will help to provide input for ministry of Education, researchers, policy makers, different NGO's, and any other concerned bodies in education and disability inclusion issues.

As a result, the main purpose of this review article was to expose the main factors that impede the successful implementation of Inclusive Education in Ethiopia. Therefore, the current review was guided by the following the research question.

i. What are the main challenges of inclusive education in Ethiopia?

Methodology

This study employed a narrative review approach. The reviewer summarized the findings of empirical researches which were conducted in different parts of Ethiopia at different time regarding challenges of Inclusive Education. Since, there are vast and rapid rate of publications, a periodic synthesis of knowledge is required. As Bolderston, (2008); and Green, Johnson & Adams, (2006), the need for a review of literature may arise from the abundance of information, divergent views, or a lack of consensus about a topic. As stated by Philip (2009), in current review the researcher selected studies, compared and summarized, and the findings of the reviewed studies were paraphrased, narrated and presented thematically.

In the current work, the reviewer included studies from both published and unpublished research works. The researcher tried to include the published research articles from peer reviewed, full length and open access research articles from the internet by entering the search terms and phrases which are related to Challenges, Practice and Opportunities to inclusive Education, Attitudes of teachers towards students with disabilities in Ethiopia, Disability in Ethiopia, and Challenges of students with disabilities in Ethiopia.

The reviewed studies were conducted in between 2005-2020 in different parts of Ethiopia. The regional distribution of the reviewed studies indicated that three articles were included from Northern Ethiopia, three from Southern Ethiopia, three from western part of Ethiopia; three from Eastern part and three from Addis Ababa which is central to Ethiopia and the Conducted at a national basis in Ethiopia. Again, two master's theses with an academic rating of excellent from Dilla University, Ethiopia and two PhD dissertations were accessed from internet; which was conducted in partial fulfilment for the requirement for doctoral degree at University of South Africa (UNISA). Hence, a total of 22 research works were reviewed in current study.

Findings

In this section, the findings from different reviewed studies regarding challenges of Inclusive Education in Ethiopia were discussed thematically.

Attitudinal Barriers

Even though the World Health Organization (2011) indicated as the world's

attitudes towards people with disabilities have been shifting positively, one of the witnessed barrier to inclusive education in Ethiopia is unfavourable and negative attitude. The research finding shows that the negative attitudes imposed from regular teachers, school administrators, parents, students without disabilities and society are hindering the full participation of students with disabilities in education system (Tirussew, 2005; Mitiku, Alemu, & Mengsitu, 2014).

Different researches show that regular teachers, non-disabled peers and school administrators are reluctant to interact with students with disabilities. In support of this, the study conducted by Melese, (2019) indicated that regular teachers always look at them with different attitude and feel students with disability are not capable to do different activities. Melese further pointed that students with disabilities are facing high stigma and psychological ignorance from teachers, school administrators and students without disabilities in education system in Ethiopia. This was maintained by the research finding from Jaffer & Aminu (2020) as though principal's positive attitude toward inclusion is a critical prerequisite for successful inclusion, they are possessing negative attitude in western Oromia, Ethiopia.

In addition to above premises, the study conducted by Yoshiko (2019) in Addis Ababa, Ethiopia revealed that teachers and parents/guardians of children with disabilities have contradicting views on inclusive education. The same source pointed that teachers and parents/guardians do not perceive learning in regular school is not necessarily the best path for children with disabilities.

Another study conducted by Ludago, (2020) in Kambata Tambaro Zone Southern Ethiopia indicated that because of negative attitudes, some teachers believe that inclusion of students with disabilities as a burden. Alemayehu (2019) further specified that because of negative attitudes, teachers possess negative attitudinal, behaviours, perceptions, and assumptions that discriminate against students with disabilities.

In addition, researchers Dessalegn, Adugna & Kasech (2016) pointed old attitudes resist the accommodation of students with disabilities and learning issues, as well as those from minority cultures. One of the challenges of inclusive education in Nekemte town is pointed as the attitudes of the non-disabled in the social integration of students with disabilities. Teketel (2018) on his study in Harar Town, Ethiopia indicated that one of the challenges to inclusive education in the study area was the attitudinal barrier that students with disability face emotional and physical bullying which is a serious barrier and leads to isolation and exclusion.

In support to the above findings, the study conducted by Mintesnot (2020) in Benchi Maji Zone, South West Ethiopia witnessed that many times students with disabilities are made fun of because of their looks and become a matter of mockery /joke. Hence, this makes them to dropout from their education.

Skill/Knowledge Barrier

The reviewed studies showed that the skill/knowledge gap is among the main challenges for inclusive education in Ethiopia. This idea was supported by Belay, Fantahun & Missaye, 2015; Jaffer & Aminu, 2020 as schools without trained and certified special educators as hindrance for children

with disabilities not to attend regular schools in Ethiopia

However, inclusive education asserts that school leaders and teachers should have knowledge and skill about special needs of all children and school administrators and teachers should have knowledge that goes beyond simple introductory courses (UNICEF, 2014). It is also agreed that schools should have to find ways for educating all children. However, researchers boldly stated that one of the main challenges to implement inclusive education in Ethiopia is lack of knowledge to develop a pedagogy which is responsive for all children (Mitiku, Alemu & Mengsitu, 2014; Tirussew, 2005; and Zelalem, 2018). Hence, this requires well-trained and skilled teachers and school managers (Tirussew, 2006). As pointed on Yoshiko, (2019), although the selected teachers have opportunities to receive training on inclusive education, the training system for teachers in Ethiopia also mainly focuses on theories and is not practical. In support to this Ludego, (2020) indicated that even though children with disabilities are started to attend the schools in his research site, still skill gap of the school community to support them is one of the sounding challenge. The major skill problem mentioned in Ludego (2020) was lack of skills to screen and identify students need for individualised education program. He further mentioned that students with disabilities as the highest repeaters and because of unfriendly learning environment in his study area.

Additionally, Tirussew, (2005) and Yoshiko, (2019) revealed that traditional curriculum is the most acknowledged within the teachers and teachers feel more confident in traditional school culture in Ethiopia. Owing to these factors, researchers indicated that inclusive practice more relies on knowledge, skills, understanding, resources, and attitudes (Tirussew, 2006; Mintesnot, 2020; and Melese, 2019). This was again supported by Dessalegn, Adugna & Kasech (2016) as one of the challenge to inclusive education in their research area was linked to teachers' lack skills and knowledge to teach students from diversified groups.

Inflexibility of Curriculum

Ensuring that all learners have access to quality education also acknowledges the intrinsic value of diversity and respect for human dignity (UNESCO, 2015). In this way, differences come to be seen in a positive light as the stimulus for fostering learning among all children. UNESCO (2009) pointed the principles of inclusion and equity are not only about ensuring access to education, but also about having quality learning spaces and pedagogies that enable students to thrive, to understand their realities, and to work for a more just society. Hence, the same source stressed the curriculum as the central means for enacting the principles of inclusion and equity within an education system. In support to this, UNICEF, (2011) suggested that inclusive curricula should be based on the view that learning occurs when students are actively involved, taking the lead in making sense of their experiences. Hence, this was suggested by Dessalegn, Adugna, & Kasech, (2016) as curriculum developers should consider students with special needs during its design and development. Dessalegn, Adugna, & Kasech, (2016) suggested that curriculum can have potential to address multi-dimensional needs of students.

According to Belay, Fantahun, & Missaye (2015), one of the big challenges to inclusiveness in education in Ethiopia is the rigidity of the curriculum and lack of

teachers' ability to adapt and modify for the individual needs of learners. This was again supported by Ludego, (2020) as one of the challenges to inclusive education on his study area was curricular rigidity and skill gap within regular teachers to adapt the curriculum. Teketel, (2018) further pointed that curriculum is not flexible for all learners and there is no practice for individualized education program (IEP).

Even though, it has been suggests by UNESCO (2009) as inclusion involves the responsive learning environment including fair assessment techniques, researches indicated that there is rigid curriculum, especially with regard to the design and management of timetables (Wondwossen, Abraham, & George, (2020). In addition, Ludago, (2020); Melese, (2019); and Dessalegn, Adugna, & Kasech, (2016) found out that the timetables most often do not take care of students with disabilities in their study sites.

Policies as Barriers

Ethiopia has ratified and adopted almost all of the relevant initiatives and international legal texts on the rights of persons with disabilities. On a national level, the issue of persons with disabilities has been included in many legal documents (MoE, 2012).

Despite the efforts of the government policies and strategies in Ethiopia, research suggest that there is still a great need to work with persons with disabilities towards their full inclusion in all aspects of society in general and inclusion in education specifically(MoE, 2012; Teketel, 2018; UNESCO, 2015).

In support to the above premise, the investigation made by Belay, Fantahun, & Missaye (2015) revealed that proper realization of inclusion for children with special needs is less likely even in the time to come in Ethiopia. The same source witnessed that the policy approach is focused on the top-down approach passed from international and national call, slogan, and approach which is not culturally sensitive, cost-effective, and community resource-based inclusive model.

The study conducted by Melese, (2019) on title Ethiopian inclusive education strategy as to responsive learning environment for inclusive higher education system shows that there is no well-designed model recommended for Ethiopian universities at national level to practice inclusive education. This study further indicated that there is no strong inclusive education policy except the draft policy that is the inclusive education strategy document that only has its own holistically seen feasible signals which can be in place for serving students with disabilities. Yoshiko, (2019) also underlines that children with disabilities do not often have a choice in terms of school selection of either regular school or special school. Furthermore, Ludago, (2020) pointed there were no responsible personnel in district, zone and region education offices as a challenge for inclusive education. This was again in line with the finding from Mintesnot, (2020) the study conducted at Benchi Maji Zone, South West Ethiopia as no clear guidelines which clarify the concept of inclusive education and its implementation in the zone was mentioned as a main challenge for inclusive education implementation. Zelalem, (2018b) witnessed that lack of mandatory inclusive policy are barriers for inclusive education implementation.

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Economic Barrier

People with disabilities in the world are facing poverty and marginalisation in the whole world (UNESCO, 2016). UNICEF indicated that people with disability's participation so restricted in economic, social and cultural activities in community which they live in Ethiopia (UNICEF, 2011). UNICEF further noted as effective learning is fundamentally influenced by the availability of educational resources to meet the needs of any society.

In countries like Ethiopia, there are inadequate numbers of centers of learning and other facilities to meet the educational needs of the population. In most cases, inadequacies in provision are linked to other inequalities in the society such as urban/rural disparities, as well as inequalities arising from discrimination on grounds such as gender, race and disability (Tirussew, 2006).

In support to above premises, the study conducted by Wondwossen, Abraham, & George, (2020) indicated that one of the barriers of inclusive education in Ethiopia is access to educational resources. The study further mentioned technology as an equaliser that levels the playing field for all learners and lack of access to ICT makes learners with visual impairment dependent, decreases their chance of getting up-to-date e-resources, and reduces their performance in their studies. This study boldly witnessed that poverty is the principal barrier for access to ICT.

Again, the study conducted by Ludego in Kambata Tambaro Zone, Southern Ethiopia revealed that inadequacy of infrastructures and education accommodations, low hygiene, none availability of ramps on the buildings and learning rooms, not treated classrooms and equipment as the major barrier for inclusion in the study area (Ludego, 2020). This was supported by Mintesnot, (2020) on the study conducted on south west Ethiopia as school resources are from the major challenges in all schools to implement inclusive education. According to the information obtained from the same source, all targeted schools were under resourced to fulfil the requirements of inclusive education practice and within the limited resources, target schools also varied in the way they generate resources. This is finding is compatible with Tirusew (2005) the intake capacity of children with special needs in schools are very few and they cannot reaching high schools rather they leave school early because scarcity of materials, facilities as well as trained professionals were the major challenges.

Hence, the reviewed sources indicated that shortage of resources are among the main theme that hinders the successful implementation of inclusive education in Ethiopia (Alemayehu, 2019; Dessalegn, Adugna, & Kasech, 2016; Ludago, 2020; Tirussew, 2005; Wondwossen, Abraham & George, 2020; & Mintesnot, 2020).

Physical/ Infrastructural Barriers

Accessibility is a precondition for the full realization of the rights and inclusion of persons with disabilities in society and development. This can be provision of flexible facilities and environments, either virtual or physical, to accommodate each user's needs and preferences. For persons with disabilities this may be any place, space, item or service that is easily approached, reached, entered, exited from, interacted with, understood or otherwise used.

In education setting, it is obvious that students with a disability should have accessible classrooms. It is obvious that one of the principles of inclusive education is about presence. If child cannot enter the room, there is no presence. The research conducted by Belay, Fantahun, & Missaye (2015) indicated that many schools in Ethiopia are inaccessible to students with disabilities. This contradicts a statement on UNESCO (2006) as accessibility should go beyond passageways, stairs, and ramps to recreational areas, paved pathways, and door handles. For instance, Jaffer & Aminu indicated that classrooms are not conducive to accommodate assistive technology to meet individual needs of students with disabilities (Jaffer & Aminu 2020). This contradicts the UNESCO's premise as inclusive education worries for eliminating all obstacles to learning, and with the participation of all learners vulnerable to exclusion and marginalisation practices (UNESCO, 2009).

In contrast, the study conducted by Ludego (2020) revealed that inaccessible environment is the biggest challenges to implement inclusive education. This was supported by Zelalem, (2018) as most schools in rural areas of Ethiopia are unhealthy and unsafe for learners with disabilities. Zelalem further indicated that these problems are very pervasive in schools without local support.

Many literatures indicated that an accessible environment is essential for children with disabilities to enjoy their education right (Jaffer & Aminu, 2020; Ludago, 2020; Mintesnot, 2020; Mitiku, Alemu, & Mengsitu, 2014, & Zelalem, 2018b). However, lack of accessibility school environment is among the major barriers to implement inclusive education in Ethiopian.

Conclusion and Recommendations

The findings from the review revealed that attitudinal barriers, skill/knowledge barrier, inflexibility of curriculum, policies barriers, economic barrier, and physical/ infrastructural barriers as the major hindrances to implement inclusive education in Ethiopia.

And hence, inclusive education is a process that requires everyone to contribute to its full effectiveness and processing. Hence; ministry of education, non-government organizations working on education, families, schools and communities need to change and accept children with disabilities to be part of the system and refrain from expecting the children to adjust and conform to what the system provides.

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For details of manuscript preparation, please refer to the guide below, or visit the above website

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Abstract

The abstract should summarize the content of the paper. It should provide a clear and precise description of what the study is about including the problem, objective, method, major finding, conclusion and recommendations. Do not make references nor display equations and abbreviations in the abstract. The abstract should not exceed 250 words, including keywords. It should be italicized, written in single line space, 10 font sizes.

Keywords

The keywords should be placed under the abstract. About 3 to 6 keywords or phrases can be stated in alphabetical order, separated by a comma.

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The introduction section should explain the nature of the problem, previous related works on the topic and the purpose and contribution/s of the paper. Hence, this introduction section may also contain theoretical and empirical findings in order to put the major problem or topic of the study into context. In addition, it needs to show existing knowledge gaps in the area, derive objectives and emphasize major contributions of the study.

Methods

Description of the Study area and population

This section under the description of the study area may contain a brief explanation about the location of the study area, physical setting, climate, population, social, economic and cultural aspects of the study area.

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Methods

The research methods used for the study should be stated in this section. The research design, sampling techniques, methods of data collection, tools for data collection, and methods of data analysis should be included here with adequate justifications.

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It is optional based on the nature of the study. It is not mandatory for all papers. A conceptual framework can be depicted in the form of figures (e.g. flow charts, diagrams etc.), in the form of written statements or both. The conceptual framework should be a brief description of the study that depicts major variables and their relationship as a reflection of the analyses within the context of the study.

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This section includes the results or findings of the study supported by a discussion. It contains data presentation, data interpretation and/or discussion substantiating the result of the study with relevant literature, theory and empirical evidence. Authors may use narrations, descriptions, tables, graphs, charts, statistical models, formulas, etc. to write this section depending on the type of data and research approach employed in the study. In this section, authors are expected to show their unique and/or new contributions to knowledge by comparing their findings with existing literature.

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This section includes the conclusions and recommendations. The conclusion statements should include major conclusions drawn from the findings. However, do not replicate the abstract within the conclusion section. The conclusion may magnify major findings of the study and its implication as well as the importance of the work for practical application of knowledge and extension of ideas. Recommendations (though not always mandatory for all disciplines) of the study should be stated following the conclusion with brief statements. The recommendations may deal with suggestions of remedial options for intervention by concerned body's to manage investigated issues within the study.

Acknowledgements

Acknowledgements appear in a separate paragraph after the conclusion section, but before the references, and should be as brief as possible. All sources of funding should also be declared for articles published from funded projects.

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Social Sciences and Education Disciplines follow the American Psychological Association (APA) style of referencing. Ensure that every reference cited in the text is also present on the reference list (and vice versa). Personal communications are not recommended on the reference list, but maybe mentioned in the text and indicated in footnotes. Citation of a reference as 'in press' implies that the item has been accepted for publication. Direct quotations should be as short as possible and should be reproduced exactly in all details (spelling, punctuation and paragraphing) as the original. Short quotations (four or less than four lines) should run into the text and be enclosed in quotation marks. Similarly, long quotations (five or more than five lines) should be set off from the text in a separate paragraph indented (five spaces from the left) and single-spaced between lines. Quotations marks are omitted.

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The letters a, b, c and so on should be used to distinguish citations of different works by the same author/s in the same year.

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Examples:

Gemedo Dalle., Brigitte, L., and Isselstein, J. (2005). Plant Biodiversity and Ethnobotany of Borana Pastoralists in Southern Oromia, Ethiopia. Economic Botany, 59(1): 43-65

Tamire Geda and Mengistu Seyou. (2013). Zooplankton community grazing rates in a small crater Lake: Lake Kuriftu, Ethiopia. SINET: Ethiopian Journal of Science 36(1): 1-18.

Book

Author(s), year of publication (in parenthesis), the title of the book (bold font), publisher and place of publication (city/town)

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Perrott, E. (1982). Effective Teaching: A Practical Guide to Improve your Teaching. Longman Inc: New York.

Nair, P. K. R. (1993). An Introduction to Agroforestry. Kluwer Academic Publishers: London.

Proceedings

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Eshetu Derso, Teame Geberzgi and Girma Adugna (2000). Significance of minor diseases of Coffee arabica in Ethiopia. In: Proceedings of the Workshop on Control of Coffee Berry Disease (CBD) in Ethiopia, pp. 35-46, Addis Ababa, Ethiopia.

Thesis

Author(s), year of publication (in parenthesis), title of the thesis, type (MA, MSc. MPhil or PhD), University, Country

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Mwavu, E. N. (2007). Human Impact, Plant Communities, Diversity and Regeneration in Budongo Forest Reserve, North-western Uganda. University of the Witwatersrand, Johannesburg.

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