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Research Articles

Gender Similarities in High School Mathematics: Affective and Cognitive Aspects

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Abstract: The study investigated gender similarities in perceived teacher affective support, mathematics self-efficacy, and mathematics achievement by using cross-sectional survey design. Data were collected by self-report questionnaire and achievement test from 727 (416 females & 311 males) grade 9 students, with the average age of 15, randomly selected from three government general secondary schools in Aksum. Data gathering tools had acceptable reliability coefficients: 0.80 for teacher affective support scale and 0.93 for mathematics self-efficacy scale. Descriptive statistics and independent samples *t*-test were used to analyze the data. The findings revealed that there were gender similarities in teacher affective support and mathematics achievement while girls found to be more self-efficacious towards mathematics. The findings can be practically used to realize successful high school mathematics teaching-learning by selecting student outcomes, designing teacher and school manager training programs, and developing curricular materials in line with the findings. Mathematics teachers in particular can practically use the findings to enhance good insights in students, successfully support their students, and work on improving mathematics self-efficacy and thereby enhance learning and achievement in mathematics for all students. Theoretically, the study confirmed Hyde's gender similarity hypothesis, and this investigation in the Ethiopian high school mathematics context, contributes to the contested research in gender and mathematics which could contribute to the theories in educational psychology. Further implications and directions for future study are forwarded.

Key words: Mathematics, self-efficacy, teacher affective support, achievement, gender.

INTRODUCTION

Most studies on gender and mathematics focus on gender differences instead of similarities which strengthen gender stereotypes (Chipman, 2005; Gallagher & Kaufman, 2005). One can find multiple studies on gender/sex differences in mathematics (Arnup, Murrihy, Roodenburg, & McLean, 2013; Ayalon & Livneh, 2013; Byrnes, 2005; Catsambis, 2005; Else-Quest, Hyde, & Linn, 2010; Eshetie, 2001; Frenzel, Pekrun, & Goetz, 2007; Gallagher & Kaufman, 2005; Isiksal & Cakiroglu, 2008; Kenney-Benson, Patrick, Pomerantz, & Ryan, 2006; Kyriakides & Antoniou,

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2009; Li, Zhang, Liu, & Hao, 2017; Pajares, 2005; Penner & Paret, 2008; [2]Seleshi, 1995, 2001, 2005; Yoo, 2017). But, there are very few studies on gender similarities in mathematics (Hyde, 2005; Hyde, Lindberg, Linn, Ellis, & Williams, 2008). Despite the preferred title in most studies, a lot of evidence empirically attest the presence of more gender similarities than differences in mathematics (Else-Quest, Hyde, & Linn, 2010; Frenzel, Pekrun, & Goetz, 2007; Hyde, 2005; Hyde, Lindberg, Linn, Ellis, & Williams, 2008; Kenney-Benson, Patrick, Pomerantz, & Ryan, 2006; Lindberg, Hyde, Petersen, & Linn, 2010; Yoo, 2017). For instance, a meta-analysis of studies across 69 countries throughout the world revealed that most effect sizes for mathematics achievement were found to be very small or negligible, and girls outperformed boys in some cases and vice versa in some other cases (Else-Quest et al., 2010). Similarly, a meta-analysis on mathematics performance concluded that gender differences in mathematics performance were very small, and depending on the sample and outcome measure, boys are sometimes favored and girls some other time" (Lindberg, Hyde, Petersen, & Linn, 2010, p. 1124).

The common use of the title 'gender/sex differences in mathematics' seems biased and can have negative effects on students, teachers, parents, researchers, and the wider community. Mentioning the bias inherent in the title, Caplan and Caplan (2005, p. 25) argue that "in the wording of the title, *Gender Differences in Mathematics*, there is no any implication that there is any question about whether there are such differences." Caplan and Caplan further claim that "when it comes to research on sex differences in mathematics abilities, researchers' bias is a huge problem with enormous consequences" (p. 26). For instance, biased research findings that claim males' superiority in mathematics may put females in stereotype threat (Chipman, 2005); mathematically talented females may be ignored by teachers and parents (Hyde, 2005), and may put low ability males at disadvantage by excluding them from any help or interventions they need (Caplan & Caplan, 2005; Hyde, 2005). Moreover, research findings that overemphasize gender differences in mathematics could reinforce gender stereotypes which could further lead to differential treatment of females and males by people and the community (Ellemers, 2018). That is, as a result of overemphasis on gender differences in mathematics, the public and media reinforce the stereotype that males are superior in mathematics. Therefore, overemphasizing gender differences in mathematics costs much, and Hyde suggests considering these overinflated assertions of gender differences.

Then, what should be done? While questioning about its possibility, Chipman (2005, p. 19) says "perhaps we should stop talking about the women and mathematics problem, and then it will vanish entirely." This may not be feasible and even Chipman hesitates about its possibility. And in fact, the problem is not talking about or studying women and mathematics. The real problem in the area is "the sheer volume of material published by researchers engaged in the persistent search for sex differences in mathematics abilities" (Caplan & Caplan, 2005, p. 25) and overemphasis. In reality, individual differences in mathematics which are rarely considered

[2] Note that Ethiopians are called in their first names unlike most other parts of the world; so in citations of works by Ethiopians, first names are used.

are much larger than gender differences in mathematics (Caplan & Caplan, 2005; Gallagher & Kaufman, 2005; Hyde, 2007). Therefore, the overemphasis of previous studies on gender differences in mathematics while the reality is not as such pronounced should be counter balanced by empirically studying gender similarities in mathematics. This could help change the mindset of researchers so that they can minimize the stereotypes and biases inherent in the research on females and mathematics. Even though researchers empirically find no or trivial gender differences in mathematics and preach about nonexistence of significant gender differences in mathematics, scholars still prefer to use the title 'gender differences in mathematics'. As Caplan and Caplan criticize, the well written book edited by Gallagher and Kaufman is entitled as 'Gender differences in mathematics' while most volumes in it attest gender similarities in mathematics. This might be due to the mindset of the editors. In addition to counter balancing previous overemphasis by studying gender similarities in mathematics, scholars argue that it is even more important to focus on individual differences in mathematics learning and abilities (Caplan & Caplan, 2005; Gallagher & Kaufman, 2005).

Based on a very comprehensive study of 46 meta-analyses reports, Hyde (2005) proposed the 'Gender Similarities Hypothesis' which states that females and males are similar on most psychological variables. Hyde did cover a very wide area of psychological variables "including cognitive abilities, communication, social behavior and personality, psychological well-being, and other miscellaneous areas" (2007, p. 259). An earlier meta-analysis of 100 studies on gender differences in mathematics performance on over 3 million students led to conclude that the differences are small (Hyde, Fennema, & Lamon, 1990). Another similar meta-analysis of 70 studies on over 63 thousand students comes to conclude that "gender differences in most aspects of mathematics attitudes and affect are small" (Hyde, Fennema, Ryan, Frost, & Hopp, 1990, p. 310). A study on mathematics performance of 2nd through 11th graders has also found no gender differences in mathematics skills (Hyde, Lindberg, Linn, Ellis, & Williams, 2008).

Scholars urge special attention and critique for gender differences in mathematics in order to balance the already happened much harm because of males' superiority stereotype (Caplan & Caplan, 2005). Moreover, the generalizability of the literature on gender and mathematics demands further investigation (Else-Quest, Hyde, & Linn, 2010).

The present study is based on gender similarity model which is a new direction in the study of gender (Hyde, 2005, 2007; Hyde & Linn, 2006; Hyde, Lindberg, Linn, Ellis, & Williams, 2008). The study tried to contribute to the literature on gender and mathematics by empirically investigating gender similarities in affective and cognitive aspects of mathematics among Ethiopian grade 9 students. More specifically, the study investigated gender similarities in grade 9 students' perceived teacher affective support, mathematics self-efficacy, and mathematics achievement in the general secondary schools of Aksum town, Tigray, Ethiopia. The study did intend to answer the question: Are there gender similarities in perceived teacher affective support, mathematics self-efficacy, and mathematics achievement among grade 9 students in Aksum town? Empirically responding to this question or achieving the purpose of this study could have theoretical and practical implications. Theoretically, the findings could

contribute to the gender similarity literature from an Ethiopian, a sub-Saharan country, context. Practically, the findings could inform policy makers and practitioners about whether we should focus on helping all students learn and achieve in mathematics or if there are specific areas where we should consider gender issues.

Gender Similarities in Perceived Teacher Affective Support, Mathematics Self-Efficacy, and Mathematics Achievement

Teacher affective support.

In general, the literature on teacher affective support is scanty (Holm, Hannula, & Björn, 2016) and not consistent. Some studies indicate that in learning mathematics, female students are emotionally more vulnerable than male students (Kenney-Benson, Patrick, Pomerantz, & Ryan, 2006). Cross-national studies have also shown that female students to be more anxious in mathematics than their male counterparts (Else-Quest, Hyde, & Linn, 2010; Holm et al., 2016). Holm et al. found female students to have more negative emotional profile in mathematics than males. In mathematics classes, females may have fewer opportunities than males to explain their ideas due to cultural and sexual biases as well as teacher expectation (Stiff, Johnson, & Johnson, 1993). In a study on first year undergraduate science students, Negasi (2009) found male students to have more close relationship with their mathematics teachers and perceived their mathematics teachers as more supportive compared to their female classmates. On the other hand, female students found to be more motivated to do school work and perceived their teachers as more emotionally supportive than male students did (Skaalvik & Skaalvik, 2013).

Mathematics self-efficacy.

Gender differences in self-efficacy are often reported; some attributing the differences to stereotype (Bandura, 2006a; Pajares, 2002; Pastorelli et al., 2001) and others to differences in sources of self-efficacy (Zeldin, Britner, & Pajares, 2008). For example, Bandura (2006a) indicated that gender differences follow stereotypic classifications such that boys judge themselves as more efficacious in science and technology while girls perceive themselves as more efficacious in social, educational, and health services. More specifically, citing a work by Wigfield, Eccles, and Pintrich (1996), Pajares (2002) indicated that "boys and girls report equal confidence in their mathematics ability during the elementary years, but, by middle school, boys begin to rate themselves more efficacious than do girls" (2002, p. 118). In line with this, Schunk and Pajares (2002) also indicated that when students enter middle school, girls typically show lower self-efficacy. This implies that gender differences in mathematics self-efficacy that are attributed to stereotype favor males. Some studies (e.g., Zeldin et al., 2008) also attribute the gender differences in self-efficacy to developmental or psychological factors. According to these studies, while mastery experiences are considered as the most important for developing self-efficacy by male students, vicarious experiences and social persuasions are considered most important by female students. In contrast to these studies, earlier study on Japanese college

students (Matsui, Matsui, & Ohnishi, 1990) found similarity between females and males in the four sources of mathematics self-efficacy though the study revealed significant gender differences in high school mathematics self-efficacy in favor of males.

Several studies indicate significant gender differences in mathematics self-efficacy that favor male students (Bandura, 2006a; Betz & Hackett, 1983; Else-Quest, Hyde, & Linn, 2010; Fast et al., 2010; Junge & Dretzke, 1995; Skaalvik, Federici, & Klassen, 2015; Randhawa & Gupta, 2000; Schunk & Pajares, 2002; Matsui, Matsui, & Ohnishi, 1990). In a meta-analysis of cross-national patterns of gender differences in mathematics across 69 nations throughout the world, Else-Quest et al. found boys to be more confident in their mathematics abilities than girls in which they scored one third of a standard deviation higher than girls on mathematics self-efficacy. Moreover, when middle school students are given a novel mathematical task, a study by Schunk and Lilly (1984) confirmed a significant gender difference in mathematics problem solving self-efficacy in favor of males. But the study indicated that when students receive performance feedback in the context of the instructional unit, the difference vanishes. A local study on first year undergraduate science students, has indicated that "male students devoted more effort, persisted longer, were more interested, preferred more challenging mathematics tasks, and had a sense of competence on mathematics when compared to female students" (Negasi, 2009, p. 51).

Unlike the above studies, others have found gender similarities in mathematics self-efficacy (e.g., Chen & Zimmerman, 2007; Hachett & Betz, 1989). Hackett and Betz, for instance, indicated that "sex differences in mathematics self-efficacy did not reach statistical significance" (p. 270). On the other hand, studies indicate that gender differences in self-regulatory efficacy or confidence in the use of self-regulated learning strategies favor female students (Caprara et al., 2008; Pajares, 2002; Pastorelli et al., 2001). For instance, Pastorelli et al. indicated that "girls have a higher sense of efficacy for academic activities and to resist peer pressure to engage in transgressive activities" (p. 94). Pajares also indicated that "when gender differences in the use of self-regulated learning strategies or in having confidence to use these strategies have been reported, they typically favor female students" (p. 118). The literature indicates that the use of self-regulated learning strategies correspond with higher mathematics self-efficacy (Bandura, 1993, 1997; Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Maddux, 1995; Paris & Byrnes, 1989; Romberg & Kaput, 1999; Stiff, Johnson, & Johnson, 1993).

Mathematics achievement. The literature on gender similarities in mathematics achievement is not conclusive (Pajares, 2005). Studies found significant gender differences in mathematics achievement in favor of males (e.g., Arnup et al., 2013; Karakolidis, Pitsia, & Emvalotis, 2016). For instance, even though Greece significantly narrowed gender gap in the years 2003 to 2012, Karakolidis et al. found statistically significant difference in mathematics achievement between Greek boys and girls favoring boys. Similar results were found for Australian primary school students by Arnup et al. and for Cypriot primary school students by Kyriakides and Antoniou (2009). In a cross-national gender difference study on Canadian and Indian high school students,

Randhawa and Gupta (2000) found consistent and systematic gender differences in favor of males in mathematics achievement, attitude, and self-efficacy. In a comprehensive comparative study on 32 countries including African countries, like Botswana, Egypt, Ghana, Morocco, South Africa, and Tunisia, Ayalon and Livneh (2013) found significant gender gap in favor of boys particularly in the upper part of the mathematics achievement distribution. Like the global trend, studies in the Ethiopian context consistently indicated significant gender differences in mathematics achievement in favor of males (e.g., Abraha, 2015; Eshetie, 2001; Negasi, 2009; Seleshi, 1995, 2001, 2005; Tilaye, 2004). Eshetie found significant gender difference in mathematics achievement in favor of males for grades 9 and 11 students and similar results were found for grades 8 through 11 by Seleshi (1995). Regarding the presence of gender difference in mathematics achievement vertically across grades, Seleshi (2001) concluded that the disparity starts at grade 6. In contrast to this conclusion, Abraha (2015) investigated counting concept and number sense of grades 1 and 2 using the Early Grade Mathematics Assessment (EGMA) approach and found significant gender differences in favor of males.

On the other hand, several recent studies claim to have found gender similarities in mathematics achievement (Chen & Zimmerman, 2007; Else-Quest, Hyde, & Linn, 2010; Holm, Hannula, & Björn, 2016; Hyde, Lindberg, Linn, Ellis, & Williams, 2008; Lindberg, Hyde, Petersen, & Linn, 2010; Skaalvik, Federici, & Klassen, 2015; Yoo, 2017). Lindberg et al. conducted a meta-analysis of 242 studies on mathematics achievement published between 1990 and 2007 and found gender similarities in mathematics achievement. In addition to the meta-analysis, Lindberg et al. analyzed large national data sets of U.S. adolescents regarding mathematics achievement and came up with similar conclusions. In a more comprehensive meta-analysis of cross-national patterns of gender differences in mathematics across 69 nations, Else-Quest et al. found similar mean mathematics achievements for males and females. Moreover, Byrnes, Hong, and Xing (1997) conducted a study on mathematics achievement by Chinese high school students on the mathematics subtest of the Scholastic Aptitude Test (SAT) and found gender similarities. Unlike this study, a meta-analysis of Beijing Assessment of Educational Sciences (BAEQ) results from 2008 to 2013 revealed trivial gender differences in mathematics achievement for grade 5 but significant gender differences for grade 8 in favor of girls, and led to the conclusion that girls outperform boys in mathematics as they moved up the ladder (Li, Zhang, Liu, & Hao, 2017).

The international literature on gender similarities in mathematics achievement, thus, is somehow mixed. For this reason the issue of gender differences in mathematics achievement seems to be controversial (Arnup, Murrihy, Roodenburg, & McLean, 2013; Karakolidis, Pitsia, & Emvalotis, 2016; Kyriakides & Antoniou, 2009).

Gender and the Ethiopian Education System

The levels of females' participation in different spheres of activities differ across countries, and the differential participation may lead to gender gap in mathematics (Ayalon & Livneh, 2013). Studies found that gender equity in a country is associated with gender similarity in mathematics

achievement, attitudes, and affect (Ayalon & Livneh, 2013; Else-Quest et al., 2010). In Ethiopia, a study indicated that "the increasing numbers of females who are now progressing through the system could in the longer term have an impact on changing societal attitudes which, in turn, will assist in moving towards removing gender disparities in education" (Rose, 2003, p. 14). Moreover, among the gender equity indicators, primary and secondary enrollment ratios are most relevant to mathematics achievement, attitudes, and affect (Else-Quest et al., 2010). Hence, it is important to look at gender and the Ethiopian education system in general and primary and secondary enrollments in particular.

The Ethiopian education system had highly inequitable access partly expressed by high gaps between males' and females' enrollments (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2002; Rose, 2003). The inequitable access was because of the country's developmental level and cultural influences. In Ethiopia, "girls' education is deeply influenced by such cultural and economic issues as tradition, legal systems, customs, poverty and discrimination" (Lasonen, Kemppainen, & Raheem, 2005, p. 25). Lasonen et al. indicated that "the customary laws and practices are patriarchal and hinder women's access to resources both within and outside the household" (p. 27). In Ethiopia, work condition and type is one competitor to girls' education (Camfield, 2011). There is gendered division of labor in Ethiopia, and tasks given to females are usually time consuming and difficult to combine with other tasks like reading. For instance, girls are supposed to do household chores while boys are free to play outside or may do shop or animal keeping. Particularly, for women, work condition is very difficult as "women are responsible for all household chores in addition to the support they provide in agriculture and livestock production" (Lasonen et al., 2005, p. 28).

The 1994 education and training policy placed directions to compensate the unbalanced development, in general, and the inequitable education access, in particular (FDRGE, 1994; Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2002). For instance, the policy indicates that "the government will give financial support to raise the participation of women in education" (FDRGE, 1994, p. 32). Accordingly, different measures were taken to encourage the participation of females in education, and those measures brought enormous increments in girls' enrolments. Among the measures taken to enhance gender parity in the education and training sector are establishing and strengthening gender offices, gender forums, girls' clubs and female students' associations in regional education bureaus and higher learning institutions (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2015a).

Review of education statistics annual abstracts (2000/01 and 2009/10 to 2016/17) indicates that there are considerable developments in the education sector, in general, and females' participation in education, in particular. Females' enrolments have grown enormously at all educational levels. Gender parity has been improved at all levels. More specifically, these improvements in education are more substantial in Tigray regional state where this study was conducted. In Tigray region, the primary education has been improved. The primary education (grades 1-8) gross enrolment ratio (GER) has grown from 73.90 (in 2000/01) to 116.70 (in 2016/17) in the region. As the enrolment trends presented in Table 1 show, the primary

education enrolments have substantially grown in the last eight years. The gender parity trend in primary education indicated that gender parity index (GPI) has improved from 0.95 (in 2000/01) to 1.00 (in 2010/11) which was sustained for few years and then declined to 0.94 (in 2016/17). The primary education enrolment trends presented in Table 1 indicate that female enrolment never surpassed male enrolment.

Table 1

Primary Enrolments by Gender and GPI for Tigray Region and National

		2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Tigray	Female	491,856	497,811	502,341	504,812	520,534	541,663	548,530	557,905
	Male	496,360	503,792	504,632	515,263	536,575	572,982	590,368	609,257
	Total	988,216	1,001,603	1,006,973	1,020,075	1,057,109	1,114,645	1,138,898	1,167,162
	GPI	---	1.00	1.01	0.99	0.99	0.97	0.95	0.94
National	Female	7,482,215	7,939,023	8,124,293	8,276,029	8,705,172	8,844,716	9,407,490	9,753,572
	Male	8,309,889	8,779,088	8,865,491	9,112,266	9,601,324	9,846,502	10,569,951	11,029,506
	GPI	---	0.94	0.95	0.94	0.93	0.92	0.91	0.90

Note. GPI = Gender Parity Index

Like the improvements in primary education in Tigray region, secondary education has also been substantially improved in the region. The secondary education (grades 9-12) gross enrolment ratio (GER) has grown from 23.00 (in 2000/01) to 44.70 (in 2016/17) in the region. As the enrolment trends presented in Table 2 indicate, the secondary education enrolments have substantially grown in the last eight years. The enrolment trends indicate that female enrolments were less than male enrolments in 2009/10 and before, and this was reversed in the years 2010/11 to 2016/17. The gender parity trend in secondary education indicated that GPI has improved from 0.61 (in 2000/01) to 1.02 (in 2016/17). In the recent four years 2013/14 to 2016/17, gender parity has been assured in the first cycle (grades 9 & 10), GPI ranging from 1.09 to 1.07 while it declined in the second cycle (grades 11 & 12), GPI ranging from 1.06 to 0.83.

Table 2

Secondary Enrolments by Gender and GPI for Tigray Region and National

		2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Tigray	Female	66,472	72,229	78,202	90,894	97,735	98,159	106,794	106,287
	Male	69,342	69,856	72,908	83,731	91,924	94,053	106,227	106,028
	Total	135,814	142,085	151,110	174,625	189,659	192,212	213,021	212,315
	GPI	---	---	---	---	--- (1.09, 1.06)	1.06 (1.08, 0.99)	1.03 (1.06, 0.89)	1.02 (1.07, 0.83)
National	Female	721,456	773,312	805,658	888,910	941,331	998,238	1,145,117	1,201,009
	Male	974,474	976,822	960,353	1,010,821	1,057,024	1,109,877	1,276,046	1,358,168
	Total	1,695,930	1,750,134	1,766,011	1,899,731	1,998,355	2,108,115	2,421,163	2,559,177
	GPI	---	---	0.88, 0.76	0.92, 0.81	0.94, 0.85	0.92 (0.93, 0.87)	0.93 (0.94, 0.87)	0.91 (0.92, 0.86)

Note. GPI = Gender Parity Index

METHOD

Design

The study employed a cross-sectional survey design in that students' perceptions of teacher affective support and mathematics self-efficacy were collected from grade 9 students of three high schools using self-report questionnaire. Achievement of the participants on mathematics was also measured using an achievement test. The collected data were statistically analyzed to answer the research question of the study.

Participants

In the first semester of the academic calendar 2017/18, there were 1170 (610 females) grade 9 students in Aksum General Secondary School in 22 classrooms, 683 (374 females) grade 9 students in Menilik I General Secondary School in 14 classrooms, and 1148 (553 females) grade 9 students in Kaleb General Secondary School in 20 classrooms. Thus, totally there were 3,001 (1537 females) grade 9 students in the three government general secondary schools in 56 classrooms.

In selecting the participants, efforts were made to minimize teacher variation effects in that students taught by few mathematics teachers were included in the sample. The number of mathematics teachers in Aksum, Kaleb, and Menilik I General Secondary Schools were 13 (11 males), 14 (11 males), and 8 (7 males), respectively. Then, using the lottery method, 2 mathematics teachers from each Aksum and Kaleb, and 1 mathematics teacher from Menilik I were selected, and all grade 9 students taught by those 5 mathematics teachers were included in the sample. Therefore, participants of the present study included 727 (416 females) grade 9 students selected using cluster random sampling from the three government general secondary schools (16 classrooms) in Aksum town. During the mathematics achievement test, 57 students were absent in the three schools and as a result 670 students (395 females & 275 males) sat for the test. The participants were with the age range of 14 to 24 years (M = 15.00, SD = 0.92).

Measures

Student self-report questionnaire was used to collect data about students' perceptions of teacher affective support and mathematics self-efficacy. After the measures were prepared in English, they were translated into Tigrigna, the participants' native language. The adapted and developed questionnaire was critically reviewed by three experienced professionals of whom two were English lecturers (a PhD and an MA holders) and one was an Educational Psychology professional (PhD fellow). The reviewers were all Tigrigna natives and the two were Tigrigna minor in their professional studies and hence they reviewed both the English and Tigrigna versions including the back translation into English. The three professionals reviewed the accuracy of the translations as well as the extent to which the adaptation of the teacher affective support scale into Ethiopian context was appropriate. During data collection, participants were instructed to answer with reference to their mathematics teacher and mathematics subject learning and studying. After data for perceived teacher affective support and mathematics self-efficacy were collected and the first three units in grade 9 mathematics textbook were taught, students did take a mathematics achievement test.

Teacher affective support.

Teacher affective support refers to student perceptions of "teacher behaviors, attitudes, and practices involving caring, respect, concern for and interest in students, valuing, recognition, fair treatment, high expectations, encouragement, and listening" (Sakiz, 2007, p. 23). Sakiz developed a perceived teacher affective support scale and used in her dissertation in the American mathematics classroom context with middle school students of average age 12.82 years. The scale has 9 items and reliability coefficient Cronbach's alpha of 0.92. For the present study, Sakiz's perceived teacher affective support scale was adapted and used. Sakiz was consulted and asked her permission for adapting the scale and she permitted to adapt the tool via email communication.

In adapting Sakiz's scale, the item "My math teacher treats me equal compared to other students regardless of my gender or score in math" was, for instance, adapted to "My math teacher supports students equally without any bias." The basis for this was to increase clarity and make the item more specific, i.e., treating students with respect to gender, race, and ability or score in mathematics implies multiple concepts. In addition to such adaptations, four items were added to Sakiz's scale in order to cover the concepts in the definition of the variable, and the 13-item scale (e.g., "My math teacher really cares about me"; "My math teacher values every effort I make in learning math") was developed. In translating the scale, efforts were made to contextualize the teacher affective supports students get to their real practices in the Ethiopian context. Responses were made on 5-point scales, where 1 = not at all true, 2 = a little true, 3 = somewhat true, 4 = mostly true, and 5 = completely true. The scale had acceptable reliability coefficient, Cronbach alpha, of 0.80 which is above the minimum cut point of .70 for a good measure (Cortina, 1993; Kline, 2000).

Mathematics self-efficacy.

Mathematics self-efficacy in this study is concerned with grade 9 students' beliefs in their capabilities to organize and execute the courses of actions required to learn and understand the mathematics contents in their textbook and perform well. According to Bandura (2006b), self-efficacy beliefs are measured by presenting individuals with items portraying different levels of task demands so that the individuals rate the strength of their belief in their ability to execute the requisite activities. Respondents rate the strength of their efficacy beliefs on a 100-point or 10-point (which is simpler) scale, ranging from 0 (Cannot do) through 50 or 5 (Moderately certain can do) to complete assurance, 100 or 10 (Highly certain can do).

For this study, an 18-item mathematics self-efficacy scale was developed from the first three units of grade 9 mathematics textbook (The Number System, Solutions of Equations, and Further on Sets). The scale was developed based on the 10-point simpler response format ranging from 0 (Cannot do) through 5 (Moderately certain can do) to complete assurance, 10 (Highly certain can do). The contents of the first three units in the grade 9 mathematics textbook were selected because they are covered in the first semester when data were collected. In developing the scale, Bandura's (2006b) guide for constructing self-efficacy scales was used and the three units were fairly covered to enhance content validity. The scale had a very good reliability coefficient, Cronbach alpha, of 0.93 which is above the minimum cut point of .70 for a good measure (Cortina, 1993; Kline, 2000).

Mathematics achievement.

This variable is an achievement of grade 9 students on a mathematics test developed by the researcher for the research purpose. To measure this variable, a 25-item mathematics achievement test was developed from the first three units of grade 9 mathematics textbook (i.e., The Number System, Solutions of Equations, and Further on Sets) which were covered in the first semester of 2017/18 academic calendar. The mathematics achievement test was composed of True-False (5 items), matching (5 items), and multiple choice (15 items) items. Combination of three objective type items was used to enhance the quality of the test (Mehrens & Lehmann, 1991). The multiple choice items had four alternatives.

As indicated under the mathematics self-efficacy, the contents of the test correspond to the concepts covered in the mathematics self-efficacy scale. In developing the mathematics achievement test, in addition to following the principles of measurement and evaluation, it was tried to fairly cover the three units to enhance content validity. To minimize the deficiencies apparent in item writing or test preparation, a test should be critically reviewed by teachers other than the writer (Mehrens & Lehmann, 1991). Thus, a copy of the test with answer key was given to each of the five mathematics teachers of the participants for review. Then, all the teachers carefully reviewed the test and contributed more to the correctness and validity of the items in the test. All the teachers also assured that they have covered the first three units in the textbook and hence the appropriateness of the test for their students.

Data Analysis

The collected data were analyzed using the statistical package IBM SPSS version 20. In the preliminary analyses, descriptive statistics and scale reliability analyses were used. To assess gender differences in teacher affective support, mathematics self-efficacy, and mathematics achievement, independent samples *t*-test was employed. Before running the *t*-test, the assumptions were assessed using descriptive statistics, normal Q-Q charts and plots, and histograms.

RESULTS

The present study was intended to respond to a question which was concerned with assessing if there were gender similarities in teacher affective support, mathematics self-efficacy, and mathematics achievement. Independent samples *t*-test was used to respond to this research question. The assumptions of using the independent samples *t*-test are independent observations, normality, and homogeneity of variance (Field, 2005, 2009; Gravetter & Wallnau, 2013). The assumptions of independent observations and normality were assessed for the variables mathematics self-efficacy and teacher affective support, and they were found to be tenable. These assumptions were also tenable for mathematics achievement as indicated by random sampling used, the measures of shape (skewness = .571 & kurtosis = -.127), and the normal Q-Q chart and histogram for the variable. Levene's test for homogeneity of variance also indicated that there is no violation of the assumption of variance homogeneity for all the three variables. Therefore, all the assumptions for using the independent samples *t*-test were assessed and found to be satisfied for all the three variables.

Table 3

Descriptive Statistics, Independent Samples t-Test, and Related Effect Sizes for TAS, MSE, and MAch

	Female		Male				Sig. (2-	Cohen's
Variable	*n*	*M* (*SD*)	*n*	*M* (*SD*)	*t*	*df*	tailed)	*d*
TAS	416	53.02 (8.40)	311	53.22 (7.99)	-.332	725	.740	- 0.0243
MSE	416	119.37 (34.60)	311	113.90 (37.69)	2.030	725	.043	0.1521
MAch	395	45.42 (16.71)	275	44.29 (16.88)	.855	668	.393	0.0673

Note. TAS = Teacher Affective Support, MSE = Mathematics Self-Efficacy, MAch = Mathematics Achievement

As the results in Table 3 show, independent samples *t*-test indicated that the perceived teacher affective support of female grade 9 students (M = 53.02, SD = 8.40) found to be similar with that of their male counterparts (M = 53.22, SD = 7.99), $t(725) = -0.33$, $p > .05$, $d = -0.02$. The independent samples *t*-test results in Table 3 further indicated that the average mathematics self-efficacy of female grade 9 students (M = 119.37, SD = 34.60) found to be significantly

greater than that of their male counterparts (M = 113.90, SD = 37.69), $t(725) = 2.03$, $p < .05$, d = 0.15. Moreover, the independent samples t-test results indicated that the mathematics achievement of female grade 9 students (M = 45.42, SD = 16.71) found to be similar with that of their male counterparts (M = 44.29, SD = 16.88), $t(668) = 0.86$, $p > .05$, $d = 0.07$ (Table 3).

DISCUSSION

The findings of the study revealed that there was gender similarity in perceived teacher affective support between female and male grade 9 students in line with their mathematics teachers. That is, male and female grade 9 students similarly perceived that their mathematics teachers had positive belief and close relationship with them and that the mathematics teachers were concerned about students' learning and achievement and fairly treat students. This finding is different from previous studies which found extreme results. One study indicated that female students perceived their teachers as more emotionally supportive than male students did (Skaalvik & Skaalvik, 2013) while a local study by Negasi (2009) found that male students had more close relationship with their mathematics teachers and perceived their mathematics teachers as more supportive compared to their female classmates. Due to cultural and sexual biases and lower teacher expectation, female students may have fewer opportunities than males in mathematics classes (Stiff, Johnson, & Johnson, 1993). These biases were also common in Ethiopia, and, as a result, girls were not suggested to seek teacher help and establish closer relationships with their teachers in the Ethiopian culture. But the present finding reflects improvements in the cultural biases and teacher expectations for girls particularly in mathematics which was considered as a male subject. The gender similarity finding in teacher affective support is in line with the current gender parity status in the Ethiopian first cycle (grades 9 & 10) secondary education.

The present study has further indicated that female grade 9 students were found to be more self-efficacious towards mathematics than their male counterparts. This implies that female grade 9 students were more confident than their male counterparts to demonstrate their conceptual knowledge and problem solving skills on tasks included in their mathematics textbook. These findings are in contradiction with several studies which found significant gender differences in mathematics self-efficacy or academic self-efficacy in favor of males (Bandura, 2006a; Betz & Hackett, 1983; Else-Quest, Hyde, & Linn, 2010; Fast et al., 2010; Junge & Dretzke, 1995; Skaalvik, Federici, & Klassen, 2015; Randhawa & Gupta, 2000; Schunk & Pajares, 2002; Matsui, Matsui, & Ohnishi, 1990). On the other hand, the findings seem to be consistent with some studies which found significant gender differences in self-regulatory efficacy or confidence in the use of self-regulated learning strategies that favor female students (Caprara et al., 2008; Pajares, 2002; Pastorelli et al., 2001). In fact the present findings have marginal significance (p = 0.043 or small effect size, d = 0.15; Hyde, 2005) and hence can be considered as similar with some studies which found no significant gender difference in mathematics self-efficacy (Hachett & Betz, 1989; Schunk & Lilly, 1984).

Even though they need further investigation, the findings of the present study seem to light some insight that challenges the stereotypical thinking that females are less confident in mathematics. The findings can also be signs of improvements in cultural barriers and equitable education opportunities for male and female students in the study area. This is because the literature indicates that gender differences in mathematics self-efficacy are attributed to stereotype, inequitable educational practices, and cultural restrictions (Bandura, 2006a; Tilaye, 2004). In fact, the findings seem reflections of the secondary enrolment trends in Tigray region for the last seven years in which females' enrolments have been higher than males'.

The findings of the study further indicated that there was gender similarity in mathematics achievement between female and male grade 9 students. That is, the study found that on average, girls and boys achieved similarly on the mathematics achievement test. Scholars argue that the literature on gender differences in mathematics achievement is mixed (Arnup, Murrihy, Roodenburg, & McLean, 2013; Karakolidis, Pitsia, & Emvalotis, 2016; Kyriakides & Antoniou, 2009). Thus, the present finding concords with several studies that found gender similarities in mathematics achievement (Chen & Zimmerman, 2007; Else-Quest, Hyde, & Linn, 2010; Holm, Hannula, & Björn, 2016; Hyde, Lindberg, Linn, Ellis, & Williams, 2008; Lindberg, Hyde, Petersen, & Linn, 2010; Skaalvik, Federici, & Klassen, 2015; Yoo, 2017). On the other hand, the finding contradicts with several studies that found significant gender differences in mathematics achievement in favor of males (Arnup, Murrihy, Roodenburg, & McLean, 2013; Ayalon & Livneh, 2013; Karakolidis, Pitsia, & Emvalotis, 2016; Kyriakides & Antoniou, 2009; Randhawa & Gupta, 2000). Particularly, the present findings seem to be unique in the Ethiopian context as previous studies (Abraha, 2015; Eshetie, 2001; Negasi, 2009; Seleshi, 1995, 2001, 2005; Tilaye, 2004) concurrently found significant gender differences in mathematics achievement in favor of male students.

The findings have also shown that female and male students similarly perceived their mathematics teachers as affectively supported them; female students are more confident than males in mathematics. Besides, females also achieved in the subject similar with their male classmates, and this is a new feature that contradicts the traditional belief that 'mathematics is a masculine subject'. The findings are in line with Hyde's (2005) gender similarity hypothesis that "males and females are similar on most, but not all, psychological variables. That is, men and women, as well as boys and girls, are more alike than they are different" (p. 581). These findings could be indications of possible changes that came in students' belief system which indicates that females are equally confident and able in mathematics as their male classmates. The findings lead to the conclusions that female and male grade 9 students similarly perceived that their mathematics teachers had positive belief and close relationship with them, and that the mathematics teachers were concerned with their students' learning and achievement and they fairly treated students. Girls were more confident than boys to demonstrate their conceptual knowledge and problem solving skills on tasks included in their mathematics textbook. Regarding mathematics achievement, girls and boys achieved similarly on the mathematics achievement test although girls had better confidence in mathematics. These impressive findings

are yet very open for exploration and favorable area of investigation for educators and researchers.

The findings can be practically used to realize successful high school mathematics teaching-learning which could in turn enhance success in mathematics and related fields in higher education. The findings of gender similarities in teacher affective support and mathematics achievement and narrow gender difference in mathematics self-efficacy are good opportunities for the education system. The findings can be used in designing the nature of classroom environment and teacher support that could equally benefit all students. The findings could also suggest designing similar ways of enhancing female and male students' mathematics self-efficacy which may thereby enhance all students' mathematics achievement. Theoretically, the findings are new insights that more or less support Hyde's (2005) gender similarity hypothesis and could possibly contribute to changing the traditional belief that mathematics is a male subject. Finally, most studies in the area are conducted in western and eastern cultural contexts, and hence the present study contributes to minimizing the gaps in research literature conducted in Sub-Saharan African or more specifically in the Ethiopian culture.

LIMITATIONS AND FUTURE DIRECTIONS

The study had some limitations which should be acknowledged and kept in mind when interpreting the findings. First, the study was based on data collected from grade 9 students' self-report perceptions. Including teachers as research participants would have the possibility to add more value to the study. Second, even though the questionnaire was translated into Tigrigna language which is the participants' mother tongue, the participants had reading skill deficiency even in their own native language. This could have affected the collected data using the questionnaire to some extent. Third, students' cheating in the mathematics achievement test which is very common in most tests might have affected the level of mathematics achievement to some extent.

Replication of this study on a wider study area could be very important. Future research should try to minimize or avoid the limitations identified in the present study. That is, future research should try to collect comprehensive data from students and teachers. In future studies, the reading skill deficiency of high school students can be solved by reading the questionnaire items by data collector to the participants, and the cheating problem on achievement tests can also be minimized by preparing totally or partially workout items.

REFERENCES

Abraha Asfaw (2015). Quality of primary education in Ethiopia: The case of early grade mathematics competency in Tigrai. Unpublished PhD Dissertation, Addis Ababa University, Ethiopia.

Arnup, J. L., Murrihy, C., Roodenburg, J., & McLean, L. A. (2013). Cognitive style and gender differences in children's mathematics achievement. *Educational Studies, 39(3),* 355–368.

Ayalon, H. & Livneh, I. (2013). Educational standardization and gender differences in mathematics achievement: A comparative study. *Social Science Research, 42*, 432-445.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28(2),* 117-148.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W. H. Freeman and Company.

Bandura, A. (2006a). Adolescent development from an agentic perspective. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 1–43). Greenwich, CT: Information Age Publishing.

Bandura, A. (2006b). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 307–337). Greenwich, CT: Information Age Publishing.

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development, 72(1),* 187-206.

Betz, N. E. & Hackett, G. (1983). The relationship of mathematics self-efficacy expectations to the selection of science-based college majors. *Journal of Vocational Behavior, 23*,329-345.

Byrnes, J. P. (2005). Gender differences in math: Cognitive processes in an expanded framework. In A. M. Gallagher & J. C. Kaufman (Eds.), *Gender differences in mathematics: An integrative psychological approach* (pp. 73-98). New York, NY: Cambridge University Press.

Byrnes, J. P., Hong, L., & Xing, S. (1997). Gender differences on the math subtest of the Scholastic Aptitude Test may be culture-specific. *Educational Studies in Mathematics, 34*, 49–66.

Camfield, L. (2011). 'A girl never finishes her journey': mixing methods to understand female experiences of education in contemporary Ethiopia. *Research Papers in Education, 26(4),* 393–412.

Caplan, J. B. & Caplan, P. J. (2005). The perseverative search for sex differences in mathematics ability. In A. M. Gallagher & J. C. Kaufman (Eds.), *Gender differences in mathematics: An integrative psychological approach* (pp. 25-47). New York, NY: Cambridge University Press.

Caprara, G. V., Fida, R., Vecchione, M., Del Bove, G., Vecchio, G. M., & Barbaranelli, C. (2008). Longitudinal analysis of the role of perceived self-efficacy for self-regulated learning in academic continuance and achievement. *Journal of Educational Psychology, 100(3),* 525–534.

Catsambis, S. (2005). The gender gap in mathematics: Merely a step function? In A. M. Gallagher & J. C. Kaufman (Eds.), *Gender differences in mathematics: An integrative psychological approach* (pp. 220-245). New York, NY: Cambridge University Press.

Chen, P. & Zimmerman, B. (2007). A cross-national comparison study on the accuracy of self-efficacy beliefs of middle-school mathematics students. *The Journal of Experimental Education, 75(3),* 221-244.

Chipman, S. F. (2005). Research on the women and mathematics issue: A personal case history. In A. M. Gallagher & J. C. Kaufman (Eds.), *Gender differences in mathematics: An integrative psychological approach* (pp. 1-24). New York, NY: Cambridge University Press.

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology, 78(1),* 98-104.

Ellemers, N. (2018). Gender stereotypes. *Annual Review of Psychology, 69(1),* 275-298.

Else-Quest, N. M., Hyde, J. S., & Linn, M. C., (2010). Cross-national patterns of gender differences in mathematics: A meta-analysis. *Psychological Bulletin, 136(1),* 103–127.

Eshetie Abebe (2001). Gender differences in mathematics achievement as a function of math self-efficacy and math anxiety among Bale Zone high school students. Unpublished MA Thesis, Addis Ababa University, Addis Ababa, Ethiopia.

Fast, L. A., Lewis, J. L., Bryant, M. J., Bocian, K. A., Cardullo, R. A., Rettig, M., & Hammond, K. A. (2010). Does math self-efficacy mediate the effect of the perceived classroom environment on standardized math test performance? *Journal of Educational Psychology, 102(3),* 729–740.

Federal Democratic Republic of Ethiopia, Ministry of Education (MoE, 2002). *The education and training policy and its implementation*. Addis Ababa: Ministry of Education.

Federal Democratic Republic of Ethiopia, Ministry of Education (MoE, 2015). *Education Sector Development Program V (ESDP V) 2008 - 2012 E.C. (2015/16 - 2019/20 G.C): Program Action Plan*. Addis Ababa: Ministry of Education.

Federal Democratic Republic Government of Ethiopia (FDRGE, 1994). *Education and training policy*. Addis Ababa, ST. George Printing Press.

Field, A. (2005). *Discovering statistics using SPSS (2rd ed.)*. London: SAGE Publications Inc.

Field, A. (2009). *Discovering statistics using SPSS (3rd ed.)*. Thousand Oaks, CA: SAGE Publications Inc.

Frenzel, A. C., Pekrun, R., & Goetz, T. (2007). Girls and mathematics a "hopeless" issue? A control value approach to gender differences in emotions towards mathematics. *European Journal of Psychology of Education, 22(4),* 497-514.

Gallagher, A. M. & Kaufman, J. C. (2005). Gender differences in mathematics: What we know and what we need to know. In A. M. Gallagher & J. C. Kaufman (Eds.), *Gender differences in mathematics: An integrative psychological approach* (pp. 316-331). New York, NY: Cambridge University Press.

Gravetter, F. J & Wallnau, L. B. (2013). *Statistics for the behavioral sciences (9th ed.)*. Belmont, CA: Wadsworth, Cengage Learning.

Hackett, G. & Betz, N. E. (1989). An exploration of the mathematics self-efficacy/mathematics performance correspondence. *Journal for Research in Mathematics Education, 20*, 261-273.

Holm, M. E., Hannula, M. S., & Björn, P. M. (2016). Mathematics-related emotions among Finnish adolescents across different performance levels. *Educational Psychology*, DOI: 10.1080/01443410.2016.1152354.

Hyde, J. S. & Linn, M. C. (2006). Gender similarities in mathematics and science. *Science, 314*, 599-600.

Hyde, J. S. (2005). The gender similarities hypothesis. *American Psychologist, 60(6),* 581–592.

Hyde, J. S. (2007). New directions in the study of gender similarities and differences. *Current Directions in Psychological Science, 16(5),* 259-263.

Hyde, J. S., Fennema, E., & Lamon, S. J. (1990). Gender differences in mathematics performance: A meta-analysis. *Psychological Bulletin, 107(2),* 139-155.

Hyde, J. S., Fennema, E., Ryan, M., Frost, L. A., & Hopp, C. (1990). Gender comparisons of mathematics attitudes and affect: A meta-analysis. *Psychology of Women Quarterly, 14*, 299-324.

Hyde, J. S., Lindberg, S. M., Linn, M. C., Ellis, A., & Williams, C. (2008). Gender similarities characterize math performance. *Science, 321*, 494–495.

Isiksal, M. & Cakiroglu, E. (2008). Gender differences regarding mathematics achievement: The case of Turkish middle school students. *School Science and Mathematics, 108(3),* 113-120.

Junge, M. E. & Dretzke, B. J. (1995). Mathematical self-efficacy gender differences in gifted/talented adolescents. *Gifted Child Quarterly, 39(1),* 22-26.

Karakolidis, A., Pitsia, V., & Emvalotis, A. (2016). Examining students' achievement in mathematics: A multilevel analysis of the Program for International Student Assessment (PISA) 2012 data for Greece. *International Journal of Educational Research, 76*, 106-115.

Kenney-Benson, G. A., Patrick, H., Pomerantz, E. M., & Ryan, A. M. (2006). Sex differences in math performance: The role of children's approach to schoolwork. *Developmental Psychology, 42(1),* 11–26.

Kline, P. (2000). *The handbook of psychological testing (2nd ed.)*. London: Routledge.

Kyriakides, L. & Antoniou, P. (2009). Gender differences in mathematics achievement: An investigation of gender differences by item difficulty interactions. *Educational Research and Evaluation, 15(3),* 223-242.

Lasonen, J., Kemppainen, R., & Raheem, K. (2005). Education and training in Ethiopia: An evaluation of approaching EFA goals. Institute for Educational Research, University of Jyväskylä, Jyväskylän yliopisto, Finland.

Li, M., Zhang, Y., Liu, H., & Hao, Y. (2017). Gender differences in mathematics achievement in Beijing: A meta-analysis. *British Journal of Educational Psychology*, 1-18.

Lindberg, S. M., Hyde, J. S., Petersen, J. L., & Linn, M. C. (2010). New trends in gender and mathematics performance: A meta-analysis. *Psychological Bulletin, 136(6)*, 1123-1135.

Maddux, J. E. (1995). Self-efficacy theory: An introduction. In J. E. Maddux (Ed.), *Self-efficacy, adaptation, and adjustment: Theory, research, and application* (pp. 3-33). New York, NY: Springer Science+Business Media.

Matsui, T., Matsui, K. & Ohnishi, R. (1990). Mechanisms underlying math self-efficacy learning of college students. *Journal of Vocational Behavior, 37*, 225-238.

Mehrens, W. A. & Lehmann, I. J. (1991). *Measurement and evaluation in education and psychology (4th ed.)*. Belmont, USA, Wadsworth/Thomson Learning.

Method, F., Temesgen, A., Bonner, C., Horn, N., Ayele, M., Tefera, T. A. (2010). *Impact Assessment of USAID's Education Program in Ethiopia 1994-2009*. United States Agency for International Development by the Aguirre Division of JBS International, Inc.

Negasi Hagos Tekola (2009). The relationship among perception of mathematics classroom environment, intrinsic motivation, and academic achievement: The case of first year students in Faculty of Science, Addis Ababa University. Unpublished MA Thesis, Addis Ababa University, Addis Ababa, Ethiopia.

Pajares, F. (2002). Gender and perceived self-efficacy in self-regulated learning. *Theory Into Practice, 41(2)*, 116-125.

Pajares, F. (2005). Gender differences in mathematics self-efficacy beliefs. In A. M. Gallagher & J. C. Kaufman (Eds.), *Gender differences in mathematics: An integrative psychological approach* (pp. 294-315). New York, NY: Cambridge University Press.

Paris, S. G. & Byrnes, J. P. (1989). The constructivist approach to self regulation and learning in the classroom. In B. L. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement: theory, research, and practice* (pp. 169-200). New York, NY: Springer-Verlag.

Pastorelli, C., Caprara, G. V., Barbaranelli, C., Rola, J., Rozsa, S., & Bandura, A. (2001). The structure of children's perceived self-efficacy: A cross-national study. *European Journal of Psychological Assessment, 17(2)*, 87–97.

Penner, A. M. & Paret, M. (2008). Gender differences in mathematics achievement: Exploring the early grades and the extremes. *Social Science Research, 37*, 239–253.

Randhawa, B. S. & Gupta, A. (2000). Cross-national gender differences in mathematics achievement, attitude, and self-efficacy within a common intrinsic structure. *Canadian Journal of School Psychology, 15(2)*, 51-66.

Romberg, T. A. & Kaput, J. J. (1999). Mathematics worth teaching, mathematics worth understanding. In E. Fennema & T. A. Romberg (Eds.), *Mathematics classrooms that promote understanding* (pp. 3- 17). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Rose, P. (2003). Can gender equality in education be attained? Evidence from Ethiopia. *Background paper prepared for the Education for All Global Monitoring Report 2003/4*, Gender and Education for All: The Leap to Equality.

Sakiz, G. (2007). Does teacher affective support matter? An investigation of the relationship among perceived teacher affective support, sense of belonging, academic emotions, academic self-efficacy beliefs, and academic effort in middle school mathematics classrooms. Unpublished PhD Dissertation, The Ohio State University, Columbus, OH.

Schunk, D. H. & Pajares, F. (2002). The development of academic self-efficacy. In A. Wigfield and J. S. Eccles (Eds.), *Development of achievement motivation* (pp. 15-31). California, San Diego: Academic Press, Inc.

Schunk, D. H., & Lilly, M. W. (1984). Sex differences in self-efficacy and attributions: Influence of performance feedback. *Journal of Early Adolescence, 4*, 203-213.

Seleshi Zeleke (1995). Gender differences in mathematics achievement as a function of attitudes in grades 8 through 11 (In Northern Shoa Region). Unpublished MA Thesis, Addis Ababa University, Addis Ababa, Ethiopia.

Seleshi Zeleke (2001). Gender differences in mathematics performance in the elementary grades: Implications for women's participation in scientific and technical occupations. *Eastern African Social Science Research Review, 27(2),* 109-127.

Seleshi Zeleke (2005). Gender differences in mathematics performance among fifth and sixth grade children in Addis Ababa. *The Ethiopian Journal of Education, XXV(1),* 1-21.

Skaalvik, E. M. & Skaalvik, S. (2013). School goal structure: Associations with students' perceptions of their teachers as emotionally supportive, academic self-concept, intrinsic motivation, effort, and help seeking behavior. *International Journal of Educational Research, 61*, 5–14.

Skaalvik, E. M., Federici, R. A., & Klassen, R. M. (2015). Mathematics achievement and self-efficacy: Relations with motivation for mathematics. *International Journal of Educational Research, 72*, 129-136.

Stiff, L.V., Johnson, J. L., & Johnson, M. R. (1993). Cognitive issues in mathematics education. In P. S. Wilson (Ed.), *Research ideas for the classroom: High school mathematics* (pp. 3-20). New York, NY: Macmillan Publishing Company.

Tilaye Kassahun (2004). Girls' achievement in mathematics in the upper primary schools of Addis Ababa. *The Ethiopian Journal of Education, XXIV(2),* 67-100.

Yoo, Y. S. (2017). Modeling of factors influencing gender difference in mathematics achievement using TIMSS 2011 data for Singaporean eighth grade students. *Asia Pacific Journal of Education*, 1-14, DOI: 10.1080/02188791.2017.1334626.

Zeldin, A. L., Britner, S. L., & Pajares, F. (2008). A comparative study of the self-efficacy beliefs of successful men and women in mathematics, science, and technology careers.

Determinants of Marital Conflict among Government Employed Workers in Debre Markos Town, Amhara Region, North West Ethiopia

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Abstract: The objective of this study was to investigate determinants of marital conflict among government employed workers in Debre Markos town. Quantitative approach specifically correlational research design was employed to address the research objectives. A sample of 329 respondents was selected by using stratified random sampling technique. Self-administered questionnaire was used to collect data from the participants. Three hundred eight respondents returned the questionnaires. The collected data were coded and entered into SPSS version 20 computer software for analyses. Data were analyzed by using both descriptive and inferential statistics. Among the descriptive statistic, percentage, mean, and standard deviation were employed. Pearson product moment correlation coefficient and hierarchical regression analysis were employed to examine the extent of relationship between/among variables. The finding indicated that there are significant positive relationships among infidelity, financial management, and interference of families and/or friends in the life of partners and marital conflict. But a significant negative relationship was found among sexual relationship and equalitarian role and marital conflict between partners. The results of the regression analysis also indicated that the current age of partners, educational status, number of years partners stayed in marriage relation, sexual relationship, infidelity, monthly income, financial management and interference of families and/or friends in the life of partners significantly predicted marital conflict. However gender, arrangement of marriage, and household activities equally shared by both partners did not predict marital conflict. *Finally, the study proposed that marriage counseling should be given for couples* to minimize divorce and family breakups. Besides, future research has been recommended either to corroborate or refute the current study.

Key words: Marital conflict, Determinants, Debre Markos

INTRODUCTION

Marriage is one of the developmental tasks of adulthood (Glover, 2010). It is a progression into adulthood, a means of achieving independence. It is considered as a marker of passages into matured adulthood (Kristen, 2013). According to Strong, DeVault, and Cohen (2011) marriage is an emotional

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and legal union of two adults of the opposite sex. This makes them to share emotional and physical intimacy, and economic resources, unite sexually and perhaps give birth to, adopt, or rear children.

As stated by Animasahun and FamiFatile (2011) marriage is all the behaviors, norms, roles, expectations, and values that are associated with legal union of a man and woman. Married couples are expected to establish a mutually satisfying marriage (Tolorunleke, 2008). During this transition, when the relationship is good, it is very fulfilling; yet, when the relationship is not so good, marriage is frustrating and aggravating. The union of a man and a woman as a husband and wife is assumed to be permanent. If their relationship is not assumed to be good, it may be dissolved by separation or divorce.

As human beings, differences will be expected between couples in their everyday lives in terms of their opinions, values, needs, desires and habits. Conflict between two partners in marriage is inevitable (Sanford, 2010). All marriages, even the very best of marriages, have conflict which is a normal part of two people working out a life together (Duvall & Miller, 1985). Even though there are good ways to work out differences, there are bad ways too. If there are bad ways of working out differences, marriage relationship may end up with divorce (Hamilton, 2013).

Many factors have come together to affect marriage institutions thus causing many problems which both young and old married couples must contend with. Animasahun and FamiFatile (2011) reflected that marital conflict is the state of tension or stress between marital partners as the couple try to carry out their marital roles. Some marital roles might be fulfilled while others may remain unfulfilled. Those roles which are unfulfilled may result in conflict and the causes of conflict come from different sources (Kristen, 2013). Marital conflicts can be about virtually anything. Couples complain about sources of conflict ranging from verbal and physical abusiveness to personal characteristics and behaviors (Fincham, 2003). The causes can be associated either with personal, social or economic factors.

Marriage, whatever its form, is a socially recognized union between partners that establishes rights and obligations between them. During their relationship, challenges may occur among marital partners soon after marriage. Conflict between partners is a common aspect of their marital relationship, but for some partners the frequency and intensity of conflict varies (Morrison, Coiro, & Blumenthaf, 1994). Marital conflict is a series of events that have been poorly handled so as to deeply damage the marriage relationship.

Conflict among married couples is a very sensitive issue and is reported in different times in different areas like to friends, relatives, social courts and legal courts. Debre Markos woreda court social work officer report showed that there were 221 marital cases seen by the woreda court in the year 2015/16, and 117 cases were seen in the last six months of the year 2016. This figure shows that reported marital cases are increasing from time to time.

Depending on the intensity and frequency of conflict, some of them may be resolved, others may end up with divorce. Marital conflicts have been seen as the major causes of failed marriage (Boyd, 2014). This makes both spouses distressed, and is linked to either personal or social problems.

A research conducted in Nigeria about the causes of marital conflict amongst couples in Ijumu land (Toloruneleke, 2013) focused only for the level of education and length of marriage as the causes

of marital conflict. The result revealed that there were no significant mean differences in the causes of marital conflicts among couples based on level of education and length of marriage. Daniel (2014) conducted research on the relationship between premarital preparation and marital satisfaction of mothers in Addis Ababa, Ethiopia. This research work was gender specific. It gives due emphasis only for females by excluding males.

Besides, Meaza (2014) also conducted research on sources of marital conflict, the relationship between conflict resolution mechanism and marital satisfaction among married couples in Addis Ababa. The results of this study briefly explained the major causes of marital conflict; however, the study failed to explain which factors most predict marital conflict among partners.

Muna (2014) also conducted research on couple communication and marital stability among adults in Oromiya region, Assela town. The results of this study revealed that marital stability was positively correlated with couple communication. But marital stability is not only determined by communication between couples.

To the best of the researchers' knowledge, no previous study on the relationships among individual, household, social factors and marital conflict, especially on government employed workers in Amhara Region in general and in Debre Markos town in particular, was conducted. Identifying factors which may have positive/adverse effects on the relationship between couples and ultimately lead to marital conflict was the timely issue of this study. Therefore, the current study was aimed at identifying determinants of marital conflict among government employed workers in Debre Markos town.

Basic Research Questions

This study seeks to answer the following basic research questions:

1. Are there significant relationships between each predictor variable and marital conflict?
2. To what extent do demographic factors contribute to marital conflict among government employed workers in Debre Markos town?
3. To what extent do individual factors predict marital conflict among government employed workers in Debre Markos town after controlling demographic factors?
4. Do household factors predict marital conflict among government employed workers in Debre Markos town after controlling individual factors?
5. To what extent does interference of families and/or friends as a social factor contribute for marital conflict among government employed workers in Debre Markos town after controlling household factors?

METHOD

Research Design

To investigate the determinant factors of marital conflict among government employed workers in Debre Markos Town, correlational research design was employed. The main purpose of this kind of research design, according to Simon and Goes (2011), is to show to what extent the predictor variables predict the criterion variable.

Research Site

The study was conducted in Debre Markos town. It is located in North Western Ethiopia, in Amhara National Regional State, East Gojjam zone. The town is 265 kilo meters far from Bahir Dar, the regional capital. As witnessed by the office of municipality of the town, it has an estimated population of 113,101, out of which 52,676 were males and 60,425 females.

Target Population of the Study

The total population for this study were those government employed married workers who are working in Debre Markos city administration offices. During the time of data collection, there were 1,432 government employed married workers distributed in the three pool offices of the city administration of which 715 of them were males and 717 were females.

Sampling Techniques

The researchers used stratified sampling technique to select participants from the study population. The researchers stratified the total population into three strata based on pool offices i.e. finance and economic development pool office, service pool office, and civil service pool office. Study participants in each pool offices were also arranged by gender. After dividing the entire population into different groups, the researchers used simple random sampling technique. From the total target population, the researchers took the desired samples proportionally from each stratum.

Sample Size Determination

The desired sample size was determined by using sample size determination formula as suggested by Yamane. According to Singh and Masuku (2014), Yamane (1967) provides the following simplified formula to calculate sample size.

$$\text{Sample Size (n)} = \frac{N}{1+N(e)^2}$$

Where: N = population size,
n = the sample size, and
e = the level of precision/acceptable sampling error committed by the researchers which is 0.05.

Based on this formula, from 1,432 target population, the desired sample size was determined to be 313. Considering the fact that all the distributed questionnaires would not be returned, the researcher added 5% non-return rate compensation and the final sample size was 329 participants, of which 164 were males and 165 were females.

Table *1*

Target Population and Proportional Sample Size of the Participants

No	Pool Office	Population Size			Sample Size		
		M	F	Total	M	F	Total
1	Finance and Economic development pool office	252	187	439	58	42	100
2	Service pool office	45	43	88	10	11	21
3	Civil service pool office	418	487	905	96	112	208
	Total	715	717	1,432	164	165	329

Study Variables

Criterion Variable

- *Marital Conflict*

Predictor variables

- *Demographic Factors* includes gender, age, educational status, duration of marriage, and arrangement of marriage.
- *Individual Factors* includes sexual relationship, and infidelity.
- *Household Factors* includes monthly income, financial management, and equalitarian role.
- *Social Factor* includes interference.

Data Collecting Instruments

Data from the selected samples were collected by using close ended self-administered questionnaire. The questionnaire had three parts. The first part contains background information about participants. The second part contains items related to causes of marital conflict, and the third part contains items indicating how often partners engaged in disagreements. The first part contained six items presented in multiple choice form and the second part contained questions requesting their level of agreement or disagreement on the basis of five point Likert scale which ranges from strongly disagree to strongly agree on the presented issues.

The second part of the questionnaire contained eight items indicating sexual relationship between partners (with a reliability coefficient of .81), nine items indicating infidelity(reliability coefficient of .78), ten items indicating financial management (with a reliability coefficient of .84), eight items indicating responsibilities equally shared by partners (a reliability coefficient of .74), nine items indicating interference of families and/or friends on the life of partners (with a reliability coefficient of .71) The questionnaire is adapted from ENRICH (Evaluation and Nurturing Relationship Issues, Communication and Happiness), Marital Satisfaction Scale (EMS; Fowers, & Olson, 1993), and Attitudes toward Infidelity Scale (Whatley, 2006).

The last part contained ten items adapted from Kansas Marital Conflict Scale (KMCS; Eggeman, Moxley, & Schumm, 1985), indicating how often partners engage in marital conflict on the basis of five point scale which range from never, once a while, sometimes, frequently, and almost always.

Items of the questionnaire were checked about their cultural sensitiveness by experts. Possible corrections were made by experts in the area and followed by back and forth translations by the corresponding language experts. Two experts (Amharic Major) participated to translate the original English version into Amharic version. This was also back translated by other English language experts to check the authenticity of the instruments to the original one. Finally, content validity and cross-language validity were checked by panel of experts from the department of psychology.

Procedure of Data Collection

In order to conduct this research, the researchers took formal letter from the Department of Psychology. The permission letter was submitted to Debre Markos town Civil Service Office and got acceptance. Then, the office wrote a letter of cooperation to other offices under it. A brief explanation about the purpose of the study was given to the participants, and they were also informed that their responses would be kept confidential. Assistant data collectors were assigned in each selected offices. Before distributing the questionnaire, participants were given adequate orientation on how to respond to every item. Questionnaire was distributed to participants of the study. They were given time to complete the questionnaire by themselves. They also have got a close support from the assistant data collectors when they were in need of help. After the participants finished completing the questionnaires, the researchers collected them from the assistant data collectors by checking the completeness of the data, and made them ready for analysis by giving them codes.

Data Analyses Methods

The collected data were coded and entered into SPSS Version 20 computer software for analysis. Categorical variables were dummy coded as 1 and 0. Depending on the nature of variables, the collected data were analyzed quantitatively by using both descriptive and inferential statistics

Among the descriptive statistics, percentage, mean, and standard deviation were employed. To assess the magnitude and direction of relationship among the study variables, Bi-variate correlation was employed (Pearson Product Moment Correlation Coefficient was estimated). Hierarchical regression analysis was also employed to show the relative importance of the predictor variables on the criterion variable.

RESULTS

In this section, the results and interpretations of the quantitative data collected through self-administered questionnaire were presented. To collect the quantitative data, a total of 329 questionnaires were distributed. Among these, a total of 308 questionnaires (153 from male and 155 from female participants) were returned. This accounted for 93.6 % response rate.

Background Information of Respondents

The Socio-Demographic characteristics of respondents include gender, age, and educational status, and monthly income, arrangement of marriage and duration of marriage. Out of 308 respondents, 153 (49.7%) were males and 155(50.3%) were females. Regarding to their age group, 110 (35.7%) of the respondents were found in the age category of 20 to 34, 168 (54.5%) of them were found in the age category of 35 to 50, whereas 30 (9.7%) of them were found in the category of 51 and above years of age.

Concerning their educational background, 2 (0.6%) of the respondents reported as they attended primary education, 10 (3.2%) of them attended secondary education, and 122 (39.6%) of them had college certificate/diploma, whereas 174 (56.5%) of them had first degree and above. From the above description, the majority of them were found in the age category of 35 to 50 years and had first degree and above.

Regarding to their monthly income level, 31(10.1%) of the respondents earned less than 2000 Birr per month, 176 (57.1%) of them earned between 2000 and 5000 Birr every month. Whereas, 101(32.8%) of them earned more than 5000 Birr monthly. 254 (82.5%) of the respondents arranged their marriage relation by themselves, but 54 (17.5%) of them reported as their marriage relation was established by the arrangement of others like families, friends and the like.

Regarding the length of time respondents stayed in marriage, 66 (21.4%) of them reported as they stayed in marriage for less than 5 years, 93 (30.2%) of them for about 5 to 10 years, 77 (25%) of them for about 11 to 15 years, whereas, 72 (23.4%) of them stayed in marriage for more than 15 years' time. This indicated that the majority of respondents received a monthly salary ranged from 2000 to 5000 Birr, and arranged their marriage by themselves (table not indicated).

Correlation Analysis

Table 2

Pearson Product Moment Correlation for Individual, Household and social factors of marital conflict

Correlations

		1	2	3	4	5
1	Sexual Relation					
2	Infidelity	-.260**				
3	Financial Management	-.198**	.639**			
4	Equalitarian role	.346**	-.360**	-.503**		
5	Interference	-.264**	.530**	.523**	-.185**	
6	Marital conflict	-.266**	.640**	.767**	-.442**	.674**

**** Correlation is significant at the 0.01 level (2-tailed)**

Table 2 contains the summary of continuous predictor variables in relation to marital conflict. Sexual relationship and infidelity were included under individual factors. Financial management and equalitarian role were also being included in household factors, but interference was included under social factor. Correlation was made for each variable to measure the strength of linear association

with marital conflict. The result showed that each variable was significantly correlated with marital conflict. This is an indication that there was a statistically significant relationship between sexual relation, infidelity, financial management, equalitarian role, and interference with marital conflict.

As it is indicated in the above table, the correlation between sexual relation and marital conflict between partners was negative and statistically significant ($r = -.266$, $P < .001$). This result indicated that as sexual relationship decreases, marital conflict between them increases. Whereas, the correlation between infidelity and marital conflict was found to be positive and statistically significant ($r = .640$, $P < .001$). This indicated that the strength of the linear association between infidelity and marital conflict was found to be strong. This is to mean that as partners had sexual relation outside of their marriage relationship, the degree of conflict between them increases. Regarding to house hold factors, the correlation between financial management and marital conflict between partners was positive and statistically significant ($r = .767$, $P < .001$). The result showed that as the level of financial management increases, the marital conflict between partners increases. Whereas, the correlation between equalitarian role and marital conflict between partners was negative but statistically significant ($r = -.442$, $P < .001$). This result informed that an increase in marital conflict will be accompanied by a decrease in equalitarian role. This is an indication that as house hold activities are shared equally by both partners, conflict between them decreases.

The above table also indicated that interference of families and/or friends as a social factor is related with marital conflict among partners. The correlation between interference and marital conflict between partners was positive and statistically significant ($r = .674$, $P < .001$). The strength of the linear association between interference and marital conflict between partners was found to be strong. This result revealed that the more the interference of families and/or friends on the life of partners, the higher marital conflict would be among them.

Hierarchical Regression Analysis

Table *3*

Hierarchical Linear Regression that shows the relative importance of the study variables on Marital Conflict

Variables	Model 1	Model 2	Model 3	Model 4
Gender	-.117	-.028	.002	-.013
Age	-.125*	-.055	-.020	-.031
Educational Status	-.160**	-.134**	-.063	-.027
Duration of Marriage	.135*	-.008	-.014	.008
Marriage Arrangement	-.016	-.040	.008	.005
Sexual Relation		-.108*	-.080*	-.020
Infidelity		.599**	.234**	.126**
Monthly income			-.051*	-.057*
Financial Management			.561**	.432**
Equalitarian Role			-.039	-098*

Interference				.343**
R square	.066**	.445**	.644**	.716**
R square change	.066**	.379**	.199**	.072**
F	4.267**	34.414**	53.797**	67.985**

***P < .05 and marginally significant, **P < .01**

Table 3 depicts the results of hierarchical regression analysis of the study variables predicting marital conflict among partners in their marriage relationship. First, demographic factors, individual factors, household factors, and social factors were included in the first, second, third, and fourth models respectively. Controls in each model were done to know the net effects of different predictor variables on marital conflict between partners. To know the relative importance of each predictor variable, discussion was made in every model separately.

Model 1 indicated that the predictor variables; age (ß = -.125, P < .001), educational status (ß = -.160, P < .005), duration of marriage (ß = .135, P < .001) were found to be significantly predicting marital conflict between partners. The result showed that as the age of partners increase, marital conflict decreases. Marital conflict also decreases with the increment of educational status of partners. But in relation to duration of marriage, as the number of years partners stayed together increases, marital conflict increases.

On the other hand, gender (ß = -.117, P = .54) and arrangement of marriage (ß = -.016, P < .779) had no roles in predicting marital conflict. Thus, the variance in marital conflict that is accounted for by demographic variables was 6.6%.

In model 2, to increase the explanatory power of predictor variables on marital conflict, sexual relationship and infidelity were added. Sexual relationship and infidelity were significantly predicting marital conflict at (ß = -.108, P < .005) and (ß = .599, P < .001) respectively. This result indicated that those partners who had good sexual relationship, marital conflict between them decreases, whereas having sexual relationship outside their marriage relationship, increases the likelihood of the partners to be in conflict. In this model, the variance in marital conflict that is accounted for by adding sexual relationship and infidelity was 37.9%.

In model 3, monthly income, financial management and equalitarian role as household factors were added. In this model, monthly income level (ß = -.051, P < .005) and financial management (ß = .561, P < .001) significantly predicted marital conflict. But equalitarian role, (ß = -.039, P = .350) had no role in predicting marital conflict. Thus, the variance in marital conflict that is accounted for by household factors (income level, financial management and equalitarian role) was 19.9 % which significantly improved the explanatory power of the model by increasing R square from .445 to .644.

In model 4, interference of families and/or friends as a social factor was added. In this model, interference (ß = .343, P < .001) was significantly predicting marital conflict. This indicates that, the more the interference of families and/or friends on the life of partners, the higher marital conflict was among them. Thus, the variance in marital conflict that is accounted for by interference of families and/or friends as a social factor was 7.2% which significantly improved the explanatory power of the model by increasing R square from .644 to .716.

DISCUSSION

The main objective of this study was to investigate the determinants of marital conflict among government employed workers in Debre Markos town. In this regard, an attempt was done to see the relative importance of individual, household and social factors on couples' marital conflict.

The results of regression analysis revealed that age significantly predicted marital conflict between partners. This indicated that as the age of partners' increases marital conflict decreases. This result was supported by a research finding which stated that mean difference was significantly different among different age groups (Muna, 2014). It was also pointed out here that as when a person moves to old age, his/her marital relation becomes stable. Literatures also indicated that marital relation in a younger age is a time whereby partners face different social tasks (James & Wilson, 2002). As they detach from parents and friends, they tend to develop inward focus which creates tension in their earlier time of their marital relationship.

In contrast, educational status significantly and negatively predicted marital conflict between partners. The result indicated that marital conflict decreases with the increment of educational status of partners. But the finding of this study is in contrast with previous studies. For instance, the more years of schooling, the more stable a marriage is, because nowadays, according to Levinger (1996) cited by Muna (2014), the power of attraction between a husband and wife is associated with their educational status. On the other hand, a study conducted in Nigeria on the causes of marital conflict among couples showed that there was no significant difference in the causes of marital conflict among couples in different levels of education (Toloruneleke, 2013). Duration of marriage significantly predicted marital conflict of partners. This indicated that the more number of years partners stayed together, the marital conflict increases.

Gender and arrangement of marriage had no role in predicting marital conflict. In line with the findings of this study, a research conducted in Addis Ababa by Meaza (2014) revealed that there was no significant difference between male and female respondents. On the contrary, as revealed in Amato and Previti (2003), females as compared with males tend to monitor their marital relationships more closely, become aware of relationship problems sooner.

The correlation between sexual relation and marital conflict between partners was negative and statistically significant. This indicated that partners who had good sexual relationship had the lower rate of marital conflict. Sexual relationship is considered as one of the major causes of conflict in a marriage relationship. The sexual problems partners face includes lack of accurate knowledge, unrealistic expectation, fear of not being able to perform adequately, differences in sexual drive, and inhibiting attitudes about sex (James & Wilson, 2002).

Infidelity was significantly predicting marital conflict. Having sexual relation outside their marriage relationship increases the rate of conflict between partners. Correlation analysis result between infidelity and marital conflict was found to be positive and statistically significant. This indicates partners having sexual relation outside of their marriage relationship enhance marital conflict between them. A research result, conducted by Mark, Janssen and Milhausen (2011) showed that there were no significant gender differences in the reports of infidelity. It is also indicated that engaging in sexual intercourse with someone other than their partner is the leading cause of divorce.

Income level of respondents, and financial management as household factors were significantly predicting marital conflict. On the other hand, responsibilities shared by partners had no role in predicting marital conflict. Literatures show the relationship between increasing earnings of women and increasing divorce rates (Liu & Vicat, 2004). This showed that if the wife is a high earner relative to her husband, she gains less from marriage. Generally, the higher total income of the family improves its quality of life and thereby enhances marital stability.

Money is a primary source of tension in marriage (Kurdeck, 1995). Family and economic phenomena are interdependent. Economic problems are experienced more when the husband is partially or fully unemployed, or when he wastes his earnings for non-essential or harmful items like alcohol. Literature also reflects that the greater difficulty of resolving money conflicts results in greater threat and stress. (Papp, Cummings & Goeke-Morey, 2009).

Interference of families and/or friends was significantly predicting marital conflict. The correlation between interference and marital conflict between partners was also positive and statistically significant. The present finding seems to be consistent with the literatures review by Mikucki (2008) as cited in Tigist (2014). The literature states that in most marriage relationships, in-laws and other extended families are the common cause of marital fights.

CONCLUSIONS

The study focused mainly on individual, household and social factors as predictors of marital conflict. From the findings of the study, we conclude that age, educational status and duration of marriage are the most important variables in the lives of partners. Besides, much attention is given to the frequency of sexual relationship and the trust they develop in their marriage life as these variables are adversely affecting couples relationship. Individuals' monthly income and financial management has also contributed significantly to the couples' marriage life and further strengthens their relationship. Interference of families and/or friends on the lives of partners as a social factor had far reaching effect on the couples' marital discordance.

RECOMMENDATIONS

The present study revealed that marriage relationship, in one way or the other, is affected by different factors. Based on the findings of the study and conclusions reached, the following recommendations were made.

- Couples shall discuss on how to manage their income in order to make their marriage stable
- Partners should be faithful to each other in order to save their marriage
- People outside of the household should refrain themselves from interfering the affairs of married people
- Finally, future research is recommended to be conducted in relation to the issue by incorporating other factors besides the factors considered in the current study

REFERENCES

Amato, P. R., & Previti, D. (2003). *People's reasons for divorcing: Gender, Social Class, the Life Course, and Adjustment.* The Pennsylvania State University: Sage Publications.

Animasahun, R. A., & Famifatile, E. A. (2011). Patterns of marital instability among married couples in Lagos, Nigeria. *Journal of African Studies and Development*, 3(10).

Boyd, R. S. (2014). *Stable conflict resolution styles and commitment: Their Roles in Marital Relationship Self Regulation*. Provo, Brigham Young University.

Daniel Tadesse (2014). *The Relationship between Premarital Preparation and Marital Satisfaction: With reference to the Mothers of Students of Nisir New Generation School in Addis Ababa*. *Ababa (unpublished Master Thesis),* Addis Ababa University, Addis Ababa.

Duvall, E. M., & Miller, B. C. (1985). *Marriage and family development (6th ed.).* New York: Harper & Row.

Eggeman, K. W., Moxley, V., & Schumm, W. R. (1985). Assessing Spouses' perceptions of Gottman's temporal form in Marital Conflict. *Journal of Business and Public Affairs,* ISSN 1934-7219.

Fincham, F. D. (2003). *Marital conflict*: *Correlates, Structure, and Context.* Buffalo University, Buffalo.

Fowers, B. J., & Olson, D. H. (1989). ENRICH Marital Satisfaction Scale: A Brief Research and Clinical Tool. *Journal of Family Psychology*, 7(2), 176-185.

Glover, R. J. (2010). Developmental tasks of adult hood: Implications for counseling Community college students. *Journal of research and practice*, 24(6), 505-514.

Hamilton, K. A. (2013). The effects of marital conflict and marital environment on change in marital status. *Theses and dissertations-Family sizes,* University of Kentucky.

James, A. L., & Wilson, K. (2002). *Couples, conflict, and change: Social work with marital relationships.* Tavistock Publications, London and New York.

Kristen, A. H. (2013). The effects of marital conflict and marital environment on change in marital status. *Thesis and Dissertations-Family Sciences*, University of Kentucky.

Kurdeck, L. A. (1995). Predicting change in marital satisfaction from husbands' and wives' conflict resolution styles. *Journal of Marriage and Family*, 57(1), 153–164.

Liu, G., & Vikat, A. (2004). Does *divorce risk depend on spouses' relative income*? Max Planck Institute for Demographic Research, Rostock: Germany. Retrieved from http://www.demogr.mpg.de on Feb/2017.

Mark, K. P., Janssen, E., & Milhausen, R. R. (2011). Infidelity in heterosexual couples: Demographic, Interpersonal, and Personality-Related Predictors of Extradyadic Sex. *Arch Sex Behavior.* DOI 10.1007/s10508-011-9771-z.

Meaza, M. (2014). *Sources of marital conflict, the relationship between conflict resolution mechanism and marital satisfaction among married people in Jemo-1*, Unpublished Master's Thesis, Addis Ababa University, Addis Ababa.

Morrison, D. R., Coiro, M. J., & Blumenthaf, C. (1994). *Marital disruption, conflict, and the well-being of Children.* Washington DC: Child Trends, Inc.

Muna, S. (2014). Couple communication and marital stability among adults in Assela town. *Master Thesis,* Addis Ababa University, Addis Ababa.

Papp, L. M., Cummings, E. M., & Goeke-Morey, M. C. (2009). For richer, for poorer: Money as a Topic of Marital Conflict in the Home. *Family Relations*, 91–103. DOI: 10.1111/j.1741-3729.2008.00537.x.

Sanford, K. (2010). Perceived threat and perceived neglect: Couples' underlying concerns during conflict. *Psychological Assessment*, 22(2), 288-297.

Simon, M. K., & Goes, J. (2011). Correlational research. *Dissertation and Scholarly Research*, Seattle.

Singh, A. S., & Masuku, M. B. (2014). Sampling techniques & determination of sample size in applied statistics research: An Overview. *International Journal of Economics, Commerce and Management*. United Kingdom. 2(11), ISSN 2348 0386.

Strong, B., DeVault, C., & Cohen, T. F. (2011). *The marriage and family experience: Intimate relationships in a changing society (11th ed.).* Cengage Learning.

Tigist, A. (2014). *Perceptions of unmarried married and divorced people towards in-laws and perceived features of their relationships: The case of residents in Balderas Condominium, Yeka Sub-city, Addis Ababa (unpublished Master Thesis),* Addis Ababa University, Addis Ababa.

Toloruneleke, C. A. (2013). Causes of marital conflict amongst couples in Nigeria implication for Counseling Psychologists. *Proceda- social and behavioral Sciences*. 140, 21-26. Nigeria, Abuja.

Tolorunleke, C. A. (2008). Conflict resolution practices amongst couples in ijumu L.G.A. of Kogi state. *Master's Thesis*, Faculty of education, University of Abuja. Nigeria.

Whatley, M. (2006). *Attitudes toward Infidelity Scale*. Valdosta State University, Georgia. Retrieved from http://www.cengage.com/resource_uploads/static_ resources/0495091855/13994/SA _ CH2.doc on Dec/2016.

Analyzing Curriculum Materials from a Gender Perspective: Grade Eight English Textbook of Ethiopia in Focus

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Abstract: The purpose of this study was to examine the place of some gender issues in curriculum materials of Ethiopia. To achieve this purpose, a qualitative content analysis was made on the country's Grade Eight English textbook. The analysis was conducted on two interrelated categories: nature of narrations and sensitivity of illustrations. In doing so, a nine-stage content analysis model, developed by Frankel and Wallen (2006), was employed. The analysis revealed that in all of the evaluation criteria, the textbook was gender-biased favoring the male gender. For instance, most of the passages and stories presented in the textbook were narrating the fame, contributions, and achievements of the masculine gender. The study also revealed that the great majority of the role models in the textbook under consideration were representing the male gender. Besides, most of the illustrations presented in the textbook were male-dominated that convey unequal power relationships between the two genders. Overall, from the findings of the present analysis, it was understood that some gender issues that need to be considered while writing a language textbook were not adequately addressed. Finally, the implications of these findings for future research and policy initiatives are briefly indicated.

Keywords: content analysis, gender analysis, gender bias, narrations, role models, illustrations

INTRODUCTION

Since long ago, education has been considered as a means of combating poverty, ensuring sustainable development, and bringing about social change. The role it plays in improving social relations and facilitating economic, social, and political developments is also highly recognized (Reeves & Baden, 2000; Arbache, Kolev, & Filipiak, 2010). However, this role of education is less likely to be realized if many decisive issues are not addressed first. For instance, education cannot play its role in social transformation and socio-economic development if issues such as gender inequality, bias, and stereotype are addressed in society.

Thus, narrowing gender disparity has become an important agenda for governments and international organizations that work in the education sector (Arbache, Kolev, & Filipiak, 2010; UNESCO, 2000, 2009). For this purpose, several international educational declarations were announced. Women's Educational Equity Act (declared in 1974), World Declaration on Education For All and the Dakar Framework for Action are some of the declarations that make girls' education and gender equality at the top of international educational agenda (Enguday,

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2008; UNESCO, 2000, 2004, 2009). In these international legal instruments, the role of curriculum materials in relieving gender bias and stereotype was given a substantial place.

Gender-responsive curriculum materials play an important role in helping students become gender sensitive. To play this role, they should present a balanced and fair view of the roles and responsibilities of the two genders. Unfortunately, by omitting or inadequately representing girls and women, curriculum materials in many countries have been perpetuating gender bias and inequality (Enguday, 2008; UNESCO, 2008, 2009). As Enguday (2008) stated, the problem arises when sexist social perceptions, values, and expectations that reflect gender bias, but perceived as normal, are included in the curriculum. Gachukia and Chung (2005) on their part contend that gender bias in schools emanates from the unintentional acts of teachers and the instructional approaches they employed. Though the bias could be for both genders, as many studies reported, most frequently it is against the female gender.

As curriculum materials, play decisive roles in realizing formal educational goals, their role in shaping students' attitudes towards the cultural practices of their society is worth mentioning. Their impact on students' perceptions towards gender and gender equality / inequality is also important (Gachukia & Chung, 2005). Hence, textbooks prepared for instructional purposes must treat both males and females with fair contents and illustrations. This is because the images presented in textbooks will have strong impact on students' perceptions of gender and gender equality (Jasmani et al. 2006). Therefore, it was with this idea in mind that the present study was conducted.

STATEMENT OF THE PROBLEM

Gender equality has been at the top of both national and international educational discourses, policy documents, conventions, and declarations. However, many studies conducted in different parts of the world explored that curriculum materials have been suffering from the problem of gender inequality, bias, and stereotype.

For instance, the UNESCO (2008) reported that in the textbooks of many countries, women and girls were depicted in highly stereotyped roles. This study further explored that girls and women were mostly portrayed in domestic and traditional occupations while boys and men were depicted in exciting and worthwhile occupations. Likewise, based on her international study conducted in Chile, Georgia, Pakistan, and Thailand, Blumberg (2008) reported that though policy reforms which intended to reduce gender bias in textbooks were attempted, the results achieved hitherto were unsatisfactory. According to her report, gender bias in textbooks was an invisible obstacle that daunted females' equality in education and beyond.

Similarly, a number of studies that aimed at investigating gender representation in *English as Foreign Language* (hereafter EFL) textbooks have been conducted in different parts of the world. Most of these studies explored that EFL textbooks used for instructional purposes were not gender responsive. For instance, the study conducted by Amini and Birjandi (2012), with the aim of examining Iranian high school EFL textbooks focusing on the criteria of visibility, firstness, generic masculine, and sex-linked occupations, reported that in all of these

criteria there were evidences of sexism and gender bias. The study conducted by Gharbavi and Mousavi (2012), focusing on the criteria of visibility and occupational roles, also reported that women were less visible than males both in the texts and pictures of EFL textbooks.

Gender analyses of EFL textbooks conducted in other Asian countries also explored that most EFL textbooks were not gender-responsive. In line with this, Shah (2012) who investigated the nature of English textbooks in Pakistan focusing on the omission/visibility and role model representation reported that in both criteria the textbooks favored male characters. The study conducted by Sano, Iida and Hardy (2001) on Japanese EFL textbooks also came up with findings that confirm gender bias in the country's EFL textbooks.

The problem of gender bias in textbooks is universal that prevails almost in all parts of the world. The study of Pesikan and Marinkovic (2006) conducted in Serbia is a good example in this regard. This study reported the following problem.

> … boys were the main exponents of intellectual activities; they were shown as more intellectually inclined, physically more active, …. boys were the active ones, girls following them and watching what they were doing. Boys were the ones who took part in sports and intellectual activities; they did research, made experiments and were involved in all the dangerous situations and in situations where there was a problem to be solved. In the family contexts, mothers and daughters were laying the table while fathers and sons waited at the table; a child in the street was held by the hand only by its mother, etc. (pp. 400-401).

In sub-Saharan Africa too, some studies explored the prevalence of gender bias in English textbooks. For instance, Mustapha (2014), who studied the representation of female and male roles in selected English textbooks of Nigerian junior secondary schools, explored that while women were over-represented in roles confined to the home domain, males were over-represented in roles in the public sphere and in highly professional skills. The same problem was also reported in Zimbabwe. In this regard, Nyevero and Memory (2014) explored that primary school English textbooks of that country were not in line with the major principles of gender-responsive curriculum material.

Coming to Ethiopia, textbook evaluation in general and gender analysis of textbooks in particular, is a neglected area of inquiry. Though, some gender-related studies have been conducted in the country, they tend to focus on girls' academic performance and participation (e.g., Enguday, 2008; Genet, 1991), the implementation of gender mainstreaming policies and strategies (e.g., Alemayehu, 2015), gender inequality in higher education institutions (e.g., Molla & Gale, 2015), and other related issues. As of my best knowledge, only Solomon (2014) had conducted a full-fledged gender analysis on an Ethiopian EFL textbook. This study, which was conducted as a fulfillment for an MA degree at Haromaya University, Ethiopia, had thoroughly analyzed Grade 11 English textbook for gender representation. In this study, the researcher generalized that the textbook was not gender-sensitive as girls and women were represented less than boys and men both in the texts and illustrations of the textbook.

The above review of studies confirm the rightness of Blumberg (2008) who unambiguously asserted that gender bias in textbooks has been a universal problem that persists quite in a similar pattern. These general milieus, both at national and international levels, and particularly the dearth of adequate textbook evaluation in general and gender analysis of textbooks in Ethiopia, were the main reasons to conduct this study. The present study, therefore, aims to analyze the Ethiopian Grade Eight English textbook to understand whether it is a gender-responsive curriculum material or not. More specifically, this study aimed to scrutinize the nature of narrations in passages, stories, role models, and the sensitivity of illustrations presented in Grade Eight English textbook vis-à-vis the basic principles of gender responsive pedagogy.

In line with the abovementioned purposes of the study, the following research questions were formulated. To what extent are *narrations* in Grade Eight English textbook gender responsive? To what extent are illustrations gender-sensitive in terms of occupational roles and power relationships?

Gender Analysis Framework

According to Kabira and Masinjila (1997), the aim of gender analysis in textbooks is to understand the gender dynamics of the textbook and to arrive at conclusions concerning its gender responsiveness. Many scholars contend that language textbooks, in general, and EFL textbooks, in particular, have the possibility of depicting imbalance representation of the two sexes (Bahman & Rahimi, 2010; Amini & Birjandi, 2012; Tahan, 2014). They may also present stereotyped examples and sexist language which could affect students' future lives. These ideas imply that gender analysis in EFL textbooks is quite necessary.

The methodology and components of gender analysis studies are shaped by how gender issues are understood (Reeves & Baden, 2000). In the literature, there are different gender analysis frameworks. Of course, the purpose of the analysis determines the analysis framework. For instance, if the researcher wants to analyze a textbook's illustrations, she/he may frame her/his study focusing on illustration criteria. On the other hand, if the researcher aspires to investigate many other issues of a textbook, she/he is expected to have a broader gender analysis framework (Gachukia & Chung, 2005; Kabira & Masinjila, 1997).

Some scholars introduced different frameworks of gender analysis. For instance, Kabira and Masinjila (1997) have introduced a comprehensive framework in their publication entitled *ABC of Gender Analysis*. Their framework is somewhat all-inclusive having two major interrelated parts: *text* and *illustration* parts. The first part focuses on the investigation of the nature of *narrations*, *activities*, *locus* (place of activity), *power* (decision making), and *language use* (naming, use of nouns and pronouns, use of generics and other language issues). The second part, i.e. the illustration part, on the other hand gives attention to *activities*, *visibility*, and *power relationship* of both sexes (Kabira & Masinjila, 1997). Gachukia and Chung (2005) also came up with a somewhat similar gender analysis framework. According to these scholars, a gender analysis of textbooks should focus on the following five criteria: *narration*, *speech*, *language use*, *power control*, and *illustration*.

Some researchers, on the other hand, use narrower gender analysis frameworks. For instance, Gharbavi and Mousavi (2012) investigated EFL textbooks on the basis of two criteria: visibility and occupational roles. In somewhat a narrower approach Mustapha (2014) and Pesikan and Marinkovic (2006) analyzed textbooks using only one criterion, i.e., *occupational roles* and *illustrations* respectively.

In this study, an adapted gender analysis framework, which is the synthesis of the ideas of the above scholars, was used. To be specific, the present study attempts to analyze the Ethiopian Grade Eight English textbook focusing on the following two major evaluation criteria: nature of *narrations* and sensitivity of *illustrations.* In the first criterion, attention was given for issues of gender *visibility*, *image* and *hegemony*. Similarly, in the second criterion, *occupational roles* and *power relationships* were emphasized. In order to examine the place of these sensitive gender issues, a thorough analysis was made on phrases, statements, paragraphs, passages, stories, dialogues, and illustrations included in the textbook under consideration.

METHOD

As indicated earlier, this study is concerned with the analysis of Grade Eight English textbook used in the Ethiopian upper primary schools. To achieve this purpose, a qualitative content analysis method was used. Content analysis, with a focus on identifying patterns in texts, is one of the widely used methods in the social sciences (Krippendorff, 2004; Frankel & Wallen, 2006). Qualitative content analysis is concerned with the exploration of the meanings of underlying messages.

Different scholars suggest different steps that need to be followed in the process of content analysis. In this study, a due attention was given to the steps and procedures recommended by Frankel and Wallen (2006, pp. 485-491). According to these methodologists, content analysts are expected to pass through the following nine major steps. These are; (1) determining objectives, (2) defining terms, (3) specifying unit of analysis, (4) locating relevant data, (5) developing rationale, (6) developing sampling plan, (7) formulating coding categories, (8) maintaining reliability and validity, and (9) analyzing data. In the following paragraphs, a brief description of these steps in the context of my study is presented.

Determine Objectives

Like any research design, the process of content analysis begins by clearly determining the objective of the analysis. In this regard, the present study aimed to analyze whether the Ethiopian Grade Eight English textbook is a gender-responsive curriculum material or not. More specifically, it aimed to scrutinize the passages, stories, role models, and illustrations presented in the textbook vis-à-vis the basic principles of gender responsive pedagogy.

Define Terms

According to Frankel and Wallen (2006), important terms of the research problem should be clearly defined either beforehand or as the study progresses. Bearing this idea in mind, the following key terms were defined before the actual content analysis process begins.

Gender	It refers to the social expectations, rules and norms attached to femininity and masculinity.
Gender Analysis	The systematic gathering and examination of information on gender differences and social relations in order to identify, understand and redress inequities based on gender
Gender Bias	A strong feeling in favor of or against one gender, often not based on fair judgment.
Gender Equality	It refers to the provision of equal conditions, treatment and opportunity for both men and women to realize their full potential, human rights and dignity.
Gender Responsiveness	It refers to taking action to correct gender bias so as to ensure gender equity and equality.
Gender Sensitivity	It is the ability to recognize gender issues. It is the beginning of gender awareness.
Gender Stereotype	A fixed idea or image that many people have of a particular gender, but which is often not true in reality.
Illustrations	Pictures, photos and related visuals found in a textbook.
Patriarchy	Systemic societal structures that institutionalize male physical, social and economic power over women
Text	The main printed part of a textbook, not the pictures.

Specify the Unit of Analysis

The units to be used for conducting and reporting the analysis should be specified before the beginning of the analysis (Frankel & Wallen, 2006). The units of analysis used in this study were words, phrases, sentences, paragraphs, passages, stories and illustrations that embody message about gender representation, role models, occupational roles and power relations.

Locate Relevant Data

This is a step where the researcher selects the material to be analyzed. As already stated, the material selected for this gender analysis was the Ethiopian Grade Eight EFL textbook. The textbook was developed and distributed by the fund that the federal government received from the World Bank through the *General Education Quality Improvement Program* (GEQIP). The book was published by the Kampala based *MK publishers Ltd*., Uganda. It was authored by both Ethiopian and expatriate English language experts.

Develop a Rationale

The reason to select English textbook for my study was due to the fact that language textbooks which present many gender related issues, both in their texts and illustrations, are suitable for gender analysis. The reason to select Grade Eight, on the other hand, was due to lack of gender analysis studies on primary school EFT textbooks of Ethiopia. Though not adequate, an attempt was made, by Solomon (2014), to analyze Grade 11 EFL textbook at the secondary school level.

Develop a Sampling Plan

The widely used sampling method in qualitative content analysis is purposive sampling (Frankel & Wallen, 2006). In the case of this study too, the textbook under consideration was not sampled in terms of chapters, passages, stories, and illustrations. Instead, all parts of the textbook were taken into consideration. The number of units, passages, stories, role models and illustrations included In the Ethiopian Grade Eight EFL textbook were 14, 16, 4, 10, and 27 respectively. All units, passages and stories of the textbook were thoroughly investigated in line with the basic issues of gender responsive pedagogy. The same was true for illustrations of the textbook.

Formulate Coding Categories

Category formulation is at the heart of any content analysis. Categories flow from the research questions anchoring review of relevant literature. In this study, the following categories of analysis were formulated: nature of *narrations* and sensitivity of *illustrations*. Within the first category, issues of gender visibility, image and hegemony were given due consideration. Likewise, in the second category, emphasis was given to occupational roles and power relationships.

Reliability and Validity

As Frankel and Wallen (2006) posited, one mechanism to ensure validity in content analysis is checking the manifest content against the latent content. This idea was well reflected in this study. That is, after understanding both the manifest (surface) and latent (underlying) contents, attempts were made to compare and contrast the meaning of the two types of contents. Besides, both formal and informal discussions were made with curriculum experts on the gender analysis framework and the data gathering and analysis methods of the study. These tasks were found to be valuable in enhancing the validity of this study.

Analyze Data

In this study, qualitative data analysis techniques were used. The analysis was undertaken using two themes and six sub-themes that reflect the purpose and research questions of the study. Underneath each theme and sub-theme, qualitative data analysis methods, such as description, narration, and direct quotation were used.

RESULTS

Nature of Narrations

The first major purpose of this study was to examine the nature of narrations in the paragraphs and stories of the Ethiopian Grade Eight English textbook. In the textbook, a total of 26 passages or stories were presented. Of this number, 11 were gender-neutral as they were dealing with non-human beings. The remaining 15 passages or stories, however, were gender-related. In this section, therefore, the results on the nature of the 15 gender-related passages or stories are presented under the following three sub-themes.

Less-visibility of girls and women

As indicated above, in the Ethiopian Grade Eight English textbook, 15 gender-related passages or stories were presented. However, the majority of the passages or stories were narrating about the male gender (see Table 1).

Table 1

Visibility of the two genders in passages and stories

Passage or story	*Gender Narrated*	*Page (s)*
The Flying princess	F	12-13
Story about Alem	F	19
Story about Hajera	F	21
An Encounter with bullies- Part I	F	24-25
An Encounter with bullies- Part II	F	26-27
An Encounter with bullies- Part III	F	28
Story about a father	M	48
A boy who loved school	M	54-55
Bilharzias is a deadly disease	M	66
Story about Albert Einstein	M	73-74
Invention of the Radio	M	160-161
World's Great Leader	M	170
Story about Afework Tekele	M	174
Biography of Mr. Kofi Anna	M	176
The Hare and Monkey	M	182-183

As can be seen from Table 1, out of the 15 passages or stories presented in the Ethiopian Grade Eight English textbook, girls and women were represented only in six of them while boys and men were represented in the remaining nine passages or stories. Though the difference might not be considered as such exaggerated and making an exact ratio of the two genders could be difficult, however, from these data, it is possible to understand that girls and women, as

compared to boys and men, were found to be less-visible in the passages and stories. Besides, from these data, it is possible to discern that the majority of passages and stories presented in the Ethiopian Grade Eight English textbook were gender-insensitive. This is because they did not narrate the stories, works, and achievements of girls and women equally and fairly as their boys or men counterparts. As presented in the following sections, many other gender-related problems were also identified in the different paragraphs and stories of the textbook.

Negative feminine image

In the textbook under investigation, girls and women were not fairly treated in most of the passages they were presented. To be specific, out of the six passages that narrate about girls and women, it was only in two that they were described positively (see Table 2).

Table 2

The image of girls and women in passages and stories

Passage or story	*Description*
The Flying princess	A paragraph narrating the brilliant achievements of a famous Ethiopian athlete and Olympic double medal winner.
Story about Alem	A story about a girl focusing on her mistakes and weaknesses.
Story about Hajera	It is a story that narrates the mistakes and weaknesses of one girl
An Encounter with bullies- Part I	A passage that narrates the story of one girl being perpetrated by three boys
An Encounter with bullies- Part II	A passage narrating the story of one girl being perpetrated by three boys (continued)
An Encounter with bullies- Part III	A passage narrating the victory of a girl over the three perpetrators.

As presented in Table 2, only the first and sixth passages were describing a woman and a girl respectively with a positive image. In the first passage, the success story of the famous Ethiopian athlete, Tirunesh Dibaba, and most importantly the implications of her victory for national pride and image were vividly narrated. In the sixth passage too, a story of one girl who was able to revenge three boys who committed perpetration on her was attractively narrated. Nevertheless, in the second, third, fourth, and fifth passages/stories, though the stories of girls were presented, the feminine gender was not narrated in a positive manner. The following specific examples taken from these four passages, I believe, could strengthen this finding.

In some passages and stories of Grade Eight English textbook, females were described as forgetful, coward, cruel, and weak. For instance, in the second story presented in Table 2, the female character named Alem was described as doing mistakes. The following story quoted from page 19 of the textbook epitomizes this contention.

One night, Alem forgot to close the main gate at night. She also forgot the clothes hanging on the line to dry. Since no one asked her about the clothes, she went to sleep anyway. When she woke up the next day, the clothes had been stolen.

In this story, the female character was depicted as forgetful. Due to this 'problem' of the girl, the clothes of the family were stolen by thieves. From this passage, therefore, students might consider females as negligent and wrongdoers.

In another story of the textbook (a story about Hajera), a female character was depicted as coward. The following excerpt is a good evidence for this.

> It was midnight when Hajera woke up from her deep sleep only to hear sounds coming from the living room. She was scared. There were people talking. She thought they were thieves so she grabbed her mobile phone and called the police. The policemen arrived in ten minutes and by then, Hajera was hiding under her bed. The doors were locked. They looked through the windows and listened. The only sound they heard was from the TV Hajera had left on (p. 21).

From the above story, Hajera, was described very frightened and "ridiculous". She was also depicted as silly and uncritical who could not differentiate the sound of a TV from the sound of real men (thieves).

Some passages of Grade Eight English textbook also show females as cruel and fault finder. A good example in this regard is the following excerpt taken from a story titled An Encounter with bullies- Part I.

> **…** My aunt was very cruel and she always found fault with me. She was extremely harsh. Whenever she found out that I wasn't doing my chores, she would yell at me and order me to work in the garden for long hours. Each time she yelled, her face turned fierce like that of a crocodile. To escape her wrath I would extend my time in the garden, under the hot sun… (p. 24).

In these statements, the aunt was described as cruel, faulty, and harsh. The authors of the textbook even tried to compare her with a crocodile. All these descriptions may lead students to develop a negative image for females.

Male hegemony

In many stories and passages of the Ethiopian Grade Eight English textbook, boys and men were described as courageous, inventors, scientists, and leaders (see Table 3).

Table 3

Male hegemony in passages and stories

Passage or story	*Description*
Story about a father	Narrates story of a man.
A boy who loved school	It is a passage that narrates the story of a boy.
Bilharzias is a deadly disease	Narrates the story of a famous Ethiopian scientist.
Story about Albert Einstein	Narrates the story of Albert Einstein.
Invention of the Radio	Narrates the story of Guglielmo Marconi.
World's Great Leader	Narrates the story of the late Nelson Mandela.
Story about Afework Tekele	Narrates the story of a famous Ethiopian painter.
Biography of Mr. Kofi Anna	Narrates the story of Kofi Anan.
The Hare and Monkey	Passage narrating the ability of two male animals to trick

As indicated in Table3, out of the 15 passages and stories presented in the textbook, nine of them were narrating the stories, encounters, fame, contributions, or achievements of the masculine gender. In these passages and stories, men and boys, both Ethiopian and non-Ethiopian nationals, were given prominence. For instance, in the third passage presented in Table 3, the story of a famous Ethiopian male scientist, Aklilu Lemma, is narrated. His professional competence, particularly his ability of critically observing things, is described. Besides, the scientist's contribution to the advancement of his profession and indeed to the peoples of the world is vividly narrated.

In the same manner, the fame, talent, and contributions of some prominent men such as Albert Einstein (the renewed German scientist) and Guglielmo Marconi (inventor of the radio) are given much attention. Unfortunately, in the passages and stories of the textbook, one cannot get the narration of a female scientist. From this approach of presenting passages and stories, therefore, students might implicitly learn that only men are capable of making scientific discoveries/inventions and becoming a scientist.

In the passages of Grade Eight English textbook, the success stories of male politicians, diplomats, and leaders were also given a substantial place. In this regard, the works and contributions of the late Koffi Annan (a Ghanaian diplomat and former Secretary-General of the UN) and the late Nelson Mandela (a South African freedom fighter and leader) are very important. However, the story of a single female leader or diplomat was never presented in the passages of the textbook. From these passages, therefore, students may learn that positions like political leadership and diplomacy are reserved only to men. The stories about Afework Tekele (a prestigious Ethiopian painter), Mengistu Lemma (a known Ethiopian writer), and Sebhat Gebregziabher (a famous Ethiopian writer) are among the stories that could imply occupations related to art and literature are reserved for men.

To sum up, many of the passages and stories presented in the Ethiopian Grade Eight English textbook were not gender-sensitive. In most of the passages and stories, girls and women were not represented. To make things worse, some passages and stories depict them as weak,

cruel, and powerless while treating boys and men as courageous, innovators, professionals, and leaders.

Uneven role model presentation

In different parts of the Ethiopian Grade Eight English textbook, ten role models were presented. However, eight of the role models were representing the masculine gender (see Table 4).

Table 4

Role models presented in different parts of the textbook

Name	*Occupation*	*Sex*
Tirunesh Dibaba	Athlete	**F**
Dr. Aklilu Lemma	Scientist	M
Albert Einstein	Scientist	M
Mengistu Lemma	Author	M
Sibhat Gebregziabher	Author	M
Dr. Wangari Maathai	Scientist	**F**
Nelson Mandela	Leader and freedom fighter	M
Kitaw Ejigu	Scientist	M
Afework Tekle	Painter	M
Kofi Annan	Leader and diplomat	M

As it can be seen from Table 4, it is only two of the role models, i.e. Tirunesh Dibaba (an Ethiopian athlete) and Dr. Wangari Maathai (a Kenyan scientist) that represent the feminine gender. This finding entails, in terms of role model presentation, the textbook under consideration was not a gender-sensitive curriculum material.

Sensitivity of Illustrations

The Ethiopian Grade Eight English textbook is rich in illustrations. In the textbook, 57 illustrations depicting 141 individuals are included. Besides, 19 illustrations that are not related to gender, i.e. pictures that show non-human beings, are also presented. In this part, therefore, an analysis of the latent messages of these illustrations is presented. The data collated and the findings obtained in this regard are presented under the following three sub-themes.

Stereotyped occupational roles

In many illustrations of the Ethiopian Grade Eight English textbook, females were portrayed performing different traditional activities. Some pictures taken from different pages of the textbook confirm this contention. For instance, out of the total number of traditional activities (25) depicted in various pictures, 16 of them were assigned to females. It is only in nine pictures that men were shown doing traditional activities. In these illustrations, most of the traditional activities such as washing clothes, fetching water, and pottery were assigned to females. The illustrations depicted on pages 62, 105 and 136 (a, b & C) of the textbook are good examples in this regard.

On the contrary, from the total of nine modern professional activities shown in the illustrations, only one picture shows a woman performing a professional activity, i.e. painting. In the remaining eight pictures, men were shown as a scientist, leader, and the like. For instance, on page 61, four pictures showing a scientist performing different professional activities are presented. In addition, four pictures showing the late Nelson Mandela doing different works of a leader are shown. Unfortunately, in the textbook, one cannot get a single picture showing a woman doing the work of either a scientist or a leader.

The home-public dichotomy

Out of the 34 activities depicted in the illustrations of the textbook, half of them (17) were domestic/home work while the remaining 17 were outdoor/public activities. However, out of the 17 domestic work, 15 of them were held by the females. It is only in two pictures that men were depicted performing domestic work. In most of these pictures, indoor activities such as child caring, cooking, and coffee preparation were shown as the responsibilities of girls and women. The illustrations depicted on pages 43 (right), 70 (D), and 105 (A, B, C, D) of the textbook are good examples in this regard.

However, the reverse was true for outdoor work. That is, out of the 17 out-door work; 15 of them were assigned to the males, while the remaining two were to the females. The pictures presented on page 54 (a boy working on a farm) and page 81 (two men in a shop), for instance, could imply that boys and men are responsible for outdoor activities.

Patriarchal power relationship

Another problem reflected in some of the illustrations of the textbook was *an imbalance of power relationship*. In the textbook, pictures showing unfair relationships between the two genders are depicted. In this regard, at least two illustrations could be mentioned.

The first illustration, which is found on pages 180-181, pictorially shows a popular Ethiopian (African) story about a wise man and a woman who thinks her husband does not love her. In those pictures, the woman is depicted passively requesting the wise man a solution for the problem she faced from her husband. In the pictures, the wise man was portrayed giving an advice and direction in support of this troubled woman. In one of the pictures, the woman is

portrayed reporting to the wise man how she had implemented the advice she received from him. The man is also depicted being proud of what he did for the woman. He is also shown giving another advice and direction to the woman. Generally, in the pictures the woman was depicted passively receiving advice and directions from the man.

Students reading this textbook, therefore, might interpret the message of these pictures negatively. For instance, they might construe that males are more knowledgeable and skillful than females in solving difficult societal problems. The pictures might also embody a message that women are dependents of men for their wise advice and assistance when they faced complex social problems. Surprisingly, a single picture that shows the opposite side of this story is never illustrated in the textbook.

Another illustration, which is found on page 105, also portrays an unfair message vis-à-vis gender equality. In that illustration, five interrelated pictures showing the process of a coffee ceremony is presented. The first four pictures depict only females preparing coffee for the family. The last picture, on the other hand, shows the male family members being served in the coffee ceremony. In that illustration, a total of 8 individuals are shown. Of this number, four individuals (three of them males) were around the table enjoying the coffee prepared by the females. These pictures might connate coffee preparation is the duty of females, and that serving the family is their responsibility. Of course, this message is consistent with the social reality of Ethiopia. In Ethiopia and many other African countries, coffee preparation and other domestic activities are reserved only for girls and women. Even though the authors had reflected the social reality of the country, through these pictures they were perpetuating this unfair and traditional practice of society. In other words, as many critical curriculum theorists assert, instead of transforming a society's culture, textbooks explicitly or implicitly reproduce social inequalities and injustices.

To sum up, though some gender-neutral and gender-sensitive illustrations were included in Grade Eight EFL textbook, some stereotyped illustrations were also found. In these illustrations, females were depicted performing traditional and domestic work. On the contrary, there was a tendency to show males working in outdoor and modern work. Besides, some illustrations that show uneven power relationships between the two sexes were explored. Overall, it could be concluded that illustrations that favored the male gender were dominant in the textbook under investigation. That is, in terms of visibility, activities and power relations, women and girls were not represented equally and fairly as their men and boys counterparts.

DISCUSSION

According to many gender analysis studies, gender bias and stereotype are pervasive in the texts and illustrations of textbooks (Blumberg, 2008; Gachukia & Chung, 2005; UNESCO, 2008, 2009). As Gachukia and Chung (2005) stated, narrations and illustrations presented in textbooks explicitly or implicitly depict one gender passive, weak, and powerless while making the other active, strong, and powerful. It was, therefore, with this idea in mind that this study has

attempted to examine the Ethiopian Grade Eight EFL textbook's linguistic and non-linguistic features.

However, as already indicated, the textbook was not found a gender-responsive curriculum material. For instance, the great majority of the passages and stories presented in the textbook were narrating the fame, contributions, and achievements of the masculine gender. Stated another way, most of the passages were found to be gender-biased as they failed to narrate the stories, work, and achievements of girls and women fairly as their boys and men counterparts. This finding is consistent with many international studies that were conducted on the same issue. For instance, Blumberg (2008), Enguday (2008), and the UNESCO (2008) reported that many textbook writers presented girls and women with highly stereotypical and negative images. Tahan (2015), Mustapha (2014), and Healy (2009) too reported that textbooks used in many educational institutions were perpetuating male hegemony.

As many studies revealed, the number of *role models* presented in textbooks could favor only one gender. Furthermore, lack of role models in the textbook, for either gender, can affect students in terms of their achievement. As Jasmani et al. (2006) indicated, the frequency of male and female role models in textbooks has a far-reaching impact on students' learning. According to these scholars, students may feel that their textbook does not acknowledge their existence if their group is ignored or sidelined. In order to determine whether or not this issue has been addressed in Grade Eight English textbook, role models presented in the textbook were analyzed. Accordingly, it was explored that the great majority of the role models in Grade Eight EFL textbook were representing the masculine gender. This finding indicates that in terms of famous person or role model presentation, the textbook in focus was gender-biased.

In textbooks, especially in primary school textbooks, illustrations play an important role not only in presenting academic information in a vivid and concise manner but also in motivating students' interest of reading and learning. However, if they are not properly presented, illustrations will have a negative effect not only on students' present learning but also on their future social lives (Porreca, cited in Bahman & Rahimi, 2010). Supporting this idea, many studies reported that both the manifest and latent message of illustrations had enduring impacts on students' identity and their role in society (Blumberg, 2008; Gachukia & Chung, 2005; Kabira & Masinjila, 1997). The frequency and message of pictures, photos, or other images can demonstrate gender stereotyping (Blumberg, 2008; Gachukia & Chung, 2005; Kabira & Masinjila, 1997). In this regard, Porreca, cited in Bahman and Rahimi (2010), indicate that when there is female invisibility, the implicit message is that women are not as important as men, or that their contributions are not as worthwhile to mention as that of men's.

As already indicated, the majority of the illustrations presented in the Ethiopian Grade Eight English textbook were male-dominated. For instance, most of the illustrations that deal with activities portrayed women and girls performing traditional and domestic work while men and boys working outdoor and professional activities. Besides, illustrations that convey unequal power relationships between women and men were included. These findings are quite consistent with the findings of Blumberg (2008), Solomon (2014), Amini and Birjandi (2012), Bahman and

Rahimi (2010), UNESCO (2008) and Pesikan and Marinkovic (2006). In all these studies, patriarchal model of gender representation was explored in the illustrations of textbooks.

In developing countries like Ethiopia, life in society and the hidden curricula within schools implicitly or explicitly inculcate messages that force students to believe some occupations are to be held by a specific gender. In so doing, various traditional activities, especially those in the home domain, are treated as if they are the responsibilities of females while professional and public domain work for the males. This unfair and stereotyped gender role allocation should never be reflected in the texts and illustrations of textbooks if the problem is to be reversed through education. In other words, preparing textbooks by reflecting the unfair and stereotyped gender roles practiced by a patriarchal society implies perpetuating this unacceptable, undemocratic, and unjust traditional practice in society. For this reason, textbook writers need to be sensitive while selecting and depicting illustrations. In this regard, taking time to check whether there is a fair representation of the two genders and that the implicit message each illustration embodies is free from any possible gender bias and stereotype needs to be considered as critical.

To sum up, the findings of this study witnessed a substantial rhetoric-reality gap with regard to gender equality in the Ethiopian school curriculum materials. The study also confirms the idea that the formulation of smart gender policies and strategies at a macro level is inadequate to ensure gender equality in the education sector and beyond. In Ethiopia, gender issues were given a considerable attention in different policy documents and various national legal instruments. The country's constitution, education policy, and national policy on women are just a few of the documents in which gender equality was promised at a policy level. Nevertheless, as this study revealed, this national promise was not satisfactorily kept even at the curriculum (textbook) level.

CONCLUSION AND IMPLICATIONS

This study sought to examine the Ethiopian Grade Eight English textbook vis-à-vis the major principles of a gender responsive curriculum material. However, as the analysis revealed, in all categories of the analysis, the textbook was found to be gender-biased favoring the male gender. Most of the passages and stories presented in the textbook tend to narrate the fame, contributions, and achievements of only the masculine gender. The great majority of the role models presented in the textbook also favored the male gender. Besides, the majority of the illustrations presented in the textbook were found to be male-dominated conveying unequal and patriarchal power relationships between the two genders. From these findings, therefore, it is possible to conclude that some gender issues that need to be considered while writing a language textbook were not adequately addressed the Ethiopian Grade Eight English textbook.

This study has far-reaching implications for the textbook analyzed and beyond. As far as the Ethiopian Grade Eight English textbook is concerned, the study implies the need to revision as the illustrations and texts it presented are likely to perpetuate patriarchal beliefs among Ethiopian primary school students and perhaps in society outside schools. The findings of the

present study also suggest the need to conduct further research on more school textbooks. In so doing, it is advisable to incorporate the views of teachers, students, textbook writers, and other major stakeholders so as to develop a better and more comprehensive understanding on the issue at hand.

The finding of this study also implies the need to revisit the methods of gender mainstreaming in the education sector. As far as the process of textbook preparation is concerned, giving attention to the following issues, I believe, could contribute a lot in ameliorating the situation. As an immediate solution, the ministry of education needs to undertake some intervention measures that aimed at raising textbook writers' awareness and competence in relation to the preparation of gender-responsive curriculum material. Provision of training for textbook writers on diverse issues of gender-responsive pedagogy could be one valuable measure in this regard. Besides, involving both gender and curriculum experts in the process of textbook preparation could meaningfully contribute in mitigating the problem.

Finally, the present study implies the need to develop the culture of undertaking gender analysis on new school textbooks. In this regard, the ministry of education and regional education bureaus in Ethiopia need to take the initiative. Based on the findings of such analyses, concerned bodies need to take the necessary measures before full-scale distribution of textbooks. This, in turn, could play an important role in minimizing unnecessary financial, time, and energy wastages. Of course, such tasks, I believe, need to be conducted by professionals with adequate experience and expertise on gender, gender analysis, textbook preparation, and curriculum design.

REFERENCES

Alemayehu Bishaw. (2015). Assessing gender mainstreaming to ensure gender equity and equality in education, social and economic sectors. The case of Amhara region, Ethiopia. *Journal of International Cooperation in Education, 17* (2), 37 -54.

Amini, M. & Birjandi, P. (2012).Gender bias in the Iranian high school EFL textbooks. *English Language Teaching, 5* (2), 134-147.

Arbache, J. S. Kolev, A. & Filipiak, E. (2010). *Gender disparities an Africa's labor market***.** Washington DC: The World Bank.

Bahman, M. & Rahimi, A. (2010).Gender representation in EFL materials: an analysis of English textbooks of Iranian high schools. *Procedia Social and Behavioral Sciences,* 9, 273–277.

Blumberg, R. L. (2008). The invisible obstacle to educational equality: Gender bias in textbooks. *Prospects, 38* (3), 345-361.

Enguday Ademe. (2008).*Underachievement among higher education female students in Ethiopia: Perceived causes, priorities and single-sex teaching***.** Shaker Verlag: Otto-Von- Guericke University of Magdeburg.

Fraenkel, J. R. & Wallen, N. E. (2006).*How to design and evaluate research in education* (6th ed.). Boston: McGraw-Hi1l.

Gachukia, E & Chung, F. (2005). *The textbook writer's manual*. Addis Ababa: IICBA.

Genet Zewdie. (1991). *Women in education: A study of academic performance and participation of female students in the high schools of Addis Ababa.* Addis Ababa: OSSREA.

Gharbavi, A. & Mousavi, S. A. (2012). A content analysis of textbooks: Investigating gender bias as a social prominence in Iranian high school English textbooks. *English Linguistics Research, 1* (1), 42-49.

Healy, D. (2009). The representation of women and men in a modern EFL textbook: Are popular textbooks gender biased? *Memoirs of the Osaka Institute of Technology, 54* (2), 91-100.

Jasmani, M. Yasin, M. Hamid, B. Keong, Y. Othman, Z. & Jaludin, A. (2006). Verbs and gender: The hidden agenda of a multicultural society. *The Southeast Asian Journal of English Language Studies, 17* (special issue), 61 – 73.

Kabira, W., M. & Masinjila, M. (1997). *ABC of gender analysis***.** Nairobi: FAWE.

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*. Thousand Oaks: SAGE publications.

Molla, T. & Gale, T. (2015).Inequality in Ethiopian higher education: Reframing the problem as capability deprivation. *Discourse: Studies in the Cultural Politics of Education,36* (3), 383 – 397.

Mustapha, A. S. (2014). Sex roles in English language textbooks in Nigerian schools. *Journal of ELT and Applied Linguistics*, 2 (2), 69-81

Nyevero, M & Memory, M. (2014). Gender responsiveness of selected primary school English textbooks in Zimbabwe. *US-China Education Review4* (8), 559-568.

Pesikan, A. & Marinkovic. (2006). A comparative analysis of the image of man and woman in illustrations of textbooks for first-grade children. *PSIHOLOGIJA* 39 (4), 383-406.

Reeves, H. & Baden, S. (2000). *Gender and development: Concepts and definitions.* Brighton: Institute of Development Studies.

Sano, F., Iida, M., & Hardy, T. (2001). *Gender representation in Japanese EFL textbooks*. Paper presented at the PAC3 at JALT, Kitakyushu, JAPAN.

Shah, S. F. (2012). Gender inclusion: A neglected aspect of the English textbooks in Pakistan. *International Journal of Social Science & Education*, 3(1), 118-127.

Solomon Fantaye. (2014). *Assessing gender representation in Ethiopian grade 11 English textbook* (Unpublished MA thesis). Haromaya University: Haromaya.

Tahan, A., A. (2015). *An investigation of gender representation in EFL textbooks used at public schools in the UAE* (Unpublished MA thesis). The British University in Dubai: Dubai.

UNESCO. (2000). *The Dakar framework for action (EFA Goals).* Paris: UNESCO

UNESCO. (2004). *Gender and education for all: The leap to equality; EFA global monitoring report*. Paris: UNESCO.

UNESCO. (2008). *Education for all by 2015: Will we make it? EFA global monitoring report***.** Paris: UNESCO.

UNESCO. (2009). *Promoting gender equality through Textbooks: A methodological guide*. Paris: UNESCO.

The Current Status of Government Early Childhood Care and Education Programs in Bahir Dar City Administration

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Abstract:This study examined the current status of some government Early Childhood Care and Education (ECCE) Programs in Bahir Dar city Administration. Qualitative research approach, specifically, evaluation research design was employed. The Ethiopian Education Sector Development Program V (ESDP V) was used as an evaluation framework. Ewuqet Fana, Atsie Sertse Dingle, Felge Abay and Quliqual Meda preschools were the research sites. Data were collected from six teachers and three directors using available sampling technique. Semi-structured interview, observation and document analysis were employed to collect the data. Inductive analysis was applied to identify themes and analyze the data. The finding revealed that in the study ECCE programs, various ECCE modalities were being implemented, and some of which were not indicated in ESDP-V framework. Shortage of classrooms, lack of trained teachers, large class size, lack of child-sized chairs and tables, absence of water and sanitation facilities, and lack of play materials were found to be the major challenges affecting the status of the programs. School directors perceived that their preschools were providing low quality services and strategies. In other words, the services and strategies which have been outlined in ESDP V were not properly implemented. Finally, it was concluded that even though the government ECCE programs were expanded to address the need of children from disadvantaged groups, they were serving these children with low status and lots of limitations. Thus, it is recommended that the government should give much emphasis to the quality status of the programs, amend its policy strategies and directly involve in the construction of preschools for the ECCE programs.

Keywords: status, ECCE, preprimary school, preschools, ESDP V

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INTRODUCTION

The importance of Early Childhood Care and Education (ECCE) program is well recognized all over the world. It provides care and education services to children to enhance their holistic development and prepare them for primary education (Amogne, 2015; Mottee, 2014; UNESCO & UNICEF, 2012). It is found that children who attend high quality ECCE programs are more likely to demonstrate school-readiness, having acquired the cognitive, linguistic and self-regulation skills that create the foundation for their future learning and development (Amogne, 2015; Gustafsson-Wright, Gardiner, & Smith, 2016; UNESCO & UNICEF, 2012). High-quality ECCE service is also recognized as a core strategy for poverty reduction because it supports children and families early in life; well-delivered ECCE can also help to interrupt the cycle of poverty (Young Lives, 2010). So, it is not merely the existence of the ECCE program that makes a difference rather its quality.

Educating young children is a long time practice in Ethiopia. As it is indicated in Hoot, Szente, Mebratu (2004), prior to the 20th century, it was Church and Mosque education that had played a great role in educating young children. The first secular preschool was introduced in Ethiopia around 1901. It was established in Dire Dawa for children of French consultants who participated in the construction of the first Ethiopian railroad (Hoot et al. 2004). Since then, various efforts have been made by the government to expand preschools in Ethiopia. The establishment of few pilot pre-schools in urban areas in 1962 by the Ministry of National Community Development and Social Affairs, the establishment of the first six month training program for pre-school workers in 1971, the expansion of preprimary schools in rural areas in 1974 prioritizing childcare issues linked to government policy that encourages women‘s participation in public life were among the efforts made during the Derg régime (Hoot et al. 2004).

By 1994, a new Education and Training Policy (ETP) was developed by the Ethiopian People’s Revolutionary Democratic Front (EPRDF) led government. This policy was framed in 5 years Education Sector Development Programs (ESDPs). In the first two ESDPs (i.e ESDP I and ESDP II), ECCE was not the priority area of the government. Instead, the responsibility of ECCE service provision was given to private sectors, NGOs, and communities (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2005). Because of this, the accessibility of ECCE was limited to children from wealthy urban families while those children from low-income urban families and from the rural families that cover the greatest portion of the country’s population were marginalized from accessing the service (Young Lives, 2010). Consequently, quality of primary education had declined; high dropout and low reading achievement were prevalent in primary education system (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2005). This condition forced the government to consider ECCE in the ESDP III, but its direct involvement in the provision of the service was very limited until ESDP IV (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2005). In ESDP IV, the government accomplished different activities such as establishing strategic operational plan and guidelines for ECCE, expanding O-Classes or Child-to-Child instruction, and opening multiyear

diploma training for pre-primary teachers in 7 colleges of teacher education (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2010; Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2015).

The current policy framework under implementation is ESDP V, and its basic objective in relation to ECCE is "to provide all children with access to pre-primary education for school preparedness …." The priority groups of this plan are the most disadvantaged groups which include those children who live in rural areas, who have special needs and who came from poor families. Therefore, this study is designed to evaluate the current status of the implementation of government ECCE programs in line with ESDP V policy framework strategies in Bahir Dar city administration. In the manuscript, terms such as ECCE program, preprimary school, kindergarten (KG) and preschool are used interchangeably.

STATEMENT OF THE PROBLEM

Early years are critical periods when the foundation of a child's personality are laid out (Sigmund Freud, cited in Santrock, 2011) and basic skills for later life are acquired (Morrison, 2004; Wortham, 2006). One of the most helpful environments for the child to develop sound personality and basic skill during early years is an ECCE program (Bronfenbrenner, cited in Morrison, 2004). It can positively influence child development and produce capable citizens who contribute to the development of a country. But, this could be possible if and only if the quality of the program is enhanced and maintained.

Currently, linked to the mass expansion of government ECCE programs, the status issue is becoming an emergent issue which demands professional discourse, research emphasis and intervention in Ethiopia. There are some studies conducted in different sites of the country which examine the status of the programs by addressing the practice and challenges. Among the recent studies, Melese and Kifle (2017), for instance, have conducted research on practices and challenges in Woldia Town, North East Ethiopia, and found that absence of trained KG teachers, assistant teachers and caregivers in preschool education, absence of professional development in ECCE, lack of curriculum based books, low interest of the community to support preschool education, inaccessible physical environment for most children with disabilities, inaccessibility and high cost of educational materials, lack of standardized classroom space, absence of readiness to address the needs of children with disabilities, and lack of budget were among the challenges of the practice of private owned KG schools. Similarly, Yigzaw and Abdirahman (2017) have conducted research on the practices and challenges of public and private preschools of Jigjiga city administration and found that the practice in all sampled preschools was found to be below the standard; the teachers were unable to use local stories since they were not from the community; the knowledge of parents, teachers and directors about the contribution of the preschool was found to be limited; 82.4% of the preschool had no ECCE qualification; 64.7% of the preschool centers did not have age-appropriate chairs; 76.5 % of the preschool had no any out-door playing materials and 100 % of all preschools did not use an approved curriculum.

The study of Melese and Kifle (2017) focused on private KG whereas Yigzaw and Abdirahman's (2017) study focused on public and private preschools. But still, little or no studies were conducted on government preschools focusing on evaluating the status of the programs in line with the implementation of ESDP V ECCE framework strategies. As it is mentioned in the introduction section, the government ECCE programs were opened to provide care and education services to disadvantaged groups (children who live in rural areas, who have special needs and who come from poor family). So, evaluating how these newly opened programs are operating to serve the majority population is very essential for MoE, regional education bureaus, policy makers, directors, teachers, parents, and the community at large to identify the gaps of the program implementation and improve the practice.

The following basic research questions were formulated to guide the present research:

1. How do the ECCE modalities implemented in the study programs affect the status of the services provided to children?
2. What are the challenges of government ECCE programs which affect the status of the services provided to children?
3. What is the status of the study ECCE programs as perceived by the directors?
4. Are the strategies outlined in ESDP V fully implemented to enhance the status of the study ECCE programs?

REVIEW OF RELATED LITERATURE

ECCE Modalities and strategic plan of ESDP V

ESDP V describes the education policy framework for education sector from 2015/16-2019/20. The goal of ESDP V with regard to ECCE programs is improving access and equity. The goal is "to provide all children with access to pre-primary education for school preparedness and access to nearby institutions in which they can complete the full eight years of primary and two years of general secondary education". The document also indicates that there will be fair treatment for each child regardless of income, gender, creed, race, location or disability, and priority will be given to the disadvantaged groups (for example, children who come from low income families, rural areas, children with special needs, etc.).

To achieve this goal, different alternative modalities were outlined: the three-year kindergarten program for children of ages 4–6 (KG1, KG2, & KG3), 0-Class for children of age 6 who are approaching school entry age, and an interim accelerated child readiness program for children with no prior exposure to early learning, shortly before they enter grade one (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2015). Various strategies have also been set to implement these modalities. Some of the strategies are: constructing O-Class (supported by community development and resources), equipping the classes with a minimum package of teaching and learning materials, providing Basic Water, Sanitation and Hygiene (WASH) facilities, offering pre-primary teachers training, extending access to children with special needs, expanding parental education, and establishing child health and nutrition programs.

In the document, it is also indicated that class-to- student ratio is 1:50, but no standard is indicated for teacher-to-child ratio. According to the document, the budget allotted to ECCE for five years implementation is 3% to 11 % of the total education budget (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2015).

While reading these policy strategies, one may raise the question of quality. Does solely expanding ECCE solely enhance fairness without considering the quality of the services in addressing the developmental needs of every child? The answer may vary from person to person, but in reality, ECCE programs are overwhelmed with multifaceted needs of individual child. The following developmental theories describe the multifaceted needs of individual child in ECCE programs which help us imagine the difficulties of the implementation without having much focus and investment on quality.

Cognitive development theory

Cognitive development theory was developed by a Swiss psychologist, Jean Piaget, in 1952 (Santrock, 2011). Piaget has a constructivist view of development. He believes that *c*hildren construct their own knowledge step-by-step through exploring objects in their environment, problem solving and interacting with others. They construct knowledge best in the context of experiences that are interesting and meaningful to them (Morrison, 2004; Santrock, 2011, Tassoni & Hucher, 2000; Wortham, 2006). This implies that ECCE programs need to provide meaningful and hand-on learning objects to children so as to construct their knowledge.

Vygotsky's Theory of Cognitive Development

A Russian theorist, Lev Vygotsky, has developed another cognitive development theory in 1962 and introduced the concept of the Zone of Proximal Development (ZPD) and Scaffolding in the field of psychology and education. He believes that children can achieve best with the help of a more competent person. Communication or dialogue between teacher and child is very important and literally becomes a means for helping children scaffold, or develop new concepts and think their way to higher level concepts. Vygotsky also acknowledges the importance of play for concept development and said that when children play and explore ideas freely, they can easily understand and accommodate what they have learnt (Santrock, 2011; Tassoni & Hucher 2000). This implies that teachers in ECCE programs should have the knowledge on how to scaffold the learning needs of an individual child.

Self-actualization Theory

Self-actualization Theory has been developed by Abraham Maslow, an American psychologist and leading exponent of humanistic psychology. Maslow (1954) has identified five basic human needs: physiological needs, safety and security needs, belongingness, esteem needs, aesthetic and self-

actualization needs (Morrison, 2004). According to Maslow, the satisfaction of basic needs is essential for individuals to function well and to achieve all they are capable of achieving.

He has also connected child development and education with basic needs satisfaction and said that:

- Children who begin school without eating breakfast don't achieve well and may experience difficulty of concentrating on their school activities.
- When children think that their teachers do not like them or are fearful of what their teachers say, they do not do well in school, and they become fearful in their relationships with others.
- Children need to be loved and feel that they "belong" within their home and school in order to thrive and develop.
- Self-esteem needs, such as recognition and approval relate to success and accomplishment. Children who are independent and responsible, and who achieve well, will have high self-esteem.
- Children like and appreciate beauty. They like to be in classrooms and homes that are physically attractive and pleasant. Teachers can satisfy aesthetic needs by being well-dressed and providing a classroom that is pleasant to be in by including plants and flowers, art, and music.
- When children have the basic needs met, they become self-actualized. They have a sense of satisfaction, are enthusiastic and eager to learn. They want to engage in activities that will lead to higher level of learning (Morrison, 2004, p. 126).

Psychosocial Development Theory

Psychosocial Development Theory was developed by an American psychoanalyst, Erik H. Erikson in 1963 (Wortham, 2006). According to Erikson, children's personalities and social skills grow and develop within the context of society and in response to society's demands, expectations, values, and social institutions such as families, schools, and child care programs. Adults, especially parents and teachers, are key parts of these environments and, therefore, play a powerful role in helping or hindering children in their personality and cognitive development (Wortham, 2006). Erikson identified eight stages of psychosocial development. Of these stages, preschool children pass through the first three stages. At the first stage, Trust versus Mistrust (birth to 18 months), the child's need is love and affection; at the second stage, Autonomy versus Shame and Doubt (18 months to 3 and half years), the child's exploration need emerges, and at the third stage, Initiative versus Guilt (3 and half to 6 years), the child's physical and mental ability expands and needs to explore more (Wortham, 2006). Thus, parents, caregivers, and teachers need to provide promising environment to satisfy the developmental needs of the child so as to promote healthy personalities.

Multiple intelligence theory

An American psychologist, Howard Gardner, has developed Multiple Intelligence Theory in 1983 (Morrison, 2004). Gardner said that intelligence is multidimensional and there are many ways of knowing and expressing knowledge. He identified nine intelligence types which have influence on the educational thought and practice, and children come to ECCE with various multiple intelligence and multiple learning needs. For example, children with Visual/Spatial intelligence like to see what teachers are talking about in order to understand. They enjoy charts, graphs, maps, tables, illustrations, art, puzzles, and anything eye catching. These children learn best visually and organize things spatially. The same is true for children with the remaining intelligences (Verbal, Mathematical, Kinesthetic, Musical, Intrapersonal, Interpersonal, Naturalist, and Existentialist). Each of these children has unique learning needs (Morrison, 2004). So, addressing the learning interest of each and every child is the responsibility of the ECCE program.

Ecological Model

Urie Bronfenbrenner, an American psychologist, developed Ecological Model in the 1970s and 1980s, looking at children's development within the context of systems of relationships that form their environment. He identified five environmental systems: Microsystem , Mesosystem , Exosystem, Macrosystem, and Chronosystem. Each system influences and is influenced by the other. According to this model, the proximal system to the child is the microsystem which encompasses the environments of parents, family, peers, child care, school, neighborhood, religious groups, parks, and so forth. The child acts on each of these and is influenced by them and influences them (Morrison, 2004; Wortham, 2006). Thus, this implies that the environmental agents in the microsystem, such as family, peers, child care, school, neighborhood, religious groups, need to reciprocally interact to support the developmental needs of the child.

To sum up, it is assumed that the practice of ECCE programs incorporates the insights of these developmental theories in an integrated manner as depicted in Figure 1 below.

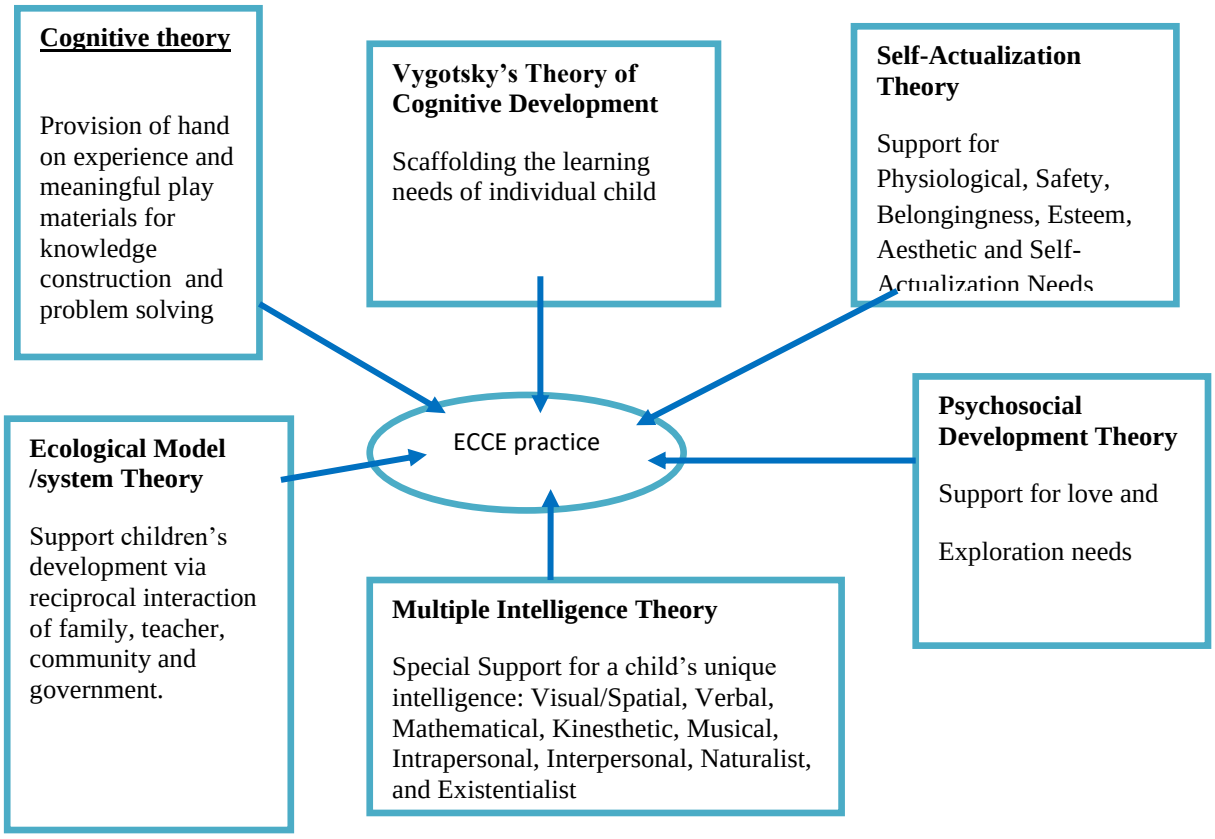

Fig1: ECCE practice with integrated theoretical insights

If this is so, children could learn through meaningful hand-on experiences if they are cared by professionally trained, enthusiastic, emphatic, friendly and honest teachers, get balanced diet, learn in safe, protective and loving environment, learn in a beautiful and attractive learning environment, learn in an environment that helps them actualize their natural intelligences, and have a family, teacher, community and government who reciprocally interact with each other to support their development (Morrison, 2004; Tassoni & Hucher, 2000; Wortham, 2006). So, to provide such kinds of welcoming and quality ECCE services to all children, the government needs to invest time, effort and money.

METHOD

Design

The research approach of this study was qualitative. From the various types of qualitative designs, evaluation research design was employed since the present research objective aimed to evaluate the status of the implementation of government ECCE programs in line with ESDP V policy

framework strategies, and the findings were expected to generate various suggestions for the improvement of the programs.

Research settings and participants

The research settings of this study were the ECCE programs in Ewuqet Fana, Atsie Sertse Dingle, Felge Abay and Quliqual Meda schools. They were selected purposely since they were government owned and recently opened programs (after 2014) in Bahir Dar city Administration. The data were collected from 6 teachers and 3 directors of the study programs using available sampling technique.

Data collection tools

The data were collected via semi-structured interview and observation. Interview guide and observation checklist were prepared based on the research objectives, ESDP V policy framework, and the theoretical insights mentioned in the theoretical framework section. The data were collected by the researcher through face to face interaction with teachers and directors, direct observation of the natural setting, and making comparison of what is described in ESDP V ECCE policy strategy vis-a vis the implementation of the study programs. Audio recorder, video recorder and note taking were employed to record the data.

Data analysis

Data analysis was conducted beginning from the first day of the data collection in order to see whether there is a need of design modification to the subsequent data collection process. After the necessary information was collected from all study ECCE programs, the data were analyzed using inductive analysis. In the process, the recorded data were transcribed, and then reviewed, categorized, coded and described thematically, and finally the interpretation was made to create meaning from the data.

Trustworthiness

To confirm the trustworthiness of the inquiry, various data sources (teachers and directors) and data collection methods (interview, observation and document analysis) were employed. Then the findings identified from various data were triangulated and crosschecked for their consistencies. In addition, peer debriefing was also conducted through discussion with colleagues to get various views for better understanding and interpretation of the data.

Ethical considerations

Informed consent was obtained from research participants to respect their rights. Participants were informed about the purpose of the study and invited to participate with their will. They were also informed that the information they give would be kept confidential, and it is used only for the research purpose, and they could terminate their participation at any time if they felt any discomfort. In addition, audio and video recordings were used with their permission.

RESULTS AND DISCUSSION

Implementation of ECCE modalities and its influence on the status of the programs

The Interview and observation findings revealed that in the observed government ECCE programs of Bahir Dar city administration, various modalities (types of ECCE programs) have been implemented, and some of which were not indicated in ESDP-V framework. In the framework, four types of modalities were proposed: kindergarten for children of age 4-6 (i.e. KG1, KG2, & KG3), O-Class (for children of age 6), child to child instruction, and accelerated child readiness. In the study programs, however, it was found that two types of mixed modalities of kindergarten and O-Class were being implemented. In Atsie Sertse Dingl and Felge Abay preprimary schools, all preschool children (KG1+KG2+KG3+O-Class) were made to learn together in a classroom regardless of age and learning experience differences. But in Ewuqt Fana and Quliqual Meda preprimary schools, it was observed that children were learning in two different classrooms: in one classroom, age 4 and age 5 children (i.e. KG1 and KG2) and in the other classroom, age 6 (KG3) and age 6(O-Class) children were made to learn together.

This kind of mixed age practice has been observed in Montessori approach (Morrison,2004). This approach may be applicable in the context where there is a small class size, well trained teachers, an adequate learning space, play and learning materials (Green, 2002). However, in a context where the scarcity of resource materials is prevalent, and a large number of children are placed in a classroom under the custody of one teacher, mixing children with different age and learning experience may make the implementation of the program double burden and lower the quality status of care and education services.

While describing the burden of the program, one of the interviewed teachers of mixed classroom of age 6 (KG3) and age 6 (O-Class) mentioned the following:

> KG3 children can easily identify letters and numbers. They can even construct short sentences, but everything is new to O-Class children. When I ask a question, KG 3 children respond quickly while O-Class children feel onfused. When I tried to help O-Class children to identify letters and numbers separately, KG 3 children stop attending the class start disturbing the primary school students. There is one extra teacher in our school, but he is assigned to assist the two KG classrooms. He sometimes comes here to assist me and goes to the other classroom. I found this approach very difficult. I reported the issue to the director so many times, but no solution was given.

This practice also contradicts with the theoretical perspective of multiple intelligence of Gardener which states ECCE centers should address the needs of children with varied intelligence (Morrison, 2004). This shows that Gardner's Multiple Intelligence is difficult to practice in the above mentioned environment. So, in this situation, it is unlikely to provide quality services and produce capable children for the country.

The challenges

It is found that the status of the study government ECCE services has been affected by various challenges which include shortage of classrooms, large class size, lack of child-sized chairs and tables, absence of WASH facilities, lack of play materials and trained teachers, and these were the major challenges. These findings are also similar with the findings of Yigzaw and Abdirahman (2017), Melese and Kifle (2017) and Woodhead (2009) which were conducted in other parts of Ethiopia.

Classrooms

All the interviewed school directors and ECCE teachers said that in their schools, no classrooms have been designed and constructed for the preprimary school. One school director of the observed preschools said:

> No classroom construction was made for preprimary education. We are using the classrooms designed and constructed for primary school. As you see, this classroom is overcrowded. It is very difficult to manage children in this class since they are 85. We have one extra ECCE teacher, and if we had had one extra classroom, we could have divided the children into two.

Another school director also said:

> Last year, we enrolled 37 preschool children and assigned them in a poor hygiene classroom due to lack of classrooms. Because of this, children leave the school in the middle of the academic year. Consequently, this year, we changed the classroom by taking one from the primary school, but it is not enough to have only one classroom for all children. We are caring and educating 4-6 years of age children together.

As it is indicated in ESDP V document, constructing O-Class by development community resources is one of the strategies of ESDP V (MoE,2015). However, it is not implemented in the study programs. So, if this strategy is unrealistic for various reasons, the government needs to amend the policy strategy and make ECCE program construction one of the priority areas which is administered by its own budget so that the basic requirements of the program could be fulfilled. Otherwise, simply sending children to preschool could not bring the intended child outcome.

Large class size

The class size of the observed preschools was found to be extremely large which made applying the major principles of ECCE and meeting the learning interest (what Gardner called multiple intelligence) of each and every child impractical (Morrison, 2004). The following table presents the class size of each preprimary school.

Table 1

Class Size of the Observed Schools

No	ECCE programs	KG1+KG2+KG3+O-Class	KG1+KG2	KG3+O-Class
1	Felge Abay	25	-	-
2	Atsie Sertse Dingle	40	-	-
3	Quliqual Meda	-	70	60
4	Ewuqet Fana	-	60	85

All of the classrooms listed in Table 1 were facilitated by one teacher except Ewuqet Fana which has itinerant assistant teacher. Class-to-student ratio standard set by the government in ESDP V policy framework is 1:50 (MoE 2015), but in the observed preschools children learn in a crowded manner. The smallest class size is the Felg Abay's which is 25. However, the observation data revealed that these children were also facing similar problem since the room where they were placed was constructed for office purposes. The area of the room was not much more than 9 square meters. The interview response revealed that this happened because of lack of classrooms.

Green (2002) indicated that the minimum space requirement in an early-year setting for children between 3 and 7 years old is 2.3 square meter per child. With regard to teacher-to-child ratio, she recommended that, in nursery schools and classes, the ratio is 2:20 (minimum), and there should be one qualified teacher and another qualified nursery assistance. She also suggested that the maximum class size of children in a room should not exceed 26 except for special cases. Similarly, National Association for the Education of Young Children (NAEYC) (2013) suggested that the ideal teacher-to-child ratio for kindergarten is 1:10 for a group size of 20, 1:11 for a group size of 22, and 1:12 for a group size of 24.
Of course, adhering to these standards might be difficult in the Ethiopian context for various reasons, like large population size, low level of awareness of the requirement of ECCE programs, and lack of ECCE program construction. However, applying the class size standard set in ESDP V should be mandatory.

Child sized chairs and tables

Among the observed four preprimary schools, Quliqual Meda is well furnished in terms of child sized chairs and tables. The remaining preschools lack proper working places. Atsie Sertse Dingle is furnished with child sized plastic chairs and tables; however, it is observed that children fell down frequently because the chairs slide easily. On the other hand, children in Ewuqet Fana learn on mattresses stretched on the floor using their laps as a desk to write and draw.
The interviewed teacher of Ewuqet Fana said:

> "My students have no working place since there is no any desk. Thanks to Bahir Dar University for providing us these mattresses. I have reported the problem to the school so many times, but we didn't get any solution. This problem may not be solved by the school. There must be a room to involve the community. If the community is insisted and calls for collaboration, let alone buying desks, it can even construct classrooms. "

The observation finding also supports the finding of the interview. In this preschool there is a great deal of disturbance in the mixed classroom of KG 3 and O-Class. The room is highly crowded; some children sleep on mattress while others jump and disturb those who want to write using their laps as a desk.

Such kind of learning environment contradicts with Maslow's principles of safety and security needs satisfaction (Frost, Wortham, & Reifel, 2012; Morrison, 2004). It places children at risk of health and behavior problems and hinders them from learning the basic skills necessar for future education.

Basic Water, Sanitation and Hygiene (Wash) Facilities

Lack of water, sanitation and hygiene facilities were big challenges for all of the observed preschools. There was no child sized sanitation facilities, such as sink and toilet in the observed preschools. Even the available toilets were dirty which might expose children for communicable diseases. The water pipes at Atse Sertse Dingle and Ewuqet fana were not functional.

All the above challenges, that is, lack of classrooms, large class size, lack of desks and WASH are highly interrelated and linked with construction and they may be solved if and only if the government prioritizes constructing classrooms and equipping preprimary schools. This can be done first by changing the policy strategy and then giving much emphasis for the design and construction.

Play materials

Many developmental theorists such as Piaget, Vygotsky, Erikson and Gardener acknowledged that children can learn best through play (Frost, Wortham, & Reifel, , 2012; Johnson, Chiristie, & Yawkey, 1999). Play can enhance children's holistic development. For instance, construction play such as blocks and puzzles can enhance children's creative thinking, problem solving skills and memory (cognitive development). Dramatic plays, such as make-believe play and role play can enhance children's social skills, self-concept, emphatic feeling, prosocial behaviors, impulse control skill, conflict resolution skills (psychosocial development). Outdoor plays, such as running, jumping, somersault can enhance their body strengths and flexibility (physical development) (Frost, Wortham, & Reifel, 2012; Johnson, Chiristie, & Yawkey, 1999).

However, in the observed schools, there is a scarcity of both indoor and outdoor play materials that facilitate children's learning. The observation result revealed that in Atsie Serts Dingl, there was only one indoor learning material that could help children learn the English

alphabet, and there was no any learning material for Amharic alphabets at the time of observation. The teacher has been using chalkboard, wrote both English and Amharic alphabets and taught children by saying the letters repeatedly which is a behaviorist approach, and this not that much recommended for early child learning. In the remaining schools, alphabet learning materials were available to some extent, but other indoor play materials, such as blocks, puzzles, dolls and sociodramatic toys that enhance children's cognitive and social development (Erikson cited in Wortham, 2006) were still scarce.

It was found that playground and outdoor play materials were also big challenges in most of the observed schools. The observation result revealed that it was only Qulqual Meda that was better equipped compared to others. In Atsie Sertse Dingle, only three outdoor play materials, Merry Go-Round, Seesaw, and Swing were available in a small play ground. In Ewqet Fana, the children had outdoor play materials, but it was not accessible to them. One teacher of this school said: "The outdoor play ground is locked because older children broke the play equipment while they play". The observation finding also confirmed that there was lack of proper play ground in this school. KG1 & KG2 children were playing in dust and dirty area while KG3 children have been playing on the play ground of the primary school children.

This finding contradicts with the constructivists views of development which state that children construct their knowledge through exploration and manipulation of objects (Morrison, 2004; Santrock, 2011; Tassoni & Hucher, 2000; Wortham, 2006). So, children need to have the access at least to the basic learning environment, such as safe play grounds and spacious classes, age appropriate play and learning materials, and trained teachers and staff (Morrison, 2004).

ECCE programs can be supported by community members, but the interview response confirmed that there is no any community involvement in these programs. Thus, it is very essential to invite volunteers, businessmen/women and even parents to support the program.

Lack of trained teacher

ESDP V has planned to have 2 /2 licensed teachers holding ECCE diploma by 2016/2017 (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2015, p.126). This means, if there are two teachers in a school, both of them should have ECCE diploma. However, this plan was not actualized in the observed preschools. Lack of trained ECCE teacher was found to be one of the major challenges of the implementation. Of the interviewed six ECCE teachers, two of them have a certificate in ECCE; one teacher has a short term training while the rest have no training at all. One of the untrained teachers said: "I completed grade 12 and was hired here without having any training. I need training". Similarly another interviewee said that "I have been teaching here for the last three years, but I have no any training".

This finding contradicts with many literature found in the area of child development. The literature in ECCE arena indicates that preschool teachers should have knowledge of child development to address the needs of each child across age; they should have pedagogical trainings to facilitate children's learning, and they should have pediatric first aid training to provide first aid service when children face accident while playing (Morrison, 2004; NAEYC, 2009; Wortham,

2006,) but these things were not realistic in the study programs. Therefore, accelerating the knowledge and skills development of teachers will also be another basic responsibility of the government in order to improve the quality of ECCE service provision.

The evaluation of preschool directors

The interview conducted with the preschool directors (they are the directors of the primary schools as well) revealed that the status of the study ECCE programs was low. All of the interviewed directors said that their preschools were not providing ECCE services to the children as expected. In describing the status, one school director says

> "In my school, it is difficult to say we are offering proper ECCE services compared to private schools. There is sacristy of classrooms; we enroll all children who come to this school. We don't say we don't have any more place when the classroom is full. Children are in overcrowded classrooms and are highly exposed to communicable diseases as well. Emotional support cannot be provided properly in this school since the class size is too large. There are no enough places for children to learn and play. There is scarcity of indoor and outdoor play materials. So, for me, developing policy directions is not enough, rather constructing kindergarten compounds as well as fulfilling them with the necessary facilities is very crucial".

In a similar way, another director said that "In our school there is only one section for preprimary education. There are no play materials; the teacher has no any training, and the outdoor play ground is very small. If the government constructs the KG compound separately, the class and play ground problems can be solved". These responses also coincide with the responses provided by teachers in the challenges section of this paper.

The implementation of ECCE strategies outlined in ESDP V

The Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), has outlined various strategies in ESDP V policy framework to make ECCE services accessible for disadvantaged children: those children who live in rural areas, who have special needs and who come from poor family (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2015). Thus, based on the strategies that should be implemented at preschool level, Table 2 presents the comparison between the plan and its implementation in the study preschools.

Table 2

Planed vis-a-vis Implemented ESDP V ECCE Policy Strategies at Preshool Level

ESDP V Strategies	Implementation
Constructing O-Classes (supported by community development and resources)	No construction of KG/O-Class
Equipping preprimary schools with a minimum package of teaching and learning materials	Some of the preschools were supported by NGOs for outdoors play materials but not properly managed. Scarcity of indoor play and learning materials.
Providing basic WASH facilities in pre-primary setting	No child size toilet is available. Only one direct water line was functional.
Teacher training	2 teachers have got one year certificate training 1 teacher has a short term training 3 teachers have no training
CtC/ACR/ facilitators training	The schools were not familiar with these concepts at all.
Extending access to children with special educational needs	No children with special needs were enrolled in all schools during the observation time.
Expanding parental education	The preschool teachers were not familiar with this concept.
Establishing child health and nutrition programs	One school had school meal initiative program (Qulqual Meda)

From the above table, it is possible to say that most of the strategies planned to enhance the status of government ECCE service were not properly implemented.

Organizing and running ECCE programs need investment. Although the government of Ethiopia is trying to expand ECCE throughout the country, the investment on construction and fulfillment of the necessary learning and play materials, inclusion of children with special needs, expanding parental education, supporting children health and nutrition programs seem to have been given little attention. In ESDP V framework, it is indicated that the construction of classrooms has to be done by the support of development communities (Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), 2015). However, the specific responsible body for doing this activity is not clearly indicated in the policy document. This may create confusion on the implementation and hamper the progress of the program.

The education history of Ethiopia revealed that the development of government ECCE programs posed for the first 3 ESDPs (ESDP I, II, & III) may make the program left behind. So, the government needs to prioritize and invest much on the quality enhancement of ECCE program in an accelerated manner so as to achieve the intended child/student outcome across the education system. While explaining the consequence of being lenient to invest on preschools, Mottee (2014) said that not investing on ECCE means not only losing of opportunities but also contributing to the accumulation of inequalities and condemning generations to deprivation and under performance.

CONCLUSION

From the findings, it is possible to conclude that although children were accessing services from the study government ECCE programs, they were served in low status programs with lots of limitations. This implies that little attention was given for the proper implementation of ESDP V strategies and improvement of programs. Educating children in such kind of learning environment may hamper the development of children, produce unintended child/student outcome, and place the country in vicious poverty cycle.

RECOMMENDATIONS

- Producing healthy and capable citizens through education is one of the primary responsibilities of the government of a country. So, instead of merely depending on community development, the government (MoE/Region education bureau) should take the major responsibility and invest on the construction of ECCE centers and fulfill the basic play and learning materials so that the majority of the challenges can be resolved and the status of the programs can be enhanced. In addition, the inclusion of children with special needs, expanding parental education, supporting children health and nutrition programs are also issues that need intervention for implementation.
- The majority of the government ECCE centers were not facilitated by trained teachers. So, teachers training needs to be accelerated by establishing special ECCE training programs in some selected universities besides College training centers. It is also better to upgrade the training level from certificate and diploma to bachelor and masters degree levels so that the service could be provided by highly qualified professionals for the coming generation.
- Large class size hampers children's healthy development. Thus, policy makers need to reconsider class size and teacher to child ratio of preprimary schools for the next ESDP.
- The involvement of the community development is vital for improving the quality of ECCE programs. So, the policy makers should clearly indicate in the policy document what kind of support a particular stakeholder or funding agent needs to provide so that confusion on accountability can be resolved.

- The community should be involved in supporting ECCE programs. So, it is very helpful if Education Bureau officers, supervisors, directors and teachers invite volunteer individuals, businessmen/women, ECCE professionals and even parents of children, to be involved in the enhancement of the programs.

FUTURE DIRECTION

This study was conducted on urban preschools and did not represent the rural ones. So, to capture the clear picture of the status of government ECCE programs, further investigation that addresses both urban and rural preschools need to be conducted at a regional as well as country level.

REFERENCES

Amogne, A. E. (2015).The impact of attending pre-school education on later academic achievement of students: Empirical evidences from Dessie, Ethiopia. *Basic Research Journal of Education Research and Review, 4*(3), 72-80.

Federal Democratic Republic of Ethiopia, Ministry of Education (MoE) (2005). Education sector development program III(ESDP-III). Addis Ababa.

Federal Democratic Republic of Ethiopia, Ministry of Education (MoE), (2010). *Education sector development program IV (ESDP-IV) 2010/2011 – 2014/2015 (2003 EC – 2007 EC)*. Addis Ababa.

Federal Democratic Republic of Ethiopia, Ministry of Education (MoE),. (2015). *Education sector development program V (ESDP-V) 2008-2012E.C(2015/2016 – 2019/2020)*. Addis Ababa.

Frost, J. L., Wortham, S. C., & Reifel, S.(2012). *Play and child development* (4th ed.). Boston: Pearson.

Green, S. (2002). *BTEC national early years*. United Kingdom: Nelson Thornes Ltd.

Gustafsson-Wright, E. , Gardiner, S., & Smith, K.(2016). Ensuring effective outcome-based Financing in early childhood development. *The International Commission on Financing Global Education Opportunity*. Retrieved from educationcommission.org

Hoot,J.L., Szente,J., & Mebratu, B. (2004). Early education in Ethiopia: progress and prospects. *Early Childhood Education Journal, 32*(1), 3-8.

Johnson, J.E., Christie, J.F., & Yawkey, T. D. (1999). *Play and early childhood development* (2nd ed.). New York: Longman.

Melese, A., & Kifle, K. (2017). Early Child Hood Care and Education (ECCE): Practices and Challenges, the Case of Woldia Town, North East Ethiopia. *Global Journal of Human-Social Science: G Linguistics & Education, 17*(9). Retrieved from https://globaljournals.org/GJHSS_Volume17/5-Early-Child-Hood-Care.pdf

Morrison, G. S.(2004). *Early childhood education today* (9th Ed.). Upper Saddle River: Merrill Prentice-Hall.

National Association for the Education of Young Children(NAEYC) (2009). Developmentally appropriate practice in early childhood programs serving children from birth through age 8. Retrieved from https://www.naeyc.org>PDFs>PSDAP

National Association for the Education of Young Children. (2013). *NAEYC accreditation*. Retrieved from https://idahostars.org/portals/61/Docs/Providers/STQ/TeacherChildRatioChart.pdf

Mottee , S.L.(2014). The African union education outlook report: Early childhood development, A continental perspective. Retrieved from www.adeanet.org>system>files >au_e...

Santrock, J. W. (2011). *Child development* (13th ed.). New York: Mcgraw-Hill.

Tassoni, P., & Hucher,K. (2000). *Planning play and the early years*. UK: Heinemann Child Care

UNESCO & UNICEF (2012). *Early childhood care and education*. Retrieved from https://www.unicef.org.>eapro>end_D...

Woodhead, M. (2009). P*athways through early childhood education in Ethiopia, India and Peru: Rights, Equity and Diversity*. UK: Young Lives.

Wortham, S.C. (2006). *Early childhood curriculum: Developmental bases for learning and teaching (4th ed.)*. Upper Saddle River: Pearson Merrill Prentice Hall.

Yigzaw, H., & Abdirahman, M. (2017). Practices and challenges of public and private preschools of Jigjiga city administration. *International Journal of Research - Granthaalayah, 5(*12), 17-32. Retrieved from https://doi.org/10.5281/zenodo.1133562

Young Lives (2010). *Early childhood care and education as a strategy for poverty reduction: evidence from Young life*. Retrieved from http://www.Younglife.org.uk

Practices and Challenges of Higher Diploma Program Implementation in Cluster Satellites of Haramaya University, Ethiopia

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Abstract The purpose of this study was to assess the practices and challenges of Higher Diploma Program (HDP) implementation in cluster satellites of Haramaya University. To realize this purpose, descriptive survey research design with a mixed method approach was adopted. The study was carried out on four teacher education colleges and 3 Universities. A randomly selected 86 (50%) HDP candidates and all HDP leaders, tutors, coordinators and deans were selected through availability sampling. Questionnaire, semi-structured interview and FGDs were used to generate data. Document analysis was also carried out. The results of one-way ANOVA and multiple regressions as well as qualitative thematic analysis revealed that the quality of the practice of HDP was low, especially in terms of providing professional support to HDP trainees, and conducting classroom observations. Moreover, the study indicated that high workload on HDP candidates, low value given to HDP certificate and using of the same single HDP training handbook for candidates coming from various fields of specializations were found to be negatively affecting the practices of HDP. The study offered essential implications for further studies and policy actions among which is the need for preparing incentives packages for the HDC, HDLs and HDTs.

Key words: Higher Diploma Program, Cluster Satellite, Haramaya University, Ethiopia

1. INTRODUCTION

We are living in a dynamic and globalized world where situations are remarkably changing. These changes are taking place almost everywhere including classrooms. These changes have also made the 21st century classrooms more complex than before in terms of like student diversity, needs and interests. In connection to this, OECD (2009) points out that teachers are required to be able to effectively teach in increasingly multicultural classrooms, place greater emphasis on addressing the needs of students with special learning, make more effective use of ICT and plan lessons within evaluative and accountability frameworks. This is premised upon the assumption that students in a classroom considerably differ in terms of level of performance, style and pace of learning, as well as in their socio-cultural, socio-economic and/or psycho-social

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backgrounds. In order to address all these in a single classroom or lesson, teacher educators need not only cutting edge theoretical or content knowledge but also pedagogic skills which enable them to especially plan, implement, organize and manage lessons cyclically, teach and assess in tandem, and effectively use ICTs for all these.

Teacher educators' professional competencies (TPCs), in terms of pedagogic skills and content knowledge (PCK), is a key determinant factor of effective teaching and learning processes and hence determines the quality of education. The fact that teacher educators as designers and implementers of the curricula, must possess not only the right skills, knowledge, and attitude but also get opportunity or possess power and freedom to design, research and critique the syllabi or policy since they are expected to demonstrate professional proficiency in their classrooms with the intention of producing competent citizens who are capable of demonstrating social-critical and academic knowledge, skills and attitudes for changing their society and advancing the development of their country. Similar arguments were made by Jula and Shimelis (2018).In relation to this, Platt (1970) stated:

> *Teachers are the heart of educational process and the main determinant of the quality and effectiveness of its results as they play a decisive role in the fulfillment of educational goals. Whatever curriculum change is introduced and whatever reforms are made, all will be of little or no avail without qualified and committed teachers.*

The effectiveness of teacher educators is measured by the successful and collective attainment of educational goals of the country, among which are preparation of citizens who can contribute to regional, national and global developments yet by addressing the complex individual and social needs in simultaneity. As is emphasized by Bhowmik, Banerjee and Banerjee (2013), effective teachers use an array of teaching strategies because there is no single, universal approach that suits all situations. In other words, different approaches need to be used in different strategies with different groups of students to improve their learning outcomes while responding to their individual backgrounds, learning styles and abilities.

In this regard, among the various approaches of learning which help teacher educators to take students diverse needs into account is the constructivist theory of learning and teaching, which is perceived as a predominant and commonly practiced perspective of learning and teaching.

Constructivist theory of learning, as contrasted to the traditional behavioral theory, is the most effective and widely accepted one. As was noted by prominent constructivism theorists (Bruner 1966; Kagan,1995; Johnson & Smith, 1998), learning is perceived as an active process in which learners discover and construct new ideas or concepts based on their current or prior knowledge. That is, students make meaning from what they do and transform it into practicable and durable knowledge .This approach requires teaching strategies which encourage enquiry and problem solving, cooperative and collaborative learning and heuristic learning to mention some.

Thus, teacher educators in higher learning institutions like Haramaya University are expected to have clear conceptualization about constructivist theory of learning and apply it in their classrooms to fully involve learners in the learning process and improve their academic

achievements [knowledge, skills and attitude]. In this regard, the ongoing HDP, which is offered to teacher educators as one of the important components of their professional development, plays a key role in enhancing the trainee teachers' pedagogical competencies. The HDP was developed and has been implemented in all teacher education institutions in Ethiopia since 2003 (MoE, 2011) including Haramaya University (HU) and its cluster members. This coincides with Ethiopia's Education Sector Development Program IV (MoE, 2010) and V (MoE, 2015) which obliged that all academic staff members should receive trainings on teaching methodology so that the observed pedagogical gaps among them will be improved.

1.1. The HDP of Haramaya University

In Haramaya University, where this study was carried out, prior to HDP, an induction training was initially offered only to staffs in the then Faculty of Education. Later on, this training expanded its horizon and started to be offered to staffs from various faculties and wider disciplines so that they become effective teacher educators. As such the training focused mainly on pedagogical skills and teaching methodology courses but as short-term induction trainings. Nevertheless, due to the inadequacy of this short-term induction-training style in arming the would-be teacher-educators with the required pedagogical skills and knowledge, this training was transformed into a full-blown HDP. It was believed that such an HDP would contribute paramount in professionalizing teacher educators in higher learning institutions (HLIs).

Thus, since 2011, the HDP has been made mandatory to all teachers teaching in HLIs across Ethiopia (MoE, 2011). Following this, Jigjiga University, Dire Dawa University, Chiro College of Teachers Education, Dr Abdulmejid College of Teachers Education and Harar College of Teacher Education all adopted the HDP of Haramaya University and started implementing it at different times. Thus, all these institutions' HDPs were clustered under Haramaya University whose role is to play out the role of a moderator. Also, as a moderator, Haramaya University designed and distributed *HDP Training handbook* (shortened as HDP *handbook*) to all the cluster training in addition to its own training faculties' or colleagues' training sites.

The major contents of the *HDP handbook* are*:*

1. teachers as reflective practitioners,
2. managing learning,
3. action research
4. school/organizational placement,
5. moderation workshop and
6. active learning projects

However, reports developed by the moderating University, which is HU, indicated that, some of the major components of the training such as moderation workshop, active learning project and organizational placement were not adequately practiced as was stipulated in the *HDP handbook*.

1.2. Previous Studies

A number of studies have been conducted in the area of HDP. For instance, a tracer study conducted by Adula (2008) on application of HDP training skills in classroom instruction indicated that the HDP graduates did not apply the competences set in the HDP syllabus to the expected level. According to the findings, this is due to constraints such as large class size, shortage of HDP handbook and absence of well-organized follow-up or support that enforced or reinforced teacher educators to use the training skills.

Furthermore, Addis (2008) reported that a considerable number of teacher educators had a positive attitude towards HDP training, but the skills acquired from the training were not fully practiced. Addis's study indicated that the teacher educators shortly relapsed back to the traditional modes of using the lecture method and assessment based on formal written examinations, leaving aside all or some of the modern alternative methods introduced to them during the HDP training. In the same way, Staurt et al (n.d) indicated that the attitude of Aksum University faculty towards HDP was positive though implementation barriers were prevalent in the University. Recently, a comparative study between HDP certified and non-certified teacher educators in Ambo University was conducted by Mengistu (2017) focusing on their pedagogical competencies. The study revealed that those who have been certified dominantly implemented contemporary student-centered pedagogy through constructivist approach while instructors who were not HDP-certified dominantly implemented conventional teacher-centered methods. In line with this, Ashenafi (2017) concluded that HDP has a great value for instructors in improving their professional development but indicated that the mode of delivering the HDP course required some amendments.

Overall, the above studies highlighted important insights about the role of HDP in improving teacher educators' academic performances. However, it seems that these studies did not address issues related to the practices and challenges of HDP implementation in much detail beyond assessing instructors' attitudes and surveying the role of Teachers Professional Development (TPD) program. Thus, this paper is more elaborated in terms of its depth. In addition, this study differs from other similar studies in terms of its comprehensiveness - it included five teacher education running cluster satellites (institutions) situated in different contexts and regions (Somali, Dire Dawa and Oromia) in the eastern part of Ethiopia where no such all-encompassing studies that assess the status of HDP implementation, challenges encontered and compare relative differences among the institutions in terms of HDP implementation and associated bolstering factors for the better performances of some institutions have been conducted.

1.3. Objectives

The specific objectives of the study were to:

1. assess the current practices of HDP implementation in Haramaya University's HDP cluster satellites
2. identify the major challenges confronting the HDP trainers and trainees in effectively implementing the HDP
3. examine if significant mean difference exists among the HDP cluster satellites of Haramaya University in terms of the extent of HDP implementation.

2. METHOD

2.1. Research Design

In this study, a descriptive survey research design with mixed method approach was used. As argued by scholars such as Wisdom and Creswell (2013), using both quantitative and qualitative approaches is useful in understanding contradictions in between quantitative results and qualitative findings. They also stated that using the combination of both approaches has a great advantage in elucidating more information than using either of them.

2.2. Source of Data

To collect the required data, both primary and secondary sources were used. Primary sources of data were Higher Diploma Program Coordinators (HDCs), HDP Leaders (HDLs), HDP Tutors (HDTs), HDP Candidates (HDPCs) and College Deans (CDs). As secondary sources, MoE's guidelines for the HDP, cluster sites and cross moderation reports, cluster and national workshop reports, and HDP candidates' portfolio were considered.

2.3. Population, Sample Size and Sampling Techniques

The total population of this study was 201. As the number of respondents was manageable, all leaders, tutors, coordinators and deans were included in the sample using availability sampling technique. From 172 HDPCs, 86 (50%) were included in the study through stratified random sampling technique. As stated by Bertlett *et al.* (2001), a sample size of 76 (38%) is acceptable if the population is about 200 and the sample size of 106 (10.6%) is acceptable per 1000 population. The summary of sample size and sampling technique is presented in table 1 below.

Table 1
Sample Size of Institutions

Name of satellite cluster	HDCs	HDLs	HDTs	Deans	HDPC
Haramaya University	1	5	No	1	54
Jigjiga University	1	2	No	1	55
Dire Dawa University	No	2	1	No	45
Chiro CTE	1	1	No	1	6
Dr. Abdulmejid CTE	1	2	1	1	12
Total population	4	12	2	4	172
Sample size	4	12	2	4	86
Percent of sample size	100%	100%	100%	100%	50%
Sampling technique	Available	Available	Available	Available	Stratified random

Key- HDL: Higher Diploma Program Leader; HDC: Higher Diploma Program Coordinator; HDT: Higher Diploma Program Tutor; HDPC: HDP candidate

2.4. Methods of Data Collection

2.4.1. Questionnaire

A questionnaire, both close- and open-ended type, was designed to gather data from HDP candidates. It had two sections. The first section dealt with the background information of the respondents. The second section was related to the practices of HDP and challenges that affect the practices of HDP. The questionnaire comprised 5 items on background information of respondents, 10 items about the practices of HDP and 7 items about the challenges that affect the practices of HDP. Additionally, open-ended items were designed in a way to elicit responses from the respondents and so that they could make possible suggestions to improve the practices of HDP. All the items were adapted by the researchers in line with the literature and harmonized HDP handbook. The items on practices of HDP were Likert scale types with 5 points scales, ranging from 1- very low to 5 - very high. The second part of the items which were concerned with the challenges that have affected the practices of HDP was Likert types rated on a scale of 0 to 4 (0- not at all: 1-to some extent: 2-moderatly: 3-highly: and 4- extremely).

2.4.2. Interview

Semi-structured interview was conducted with College Deans to gather data regarding the practices of HDP by focusing on the major components such as GEQIP budget, school placement, action research and moderation workshop. Additionally, the data regarding the major factors affecting the practices of HDP were collected using an interview. Interviewees were coded as CDs, HDLs, HDCs, and HDPCs, respectively, to refer to College Deans, HDP leaders, HDP Coordinators and HDP Candidates

2.4.3. Focus group discussion (FGD)

In order to collect data regarding the extent of execution of HDP activities (like undertaking continuous assessment, checking fulfillment of reflective activities, conducting cluster and

national moderation workshops), FGDs involving 5 to 7 participants (HDCs and HDLs) was conducted in each cluster institution.

2.4.4. Document analysis

In order to get valuable data using a document analysis, a checklist having various rubrics was prepared. Then after, documents like HDP candidate's attendance, HDP handbook, cluster and cross moderation visit reports, cluster and national workshop reports, and candidate's portfolio were critically examined against the rubrics.

2.5. Pilot Test

A pilot test was conducted to ensure the reliability and validity of the questionnaire before collecting the actual data. The rationale behind conducting a pilot test was to ensure whether the questionnaire was clear to respondents and free of ambiguities that could cause misunderstanding. To ensure this, the researchers consulted two instructors working in the school of foreign language and literature; additionally, two experienced researchers in the area of TPD from the department of Educational Planning and Management (EdPM) and Curriculum checked the content validity of the questionnaire. Accordingly, constructive comments and suggestions were obtained. A pilot test was carried out on 16 HDPCs of Qabredhar College of Teachers Education - not included in sample. Finally, internal consistency reliability was computed and the average reliability coefficient of 0.81 was found.

2.6. Ethical Considerations

Consent from the respondents was secured through a clearance letter from Haramaya University and open discussion with them before starting the study. All of them have shown their agreement and thus, participated willingly.Their anonymity as well as their responses were kept confidential and responses were used purely for research purposes.

2.7. Methods of Data Analysis

Both descriptive and inferential statistics were used in this research. Mean was used to analyze the data collected through close-ended questionnaire concerning the practices of HDP. The expected mean score (3) is used as a cut point for analysis, meaning mean score below 3 indicates low practice of HDP and above 3 represents high practices of HDP. One-way ANOVA was also employed to see if there were significant differences in practicing HDP among the institutions. In addition, multiple regressions was employed to identify the most statistically significant factors that affect the practices of HDP. The qualitative data, which were collected through interview, document analysis, and open-ended questionnaire, were analyzed thematically.

3. RESULTS AND DISCUSSION

In line with the research questions, the major findings and discussions are presented below.

3.1. The Extent of Execution of HDP Activities by the Program Leaders and Coordinators

Table 2

Extent of Execution of HDP Activities by HDLs and HDCs

No	How do you rate the activities of HDL & HDC in performing the following activities?	Mean Score
1.	Make HDP candidates submit their Continuous Professional Development Plans	2.98
2.	Help HDP candidates in preparing lesson plans; showing development of active learning and assessment techniques	2.43
3.	Enable HDP candidates to do action research project	3.27
4.	Let HDP candidates attend school placement	3.18
5.	Let HDP candidates attend organizational placement	2.98
6.	Carry out regular professional interview with HDP candidates	2.43
7.	Undertake regular observation of HDP candidates' teaching	1.87
8.	Accomplish continuous assessment of HDP candidates' work on a regular basis with a written constructive feedback	3.12
9.	Allow HDP candidates to participate in moderation workshops that are planned for sharing experience	2.38
10.	Follow up HDP graduates to assess the impact of the programme on teaching and learning	1.4

Scale: <2.49 = low 2.5-3.49 = medium >3.5= high

As is presented in table 2, the mean score of respondents for items number 1, 2, 5, 6, 7, 9 and 10 were below the expected mean score (3) indicating that the HDLs and HDCs were performing low in helping HDPCs to perform activities such as facilitating HDPCs submit their CPD Plans, attend organizational placement, carry out regular professional interviews and observations of classroom teaching, conduct action research, attend school placement, and accomplish continuous assessments.

In relation to action research, Ashenafi (2017) found out that HDP has a great value in motivating instructors to conduct action research to improve their classroom teaching and learning. Similarly, Stuart (n.d) explained that HDP helped instructors improve their action research and teaching skills. On contrary to Ashenaf's and Stuart's finding, Adula (2008) said that HDP graduate instructors were not applying pedagogical skills obtained through the training. This implies that the graduates were not using action research as a means for solving their classroom problems. Hence, it is possible to say that low practice of HDP components at the time of HDP sessions may lead to a low application of pedagogical skills in the teacher educators' future professional career.

Regarding continuous assessment, MoE's document (MoE, 2011) stresses that continuous assessment should be carried out on regular basis, i.e., weekly, and the HDP leader has to check and comment on the reflective activities with written constructive feedbacks. However, the observation of the checklist showed that the portfolios of some HDPCs were incomplete, and not to the required level for others even if the HDP handbook s were already completed. In a similar way, one of the interviewed HDLs said, "Some HDPCs did not submit their reflective activity as soon as we finish the HDP handbook. But they submitted all reflective activities at the end of the year to fulfil the requirement of graduation." Mengistu (2017) also explained that HDP helped instructors use continuous assessment and feedback when they deliver courses. This implies that continuous assessment of HDPCs during HDP sessions is helping instructors to be aware of its benefits.

Regarding lesson plan preparation, the HDP handbook (MoE, 2011) indicates that candidates should prepare 8 lesson plans that show the development of active learning and assessment techniques (excluding Projects and the School Placement). In contrary to this, the observation of HDP candidates' portfolio indicated that the portfolios of some of HDPCs lacked lesson plans and they were not up to the required level. In relation to this, Mengistu (2017) stated that instructors who attended HDP were better in setting, presenting, introducing, managing and achieving lesson objectives than those who did not attended HDP.

Furthermore, the interview held with one of the HDLs revealed that HDPCs mostly prepared and attached "only one lesson plan in their portfolio and rarely only few of them annex two lesson plans." Similarly, the interview held with the majority of HDLs concerning formal lesson observation seemed unsatisfactory as conducting lesson observation in a classroom was very difficult because of three reasons. Firstly, HDLs and HDCs were busy as they had formal classes in addition to handling four hours HDP sessions per week. Secondly, there was a mismatch between the class schedule for HDLs and HDPCs – while one group was free, the other group was busy with classes. The third reason was that HDPCs themselves were not happy to be evaluated and assessed by HDLs or tutors because instructors in higher institutions of Ethiopia had not been familiar with instructional supervision.

In connection to this, the HDP handbook (MoE, 2011) obliges that as a minimum requirement, HDPCs should have records of 4 formal lesson observations with written feedback and should conduct discussions with and receive feedback from HDL or HDT for the award of the diploma. Additionally, the HDP handbook presupposes that short informal observations for specific purposes may also be arranged. In support of the above finding, the observation of HDPCs' portfolios confirmed that the majority of them did not have the record of formal lesson observation reports.

Concerning carrying out regular professional interviews with HDP candidates, the handbook of HDP (MoE, 2011) states that professional interview should be conducted by HDPL and/or HDPT at least once in a semester. Contrary to this, all HDPCs' portfolios showed that professional interviews were not at all conducted. Gardner, M, et al., (2017) explained that coaching or other expert scaffolding can support the effective implementation of new curricula, tools, and approaches by educators. This implies that regular professional interview with HDPCs

has a paramount importance in improving HDP candidates' pedagogical skills if it is practiced in a well organized manner.

There is a general consensus among educators that a moderation workshop ensures the standard of HDP. In line with this, HDP handbook (MoE, 2011) clearly depicts moderation visits are designed to gather data and ensure consistency across the provision, identify areas for development and share innovative practice across the clusters of HDP. The handbook also prescribes that a moderation visit should be conducted once per semester in each of the cluster institutions by the moderating University. But in a slightly different way and in a way that supports the finding of the questionnaire above, the moderation visits and workshop reports indicated that both of them were not satisfactorily conducted. For instance, a moderation visit was conducted only once in the first semester of 2015/16. Similarly, a moderation workshop was not carried out in 2014/15, except that it was only once conducted in 2015/16 academic year. The document further indicated few people attended the moderation workshop.

As clearly indicated in HDP handbook (MoE, 2011), one of the responsibilities of HDLs is making a following up on HDP graduates to assess the impact of the programme on their profession. However, the report of the moderation workshop indicated that the impact assessment was not conducted by any of the cluster institutions. Interviews conducted with the majority of the deans and HDLs confirmed the same. For instance, one of the deans said:

> *We have been running HDP for about six years, but no research has been conducted on assessing the impact of HDP training on the teaching and learning process [CD1, Nov 2018].*

The other interviewed HDLs at the time of the interview complained, "We always plan to revise HDP handbook and conduct impact assessment. But GEQIP does not allow budget to do these activities" [HDL1, Nov 2018].

3.2. The Major Constrains to the Practices of HDP

Table 3

Challenges to the Practices of HDP

No	Items	Mean Values
1	High workload on HDP candidates	3.58
2	Less follow up/attention by concerned higher officials	3.55
3	Low incentive for HDP leaders, coordinators and tutors	2.32
4	Low value given for HDP certificate	3.72
5	Lack of interest on the part of trainees	3.17
6	Absence of enforcement by the management body	3.86
7	Insufficiency of refreshment like tea/coffee at the time of training	2.82

As it is depicted in table 3, the mean response for item numbers 1, 2, 4, and 6 was above 3.5. This shows that a high workload on HDP candidates, less attention by concerned higher officials, less value given for HDP certificate, and absence of enforcement on HDPCs to attend HDP from the government side were highly affecting the practices of HDP in satellite clusters of HU. In the same way, Ashenafi (2017) addressed that little attention given by a University management in remuneration and encouragement was a factor affecting the practice of HDP. He also elaborated that HDP handbook itself should be revised in a way that matches the background (disciplines) of the trainees. In a similar manner, Gardner, Darling-Hammond and Hyler (2017) discussed that the importance of providing professional development in conjunction with model curriculum and classroom material should not be underestimated. Regarding this, Stuart (n.d) concluded that high work load and lack of consistent follow-up by administrators were some of the challenges in implementing HDP in Aksum University. In the same way, MoE (2008) explained that incentive package, workload on instructors and less attention given to HDP by management bodies were the major factors affecting the implementation of HDP.

With regard to workload on HDP candidates, one of the interviewed HDLs reported that the majority of HDPCs (for instance, candidates from the institute of technlogy) had the tendency to show the highest rate of absenteeism due to the overlapping of the HDP session with their class schedules. In connection to this view, another HDL asserted:

> *The agreement signed between the departments of* HDPCs *and HDP coordinating office requests departments not to assign* HDPCs *on other tasks at the time of HDP session. But, due to shortage of instructors, some departments are forced to allocate teaching time (schedule) without considering HDP session [HDL2, Nov 2018].*

Still another HDL complained:

> *HDP candidates are required to be exempted up to 3 credit hours load per week from any responsibility, but some departments still consider 3 credit-hours as an overload rather than freeing candidates from additional responsibility like examinations. Due to this misconception,* HDPCs *become busy, tend to show absenteeism and finally are forced to request withdrawal [HDL3, Nov 2018].*

Contrary to the above views, documents, like MoE, 2011 & MoE, 2015, clearly state that the responsibility of college deans is ensuring whether HDP candidates' teaching requirements or loads, timetables, examinations, practicum, extension classes do not overlap with the HDP sessions. MoE (2008) also indicated that the absence of incentive package guideline for HDP leaders and coordinators, particularly at teacher education college level, is confusing college deans not to allocate the required work load.

Regarding the importance of HDP certificate, one of the interviewed HDPCs claimed:

> *HDP training takes the whole year to complete, but the value given for the certificate is so low. For instance, there are a lot of posts for vacant positions in our University, but*

any of them do not consider HDP certificate as a requirement. Therefore, it is not surprising that instructors are not interested to attend [HDPC1, Nov 2018].

In line with the above view, another HDL opined:

Leave the issue of absenteeism and drop out of candidates from HDP sessions due to work load and other additional responsibilities, the majority of instructors in our college have been teaching for many years without having HDP certificate. This implies that instructors do not have awareness about the importance of HDP certificate because they think that they do not get any additional benefits if they get certificated or lose nothing if they are not certificated. This indicates that HDP certificate has no value [HDL4, Nov 2018].

The above views and discussion concerning the importance of an HDP certificate implies that the certificate had of little value. Interestingly, policy documents, like MoE, 1994 & MoE, 2015, emphasize that teachers teaching at any level of education will be certified, and the CPD of lecturers and teachers will be a continuing focus for the improvement of quality of education. In line with this view, Villegas-Reimers (2003) stated that professional development has a noticeable impact on teachers' work, both in and out of classroom, especially considering that a significant number of teachers throughout the world is under prepared for their profession.

In line with the finding of the questionnaire regarding the absence of enforcement by the concerned bodies in making HDPCs attend HDP, one of the interviewed HDPCs expressed his view by saying:

Due to absence of measures on HDPCs who request withdrawal from HDP without justifiable reasons, the attendance rate of HDPCs is getting low. It is not only this; there are lots of instructors who have been teaching for years without having HDP certificate. Thus, in my opinion, policies in this regards should force instructors to be certified before starting teaching [HDPC2, Nov 2018].

Similarly, documents like HDP session attendance indicated that the dropout rate of HDPCs was very high in Universities compared to teacher education colleges. For instance, in the 2015/16 academic year, 44, 46 and 42 HDPCs graduated from a total of 62, 60 and 63 HDPCs registered in Haramaya, Jigjiga and Dire Dawa Universities, respectively. This indicates the dropout rates of HDPCs in the aforementioned Universities were 29.03%, 23.3% and 33.3%, respectively. In connection to this, Ashenafi (2017) and MoE (2008) indicated that high rate of drop out is one of the most challenges in the implementation of HDP.

As already shown in table 3 above, the mean scores for HDPCs for item number 3, 5 and 7 were between 2.5 and 3.49. This indicated lack of moderate incentive for HDP leaders, coordinators and tutors, lack of interest by trainees and lack of refreshments (like tea and coffee) at the time of training were highly and negatively affecting the practice of HDP in satellite clusters of HU. In relation to this, Adula (2008) discussed that large class size, lack of learning

materials and absence of well-organized follow-up or support that enforced or reinforced instructors to use the training skills are factors negatively affecting the practices of HDP.
Similar reflections were made during the interviews. For instance, one of the interviewed HDLs contended:

> *University higher officials do not give attention to HDP. The reason for this, as to me, is that some of the top managers do not recognize the benefit of pedagogical skill as their background is from agriculture, technology or health. Therefore, it is good if there is an alternative structure from the college of education to handle the issue of instructors' professional development including HDP among top managers of higher institutions [HDL5, Nov 2018]*

The other interviewee from Dire Dawa University (DDU) also complained that HDP coordinators and leaders were not formally assigned in DDU. As a result, they did not have the right to ask for further benefits, and consequently, they served the University for free.

From the preceding discussions, it is possible to say that the attention and follow-up given by the leaders of higher institutions to HDP appeared to be highly affecting the practice of HDP.

Concerning the benefits of HDLs and coordinators, one of the participants supporting the above finding asserted that "coordinators and leaders of all teacher education colleges in cluster satellites of HU do not have any incentive for working as HDP leader or coordinator. We all are working for free". Similarly, the majority of college vice-deans (2 out of 3) informed that lack of benefits was an issue they had been confronting with for the last five years. The reason is that there was no any guideline that shows additional incentive packages for HDP leaders, coordinators and tutors.

In connection to the incentive packages, surveyed respondents suggested that commensurate payment to be effected as indicated in table 4 below.

Table 4
Incentives to be Paid for HDP Leaders, Coordinators and Tutors

Responsible body	Workload ranges	Incentive to be paid per month
HDLs	3-18 hours	2500-3200 birr
HDTs	6-12 hours	1200-1500 birr
HDCs	6-15 hours	500 birr per group and medal of excellence

By and large, from the above discussions, it can be understood that there was less follow-up given to the HDP by the top management of the respective HLIs. What's more, there was no any incentive for HDP leaders as a result of the absence of a guideline that provides HDP leaders or coordinators with incentives at teacher education colleges. This is due to the inability of regional governments who fund their respective teacher education colleges to create incentive packages. In addition, lack of interest on the trainees side was prevalent due to the fact that less follow-up and encouragement was offered from the government. However, an MoE (2011)

document emphasizes that the responsibility of the deans of colleges of teacher education and the appropriate University manager (VPAA) is assigning Higher Diploma Leaders (HDLs) and coordinators who can effectively run the HDP to determine and implement the workload and provide the necessary incentives to the HDLs, HDTs and HDP candidates. The MoE's document, which is nationally prepared for Universities which offer HDP, has also noticeably created the incentive-package ranges indicated in table 4 above (MoE, 2007).

In addition to the issues discussed under table 4, the majority of HDLs and HDCs at the time of interview reported that the delay of GEQIP budget, problems related with HDP manual such as using the same HDP handbook for all HDPCs coming from different colleges, less follow-up by MoE, exit of experienced leaders, absence of appropriate measures on those HDPCs who request withdrawal without satisfactory reasons, absence of transcript on HDP certificate that clearly would have indicated the HDP handbook covered in HDP session, and so on were some of the factors that have constrained the practices of HDP in cluster satellites of HU.

3.3. The Institutions' Implementation of the major Components of HDP

Before proceeding to the ANOVA test, Kolmogorov-Smirnov and Shapiro-Wilks' tests were conducted to check the normality of the data collected from the institutions. Both tests showed that the sample data were not significantly different as indicated in table 5 below.

Table 5
Summary of Test of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Institutions	.177	80	.200*	.875	80	.034

*a. Lilliefors significance correction; * Lower bound of the true significance.*

Thus, based on the summary depicted on table 5, the researchers accepted the null hypothesis which states that the sample data were generated from the normally distributed population. Following this, the researchers performed ANOVA test to see whether or not significant difference exists among the five institutions in practicing HDP activities. Tables 6 & 7 below (intentionally put separately albeit related) show the summary of mean and ANOVA test resepectively.

Table 6
Summary of Descriptive Statistics on Practicing HDP Activities

Descriptive Statistics			
Institutions	N	Mean	Std. Deviation
Dr Abdulmejid CTE	6	44.0	3.2
Chiro CTE	6	44.7	4.3
Haramaya University	24	35.8	7.7
Dire Dawa University	21	40.6	4.8
Jigjiga University	23	36.4	3.7
Total	80	38.5	6.2

Table 7
Summary of ANOVA Test on Practicing HDP Activities among Institutions

ANOVA Test					
Groups	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	772.700	4	193.175	6.4	0.001
Within groups	2265.288	75	30.204		
Total	3037.987	79			

As indicated in table 7 above, there was a statistical significant mean difference among the five institutions in practicing the sub-components of HDP, $F(4, 75) = 6.4$, $p<0.05$. Additionally, the descriptive part of table 6 has indicated that the practice of HDP activities was relatively higher in Chiro CTE and Dr, Abdulmejid CTE with the mean score of =44.7 and 44.0, respectively. However, the practice of HDP seemed lower in Haramaya University with mean score of 35.8.

Although there were statistically significant differences among the five institutions in practicing the sub-components of HDP, it was not clear as to which of the specific institutions differed from one another. Therefore, Tukey post hoc test was preferred as it could figure out which groups in the sample differ rather than display false discover when one or more of the tests will have a significant result purely by chance alone like Benjamin-Hochberg test or compare every mean to a control mean like Dunnett's correction (George Washington University, 2015). Multiple comparisons table which indicates the detailed information of each institution was carried out in line with the items in which statistically significant mean difference was observed.

3.3.1. Doing action research projects

Table 8

Condition of Conducting Action Research among Institutions (Post hoc test results)

Multiple Comparisons on conducting Action Research						
Ietm3: Tukey HSD						
(I) Institutions	(J) Institution	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Dr Abdulmejid CTE	Chiro CTE	.16667	.65644	.999	-1.6683	2.0016
	Haramaya University	1.75000*	.51896	.010	.2994	3.2006
	Dire Dawa University	.16667	.52633	.998	-1.3045	1.6379
	Jigjiga University	.54348	.52122	.835	-.9134	2.0004
Chiro CTE	Dr Abdulmejid CTE	-.16667	.65644	.999	-2.0016	1.6683
	Haramaya University	1.58333*	.51896	.025	.1327	3.0340
	Dire Dawa University	.00000	.52633	1.000	-1.4712	1.4712
	Jigjiga University	.37681	.52122	.951	-1.0801	1.8337
Haramaya University	Dr Abdulmejid CTE	-1.75000*	.51896	.010	-3.2006	-.2994
	Chiro CTE	-1.58333*	.51896	.025	-3.0340	-.1327
	Dire Dawa University	-1.58333*	.33974	.000	-2.5330	-.6337
	Jigjiga University	-1.20652*	.33177	.004	-2.1339	-.2791
Dire Dawa University	Dr Abdulmejid CTE	-.16667	.52633	.998	-1.6379	1.3045
	Chiro CTE	.00000	.52633	1.000	-1.4712	1.4712
	Haramaya University	1.58333*	.33974	.000	.6337	2.5330
	Jigjiga University	.37681	.34317	.807	-.5824	1.3361
Jigjiga University	Dr Abdulmejid CTE	-.54348	.52122	.835	-2.0004	.9134
	Chiro CTE	-.37681	.52122	.951	-1.8337	1.0801
	Haramaya University	1.20652*	.33177	.004	.2791	2.1339
	Dire Dawa University	-.37681	.34317	.807	-1.3361	.5824

**Significant at 0.05 level.*

As table 8 indicates, all institutions had a statistically significant mean difference in facilitating their HDPCs to do action research when compared with Haramaya University. This indicates Haramaya University has less performance in carrying out action research when compared with other clusters. The reason for this difference was that the university has been currently running two programs, namely, PGDHET for non-teacher educators like HDPCs from the colleges of agriculture, health, computing and informatics, business and economics, veterinary medicine, and institute of technology and, at the same time, HDP for candidates from colleges engaged in educating student teachers, such as colleges of education, social and natural sciences. Hence, action research project was actually conducted only by the HDP candidates. In other words, those who have joined the PGDHET program were not required to conduct action research for the fulfilment of the award of HDP in teaching. But all candidates of HDP in all clusters except Haramaya University have been allowed to carry out action research project to solve problems that they face in their daily teaching and learning process.

3.3.2. School placement

Table 9

School Placement among Institutions

Multiple Comparisons on Conducting School Placement			
Item 4: Tukey HSD		Mean Difference	
(I) institution	(J) institution	(I-J)	Sig.
Dr Abdulmejid CTE	Chiro CTE	-.16667	.977
	Haramaya University	1.87500*	.016
Chiro CTE	Dr Abdulmejid CTE	.16667	.977
	Haramaya University	2.04167*	.008
Haramaya University	Dr Abdulmejid CTE	-1.87500*	.016
	Chiro CTE	-2.04167*	.008

** Significant at 0.05 level.*

Table 9 indicates the p-value that matched Haramaya University with the two CTEs was less than 0.05. This indicates that there was a statistically significant mean difference between Haramaya University and the two teacher education colleges in allowing their HDPCs to attend school placement. What negatively relates Haramaya University with the two colleges (see in the column of mean difference in table 9) was that the mean score of the later was greater than that of the former. Hence, Haramaya University was performing less in practicing school placement when compared with the two CTEs. Investigations made to find out the reason for the occurrence of such significant differences revealed that the University had no any school placement program for HDPCs that have joined PGDHET program though the HDP guideline urges HDPCs to have school placement report as a criterion to complete the program and obtain the HDP certificate. In practicing school placement, both Jigjiga University and Dire Dawa University were not included in the comparison because they did not have teacher educators in 2015/16 academic year and their HDPCs were allowed to conduct organizational placement instead of school placement. Quite contrary to what was practiced in the Haramaya University, the HDP handbook (MoE, 2011) clearly states that school placement is indented to help HDPCs to experience the situation in schools and the challenges facing teacher educators.

3.3.3. Organizational placement of HDP candidates

Table 10
Organizational Placement among Institutions

Multiple Comparisons in Undertaking Organizational Placement			
Item 5 Tukey HSD		Mean Difference (I-J)	Sig.
(I) institution	(J) institution		
Haramaya University	Dire Dawa University	-1.77976*	.001
	Jigjiga University	-.93297	.099
Dire Dawa	Haramaya University	1.77976*	.001
University	Jigjiga University	.84679	.165
Jigjiga University	Haramaya University	.93297	.099
	Dire Dawa University	-.84679	.165

**Significant at 0.05 level.*

Table 10 indicates that there was a significant difference in practicing organizational placement between Haramaya and Dire Dawa Universities. But the practice of organizational placement was statistically insignificant between Haramaya and Jigjiga Universities and between Jigjiga and Dire Dawa Universities. The main reason for the occurrence of the significant difference between Haramaya and Dire Dawa University was that PGDHET candidates in Haramaya University were not allowed to participate in organizational placement. This indicates that Haramaya University was in a wrong direction in terms of practicing organizational placement.

Although the difference between Jigjiga University and Dire Dawa University was insignificant on how they practice organizational placement, it was observed during field trips that there were observable differences in the actual practices of organizational placement. For instance, in Jigjiga University, the candidates have conducted observations only in their college or department in the University instead of conducting organizational placement outside of their own. But, in Dire Dawa University, candidates were able to visit different organizations like hospitals, factories, banks, and agricultural offices, all of which pertains to their fields of study.

3.3.4. Conducting continuous assessment

Table 11
Conducting Continuous Assessment (post-hoc summary & institutional comparison)

Multiple Comparisons on Carrying out Continuous Assessment			
Item 8 Tukey HSD			
(I) institution	(J) institution	Mean Difference (I-J)	Sig.
Dr Abdulmejid CTE	Chiro CTE	-.33333	.970
	Haramaya University	1.58333*	.003
	Dire Dawa University	1.73810*	.001
	Jigjiga University	2.06522*	.000
Chiro CTE	Dr Abdulmejid CTE	.33333	.970
	Haramaya University	1.91667*	.000
	Dire Dawa University	2.07143*	.000
	Jigjiga University	2.39855*	.000
Haramaya University	Dr Abdulmejid CTE	-1.58333*	.003
	Chiro CTE	-1.91667*	.000
	Dire Dawa University	.15476	.980
	Jigjiga University	.48188	.385
Dire Dawa University	Dr Abdulmejid CTE	-1.73810*	.001
	Chiro CTE	-2.07143*	.000
	Haramaya University	-.15476	.980
	Jigjiga University	.32712	.765
Jigjiga University	Dr Abdulmejid CTE	-2.06522*	.000
	Chiro CTE	-2.39855*	.000
	Haramaya University	-.48188	.385
	Dire Dawa University	-.32712	.765

** Significant at 0.05 level.*

As one can see from table 11, there was a statistically significant mean difference in undertaking continuous assessment of HDPCs between Dr. Abdulmejid CTE and the three Universities, namely Haramaya, Dire Dawa and Jigjiga (p=0.003, 0.001 and 0.000), respectively. There was also a statistically significant mean difference in undertaking continuous assessment between Chiro CTE and the three Universities (p = 0.000 for all Universities). Conversely, there were no statistically significant differences between Dr Abdulmejid CTE and Chiro CTE (*p* = 0.97). The reason for the existence of significant differences between the three Universities and the two CTEs was the presence of large number of HDPCs in these Universities when compared with teacher education colleges. This means, Universities had relatively a larger number of HDPCs which posed difficulty for HDLs and HDCs to carry out continuous assessment unlike the teacher education colleges. However, the HDP handbook clearly indicates that HDLs and

HDCs should carry out continuous assessment regularly and are required to give constructive written feedback after the HDPCs completed their works.

Key Findings

The major findings of the study have shown that the extent of the execution of HDP activities compared to the activities depicted in the HDP handbook is low. This low implementation was mainly due to lack of motivation by and high workload on HDP candidates, less weight given to HDP certificate, less attention by the concerned bodies and inadequate and/or late release of HDP budget. Significant mean differences were noticed among the institutions with respect to the implementation of identified key activities of HDP.

4. CONCLUSION AND RECOMMENDATIONS

4.1. Conclusions

This study was designed to assess the level of the implementation of HDP and the restraints that militate its effective execution at cluster satellites of Haramaya University. To address the problem, three research questions related to the contemporary practice of HDP, the key factors that constrain the effective implementation of HDP and testing of the level of significance of differences among institutions with respect to the execution of HDP activities were formulated.

This study is different from other similar studies in that it attempted to address the existing practices of HDP implementation and its limiting factors in HLIs in the eastern part of Ethiopia where no such a comprehensive research endeavors were carried out. Methodologically, unlike other similar studies, this study employed multiple tools of data collection and analysis aligned with mixed methods approach which was lead by a descriptive survey design. Lastly, it was broad in its scope and detail in its depth. One of the noticeable limitations of this study is that its findings can't be generalized to all HLIs in Ethiopia though the context seems to be similar everywhere.

The major findings of the study revealed that the extent of the implementation of HDP activities vis-a-vis the identified key activities in the HDP handbook was low. The major limiting factors to the effective implementation of HDP activities were: lack of motivation by and high workload on HDP candidates, less value for HDP certificate, less attention and unsatisfactory follow-up by the concerned bodies (like deans and top management) to HDP, and inadequate and/or late release of HDP budget. Statistically significant mean differences were observed among the institutions with respect to the effective implementation of the identified key activities of HDP.

The findings were congruent with other findings of other authors such as by Zelalem (2017), Demewoz (2016), Adula (2008), and Bekalu (2009). All indicated that HDP was not properly implemented as per the HDP guideline. They also highlighted that the HDP handbook

was not to the standard or not crafted in line with the disciplinary backgrounds of the trainees. Yet, none of them contented that the program was unimportant.

4.2. Recommendations

The relevance and implication of the present study to practitioners, researchers and policy makers is that though HDP is crucial for the professionalization of teachers, it seems that it has not been implemented as seriously as was expected. The implication is that the problems related to the pedagogical competencies of the teacher educators will remain unsolved although its severity has been emphasized in ESDP V (MoE, 2015). Thus, revision of the training manual, regular follow-ups, incentivization of the HDLs, HDCs and HDPCs are the top priority areas that need due attention.

Generally, HDP is invaluable in arming teacher educators with the required pedagogical skills and knowledge. However, according to this study, there have been a number of factors that impede its effective implementation. The key problems identified were lack of motivation by HDCs, HDLs, and HDTs and their inability to facilitate HDPCs training as per the guideline, the inappropriateness of the HDP handbook, lack of follow-up by the concerned bodies like college deans, HDCs, HDLs, and HDTs. Moreover, less importance or credit was given to the HDP certificate because there was no any incentive given to the candidates after the completion of the training. That is, the certificate has made no increment in salary or in status promotion. Besides, HDPCs had a high workload burden, for instance. To make HDP more effective, the above mentioned challenges should be mitigated.

Thus, it is suggested that the HDP handbook has to be rather contextualized in such a way that HDPCs from different backgrounds (disciplines) will make use of it.

Separate HDP handbook for teacher educators (who will join HDP) and non-teacher educators (who will join PGDHET) should be prepared. It is also suggested that the HDP handbook should be designed in line with the modular approach of course delivery.

For better performance in HDP training and somooth running of the classroom teaching-learning process, workload of the HDPCs should be set to optimum level.

Moreover, the HDCs, HDLs and HDTs should be motivated by designing commensurate incentive packages. The deans and top management bodies of the HLIs should discuss with MoSHE and pay appropriate compensations. Furthermore, the prevalent variation in the rate of incentive packages among the HDP-running institutions seems unjust. Thus, similar jobs or positions should be incentivized similarly.

Besides, HDP certification should be linked to career development and incentives so that HDPCs will be encouraged to attend the training. In this regard, academic deans or vice presidents in consultation with the MoSHE can suggest solutions for this issue.

Finally, adequate and timely allocation and release of HDP budget is crucial to the execution of HDP activities as per the schedule. Failure to do so may lead to an adverse or malfunctioning of the HDP for it becomes an additional bottleneck to the practices of HDP. It is

also advised that HDP is subsidized from the internal revenues which in the future may serve as an exit strategy when external funds cease.

REFERENCES

Abdella Yuya, White, W, Yonas Amdemeskel, Henok Sahilu (2010). Haramaya University's PGDHET Handbook. Unpublished training Material, Haramaya, Ethiopia.

Addis Tsegaye (2008). Higher Diploma Program for Teacher Educators at Gonder College of Teachers' Education. MA Thesis. Taken from etd.aau.edu.et/handle/123456789/9442

Adula Bekele (2008). Application of higher diploma program training skills in classroom instruction: the case of education faculty, Jimma University (Ethiopia). *Ethiopian Journal of Education and Science, 4(1).* Retrieved October, 2016 from www.ajol.info/index.php/ejesc/article/viewFile/42992/26549

Ashenafi Tesfaye (2017). Exploring the implementation and opportunities of HDP for classroom instruction. *International Journal of Social Science and Educational Studies, 4(1): 49-59.*

Bartlett, J. E, Kotrlik, J. W and Higgins, C. C (2001). Organizational research: Determining appropriate sample size in survey research. *Journal of Information Technology, Learning and Performance, 19(1).*

Bekalu Atnafu (2009). Teachers' Professional Development in Ethiopia through Higher Diploma Programme (HDP).*IER Flambeau Vol. 16 No*.2.

Bhowmik, M., Banerjee, B., Banerjee, J (2013). Role of Pedagogy in Effective Teaching *Basic Research Journal of Education Research and Review ISSN 2315-6872 Vol. 2(1)*

Bruner, J. (1966). *Toward a Theory of Instruction.* Cambridge, MA: Harvard University Press.

Demewoz Admasu (2016). Effectiveness of higher diploma program for early career academics in Ethiopia. *Studies in Higher Education ,Volume 41, 2016 - Issue 10.*

Gardner, M. ,Darling-Hammond, L., and Hyler, M. E (2017). *Effective Teacher Professional Development.* Palo Alto, CA: Learning Policy Institute.

George Washington University (2015). Post-Hoc Definition and Types of Post Hoc Tests. Available at www.statisticshowto.com/post-hoc/

Johnson, D.W., and Smith, K.A., (1998). Cooperative Learning Returns to College. *Change 30 (4), 25-35.*

Jula and Shimelis (2018). Determining the impact of Higher Diploma Program on the education Quality: The case of Ethiopian institute of Textile and Fashion Technology(EiTEX).

International Journal of mathematics and its Application. Vol. 7(1), pp. 93-106. ISSN: 2347-1557. Available Online: http://ijmaa.in/

Kagan,S. (1995). CooperativeLearning. SanJuan Capistrano, Calif: Resources forTeachers.

Mengistu Debele (2017). The role of HDP in enhancing internal quality of higher institution. *East African Journal of Social Science and Humanities*, 2(1).

MoE (1994). Education and Training Policy. Federal Democratic Republic government of Ethiopia. St. George printing press. pp, 17-28.

____ (2007). Guideline for University to implement the higher diploma program for teacher educators. Addis Ababa, Ethiopia.

_____(2008). A National Workshop on HDP moderation. June 2008, Adama, Ethiopia.

____ (2010). Education sector development program IV (ESDP-IV). Federal democratic republic of Ethiopia. Addis Ababa.

____ (2011). Higher Diploma Program for Teacher Educators. Addis Ababa, Ethiopia.

____ (2015). Higher Diploma Programme Guidelines for the Delivery and Moderation of the program.

____ (2015). Education Sector Development Programme V (ESDP V). August 2015,Addis Ababa, Ethiopia.

OECD (2009). Creating Effective Teaching and Learning Environments: First Results from TALIS Retrieved from: www.oecd.org/edu/school/43023606.pdf

Platt, W.J. (1970).Research for Educational Planning: Notes on Emergent Needs. Paris: George Thorne

Stuart, R, Rakesh, K,, and Aklilu Hailemichael (n.d). Attitude and Implementation Barriers: HDP teacher education program in Aksum University.

Villegas-Reimers, E. (2003). *Teacher Professional Development*: *an international review of the literature*. Paris: UNESCO, International institute of planning.

Wisdom, J. and Creswell, J. (2013). Integrating Quantitative and Qualitative Data Collection and Analysis While Studying Patient-Centered Medical Home Models. AHRQ publication no. 13-0028-EF.

Zelalem Zekarias (2017). Teachers' Perception of Higher Diploma Program as Opportunity for Promoting Professional Development in Arba Minch University (Ethiopia): A Qualitative Inquiry. *Imperial Journal of Interdisciplinary Research (IJIR) Vol-3, Issue-6.*

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