Teachers' Differences on the Utilization of Instructional Materials as the Function of their Years of Teaching Experiences, Level of Academic Qualifications and School Contexts in Bahir Dar Town Schools

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Abstract: The study was conducted on 176 (111 males and 65 females) teachers in Bahir Dar town schools. The major purposes were to assess the impact of teaching experience and academic qualification of teachers, and school context on the utilization of instructional materials, and to identify the major obstacles in the utilization of instructional materials. Questionnaire, observation and interview were used as data collection instrument of the study. Percentage, ANOVA and post Hoc mean comparison were used to analyze the collected data. ANOVA results indicated that less qualified and less experienced teachers tend to utilize instructional materials more than the teachers with a higher qualification and a longer teaching experience. Moreover, except TTI qualified teachers, all NGO-school teachers utilized instructional materials more than the teachers in government schools. Lack of training, time constraints, large class size, administrative problems and lack of instructional materials were reported as the main obstacles to utilize instructional materials. Certain recommendations were made for educational officers including the directors, teachers and teacher training institutions.

Background to the Problem

Instructional materials, with a limited help from the teacher, have lots of contributions for the development of students' active learning by facilitating practical, independent and interactive learning. For instance, in distance education, programmed learning and computer assisted instruction, which are highly autonomous and media based learning, students can learn and be engaged in the learning tasks with a minimum help from the teacher (Teheranian et. al., 1997; Reddy, 1996).

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The utilization of instructional materials, moreover, can bring an effective relationship between the real world and the symbolic world (Clark, 1983; Walklin, 1982). That is, they have a power to bring the outside world/ into the classroom/ and the classroom into the outside world. Generally, Dale (1996) attempted to summarize the basic pedagogical advantages of instructional materials as follows: (1) concretize abstract experiences; (2) relate theory with practice; (3) make learning more functional by increasing relation; (4) enhance effective student skill development; (5) facilitate active learning; (6) encourage creative thinking and responsibility; (7) create the access to the invisible realities; and (8) teach and entertain and (9) overcome the limitation of time and space.

On the other hand, educators such as Romiszowski (1974) and Hopper (1971) assumed that the purpose of instructional materials was to supplement teachers' activities. That is why it was referred to as teaching/instructional aid (Hopper, 1971). More recently, however, educators have recognized that instructional materials have a power to make the learner active, creative, responsive and independent. In support of this, Amare (1996, p. 96) stated, "In light of the present observed roles played by the teaching materials, it is at least to be outdated to call it teaching aids. This name might have probably been appropriate only in the oral culture when the dominant mode of technical communication was oral and when oratorship and memory were the requirement of education."

The principal requirements of today's education are practice oriented, day-to-day use of classroom knowledge and maximization of independent learning (Arrends, 1994; Hall, 1995). Therefore, educators like Helnich et al. (1996), Wakshum (2001) and Collins (1996) have strongly advocated the utilization of instructional materials in the classroom for the successful achievement of instructional objectives and the development of learners' mental thought. Hence, in the modern paradigm of teaching, the utilization of instructional materials seems to be necessary due to the following reasons.

- There has been a rapid increase in the sources of information. This invites students to learn from different media rather than limiting themselves to the teachers and classroom textbooks only (Silberman, 1996; Reddy, 1996).
- The variety, quantity and quality of the instructional materials (media) have increased from time to time. That is, the number of fast and accurate instructional technologies such as internet, email and videoconference are created and applied in the education world (Cooper, 1996; Helnich et al, 1996).

This implies that the introduction of fast and accurate instructional technologies has initiated good opportunity and access to utilize instructional materials efficiently and effectively (Amera, 2003; Sereiber, 1998).

In addition, due to the paradigm shift of the teaching learning process, the utilization of instructional materials has become critically important. Supporting this, Amare (2000), Silberman (1996) and Collins (1996) noted that currently, there is a move from a teacher to student-centered approach instruction. Amare (2000, p.12) further contended that "... the present era is characterized by what is called the student-centered model of education, an andragogic technique." Another educator, Dehalstrom (1999) also indicated that there is a positive relationship between students' direct engagement in academically relevant tasks and learning outcomes (knowledge, skills and attitude).

The introduction of student- centered approach, from past to present, has got a significant attention. This might be due to the shifting of communication patterns from source-centered to audience-centered approach (Sereiber, 1998; Willson, 1995). According to Helnich et al (1996), audience-centered communications have been found to be more effective than source-centered or message- centered communications. They, further, explained that the audience (learner in the case of education) has been discovered as having more "power" to select and retain or reject the message during communication (learning). Therefore, interactive/active learning, which requires a maximum utilization of instructional materials (Hall, 1995; Ambaye, 1999; Amera, 2003), is highly

initiated by different educators. Friere (1972), Knowles (1980), Duke (1990) and Collins (1996) argue that the process of instruction should be multi-directional (student to teacher, student to student, teacher to student, student to instructional materials and teacher to instructional materials) rather than unidirectional, i.e., from the teacher to the student.

Maximize learning and performance in student-centered approach, requires effective utilization of instructional materials. Teaching, according to Arrends (1994), Silberman (1996) and Dehalstrom (1999), is conceptualized as a creation of a situation which promotes learners' active involvement in searching for and collecting information (knowledge) from variety of sources/instructional materials. Teaching is no longer considered as a situation which encourages the transfer of information from the teacher (a single source) to the students. In general, the direct engagement of students in their learning tasks is facilitated through the use of appropriate and various instructional materials utilization. With this, the investigator believes that successful teaching-learning process needs well-planned and arranged interactions and exchanges of ideas among the elements (curriculum, teacher, student and instructional technology) in the classroom.

According to Teheranian et al. (1997), a proper utilization of teaching materials has the potential to produce the best learning. This is because instructional materials have the qualities which predominantly influence the sense of sight. They further noted that teaching materials promote students' attention and interest, which may not be attained through the common "chalk and talk" type of teaching. Wakshum (2001, p. 27) also concluded, "The student-centered instruction is largely supported by the application of information technology/instruction materials/, which is supposed to be one of its main components."

Other writers, Collins (1996) and Willson (1995) reported that interactive learning environment is characterized by realistic situations, stimulations, animation, voice, video, diverse knowledge sources and multiple

representations, which could be obtained from the utilization of various instructional materials. Teshome (2004) also found that students who are exposed to interactive radio instruction learned more when compared to students who were not exposed to interactive radio instruction. Therefore, it is possible to say that instructional materials utilization and student-centered instructional approach implementation facilitate, learning and increase retention.

Currently an attempt is being in Ethiopia to introduce and practice the student-centered instructional approach (Ambaye, 1999; Yalew, 2004). The implementation of this approach is unthinkable without the optimum use of instructional materials (Helnich, et. al., 1996; Serieber, 1998). Moreover, the importance of instructional materials has been acknowledged in the education and training policy of the nation. The policy clearly spells out that “in order to promote the quality, relevance and expansion of education, due attention will be given to the supply, distribution and utilization of educational technology (instructional materials) and facilities” (Transitional Government of Ethiopia, 1994, p. 27).

However, the preparation, provision and utilization of instructional materials in Ethiopia is very weak (Fantu, 1992; Tsega, 1983; Amare, 1996; Amera, 2003). Amare (1996) further explained that unlike the other quality aspects of education (expansion, equity, teachers' further training and the like), attention to the production and utilization of instructional materials seems weak. In most schools, students have been observed to learn in a passive way with a minimum application of Amount of Invested Mental Effort (AIME) (Amare, 1996).

Therefore, the gap between what the Ethiopian Education and Training Policy stated about problem solving capacity, independent learning, creativity and instructional material utilization and the actual practice of these policy statements at the classroom level initiated the researcher to conduct this study. That is, the policy gives attention to the improvement of students' self learning and problem solving power through the utilization of instructional materials, but

this not materialized yet by the schools. Another point, which initiated the problem under study, is that research practice in the area is limited (Tilahun, 1999; Amare, 2000).

Statement of the Problem

A wide range of factors can be considered as barriers to the effective utilization of instructional materials in schools. However, this study focused only on selected teacher-related and school context variables. The investigation limited itself to explore the differences in instructional materials utilization observed as the function of teachers' teaching experience and level of academic qualification. Moreover, the study examined how much school context variations make differences in teachers' instructional materials utilization behavior.

Years of Teaching Experience: Some educators argue that teaching experience has positive contributions to an effective teaching, in general, and the utilization of instructional materials, in particular. Experienced teachers realize the benefits derived from the effective use of instructional materials. They also seem to be ready to incorporate instructional materials more than novice teachers (Erikson, 1968, as cited in Getachew, 1999). Brophy and Good (1974), Dweck and Bemchat (1983) and Fisher et al. (1983), cited in Broussean et al. (1988), reported that experiences in teaching influence teacher decisions and actions in the classroom positively. Similarly Dawit (2000) indicated that teachers who have long often teaching experience high experienced teachers show more concern in their tasks including instructional material utilization behavior than those who have shorter teaching experience.

Others educators, including Thomas and Sharon (1987), Getachew (1999), Tilahun (1999) and Johanston (1994) found that as teaching experience and level of qualification increase, the tendency to utilize teaching material decreases. Tilahun (1999) further showed that less experienced and less qualified teachers demonstrated more favorable attitudes towards the utilization

of instructional materials than did more experienced and more qualified teachers.

Regarding the classification levels of years of teaching experiences, there appear to exist different approaches. Some writers, for example, classified level of experiences into less experienced (less than or equal to 5 years), moderately experienced (6-14 years) and high experienced (greater than or equal to 15 years) (Dawit, 2000). However, in the context of this study since teachers with less than or equal to 5 years of teaching experience were very few, the investigator was forced to classify teaching experience into two levels: less experienced (less than or equal to 10 years) and high experienced (greater than 10 years). In order to examine the role of teaching experiences in teachers' classroom practices, the present study's classification (less experienced, 1-10 years and high experienced, 11-and above years) had been utilized by the educators such as Johanston (1994) and Thomas and Sharon (1987).

Level of Qualification: There is a positive relationship between qualification and use of instructional materials (Brown and Keneth 1965; Guton and Farokhi, 1987). That is, well-trained (high qualified) teachers seem to have a good selection and utilization ability of media. To make teaching learning varied, efficient and effective, the qualification and capacity level of the teaching staff are prominent elements (Helnich et al, 1996). Other researchers like Haney and Eldon (1980), cited in Mehadi (2001), noted that teachers are expected to possess a wide range of skills, knowledge and attitude which usually develop through high qualification and enable teachers to select, modify, prepare and utilize instructional materials.

However, findings reported by Getachew (1999), Tilahun (1999), Guton and Farokhi (1987) and Clark (1983) concluded that teachers' level of qualification almost has a negative implication for the utilization of instructional materials. Getachew (1999) further found that high qualified and experienced teachers are more stressful and discouraged in their profession (teaching) than less qualified and experienced teachers. Getachew, further, argues that teachers

who had high qualities and experience did not try to maximize their teaching effectiveness through the application of different alternatives including instructional materials.

School Contexts: School related factors such as management, material availability and its arrangement in the school are crucially decisive in matter related to utilizing of instructional materials (Getachew, 1999, Guton and Farokhi, 1987). Guton and Farokhi (1987) also contended that there are differences in the utilization of instructional materials between public and NGO schools. Even though most NGO schools seem to have effective and efficient management they sometimes, face financial and material shortages to full fill the demands of instructional materials of the school (Thomas and Sharon 1987).

The other point, which the study focused on, is to identify the predominant obstacles, which hinder teachers' utilization of instructional materials. From the reviews made so far, it is possible to understand that there are controversies on the role of independent variables (i.e., teaching experience, level of qualification and school context) and dependent variable (i.e., teachers has of instructional materials). The study aimed at identifying whether teaching experience (less/high), level of qualification (TTI, diploma or degree) and school contexts (NGOs government) have a role to play in determining the extent of teachers use of instructional materials during lessons. Another essential focus of the study is determining the barriers that have hampered the teachers' use of instructional materials.

Accordingly, the study attempted to answer the following questions.

1. Are there differences in utilizing instructional materials as the functions of years of teaching experience and level of academic qualification of teachers?
2. Are there variations between NGO and government school teachers in utilizing instructional materials?
3. What might the dominant obstacles that hinder appropriate and sufficient utilization of instructional materials?

Operational Definitions

Instructional Materials: are any materials (factory products, teacher-made, student made and others), which contain information that and able to make the teaching learning process more concrete, practical, active and independent.

Less Experienced Teachers: are teachers with teaching experience of less than or equal to 10 years.

High Experienced Teachers: are teachers have above 10 years of teaching experience.

Level of Qualification: refers to the highest educational level attained by the teachers. This might be TTI (Teacher Training Institute) certificate, diploma or degree that is attained by the teacher.

Non-Governmental Organization (NGO) Schools: are those owned, financed and managed by individual investors, religious institutions or any other voluntary body from local or abroad.

Governmental Schools: are schools owned and managed by the government.

Methodology

This study has elements of quantitative and qualitative research method, but it tends to be move biased towards the quantitative approach.

Subjects and Research Setting

In Bahir Dar, there are 16 (11 primary and 5 secondary) government schools and 11(4 primary and secondary and 7 primary) non-government schools. Of these, two NGO (Bahir Dar Academy Primary and Secondary School and Bless G/Michael Catholic Primary and Secondary School) and two government (Fasilo Secondary School and Ewket Fana Primary School) schools were the research setting of this study. They were selected through purposive sampling by considering their:

- potential to accommodate a variety of teachers who have the selected background variables (TTI certified, diploma and degree graduate; high and low experienced; NGO and government school teachers) that are needed in the study;
- balanced experiencd in availability and utilization of instructional materials; and
- Access and comfort to the researcher.

All 320 teachers (212 males and 108 females) who teach in the four schools mentioned above were considered as the population of the study. Of this population, 182 teachers (112 males and 70 females) were selected as subject of the study through stratified random sampling. This technique was preferred because it helps to get a reasonable number of participants from each segment of the variables: TTI certified diploma and degree graduates; high and low experience; NGO and government school teachers.

Table 1: Distribution of Participants in the Study

Level of Qualification and Experience	NGO Schools	Governmental Schools	Total
TTI	28	40	68
Diploma	22	33	55
Degree	24	35	59
Total	**74**	**108**	**182**
Less experienced	50	31	81
High experienced	24	77	101
Total	**74**	**108**	**182**

Directors, administrators, pedagogical center heads and selected teachers, who had an access to better information about the availability, production and purchasing of instructional materials and teachers' over all context towards

instructional materials, were identified as participants in the interview. Through available sampling technique (for directors, administrators and Pedagogical center heads) and purposive sampling for teachers, 20 (16 males and 4 females) respondents were selected and used the interview respondents.

Table 2: Distribution of Interview Respondents

	NGO School	Government School	Total	Qualification Level	Experience Level
Directors	2	2	4	All are Degree holders	High
Administrators	2	2	4	All are Diploma holders	High
Pedagogical center heads	2	2	4	3 Diploma and 1 TTI holders	High
Teachers	4	4	8	3 TTI, 3 Diploma; 2 Degree holders	4 High and 4 less
Total	**10**	**10**	**20**		

Instruments and Procedures

The data collection instruments used in this study were questionnaire, interview and observation.

Questionnaire: was used to collect information about the utilization of instructional materials, and personal data (sex, experience and qualification) of teachers. The researcher, based on the available related literature (Tilahun, 1999; Clark, 1983; Mehadi, 2001; Collins, 1996), constructed the questionnaire items. Ready-made or tried-out instruments relevant to the variable under consideration were not available. The questionnaire had 18 items. A 5 point scale ranging from strongly disagree (0) to strongly agree (4) was used for the 17 items and 1 item was an sort of open-ended question. Three graduates (one in curriculum and instruction, two in educational psychology) judged the face validity of the items in the questionnaire. By incorporating the face validity feedbacks, three items were rejected due to their inappropriateness to the

purpose of the study. The reliability coefficient of the questionnaire was calculated by using Cronbach alpha. The obtained reliability index was 0.82.

Finally, the number of items was reduced to 15. Out of these 15 items14 were a five point scale items which ranged from strongly disagree (0) to strongly agree (4). To avoid language barriers, language experts translated the questionnaire in to Amharic language. In order to minimize problems that may emanate from lack of clarity of items and/or other problems, the researcher himself administered the questionnaire. The questionnaire has distributed to 182 (113 males and 69 females) teachers during the first semester of 2006 Academic year. Six people did not return the questionnaire. This made the final sample size 176 (111 males and 65 females). The rate of return of the questionnaire was about 96.70 percent. This is regarded as high for a survey study of this kind.

To classroom observations and interview were also used for data collection, in additions to the questionnaire.

***Interview*:** Directors, teachers, administrators and pedagogical center heads were interviewed. In order to maintain the confidentiality and ethical issues of the interviewees codes were used to report and/or interpret responses. The 10 government school respondents were coded as GSR1, GSR2 ... GSR10 and the remaining respondents from non government school were coded as NGSR1, NGSR2 ... NGSR10.

The researcher and two other professionals (one had an MA in curriculum and instruction and the other had a BEd in pedagogical science), were involved as interviewers. Four interview guideline questions were used in the study. During the interview detailed discussions, explanations, etc, related to the problem under investigation were made by the interviewers as well as by the interviewees.

***Observation*:** The size of the classes, classroom situations and pedagogical center arrangements were observed. Nine primary school classrooms (3 from each sample primary school) and six secondary school classrooms (2 from each sample secondary school) were observed. Observation checklist which had six items was used during classroom observation.

Method of Data Analysis

The data were analyzed using percentages, ANOVA, and Post Hoc mean comparison. *Percentage* was used to analyze the data collected through items whose responses were related to specific variables. *ANOVA (Analysis of Variance) was* used to analyze mean differences in teachers' utilization of instructional materials as a result of variations in teachers' qualification, teaching experience and the school context. Both mean and interaction effects among the variables were determined. Since the obtained mean effects (mean differences) were significant, Post Hoc mean comparisons were employed to identify a mean or means that significantly diverge from the rest. The level of significance was set at 0.05. The data generated through interview and observation were analyzed through word description and narration.

Results and Discussion

Results

The main purpose of the study was to examine teachers' behavior on the utilization of instructional materials as the functions of their level of qualification, level of experience and school context. The study also was designed to identify to the main problems that hinder teachers' utilization of instructional materials. To this end, the results obtained were presented, analyzed and interpreted in this section. An examination of the mean scores presented in Table 3 differences in the mean scores of the instructional materials utilization behavior among TTI certificate (37.81), diploma (34.81) and degree (32.36) graduate teachers. The table also showed that there is a difference between the mean scores of less experienced (38.13) and high experienced (33.38) teachers.

Mean differences are also observed between the mean score of NGO school teachers (33.38) and Government (34.21) school teachers (Table 3).

Table 3: Mean Scores and Standard Deviations of Teachers' Instructional Materials Utilization across the Selected Independent Variables

Variables		Number	Mean	Standard Deviation
School Type	NGO	72	36.84	6.34
	Government	104	34.21	4.50
Experience Level of Teachers	Low	78	38.13	5.36
	High	98	33.38	3.48
Qualification Level of Teachers	TTI	66	37.81	3.62
	Diploma	53	34.81	4.21
	Degree	57	32.36	4.78

Since Table 3 does not show whether the mean score differences are significant, ANOVA test was employed. The results were presented in Table 4. Table 4 indicates that school type, years of teaching experience and academic qualification have a statistically significant difference in the teachers' utilization behavior of instructional materials. NGO School teachers tend to have a higher level of instructional materials utilization behavior than the government school teachers ($F=254.28$, $DF=1, 165$; $P<0.05$). Table 4 also shows that less experienced teachers seem to have a higher tendency to utilize instructional materials than high experienced teachers ($F=186.22$, $DF=1, 165$; $P<0.05$). Furthermore, the same table reveals that there is a statistically significant difference in the utilization behavior of instructional materials among the three qualification levels (TTI certificate, diploma and degree) of teachers ($F=147.29$, $DF=2, 165$; $p<0.05$). Among the three qualification levels (TTI, diploma and degree), it is difficult to determine the mean of which qualification level is first significant to others and the mean of which is second significant through the ANOVA statistics.

Table 4: A Summary of ANOVA for Teachers' Instructional Materials Utilization as a Function of Teachers' Qualification Level, Experience Level, and School Type

Sources of Variation	Sum of Squares	df	Mean Square	F	P values
School Type	2507.67	1	2507.67	254.28	0.00
Experience	1836.44	1	1836.44	186.22	0.00
Qualification	2905.21	2	1452.60	147.29	0.00
School Type* Experience	21.10	1	21.10	2.14	0.15
School Type* Qualification	79.45	2	39.72	4.03	0.02
Experience*Qualification	39.78	2	19.89	2.02	0.14
School Type*Experience* Qualification	11.68	1	11.68	1.19	0.28
Error	1627.22	165	9.86		
Total	**9028.55**	**175**			

As a result, Post Hoc mean comparison is utilized and Q-values are calculated. As indicated in Table 5, Q-calculated values (6.35, 14.12, and 7.08) are greater than Q-critical value (3.31) at r= 3, DF=173 and P<0.5. This implies that when qualification of teachers increases from TTI to a degree level their tendency to utilize instructional materials decreases. In other words, TTI graduates tend to utilize instructional materials more than diploma and degree level teachers and diploma level teachers seem to use instructional materials more than degree level teachers.

Table 5: Post Hoc Mean Comparison Values for the Qualification Level of Teachers

Group	Denominator	Q-calculated
TTI Versus Diploma	0.62	6.35*
TTI Versus Degree	0.59	14.12*
Diploma vs. Degree	0.62	7.08*

**P<. 05 (Q-critical=3.31 for r=3 and df=173)*

The interaction analyses among the cells (NGO school, government school, less experienced, high experienced, TTI certificate graduates, diploma graduate, and degree graduate teachers) across the three independent variables (school type, years of teaching experience and qualification levels) revealed that there is a significant interaction only between school type and teachers' academic qualification levels (Table 4). The graph (figure 1) also clearly shows the nature of interaction effect between school type/context/ and level of academic qualification.

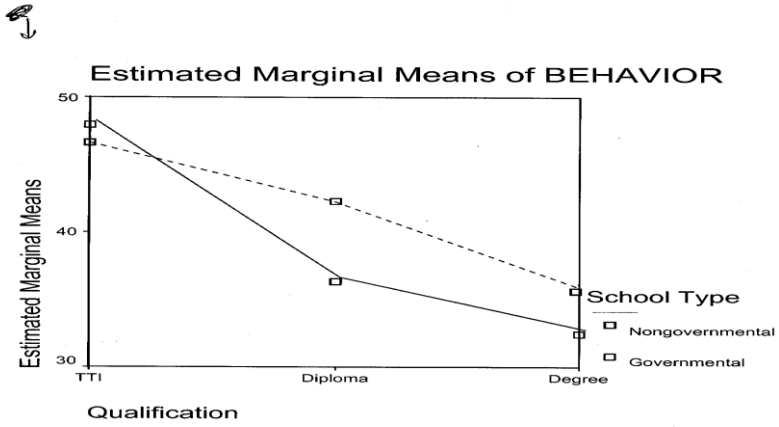

Figure 1: Graph Representing Interaction Effects of Teachers' Qualification Level and School Type on the Instructional materials Utilization

As indicated in Figure 1, TTI graduate teachers who teach in government school tend to utilize instructional materials more than those in NGO School. On the other hand, diploma and degree graduates who teach in NGO School seem to utilize instructional materials more than those who teach in governmental school (Figure 1).

The participants were asked about the factors that may impinge upon their use of instructional materials. Table 6 below displays the data obtained in this regard.

Table6: The Reason that Teachers do not use Instructional Materials

Reasons	Level of qualification			Level of experience		Types of School	
	TTI (%)	Diploma (%)	Degree (%)	Less (%)	High (%)	NGO (%)	Government (%)
Lack of training	8.43	1.45	0.62	7.08	4.00	38.64	10.46
Time constraints	3.86	48.44	18	16.24	54.83	20	15.40
The nature of contents and learners	5.66	12	52	6.48	16.43	26.40	7.21
Large class size	10	14.52	13.44	12.76	12.18	1.86	39.34
Administrative problems	12	11.89	11	52.64	6.8	2.34	13.48
Lack of appropriate and sufficient materials	58.84	10	2.2	4.80	3.45	3.89	10.86
Lack of interest from teachers and learners	-	1.70	2.20	-	2.1	5.42	2.38
Others	1.22	-	0.54	-	-	1.45	0.87
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

As may be observed from table 6, 58.8% of TTI certified teachers reported lack of appropriate and sufficient instructional materials as a factor that hindered them from using instructional materials. Time constraint is reported by 48.44% of diploma level teachers and 54.83% of high experienced teachers 52.64% of less experienced teachers mentioned lack of impression in administration as a hindering factor while 38.64% of NGO school teachers blamed them lack of training for their failure to use instructional material. Large class size reported by 39.34% of government school teachers as a factor that did not allow them to use instructional material.

Discussions

In general, the results of the study, shows a statistically significant difference in the teachers use of instructional materials. Less experienced teachers and teachers who have low qualification in both school types (NGO and government) seem to be in a better position in terms of using instructional materials. Though the result seems unexpected, it is consistent with the results reported by other researchers. For example, Simon and Alexander (1980) placed less importance on qualification and experience by arguing that teachers' enthusiasm, sense of responsibility, and interest are more important than their qualification and experience in improving teachers teaching including proper utilization of instructional materials. The results also supported the findings of previous local studies by Tilahun (1999), Fantu (1992) and Mehadi (2001), Even in NGO schools, where relatively school facilities are better, the influence of teachers' level of qualification and experience seem to be considered as problems in the utilization of instructional materials.

The declining of instructional materials utilization across qualification level (from TTI to degree) might have its own reasons. First, overconfidence of the teacher this might have developed through his/her relatively high qualification, and this might lead him/her to think that he/she can teach without utilizing instructional materials utilization. In support of this, one of the teachers who participated in the interview (NGSR8) responded, "we, teachers with better academic

qualification consider ourselves as guaranteed sources of knowledge for our students. This implies, we did not search for and utilize materials and alternatives to improve for our lessons." (25/02/2006).

The misconceptions that the teachers have about the application of instructional materials could be considered as a second possible justification for the result of the present study. In the response to the question: 'why do teachers not utilize instructional material effectively and efficiently?' 52% of degree level teachers responded that instructional materials are more important for primary school children to teach them concrete ideas than the secondary school level where abstract of ideas (Table 6) are taught. In this regard participants in the interview (i.e., GSR 1 and NGSR2) seem to agree with the opinion of degree level teachers. They said they worked harder than the degree level teachers to prepare use instructional materials. But instructional materials can be applied in teaching concrete as well as abstract ideas in all levels of schooling. In line with this Amare (1999) explained that instructional materials can facilitate the learning of concrete ideas. They allow the physical movement of learners, and/or they can improve imaginative learning (abstract idea) with a minimum effort in physical involvement. Other educators, Cruickshank et al. (1995), for examples, also reported that though there are differences in the types of teaching materials that can be utilized depending on the nature of the content and over all characteristics of the learners, it is always advisable to support the teaching learning processes with media in all levels of schooling and in all types of contents.

Colleges/universities which train diploma and degree level teachers may give minimal attention to the exercising of instructional material production and utilization during the training. In the interview, one of the degree holding teachers (GSR7) said, " In the university we took only one media course, which mainly focuses on the theory of instructional materials with out exposing us to the practical (how to prepare, select and utilize) aspect of instructional materials." (10/02/2006).

Weak utilization of instructional materials by high experienced teachers in comparison to the less experienced over is another result of the study (Table 4). Johanston (1994) and Biggs (1999) contended that when teachers' experience increases, they might believe that the teaching process could be managed by themselves, without the utilization of instructional materials. Moreover, high experienced teachers have certain confusion about the importance of instructional materials. For example, in their response to the question 'why do teachers not utilize instructional materials effectively and efficiently?' Fifty-four point eighty-three percent of high experienced teachers believed that the utilization of instructional materials is time consuming. Researchers like Dale (1996) however, indicated that when there is use of instructional materials, instructional time would be saved.

Some of the interviewees, e.g, GSR3, GSR6, NGSR8 and GSR9), assured that high experienced teachers might have not been exposed to the newly introduced concepts like active learning, problem solving, instructional materials preparation and utilization during their training. This probably affects their performance in utilizing instructional materials. In support of this, Shetman and Godfried (1993) and Dahalstrom (1999) emphasized that teachers are a little bit confused and /or resistant to practice the newly introduced curriculum because it demands new preparation, different approach and other efforts from what they know before. In addition, teachers with high experiences have a chance to implement the previous curriculum, which has a different approach from the present curriculum (Getachew, 1999). This means that they might be challenged by the previous curriculum orientation, to implement /practice the recently introduced education and training policy. The policy considers instructional materials utilizations as which consider instructional materials utilization is one of its principal focus (Ministry of Education, 1997).

Furthermore, most experienced teachers can be engaged in non-academic matters such as societal responsibilities and family affair which may consume much of their time (Johanston, 1994). Therefore, they might start to be careless in improving the quality of their classroom instruction by using different

alternatives, including instructional materials utilization. In relation to teaching experience, interview responses indicated that experienced teachers are more disciplined, genuine in marking and competent in their subject matter knowledge than less experienced teachers (GSR5, GSR10 and NGSR4). However, according to GSR10, "Experienced teachers are resistant to implement or practice newly introduced teaching learning elements: Group discussion, accepting students' idea, utilization of instructional materials, facilitating self-learning, etc." (12/02/2006).

Except in the case of TTI graduates whose instructional materials utilization is higher in government schools, the overall average of utilization of instructional materials of NGO school teachers is greater than that of those in government schools (Table4/ Figure 1). That is, teachers who teach in NGO Schools seem to have a tendency to utilize instructional materials more than teachers in Government Schools. It is not unexpected to get such findings, because large class size, problem of access for instructional materials and less concerns of the school management, (which might be hindrances to utilize instructional materials), are relatively minimal in NGO schools than in government schools (observation results).

For instance, according to the observation result in the study, the class size (40-50 students) in NGO-school seems to be more convenient for the teaching-learning process in general, and for the utilization of instructional materials in particular, when compared to the class size (65-85) in government schools. Moreover, the observation showed that the Pedagogical Centers, in both types of schools, have no significant difference in their instructional materials collection. However, the collections in the NGO schools are systematically arranged and easily accessible. Observation result revealed that NGO school classrooms are well furnished and supported by variety of instructional materials. This is not the case in government school classrooms.

Responses obtained from the interview, (GSR2, GSR5 and GSR8) revealed that administration procedures (purchasing and distribution of items including instructional materials, monitoring activities and efforts made to seek immediate

solutions to the problems) were better in NGO schools than in government schools. This is because according to one of the interviewees' (GSR8) "the long bureaucratic steps (in purchasing materials, to employ staffs and to punish and/or firing irresponsible staffs), which are prevail in government schools are not that much the concern of NGO schools" (20/02/2006)

Conclusion and Recommendations

Based on the analysis and discussion, the points below are considered as the major findings of the study:

- When the level of qualification increases from TTI to degree, the tendency to utilize instructional materials decreases.
- High experienced teachers showed less degree of utilization of instructional materials compared to less experienced teachers.
- There is a significant difference between NGO and government school teachers in the utilization of instructional materials. NGO School teachers tend to be better in utilizing instructional materials than governmental school teachers.
- Lack of appropriate and sufficient instructional materials, lack of awareness, poor administrative and financial support, lack of training and large class size were considered to be the main factors which hinder the utilization of instructional materials.

Based on the findings of the study, the following recommendations could be made.

- Educational officers at different levels, including the school level management, should give awareness to teachers (particularly, to high qualified and experienced teachers) about the concepts, purposes, advantages and preparation skills of instructional materials. This can be made:
    1. through the exchange of ideas among less experienced, less qualified and NGO school teachers who have better practice in the utilization of instructional materials and high experienced,

high qualified and government school teachers, who have less practice in it. This can be realized through the organization of workshops, conferences and small group discussions that can be held at different levels.

2. Through inviting experts (in curriculum and instruction, educational psychology and media) who are able to give orientations about the concept, importance and utilization of instructional materials to teachers.

- Teacher training institutions of any level (particularly diploma and degree training institutions) should give more attention to incorporate sufficient trainings about the concept, purpose, preparation and appropriate utilization of instructional materials.
- School related variables such as the nature of the class size, availability and arrangement of instructional materials and other administrative procedures have to be encouraging in order to utilize instructional materials properly and sufficiently. This might be approached by:

1. Dividing the large class size into sub-groups within the same class;
2. Preparing instructional materials from local items by the students, teachers and other school communities; and
3. Making the school administration effective, efficient and empowered so that all activities in the school could be speeded up.

References

Amare Asgedom. (1996). *Learning from the Media: Five Models.* **Educational Journal,** 3(4):93-106.

Amare Asgedom. (2000). *An Androgenic Approach to Teaching and Learning*. **IER Flambeau**, 8 (1):3-88.

Ambaye Tesehaye.(1999). *Curriculum Evaluation: Monitoring the Harmony of TTI Syllabuses with the New Primary Level Curriculum Vis-à-vis Standard Models and New Education and Training Policy*. **The Ethiopian Journal of Education**, 19 (1): 1-28.

Amera Seifu. (2003). *Distance Education and its Relation with Media*. **IER Flambeau**, 11(1): 75-81.

Arrends, R.I. (1994). **Learning To Teach** (3rd ed). New York: Mcgraw-Hill Inc.

Biggs, J. (1999). **Teaching for Quality Learning**. Buckingham: Open University Press.

Broussean, B.A. et al. (1988). *Teachers Belief and the Cultures of Teaching.* **Journal of Teacher Education.** 39 (6): 33-39.

Brown and Keneth (1965). **Administrating Education Media**. New York: McGraw-Hill.

Clark, R.E. (1983). *Reconsidering Research and Learning from Media.* **Review of Educational Research,** 53(4):445-459.

Collins, A. (1996). *Reflection on Computing in Classrooms.* In Fisher, Ch., Dewyer, D., and Yokam, K. (Eds). **Education and Technology.** Sanfrancisco: Jossey-Boss Publishers.

Cooper, P. (1996). **Effective Teaching and Learning: Teachers and Students Perspective,** Open University Press.

Cruickshank, et al. (1995). **The Act of Teaching**. New York: McGraw-Hill, Ink.

Dahalstrom, L. (1999). *Towards Learner-Centered and Democratic Teacher Education.* In Zeichner, K. and Dahlstrom, L. (Eds). **Democratic Teacher Education in Africa: The Case of Namibia**. USA: Westview Press.

Dale, E. (1969). **Audiovisual Methods in Teaching** (3rd ed). New York: The Dryden Press.

Dawit Asrat (2000). *Concerns of Teachers With Respect to Experience, Sex and Qualification: The Case of Addis Ababa Region.* Unpublished MA Thesis. Addis Ababa: Addis Ababa University.

Duke, D.L. (1990). **Teaching an Introduction.** New York: McGraw Hill Pub. Comp.

Fantu G/Medhin (1992). *Utilization of Instructional Materials in Elementary School of Addis Ababa***.** Addis Ababa: Addis Ababa University (unpublished).

Friere, P. (1972). **Pedagogy of the Oppressed**. New York: Herder and Herder.

Getachew Haile (1999). *Stress in School Teacher*. **The Ethiopian Journal of Education,** 19(2): 15-46.

Gtuton, E. and Farokhi, E. (1987). *Relation ships Among Academic Performance, Basic Skills, Subject Matter Knowledge and Teaching Skills of Teacher Education Graduates.* **Journal of Teacher Education**, 38(5): 37-42.

Hall, K. (1995). *Learning Modes: An Investigation of Perceptions in Five Kent Classrooms.* **Educational Research**, 37 (1): 21-32.

Helnich, et al. (1996). **Instructional Media and Technology for Learning**(5th eds.) New Jersy: Prentice-Hall, Inc.

Hopper, R. (1971). *Educational Technology*. **Educational Broad Casting International.** 5(3): 151-154.

Johnston, S. (1994). *Experience is the Best Teacher, or is it? An Analysis of the Role of Experience in Learning to Teach*. **Journal of Teacher Education**, 45(3): 199-208.

Knowles, M.S. (1980). **The Modern Practice of Adult Education: From Pedagogy to Andragogy**. Chicago: Follet Publishing Company.

Mehadi Abdo (2001). *Determinants of Teachers' Media Utilization Pattern.* Unpublished MA Thesis. Addis Ababa: Addis Ababa University.

Ministry of Education (1997). ***E*ducation and Training Policy Sector Strategy II**. Addis Ababa.

Reddy, M. (1996). **Distance Education in India**. Delhi.

Romiszowski, A.J. (1974). **The Selection and Utilization of Instructional Media**. London: Kogan page Ltd.

Sereiber, D.A. (1998). *Organizational Technology and Its Impact on Distance Training.* In Sereiber, D.A. and Berg, Z, L. (eds). **Distance Training: How Innovative Organizations are Using Technology to Maximize Learning and Meet Business Objectives.** Sanfrancisco: Jossey –Bass Publisher.

Shetman, Z. and Godfried. L (1993). *Assessing the Performance and Personal Traits of Teacher Education Students by a Group Assessment Procedure: A Study of Concurred and Construct Validity.* **Journal of Teacher Education**, 44(2): 130-138.

Silberman, M. (1996). **Active Learning 101 Strategies to Teach any Subject**. USA: Allyn and Bacon.

Symon, J. and Alexander, L. (1980). *Factors which Promote School Achievement in Developing Countries: A Review of Research*. In Symmon, J. (1990). **The Education Dilemma: Policy Issues for the Developing Countries.** Oxford: Peremon Press.

Teheranian, M., et al. (1997). **Communications Policy for National Development**. London: Rouedge and Kegan Paul Publication.

Teshome Nekatibeb (2004). *The Effectiveness of Grade one English Interactive Radio Instruction Program in Ethiopia.* **The Ethiopian Journal of Education,** 24(1):1-40.

Tilahun Fenta (1999). *Influences of Some Teacher Characteristics on the Utilization of Teaching Materials.* **The Ethiopian Journal of Education**, 21 (2): 77-95.

Thomas, H. J. and Sharon, S.M. (1987). *The Relation Ship between Teaching Experience and Satisfaction of Teacher Preparation: A Summary of Three Surveys.* **Journal of Teacher Education,** 38(5): 28-36.

Transitional Government of Ethiopia (1994). **The New Education and Training policy**. Addis Ababa: MoE.

Tsega Mintesnot (1983). *The Contribution of Awraja Pedagogical Centers in the Improvisation of Instructional aids in Ethiopia.* Addis Ababa (Unpublished).

Wakshum Mekonnen (2001). *The Potentials of Information Technology in Education.* **IER Flambeau**, 8 (2): 27-45.

Walklin, L. (1982). **Instructional Techniques and Practices.** Cheltennham: Staneley Thrones Pub.Ltd.

Wilson, J. (1995). *Attention and Concentration.* **Educational Research**, 37 (1): 33-38.

Yalew Endawoke (2004). *Teachers' Beliefs, Knowledge and Practice of learner- centered Approach in School of Ethiopia.* **The Ethiopian Journal of Education**, 24(2):17-42.