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# Challenges of Educational Materials Distribution and Utilization in Some Selected Secondary Schools of Sodo Zuria Woreda

**Abraham Kebede Alambo\*** 

Wolaita Sodo University, Ethiopia

\*Corresponding author

#### **Abstract**

The purpose of this study was to gain some insights about the problems related with distributions of educational material (text book) in Sholla Kodo and Gulgula secondary (9-10) schools of Sodo zuria Woreda, Wolaita zone. Hence, the descriptive survey design was employed to get the current practice of the schools regarding distribution of educational materials. In order to collect the necessary data, questionnaires (close and open-ended) and interview were used as an instrument for the study. The subjects of the study were 25 teachers out of 128 teachers selected through simple random sampling, and 4 principals, 2 supervisors and 2 woreda educational office experts through purposive sampling. Form each school 13 and 12 teachers selected respectively. The total of 33 respondents were selected to fill the questionnaires distributed /dispatched 25 teachers, 4 principals, 2 cluster supervisors and 2 town educational office experts have filled and returned Back. In addition, 4 principals and 2 supervisors and 2 town educational office experts were interviewed. The data obtained were analyzed using quantitative and qualitative method of data analysis. The findings reveal that the distribution problem and shortage of text books, improper utilization of materials, and the low participation of teachers, students and communities in materials resource management. Finally, it was recommended that the schools have to try to collaborate with Woreda educational offices and other concerned governmental bodies for the fair and in time distribution of educational materials.

#### **Article Info**

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# **Keywords**

Educational materials, Text books, Fair distribution, Utilization

#### Introduction

#### **Background of the study**

There is no doubt that appropriate instructional/ educational materials enhance the quality of education. Educational instruction/materials relate to all forms of materials which students and teachers interact for the purpose of effective learning. According to Amare (1999), educational materials are instruments with which a teacher teaches and from which students learn. Teaching without educational materials seems to teaching without technology.

The utilization of instructional materials or instructional technology and the methods in education has a long history. To this point, Peveauy in Berhane (1999:1) stated the following statements:

"Since early times, mathematician or philosophers were tracing diagrams with sticks, which created the need for illustrating the development of ideas with diagrams and drawings, cave dwellers were also using pictures to express the fillings."

Berhane (1999) also pointed out that visual instructional materials have started from the time when tribal priests systematized body of knowledge and invented sign writing to record, preserve, transmit and produce information. According to him prior to the systematization of the body of the knowledge by the tribal priests the only method of instruction was expected to be the verbal approach, which compelled the learners to memorization.

But such trends in education gradually began to change due to the reason that most educators had recognized the danger of verbal method of teaching which demands more memorization of the shadow meanings.

At present, virtually all authorities in the area of educational materials agree that students can understand a lesson clearly and concretely when teacher uses varieties of instructional materials in their different combinations. To this point, Newby et al., (1996) agreed that instructional materials are decisive for effective and permanent learning. They also raise student involvement and add variety of interest and motivation to the instructional process. The view that text books compared with other school inputs are effective in raising student's achievement has received empirical support from researchers. Heyne man (1978) and Altbatch (1983) noted that the availability of books appears to be the single most consistently positive school factor in predicting academic achievement. Nothing has ever replaced the printed word as the key element in the educational process. As the result text books are central to schooling at all level.

Such evidence about the importance of text books to the educational process have encouraged more and more countries in the developing world to launch major text book programs and to establish organizational units to handle the complex process of text books development production and distribution. Ethiopia has been giving considerable emphasis on materials pertinent to the provision of text books for nearly 40 years (PHRD1996:53). In spite of this, supply of text books to school systems has been so inadequate that the distribution ratio at national level has been one book to five students for so many years.

In teaching learning process the provision of educational materials should be with appropriate educational materials including proper sitting and learning class's radio and tape recorders for radio lessons.

Unless without fulfilling the above mentioned materials it is not possible to accept or expect that there is a good teaching learning environment, and it must be facilitated at the beginning. The most serious problem in Shola Kodo and Gulgula Secondary schools is the distribution and utilization of educational materials. Even the problem may appear not only in Woreda but also in the entire zonal and regional level. In this case, therefore, the researcher started the study on how to improve the proper distribution and utilization of educational material in the stated schools.

# **Statement of the problem**

Learning is a relatively permanent change in behavior that occurs as a result of practice or experience. In learning process the student acquires something new from his/her instructor using text books and other curriculum intended materials. The quality of a teacher and fulfilled educational materials make the teaching, learning process suitable and then the outcome of the process will be well improved.

According to the education and training policy of Ethiopia (1994), one of the aims of education is to strengthen individuals and society problem solving capacity and culture at all educational levels.

The shortage of educational materials distribution continuously emerges from year to year. In different causes semester and annual reports may be written to the executive educational Bureaus. But still the problem survives there. This problem may get a solution after this study and the copy of this study will be distributed to the executive educational office.

Hence the purpose of this research is to conduct a systematic investigation in to the practice of the educational materials distribution and utilization in some selected secondary schools of Sodo Zuria Woreda, Wolaita Zone.

# Objectives of the study

#### **General objective**

The general objectives of the study is to assess challenges of educational materials distribution and utilization in some selected secondary schools of Sodo Zuria Woreda.

# **Specific Objectives**

Specific objectives of this study are to:

- 1. Get information about the problems of fair distribution of educational materials in town educational bureau.
- 2. Solve the problems of educational materials distribution and utilization in the schools level.

#### **Materials and Methods**

# Design and methodology of the study

This section deals with research method used by the researcher, procedure of selecting subjects of the study and instruments of data collection. To get the relevant information regarding the actual problems of distributions of educational materials, the study employed descriptive method. Descriptive research study is designed to obtain pertinent and precise information concerning the current status of phenomena and to give conclusion from the fact observed.

# **Research setting**

Sholla Kodo and Gulgula secondary schools are found in Sodo Zuria Woreda in Wolaita Zone. Wolaita Zone is found in South Nations Nationalities Regional State of Ethiopia. It is located 310 km South of Addis Ababa and 120 km from regional capital Hawasa. The reason for the selection of setting is by the observation of the researcher to the schools for supervision of post graduate students.

#### Source of data

In this research, the researcher has used the primary data sources; the target populations of this research are Sholla Kodo and Gulgula secondary (9-10) schools. The subjects of the study were 25 teachers, 4 Principals/ vice directors, 2 supervisors and 2 Woreda education office experts.

# Sample size and sample techniques

# **Population sample summary**

#### **Data gathering tools/instrument**

In this study open ended and close ended questionnaires and interview were the main data gathering instruments were used. Because of the limited time and resources, it was impossible to include all teachers, cluster supervisors, in this case teachers and clusters selected by using simple random sampling technique.

# Presentation and analysis of data

This section deals with the presentation and analysis of the data collected from the four groups of respondents, which are teachers, school principals/ vise directors, cluster supervisors, and Woreda educational office experts.

# Analysis of finding of the study

Definitions about questionnaires and factors considered to qualify text books to be printed and distributed. The text books distributed in consecutive/ continued three years from 2016/17-2018/19, process of text book data gathering.

Generally, it can be concluded that the basis for qualification of educational materials especially concerning student text books and teacher guide in school level seems a reliable. Moreover, the findings indicate that demand and supply have not been matched, thus it would seem that there are other factors which have more weight to serve as a basis to decide on the number of text books to be printed rather than the demand for Woreda from school, supervisors, school directors, teachers. The respondents even confirmed that there is no definite time or months in which text books arrive to schools. They expressed that text books are delivered throughout the year although improvements are being observed in the last three years. However, it would be fair to conclude that there are situations where some three to four months pass without pupils getting the text books after schools open early September every year.

In this table, the respondents asked about the distribution of educational materials to his item most of the teaching said no. and few principals said yes and the other said no regarding supervisors all of them said no and the Woreda education office experts also said no this shows that there is a great problem in the distribution of educational material (text book) in Sholla Kodo and Gulgula secondary (9-10) schools

There are some questions which invite all the respondents in the participation of the answer

1. Are educational materials available in your school?

Response: for the above question all the teachers from two schools 25 teachers' responded the answer no. This implies that there is shortage and distribution problem.

2. Is distribution of an educational materials specially textbooks fair in your school area?

The response concerning this question most of the teachers and principals answered that it is not fair because when the text books transport from zone educational office to town educational office the text books and other educational materials directly transfer to the town financial office store man and the financial office store man has own finance sector to do there and after solving his sector mandate the store man distributes the educational materials after so many complains. The finance store man is not skilled with the distribution of educational materials according to the school standard and the statistics of students in a grade level. This is the main problem of educational materials distribution.

For this question, 5 teachers said no and 20 teachers answered yes. This implies that there is a great distribution problem of educational materials in Sholla Kodo and Gulgula secondary (9-10) schools.

3. Is the distribution of educational materials reach on time from executive educational sectors?

The response for this question is that all the teachers (25) responded no! And most of the principals (2) responded the answer no and (2) principals said yes.

This is because of unknown case when the text books and other educational materials shortage report to Woreda educational office then to Zone office at the opening of school, the text books arrive in second semester. Furthermore, the text books distribution is insufficient and very few according to the student number in the grade level.

Regarding supervision for question no 3, "1" said yes and "1" of them said the textbooks do not reach on time and at least in 2<sup>nd</sup> semester. It reaches insufficiently. Regarding the Woreda education office expert's response, one expert said yes and the other one said no because in different cases the publishing and distribution lags on zonal and regional area and the distribution delays up to 2<sup>nd</sup> semester and after reaching to Woreda, the educational materials directly dispatch to finance office and up to this it is not easy to find the financial sector store man. In this process, the educational material stay there for more than one month. This is also the main problem of the distribution.

4. Is there basic document in your school for educational materials distribution?

The response for this question is that all the teachers from the two schools for the study responded no because there is no store man in schools. Even if there are some store men in the limited schools, they are ordered to do another work rather than distributing educational materials and they do not have basic document for distribution and collection of the materials, they use simple temporary paper with it, collect and distribute. School teachers from two schools responded for question no 4 is that there is no store man and no appropriate store room. So in the school, the school director is both the principal and the store man. For distribution the teachers tell the number of his class students to the principal and the principal orders the teacher to take the books subject wise for the ratio of 1-3 or 1-4 according to the availability of text books. This shows that in most schools educational materials management is less and haphazard.

5. Is there library service in your school?

Regarding library service, from selected 25 teachers, 10 (40%) of said yes and 15 teachers or 60% said no. From principals, 1 said yes and 3 said no. From customer supervisors, 1 supervisor said yes and 1 supervisor said no. This implies that there is almost no library service in schools and even if there is a library, there is no adequate service for students.

As it is mentioned on the tables above (table 3, 4 and 5), it is possible to observe that there is great disparity between the number of students in each grade and years as opposed to the number of books distributed for students in the language courses under investigation. For instance, in Shollakodo secondary schools, in grade nine the ratio of distribution for English books is 1:6.5, 1:7.7, 1:5.4, Amharic 1:4.9, 1:8, 1:54 and Wolaita 1:13, 1:8, 1:65 respectively. On the other hand, in grade ten English 1:6.5, 1:5.6, and 1:5.9. Amharic1:10, 1:7.7, 1:7.3, and Wolaita 1:17, 1:14 and1:14.8 in the three consecutive years respectively.

On the other hand in Gulgula Secondary school, in grade nine, the ratio for English subject is1:7.5, 1:8, 1:6.5 for Amharic 1:17.2, 1:13.6 and 1:10, and for Wolaita 1:23, 1:10.6 and 1:10.6 respectively. In grade ten, For English it is 1:8.6, 1:7.4 and 1:7.4 for Amharic 1:17.2, 1:13.6 and 1:13.6, for Wolaita subject 1:17.2, 1:14.2 and 1:10.7 for the three consecutive years respectively.

Thus, from the above data it is possible to conclude that the distribution of text books in the language subjects under investigation has huge gap between the number of students and text books. Especially, with regard to Wolaita language text book distribution, it is the lowest and worest.

This shows that there is great problem of educational materials shortage and the problem still exists. Regarding the distribution of educational materials, teachers, principals, supervisors and Woreda education office experts they forwarded the following answers for the interview questions below.

1. If there is a shortage of educational materials, how will you overcome the problem for the future?

For this question the response of almost all is similar. They said that they are still in the shortage of educational materials in all secondary schools' grade levels and still they are trying to overcome the teaching learning problem with their efforts by borrowing the text books and teachers guides from one another, and they also said that if they get books from open market they buy from their pocket.

The respondents of cluster supervisors and Woreda education experts in addition to the effort of teachers and school principals, they were reporting the problems to the executive bodies and for the future they will try their best collaborating with Woreda administration to allocate the necessary budget for operation of educational materials.

With regard to solving the shortage of educational materials, they responded that for the future if the schools block grant budget given to them on time, not only looking for the provision of educational materials from the government but they try to purchase the adequate educational materials from the open market to solve current problems.

2. How is the community participation in your school about the maintenance of school student desks and other internal equipment of the participation? Is it sufficient? What will be your future effort?

This question is responded from school principals. The response of all of the principals is the same and they said that there is medium effort of community participation in working on the school farm together and in some cases of maintenance of the school and student desks, they contribute some amount of money once in a year. But, it is not sufficient; they will also participate in all school contribution for the supporting of better school process.

- 3. In the open ended question regarding store management problem, the question is responded by school principals and town educational office experts. The school principals responded that up to now there is poor store management existed. Sometimes the principals serve as a store man and distribute the educational materials to home room teachers, and they distribute the text books and other educational materials with white paper which is not legal document. In other time, where there is no vice principal the department heads and unit leaders give the service for distribution of educational materials. Because of no legal documents that determine the distribution and management, the distribution of text books and other materials by different people is also the main case for the wastage and shortage of educational materials. In the case the school reported several times to Woreda education office to employ the ordinary store man and the response is for a time being there is a shortage of budget to hire the store man and the problem is still on the existence. For the future the problem will be solved if the Woreda education office experts also accept that there is the educational materials distribution problem in the schools.
  - 3. Regarding the shortage of teacher guides, what is the school support? How the teachers overcome the problems?

This question was responded by principals, teachers and supervisors. Their answer is almost the same that there is a high shortage of teacher guides and the teachers trying to get guides in subject wise from their near school and the same subject teachers near school principals exchange the guides by subject wise and after preparation of lesson plan they give back to the owner schools.

The cluster supervisors also played a special role in such away by borrowing the guides from cluster school and after the usage of guides the cluster supervisors give back the books to the owner school; in this manner they tried to solve the problems of teacher guides.

4. In most of schools there is no library service how can be this problem is solve for the future?

This question is responded by school principals and Woreda educational office experts. The school principals responded that first the problem is that there is no skilled librarian in all primary schools, second, there is no well intended class for the library purpose, third there was no enough budget to purchase the library reference books in the case there is no good condition to all schools education office head exported and cluster supervisors trying to mobilize the kebele education heads and the community that the library is very essential for the students future academic development and the Woreda educational administration and education office support to the school, the community also contributes in finance, or in kind for establishment of Library in the schools, this effort will continue in all schools in the Woreda.

5. Which educational materials have serious shortage?

The respondents are town educational office experts and the school principals. The town educational sector/office experts said that there is the process of finance allocation from Woreda to Zone and then up to region for publishing text books and purchasing other supporting educational materials.

The finance allocation is sent to Woreda and to zone. The zonal process also wants to revise the budget allocation and again region orders zonal office to revise the allocation again. In this long and complicated process, more of the schooling process starts with insufficient educational materials. Hence, the textbooks and other educational supportive materials published after the schooling started. Students and teachers pass first semester without getting sufficient educational materials. In this manner the educational materials cannot reach to Woreda education office or schools on time.

Table.	Popu	lation	sample	summary

No.	Respondent	Population	Sampled
1	Principals/ vice directors	4	4
2	Teachers	128	25
3	Supervisors	2	2
4	Woreda education experts	2	2

**Table.2** Perception on equitable distribution of educational materials

No.	questions	teacl	ners	princ	principals sup		visors	Educ. experts	
		Yes	No	Yes	No	Yes	No	Yes	No
1	Are educational materials available in	-	25	-	4	-	2	-	2
	your school								
2	Is the text books distribution fair in the	20	5	-	4	1	1	-	2
	school area?								
3	Is the distribution of text books reach	-	25	2	2	1	1	1	1
	on time from the executive bodies								
4	Is there basic document in your school	-	25	1	3	1	1	1	1
	for educational materials distribution?								
5	Is the store man of the school	10	15	3	1	-	2	1	1
	distribute and collect the ed. materials								
	properly?								
6	Is there library in your school?	10	15	1	3	-	2	1	1

Table.3 Shows students registered in 2016/17-2018/19 in Sholla Kodo and Gulgula Secondary schools

No	schools	Numbers of students registered in grade levels						
		9			10			
		2016/17	2017/18	2018/19	2016/17	2017/18	2018/19	
1	Sholla Kodo Secondary	266	325	325	260	280	295	
	school							
2	Gulgula Secondary	346	320	325	344	355	375	
	school							
	Total	612	620	650	604	635	670	

Table.4 shows textbook distribution in 2016/17-2018/19 in Sholla Kodo and Gulgula Secondary schools

No	schools	Numbers of text books distributed in grade levels						
		9		10				
		2016/17		2017/18	2018/19	2016/17	2017/18	2018/19
1	Sholla Kodo	English	40	42	60	40	50	50
	Secondary	Amharic	54	40	70	26	36	40
	school	Wolaita	20	40	50	15	20	20
2	Gulgula	English	46	40	50	40	48	56
	Secondary	Amharic	40	26	32	20	26	28
	school	Wolaita	15	30	30	20	25	35

<sup>\*</sup>Amharic is Ethiopia's official landguage, and Wolaita is mother tongue for the people of Wolaita

**Table.5** Summary of the above tables with respect to book to student ratio

Sholla Kodo Secondary school									
Grade Nine				Grade Ten					
English	1:6.5	1:7.7	1:5.4	1:6.5	1:5.9				
Amharic	1:4.9	1:8	1:54	1:10	1:7.7	1:7.3			
Wolaita	1:13	1:8	1:65	1:17	1:14	1:14.8			
Gulgula S	Gulgula Secondary school								
Grade Nin	e		Grade Ten	Grade Ten					
English	1:7.5	1:8	1:6.5	1:8.6	1:7.4	1:6.7			
Amharic	1:17.2	1:13.6	1:10	1:17.2	1:13.6	1:13.3			
Wolaita	1:23	1:10.6	1:10.6	1:17.2	1:14.2	1:10.7			

The school principals responded also that when the text books send from zone education sector there is no ordinary store man in Woreda education sector. The store

man is from Woreda finance sector and he gave them the appointment up to 15-20 day to take text books. In this case the schools cannot get text books on time.

Thus, in general to solve the aforementioned problems, all the concerned bodies starting from Woreda education sector to regional office, the budget of publishing and distributing educational materials must be allocated on time before opening of the schools. The other strong suggestion given from the educational office experts and school principals is that the education sector must have its own skilled store man and all the secondary schools must have their own store man for fair distribution and collection of text books and other supportive educational materials efficiently.

This section deals with summary, conclusions and recommendations of the study briefly.

# **Summary**

The purpose of this study was to gain some insights about the problems related with a distributions of educational materials in Sholla Kodo and Gulgula secondary (9-10) schools of Sodo zuria Woreda, Wolaita zone. Hence, the descriptive survey design was employed to get the current practice of the schools in primary distribution of educational materials (text books). In order to collect the necessary data, questionnaires (close and open-ended), interview and were used as an instrument for the study.

The subject of the study was 25 teachers, 4 principals, 2 supervisors and 2 town educational office experts. Form each school 13 and 12 teachers selected though simple random sampling technique selected schools 33 respondents to fill the total number of questionnaires distributed /dispatched 25 teachers, 4 principals, 2 cluster supervisors and 2 town educational office experts have filled and returned Back. The data obtained were analyzed using various statistical tools such as the textbooks distribution of Woreda educational office documents and from the information in the schools under investigation. Thus, the book in the store of the schools of the study is not appropriately arranged and their implementation is haphazard and unprogrammed. The following is the detailed problem of text book distribution in the schools understudy.

- The distribution of educational materials had its own problems especially on the time of collection at school. Most of text books never return back by different problems including drop out students.
- Most of the schools have store rooms where as some of the schools do not have a store room.

- In two schools the store rooms are not managed by qualified personnel. Sometimes the guard of it simply managed by the school principal/ director there is the way of wastage and case of text books shortage and problem.
- The store rooms were not properly protects the text books and other educational materials from damage because they were not designed for the purpose of storage of materials.
- In general educational materials were not given proper attention; they were not properly managed, controlled and audited. Even in the Woreda educational offices to remain also comes from Woreda finance office and distributes the educational materials, which knows nothing about educational materials.
- There is distribution problem and shortage in one hand and improper utilization of materials on the other hand.
- The actual participation teachers, students and communities in materials resource management are very low.

#### Conclusions are as follows:

Based on the proceeding of the major findings, the following conclusions are made.

Very early the information from the grass root/the school/ must be reported to the executive educational books; the statistics of the students from each grade level must be reported to Woreda/town education office, the Woreda/town educational office to Zone and to regional office. According to Woreda / town schools student's statistics and the budget transferred before.

In different cause educational materials management in schools was left for unskilled individuals and also were not in a position of efficient personal. The proper management of educational materials was also weak. Therefore, the teaching learning activities were directly affected by it. The non-existence of skilled store man, improper quality of store rooms and well recorded documents of educational materials was the major problem. Therefore, it is possible to conclude that the improper handling of the educational resources negatively affected the performance of the education system. Some of the school maintenance activity is already forgotten for comfortable teaching learning area and the student sits are very uncomfortable, poorly maintained and ugly especially in rural area in new

established schools. This shows that the low participation of the community in the school affairs particularly in the handling and utilization of education materials in the schools under consideration.

#### Recommendations

Based on the findings above, the following recommendations were forwarded:

- The existing negative attitude and less attention for educational materials management highly affected the schooling process. Therefore, in order to bring attitudinal change in concerned bodies/ the school directors have to take a great responsibility for further better schooling.
- It is fundamental to schools to have regularly assigned and qualified personnel who exclusively deal with and distribute the educational materials keeping them proper place and room.
- The guide line, documents, rules and regulations should be clear for the school users in order to contribute their roles managing and utilizing of educational materials.
- It is better to prepare a short term training workshops, seminars and sharing of the experience with other schools and organizations about the distribution and utilization of education materials.
- The schools have to try collaborating with Woreda educational offices and concerned governmental bodies for the distribution of educational materials on time.
- The statistical data of the schools including student's number in a class level must report on time from the schools to the executive educational offices for projection of textbooks publishing and other educational materials purchasing.
- For effective management and distribution of educational materials, it is important to assign a responsible and qualified personnel

with a careful attention and know how at the time of ordering such as descriptions specifications, capacities etc. and efficient formulations of rules and regulations about their utilization.

#### References

Ballot, R.B.1980. Materials Management: A result Approach Bombay Tana Proevala Limitd.

Data, A.K.1986. Integrated Materials Management. New Delhi:

Hughes, H. 1975 Administrating Education: International Challenges' (ed) London: The Athlo.

Education and Training Policy and its implementation. Addis Ababa: MOE.

Brown J.W. *et al.*,1985. Av Instruction Technology. Media and Methods Singapore: Fong and Sons printers. Ltd.

Betsate Tefer: 2000. Application of Instructional Materials. In the primary schools of the SNNPR, A.A.U.

Ellington, H and Raccphil 1993: producing Teaching Materials 2<sup>nd</sup> d. London.

Fantu G/Medhin 1992. Utilization of Instructional Materials in Elementary schools of Addis Ababa

Sngh, Chandra pal. 1992. Managing Resources for Learning Paris UNESCO Pres.

Askerud, Pernille 1997. A Guide to Sustainable book provision Paris UNESCO

Brunswic, Etienne and Habib Hajja 992 Planning Text books development for primary Education in Africa Report of an LLEP Seminar. Paris 27-30Nov. 1990 UNESCO.

Denning Carmelle 1994 "DDA Project in Ethiopia Textbooks Distribution Availability and Durability" Unpublished. Addis Ababa

Ethio-Educational Consultants 1998 Options for sustainable provision of Textbooks and Instructional Materials Addis Ababa.

EMPDA 1997 1997-1998 Academic Year Books Catalogue Addis Ababa EMPDA.

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