THE ROLE OF E-READERS IN RURAL SECONDARY SCHOOLS TO REDUCE SHORTAGE OF LIBRARY-A CASE STUDY IN EASTERN TIGRAY

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ABSTRACT:

Digital illiteracy and shortage of library in rural schools are the basic problem of students that hinders up the reading habits and innovative passions of the students. The study is to research the role of digital movable devices on enhancing reading capacity and supplying digital materials through e-readers.

E-readers are mobile electronic devices designed for storing and displaying e-books or any other kind of reading material produced in a digital format. They are designed to be highly portable, with an emphasis on storing large amounts of text. Rural schools are characterized by geographic isolation and small population size with shortage of infrastructure. In this research, role of E-readers in selected rural schools will be carried out. The research used cross-sectional survey study. The samples of the schools were purposive sampling procedure. The selected schools are located in rural schools mostly which have shortage of libraries and reference materials. 12 schools and 6 Villages(weredas) included during the data gathering 75 students from each school. So, total of 900 students and 30 employees are included. The result indicates that the effectiveness of using E-readers on enhancing reading material and passion is high compared with that of the previous use of reading references.

The E-readers bring books and reading to the students living in rural areas. Schools in remote parts of eastern Tigray often have complains about the libraries, and so thousands of children don't get the chance to read outside the classroom.

Keywords: E-Reader, Digital device, rural school

INTRODUCTION

In most of the rural schools of Ethiopia, there is not enough distribution of books comparing with the number of students. Text books are the only references. In some schools even the text books are old and few in number. Almost all the libraries are situated in urban schools. Thus, to create innovative students government and non-government bodies need to enrich rural schools with sufficient reading materials.

Access to digital devices lets children improve their grades, learn at their own pace, discover new interests, and develop a love of reading. Unfortunately schools in villages and small towns in Ethiopia often do not have libraries, and the nearest facilities are often many miles away. Children in rural areas face many challenges in getting a good education, and a lack of access to books limits their personal development, educational attainment and future life chances. This research will bring reading and learning to thousands of children in rural areas of Tigray, through the use of a E-readers. An e-reader consists of a

textual, image, audio and video books, which students can use them at their favorite place to read. E-readers are a cheap and exciting way to help improve children's reading and learning.

The numerous challenges of rural students to achieve their dream, that large number of students make hopeless, motivated me to do this research. During my study, I clarified the following question:

- How are E-readers affecting reading behaviour and student achievement?
- What are the effects of E-readers and digital content on schools and library media centres?
- What are the effects of the broad range of devices and eBook formats on content management and user satisfaction in school libraries?
- What are some examples of schools and media centres successfully embracing E-readers and digital content?
- What effects do E-readers have on the role of school librarians in the 21st century?
- How E-readers facilitate teaching and learning process?
- How students enjoy reading any time being anywhere with thousands of book on hand?

Review of literature

While eBooks have been around for many years, recent rapid improvements in the versatility and affordability of e-readers and tablets, along with increased access to broadband internet, have led to a dramatic rise in household ownership of these devices. Between 2012 and 2013, the proportion of children responding to the National Literacy Trust's annual literacy survey who owned an e-reader rose from 20% to 30%, while tablet ownership increased from 38% to 65% and smartphone ownership from 38% to 70% [8]. A 2013 Ofcom survey1 found that tablet use at home by children aged 5 to15 almost tripled between 2012 and 2013, rising from 14% to 42%,.Electronic publishing has also developed during this time, allowing readers access to an ever-growing range and quality of eBooks, whenever and wherever they happen to have their portable device to hand [8].

E-readers like the Amazon Kindle and the Barnes and Noble Nook are beginning to make their way into school libraries and classrooms. It's about time. E-readers have tremendous potential to entice reluctant readers to read more. A study that we recently conducted among low-reading-ability middle school students demonstrated that potential. Students in 6th, 7th, and 8th grades became more engaged and motivated during their scheduled silent sustained reading periods when they were given the opportunity to use e-readers . The study took place in two reading improvement classes in Rivercrest Middle School in the urban metroplex of Dallas-Fort Worth. A total of 199 students most of whom were reluctant to pick up books and saw little value in reading were given the option to use Kindle e-readers during their scheduled sustained silent reading time. In both classes, students could choose to read printed text, but the majority of them chose to use the e-readers.

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The devices were loaded with 25 books, including classics like *The Wizard of Oz* and *Black Beauty* and ghost stories and scary stories like *Forever Neverland* and *They're Coming for You: Scary Stories That Scream to Be Read*. Some students read the classic novels, but the ghost stories and scary stories proved to be more popular. After two months, most of the students reported that they had read one to four books during the sustained silent reading period [9].

As the researchers and organizations including Ofcom researched, the electronic readers show good academic progress and good reading habit. But all these researches have been made in urban areas where public and school libraries can be available. Based on this, my study is dedicated to the rural schools of eastern Tigray where shortage of public and school libraries causes reference deficiency.

Therefore, well-resourced school libraries are needed in rural schools to play a role in developing users' information skills, attitudes and values, and to meet the curricular needs of the schools. Resource allocation in rural schools is concentrated on textbooks, without balancing the need for non-textbook reading materials which are fundamental to literacy practice, consolidation of reading skills and the reading habit.

Scope and Significance of the Research

- ✓ The study area that will be covered is rural schools found in eastern Tigray. Two schools from one wereda, one located around the city with partial or full library access and one located at distant village from the city with no library access.Eastern tigray has 8 weredas. These are :
- ✓ Kilte-Awlalo 2 Secondary schools
- ✓ Sasi'etsadaEmba…………………2 Secondary schools
- ✓ Gantafeshum……………………..2 Secondary schools
- ✓ Gulemekakda……………………2 Secondary schools
- ✓ Erob………………………….. 2 Secondary schools
- ✓ Hawzen………………………..2 Secondary schools

I use E-readers to conduct impact assessment for students at 8 (eight) rural schools, which help them to respond the questionnaires and finally I will get the correct feedback of using the device.

The Significance of the study is as follows:
- ✓ Asses the need gab of reference materials
- ✓ It introduces the importance of digital world
- ✓ Informs Governments and other bodies to invest in the rural schools
- ✓ Creates reading interest

General Objective:

The general objective is to study the role of E-Readers to the library scarce rural schools to determine the need and benefit and to identify methods for motivating reading habits so as to assure the education quality.

Specific Objectives:

The research will be conducted with the following specific objectives:
- ✓   Facilitate the teaching and learning program of the school

- ✓ Guide students on the choice of relevant materials for study
- ✓ Provision of material resources to enhance academic growth and development
- ✓ Assist the pupils to develop skills in the use of books and E-readers

Data and Sources of Data

In this study I used both primary and secondary data. The primary data is collected using questionnaires and interviews with students and school heads. The secondary data is collected from the school documents websites.

Primary Data

These are collected from the direct source of the all study areas from the students, school heads and librarians. This includes:

- Interview
- Observation
- Questinnairies and discussions with other responsible bodies.

The major mechanism used in the collection of data for this research s questionnaire. The questionnaire consists of questions that are related to digital readers and libraries as stated in the literature review.

After the survey taken place on the students the researchers distributed 4 tablets for 5 days each student at four phases for 20 days with full of digital text books, dictionaries, and animated images of (chemistry, physics, and English language learner) to understand the Role of the devices.

Secondary Data

Secondary data have been collected for the purpose of historical analysis, literature and others. This includes: Websites, Books, and School and library records.

Research Methodology

Method of Sampling

The researcher used cross-sectional survey study. The samples of the schools were purposive sampling procedure. The selected schools are located in rural schools mostly which have shortage of libraries and reference materials. As indicated in the objectives the aim of this study is to identify the sole problems of rural school library accessibility and standards and validate the use of digital device to replace the shortage. 12 schools and 6 weredas(Villages) included during the data gathering. 75 students from each school. So, total of **900** students and **30** employees are included. The following question is raised to the students and employees of the school.

Method of Analysis

The researcher used an expert analysis that was supported by statistical software. Descriptive statistics were used to describe and summarize the properties of the mass of data collected from the respondents. The data collected was analyzed using frequency table, percentage using STATA 15 command based data analysis statistical software package.

Result and Discussion

Q1: How is the facility and standard of your library?

Table 1: Facility related

Choices	Frequency	Percentage
Fully accommodated	2	0.23
Only Text books are available	68	8.09
No Library at all	100	11.90
Weak accommodation and not standard	670	79.76
Total	840	100

Q2: Do you think it hindered up your teaching and learning process?

Table 2: Facility Challenge

Choices	Frequency	Percentage
Yes	801	95.4
No	0	0
Partially	39	4.6
Total	840	100

Q3: Where is your favorite reading place out of the school?

Table 3: Reading Place choice

Choices	Frequency	Percentage
Home	98	11.7
Tree shelters/ around the mountains	563	67.0
Herding cattle	179	21.3
Total	840	100

Q4: What specific materials do you use during your study?

Table 4: Mostly used material for reading

Choices	Frequency	Percentage
Text Book	332	
Note book	499	
Use digital device(computer or Mobile or Tablet/kindle)	9	
Total	840	

Q5: Reason it out for using the material you ticked?

Most of the respondents said because we do not have other option.

Some of them said, "Text book is my favorite"

few of the said, "I have smart phone and it is movable everywhere and can store many books.

- Teachers, Directors, Library Heads:

Q1: How do you classify the reading habit of the students?

Table 5: Observation from teachers, and library heads

Choices	Frequency	Percentage
Strong	1	3.3
Weak	20	66.7
Medium	9	30
Total	30	100

Q2: What do you think the reason?

Table 6: Justification of the observation

Choices	Frequency	Percentage
Full Accessibility of books	4	13.3
Lack of books and standard library	20	66.7
The school's effort in creating passion	6	20
Total	30	100

Q3: What do you recommend regarding the status of the library and reading habit of the students?

Most of them responded, "Schools have to be fully equipped"
Few said, "Motivate students to read with the available resource"
One of the respondents said, "We have enough materials"

- **Students Questionnaires after tablets are distributed for 5 days each:**

20 students from each school at 4 phases for 5 days 4 tablets /kindles are distributed. Based on this we have

tabulated the responses of the students after using the digital device follows:

Q1: How did you get the device?
Table 7: Device(E-reader source)

Choices	Frequency	Percentage
Strongly useful	94	78.4
Average	16	13.3
Useless	10	8.3
Total	120	100

Q2: What is your reason?

Most of the respondents' expressed the flexibility/mobility of the device and variety of resources.
Some said because it has different types of data formats
Few say I have phobia using technological device.

Conclusion

- Due to the Weak reading habits of students , students do not challenge their teachers. As a result, teachers do not prepare well.

- There is not conducive reading environment and sufficient materials for references.

- It is costly to build library and accommodate with full books.

- We found movable materials are more preferred by the rural students.

- Students go long distances for searching reference materials and become tired before they start reading.

- Students and teachers reacted positively for using E-readers instead of using old and bare libraries.

Recommendation

- School heads, Government bodies, Non-Governmental bodies must introduce the digital E-readers to minimize the shortage.

- Since the digital E-reader eases the accessibility challenges of reading materials, parents and other stake holders must encourage using digital readers.

- Schools and educational institutions must initiate projects like "one Kindle for one student" which will include massive participants to enhance accessibility.

- Using digital readers with plenty reading materials must be supported in the education policy of Tigray.

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