Significance and adequacy of instructional media as perceived by primary school pupils and teachers in Kinondoni District, Tanzania

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This study investigated on significance and adequacy of instructional media as perceived by primary school pupils and teachers in Kinondoni District, using survey approach. A random sample of 292 pupils and 34 teachers from 15 schools participated by filling the questionnaire. Validity of the questionnaire was ensured through expert judgment from a group of experienced researchers. Cronbach’s Alpha ranged between .618 and .652 meaning questionnaire items were reliable. The Primary School pupils and teachers perceived that instructional media are vital in the teaching-learning process, enhancing ability to read and write correctly, influencing active participation and ability to remember vocabularies. Availability of chalkboards, text books and supplementary books is adequate. However, pieces of woods (slates), learning corners, reading cards, bulletin boards, video clips, voice recorders, and Braille machines are inadequate. It is therefore recommended that since both pupils and teachers perceived instructional media to be vital in the teaching-learning process, school administration should ensure good supply of various media resources and teachers’ training on how to use the media resources effectively. Finally, school administration should increase those media resources perceived inadequate.

Key words: Instructional media, media resources, adequacy, Kinondoni, Tanzania

INTRODUCTION

Instructional Media is one of important variables that enable teaching and learning process to sail successfully. Thus, pupils’ learning outcomes are highly influenced by its use as revealed in literature. According to Wambui (2013), availability and adequacy of Instructional Media contribute in improving pupils participation as it exposes learners to the real world of learning as well as building understanding and retention because when things are seen, they are more remembered than when they are simply heard. In the similar vein, Makewa et al. (2012) argued that the use of instructional resources that are related to the basic content of a lesson helps learners to understand a particular lesson.

The use of various instructional media makes the learning process more effective because it builds greater understanding, reinforcement and retention of the subject matter (Ayot, 1984 as cited in Ngussa, 2015). In the same perspective, Wales, (2009) as cited in Wambui, (2013) argued that the use of instructional material not only makes discovered facts glue firmly in the memory of learners but also makes learners enjoy participating in lessons and motivate them to repeat the activity during their free time. Naz and Akbar (2010) further argue that instructional media have many advantages in terms of repeatability, transportability and increased equity access. Furthermore, Instructional Media assist teachers to transmit the knowledge in an impressive way making learning more effective as they help learners in greater acquisition of knowledge. They also help to draw pupils’ attention and improve classroom discipline (Reeves, 1998). With this regard, learners, particularly at Primary School context
need to be involved in the whole process of teaching and learning through the use of different Instructional media so as to improve Academic Performance in terms of mastery of reading and writing skills. While instructional media can be researched at different angles, this study concentrated on Significance and Adequacy of Instructional Media as Perceived by Primary School Pupils and Teachers in Kinondoni District, Tanzania.

The study has been propelled by the fact that a range of studies done in different countries indicates importance of the use of various media resources for effective teaching and learning. A study done in Nigeria by Amosa and Ogunlade (2015), for instance, investigated the differences in the achievement of pupils taught using audio instructional package on basic school pupils’ performance in English pronunciation and those taught using the expository method and their achievement. The findings indicate that the pupils taught using the audio instructional package performed significantly better than those taught using expository method. In Kenya, a study by Achola et al. (2016) indicates that teaching using various instructional materials improved the performance of learners in various learning activities including ability to write dictated words. Likewise, the study concluded that mandatory use of instructional media should be established while teaching to enhance English language subject in Kenya because instructional media are an integral part of English language teaching (Wamalwa and Wamalwa, 2014).

In Tanzania, the use of instructional media in primary schools seems to be a problem since in most Primary schools there is inadequate use of such for enhancing learners’ mastery of reading and writing skills. This is shown by Shirima (2013) who discovered that instructional media are not used frequently because of large number of pupils in classrooms and shortage of recommended resources in school context, and as a result pupils graduate with insufficient knowledge and skills to undertake real world tasks. In the similar vein, Mtiti (2014) concluded that large classes of up to 100 pupils limit the use of instructional resources particularly: text and reference books, computer assisted facilities and resources made from the school surroundings.

Due to this background, this study sought to investigate on significance and adequacy of instructional media as perceived by primary school pupils and teachers in Kinondoni District in the United Republic of Tanzania.

**Review of Related Literature and Studies**

**Categorization of Instructional Media**

Instructional media applicable for 3Rs are not different from instructional media used in other learning areas. Dale (1969) as cited in Naumy, 2012) categorizes instructional media into three groups namely: Visual, Audio and Audio – Visual which are briefly explained below:

- **Visual media:** Are those media whose content is received through the sense of sight, Examples of these include books, pictures, photographs, charts, diagrams, maps, posters, drawings, real objects, chalkboard, cartoons and the like.
- **Audio media:** These are media that involves hearing. Examples of audio media are radio, tapes, telephone, disc recordings, telephone and sound distribution systems.
- **Audio-visual media:** These include films, television, video tapes, demonstrations and motion pictures.

In the context of the Curriculum for Basic Education, Tanzania Institute of Education (2016) suggested the following instructional Media for 3Rs mastery: chalkboard, bulletin board, small pieces of wood (slates) for learners practice, learning corner, a tool kit for studying 3Rs, a text book and teacher’s guide, supplementary books, supportive materials for learners with special needs such as voice recorders, hearing aids and Braille machines. Thus, the present study assessed perceived significance and adequacy of instructional media for primary school learners’ mastery of reading and writing in Kiswahili Language in Kinondoni District, Tanzania.

**Significance of Instructional Media**

A range of studies explains the significance of Instructional Media for effective teaching and learning. According to Fidanboylu (2014) the use of visual aids during teaching motivates the pupils and reinforces the learned language. It further provides exciting learning experiences and helps to improve reading, writing, speaking and listening skills. Makewa et al. (2012) indicated that media resources are useful in language instruction. They also argue that instructional resources are vital to the teaching of any subject. With this regard, the use of various instructional media is essential for mastery of 3Rs.

In Ghana, a study of Seth (2009) indicates that lack of wall charts, models and other conventional media to compliment the use of chalkboards and textbooks in the schools increased difficult for teachers to offer quality teaching and learning to promote high academic performance for junior high schools pupils. Chinooneka and Mupa (2015) conducted a similar study in Zimbabwe and discovered that teachers’ failure to use a variety of media in the teaching and learning process resulted into failure in grasping basic skills of reading and writing.

The use of instructional media makes the learning process more effective because it builds greater understanding, reinforcement and retention of the subject matter (Ayot, 1984 as cited in (Ngussa, 2015). This is supported by Schofield et al (1990) as cited in Wamalwa and Wamalwa, 2014) who argued that when Instructional Media are incorporated in the teaching and learning process, pupils can easily and effectively understand and retain what is being taught in the classroom.

Naz and Akbar (2010) further argue that instructional media have many advantages in terms of repeatability, transportability and increased equity access. Furthermore, Instructional Media assist teachers to transmit the
knowledge in an impressive way making learning more effective as they help learners in greater acquisition of knowledge. They also help to draw pupils’ attention and improve classroom discipline (Reeves, 1998). Particularly, the study by Wambura (2017) concluded that computer has many benefits in education including enhancing academic works, improving lesson and students understanding and influencing independent learning.

The significance of instructional media is further presented by Nasibi and Kio (2006) as cited in Karanja (2015) that teaching and learning resources are important in education because they motivate and encourage learners to utilize more than one sense hence increasing their attention and retention capacity. Similarly, Monda (2012) concluded that teaching and learning resources create motivation in learning. Thus, it can be said that combination of various instructional media is vital when ones need to achieve the desired objectives in any leaning aspect and particularly reading and writing skills.

**Instructional Media and Academic Achievement**

Academic achievement is normally attained as a result of various instructional media used. This argument is supported by Clarke and Abbott (2015) who evaluated an iPad project in a Northern Ireland Primary schools on how technology impacted learning in literacy and numeracy. The study revealed improvements and greater readiness in pupils’ ability to grasp initial key concepts in literacy and numeracy, including lower ability and special needs children. This suggests that primary schools need to create conducive environment in accessing various instructional media that facilitate academic improvement particularly on learners’ mastery of reading and writing skills.

A study conducted by Sola (2014) attempted to examine the effectiveness of audio-visual aids in enhancing pupil’s vocabulary acquisition at Third year middle school level in Algeria. It was revealed that pupils remember nearly all new words when they encounter auditory and/or visual images. It affirms the present study which attempt to determine the effectiveness of various instructional media to enhance academic achievements in terms of mastery of reading and writing in Kiswahili language.

In Nigeria, a study by Amosa and Ogunlade (2015) investigated the differences in the achievement of pupils taught using audio instructional package on basic school pupils’ performance in English pronunciation and those taught using the expository method and their achievement. The findings indicate that the pupils taught using the audio instructional package performed significantly better than those taught using expository method.

Olayinka (2016) conducted a study in Nigeria which revealed that pupils taught with various instructional materials have excellent achievement as compared with those taught without various instructional materials. Another study in the same country by Igu et al. (2014) discovered that instructional materials facilitate teaching and learning of social studies. In the same manner, Chinyere (2009) argued that learners’ ability to understand any learning concept is increased when teachers use various instructional media. Similarly, instructional media enables pupils to grasp various things which ones cannot comprehend fully by relying to storytelling and explanations. Thus, academic achievement in different subjects is enhanced when teachers use different types of instructional materials.

According to Namibia National Institute for Educational Development (NIED, 2012) in most cases a classroom that is featured by various Instructional Media such as posters, charts, and pictures enriches learner’s ability to read and count as it keeps them busy and engaged.

In Kenya, a study by Chepngetich (2015) concluded that pupils who were taught using traditional methods of teaching with integration of video programs significantly performed better than those pupils taught without the use of video programs. Similarly, Achola et al. (2016) argues that teaching using various instructional materials improved the performance of learners in various learning activities including ability to write dictated words. It is therefore arguable that instructional media play vital role when learning any subject matter because academic achievement and instructional media seems to be inseparable.

Another study by Plass et al. (1998) examined supporting visual and verbal preferences in a second language multimedia Learning Environment. The results concerning vocabulary acquisition are in line with cognitive theory of multimedia learning which explains that pupils’ performance on posttest was best when both visual and verbal modes of instruction were used, moderate when pupils selected one mode of instruction and worst when they selected neither.

**RESEARCH METHODOLOGY**

**Research Design**

The present study used survey research approach. Mark et al. (2009) consider survey as popular as it allows the collection of a large amount of data from a sizeable population in a highly economical way. Surveys are usually done by using a questionnaire administered to a sample, then the data is standardized in order to allow analysis. A sample of pupils and teachers was used to participate in the study by filling the questionnaire. Data was gathered by using questionnaire which was filled by both teachers and pupils. This is because questionnaire provides an efficient way of collecting responses from a large sample prior to quantitative analysis which was the case in this study.

The target population of this study was 78 public primary schools of Kinondoni District. In order to come up with appropriate sample size, stratification and systematic strategies were applied. According to Mark et al. (2009) stratified random sampling is a modification of random sampling in which the researcher divides the population.
Validity

According to Cohen, Lawrence and Keith (2005) validity is a demonstration that a particular instrument measures what it intends to measure. In quantitative data validity might be improved through, appropriate instrumentation. Validity of the questionnaire was therefore ensured through a group of five research experts from the University of Arusha who looked at the research instrument against research questions and commented where necessary adjustments was required. Suggestions given by experts were incorporated.

Reliability

Reliability is the tendency to obtain the same results if the measure was to be repeated by using the same subjects under the same conditions (Siniscalco and Auriat, 2012). In the same manner Cohen et al. (2005) argue that for research to be reliable it must demonstrate that if it were to be carried out in a similar context, then similar results would be found. With this regard, in the present study, Cronbach’s Alpha was used to test reliability of questionnaire items. The cut off point for acceptable reliability was 0.6. The Cronbach’s Alpha ranged between .618 and .652 meaning all items were reliable (Table 1).

Ethical Considerations

The researchers took some measures to ensure conformity to research ethics. Before starting data collection phase, permission was sought from all concerned Institutions. The researcher obtained clearance from the University of Arusha authorities. Application for authority to conduct research in Kinondoni District was presented. Before distributing questionnaires; the researcher ensured his respondents about the confidentiality of the information they provided.

Table 1. Reliability Analysis Results

<table>
<thead>
<tr>
<th>SN</th>
<th>Variable In Question</th>
<th>Cronbach’s Alpha Before</th>
<th>Cronbach’s Alpha After</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Adequacy of Media Resources</td>
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<td>.652</td>
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<tr>
<td>2</td>
<td>Significance of Media Resources</td>
<td>.618</td>
<td>.618</td>
<td>No item deleted</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION

Analysis of data was done by two research questions which guided this study. The questions were analyzed through descriptive statistics in terms of mean scores.

What is the perception of teachers and pupils on the significance of media resources use in teaching and learning?

In order to answer this research question, pupils and teachers were needed to respond to seven items in the questionnaire. The scale of mean scores interpretation used was as follows: 3.50-4.00 = Strongly Agree, 2.50-3.49 = Agree, 1.50-2.49 = Disagree and 1.00-1.49 = Strongly Disagree (Table 2)

According to Table 2, six out of seven items were rated between the mean score of 3.50 and 4.00 meaning strong agreement. This means that respondents strongly agreed that instructional media are vital in the learning process, enhancing ability to read and write correctly and influencing pupils to actively participate in learning. This resonates what Fidanboylu (2014) indicated in his study that the use of visual aids during teaching motivates the pupils and reinforces the learning process. It further provides exciting learning experiences and helps to improve reading, writing, speaking and listening skills.

The fact is further supported by Schofield, et al (1998) as cited in Wamalwa and Wamalwa, (2014) who argued that when Instructional Media are incorporated in the teaching and learning process, pupils can easily understand and retain what is being taught in the classroom. Similarly, Monda (2012) argues that teaching and learning resources create motivation in learning by supporting the full process.

With the mean score ranging between 2.50 and 3.49, respondents agreed that instructional media lead pupils to remember vocabularies. This is similar to findings of a study conducted by Sola (2014) attempting to examine the effectiveness of audio-visual aids in enhancing pupil’s vocabulary acquisition at Third year middle school level in Algeria. The study revealed that pupils remember nearly all

into two or more relevant and significant strata based on one or a number of attribute. Similarly, Kothari (2004) further argue that stratified sampling results in more reliable and detailed information. With this regard the schools were categorized into two major strata: urban and rural schools. From each stratum systematic sampling was used to determine a sample to participate in the study. Systematic sampling, on the other hand, is the most practical way of sampling where researcher selects every item on the population list (Kothari and Garg, 2014). With this aspect, 48 urban schools and 30 rural schools were arranged alphabetically and every 5th school was selected. Thus, 9 schools from urban stratum and 6 schools from rural stratum constituted the sample. Therefore, the total number of sampled schools was 15. A total of 34 teachers and 292 pupils filled the questionnaire.
new words when they encounter auditory and/or visual images.

**What is perceived adequacy of instructional media by Primary School pupils and teachers in Kinondoni District?**

The scale of mean scores interpretation used was as follows: 3.50-4.0 = Very Adequate, 2.50-3.49 = Adequate, 1.50-2.49 = Inadequate and 1.00-1.49 = Very Inadequate. As it can be seen in Table 3, three instructional media were perceived to be adequate with the mean score ranging between 2.50 and 3.49. These include appropriate chalkboards, hands-on activities, reading and writing textbooks and supplementary books. This is something worth noting because according to Wambui (2013), adequacy of Instructional Media contributes in improving pupils participation as it exposes learners to the real world of learning as well as building understanding and retention because when things are seen, they are more remembered than when they are simply heard. In the similar vein, Makewa et al. (2012) argue that adequacy of instructional resources can help learners to understand a particular lesson more deeply.

The mean score for the rest of instructional media ranged between 1.50 and 2.49 which means the instructional media were inadequate. These include pieces of woods (slates), learning corners with book shelves and reading cards, bulletin boards, video clips, and supportive hearing aids for learners with special needs, supportive voice recorders, and supportive Braille machines. According to Fidanboylu (2014) the use of visual aids during teaching motivates the pupils and reinforces the learned language. It further provides exciting learning experiences and helps to improve reading, writing, speaking and listening skills. Makewa et al. (2012) further argue that instructional resources are vital to the teaching of any subject. The perceived inadequacy of instructional media, therefore, calls upon school administration to create ways through which the instructional media in question can be increased.

**SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

**Summary of the Study**

This study sought to investigate on significance and adequacy of instructional media as perceived by primary school pupils and teachers in Kinondoni District, Tanzania. The study used survey research approach whereby a
sample of 292 pupils and 34 teachers participated by filling the questionnaire. The study was guided by two major research questions namely; (1) what is the perception of media resources in teaching and learning? (2) What is perceived adequacy of instructional media by Primary School pupils and teachers in Kinondoni District?

Conclusions

Based on findings of this study it is concluded that Primary School pupils and teachers in Kinondoni District perceived that:

- Instructional media are vital in the teaching-learning process, enhancing ability to read and write correctly, influencing pupils to actively participate in learning and leading pupils to remember vocabularies.
- Pieces of woods (slates), learning corners with book shelves, reading cards, bulletin boards, video clips, hearing aids for learners with special needs, voice recorders, and Braille machines are inadequate.

Recommendations

Based on above conclusions, it is recommended that:

- Since both pupils and teachers perceived instructional media to be vital in the teaching-learning process, school administration should ensure good supply of various media resources and teachers’ training on how to use the media resources effectively.
- Particularly, school administration should increase pieces of woods (slates), learning corners with book shelves, reading cards, bulletin boards, video clips, hearing aids for learners with special needs, voice recorders, and Braille machines are inadequate.

Conflict of interests

The authors declare that they have no conflict of interests

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