

The Influence of Instructional Media Use on Learners' English Language Competence: A Case of Secondary Schools in Monduli District, Tanzania

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Abstract: *Effective learning involves abilities to recall facts as well as comprehension of ideas. While this is true in any subject matter, the learning of English demands learners to possess such abilities. The present study was propelled by the fact that mastery of English is one of key challenges facing secondary school teachers and learners in Tanzania where Kiswahili is medium of instruction in Primary Schools while English takes over as medium of instruction in secondary schools. The study employed survey research design. Five out of seven secondary schools in Monduli District were randomly selected to participate by filling the questionnaire. Validity of the questionnaire was assured through expert judgment. Reliability test yielded Cronbach's Alpha greater than 0.7 in each variable. Data was analyzed through Descriptive Statistics, t-test and Pearson product Moment Correlation coefficient. The study established that students, regardless of their gender differences, perceived to be competent in the use of English Language as medium of Instruction. Teachers used visual materials, audio materials, audio-visual materials as well as real things to enhance effective learning. The use of real things has strong correlation while the use of audio, visual and audio visual has weak and/ or moderate correlation with students' competence in English Language. It is therefore recommended that teachers should take advantage of students' competence in English language to enhance the teaching-learning effectiveness. Since the use of real things has more positive influence toward English competence, teachers should be encouraged to use such type of instructional media with the support of the audio, the visual and the audio visual types.*

Key words: Media, technology, English, competence, audio, visual, Real Things

1. Introduction

Effective learning involves abilities to recall facts as well as comprehension of ideas. While this is true in any subject matter, the learning of English demands learners to possess such abilities. The present study has been propelled by the fact that mastery of English is one of key challenges facing secondary school teachers and learners in Tanzania where Kiswahili is medium of instruction in Primary Schools while English takes over as medium of instruction in secondary schools. This suggests a drastic change which learners experience during transition from Primary to secondary education. The findings of Kikoti (2004) revealed complaints among teachers and other professionals in Tanzania that most form four leavers are unable to express themselves well in English language because their mastery of grammatical elements and

English tenses is low. This is further supported by Mtallo (2015) whose findings revealed that English as medium of instruction is one of major challenges affecting the teaching and learning process. Likewise, the study of Lupago (2014) came up with a conclusion that English acts is a setback in learning processes in Tanzania secondary schools and it is still an uphill task for the Tanzania learners to achieve learning objectives through the use of English language. These challenges suggest a need for educational stakeholders and curriculum developers to come up with approaches that will foster learners' abilities to master English language as medium of instruction.

In response to this study gap, the present study investigates on the influence of instructional media and technology on learners' abilities to master English among

Secondary Schools in Monduli District in order to come up with relevant recommendations.

1.1 Instructional Media and Language Competence

Language competence is a key factor for learning effectiveness. Mastery of the medium of instruction is essential for proper communication between the teacher and the learner and among the learners themselves. If learners have not mastered the medium of instruction they cannot fully participate in the teaching-learning process and therefore their academic achievement may be negatively affected. While there are various ways through which learning effectiveness can be enhanced, the use of instructional media and technology cannot be overemphasized. Literature has indicated the power of instructional media and technology in facilitating effective learning. According to Delija (2013, p. 10), “interactive teaching strategies have a strong impact on the students’ motivation which leads them towards active – cooperative learning.” Therefore, interaction is a key factor for learner’s active participation in the teaching and learning process.

When learners are active in the process, learning outcomes are optimized. This is supported by the fact that learning exists along a continuum from concrete to abstract experiences. As the teaching-learning process moves along the continuum, from left (where the experience is full of hands on activities with the use of technology) to right (where there is less interaction with instructional tools), learners move from actually participating with the concrete to observing the content and to just hearing and reading (Smaldino, Kowther and Russel (2008). Therefore, it is important for teachers to increase interactive atmosphere in the teaching and learning process with the use of instructional media and technology opportunities.

While there are numerous variables with which the learner can interact, instructional media and technology aspects can play a big deal toward enhancing the interaction. According to Smaldino, Kowther and Russel (2008), technology has had a variety of interpretations ranging from mere hardware to a systematic way of solving problems. Instructional technology, on the other hand, is the specific use and knowledge of tools and crafts in education. The tools like computers, distance education, hardware, or the internet are used for instruction that is instructional technology.

1.2 Types of Instructional Media

Like in many other subjects, there are various ways through which instructional media used in Language learning can be categorized. These include the audio, the visual, the audio visual and the real objects.

1.2.1 Audio Materials

Audio materials are those which are directed to the learners’ ability to hear what is taking place during the

teaching and learning process. Significance of audio materials can be seen in the fact that it preserves sound of contemporary events for future generations. Smaldino, Kowther and Russel (2008, p. 280), bring to view the place of audio materials. According to them, “audio adds a dimension to classroom environment that expands and deepens students’ learning experiences.” They further stipulate various approaches in which audio can enhance learning. First, students can record their book reports during study time and preserve them in school’s media centre for other students to listen. Secondly, students can use the portable devices to record information gleaned from the field trip. On returning to the classroom, students can playback the recording for discussion and review. Lastly, students can also record themselves reciting presenting a speech, performing music and so on. They can thereafter listen to the recordings and have them critiqued by the teacher and fellow students. Finally, they call upon teachers to prepare recordings for use in direct instruction.

The power of audio materials for instructional purposes has further been proven by previous studies. According to Purnama, Wiryawan and Suryani (2014), for instance, character education can increase the discipline value of students more when the audio is used as instructional resource than when the audio is not used in the teaching-learning process. This suggests that audio materials have great deal to play toward attainment of learning objectives. The study of Binuraj, Paleeri and Pereira (2014) further investigated on construction of individualized audio instruction material for enhancing teaching of physics and established that audio instructional materials were very effective in teaching and learning of physics for high school students.

1.2.2 Visual Materials

Visual is another category of instructional media. According to Tuckman and Monetti (2011), visual displays help students see the relationships between concepts and make the abstract seem more concrete and understandable. Visual materials include all items that are visible but cannot produce sound. Most instructional materials belong to this category. These include, but not limited to chalkboards, manila cards, overhead projection, picture rolls and bulletin boards.

1.2.3 Audio-Visual Materials

Audio-visual materials are those which appeal to the sound and vision sense organs at the same time. According to Rasul, Bukhsh and Batool (2011, p. 78), “audio visual aids are those devices which are used in classrooms to encourage teaching learning process and make it easier and interesting.” Previous studies have established the power of audio-visual type of instructional media and technology. The study of Reich (1984), for instance, established that interactive Audio-Visual Learning adds the dimensions of sight and sound to learning effectiveness. He further contends that the power of audiovisual media to present complex concepts is

coupled with the capabilities of a computer to analyze a learner's response to questions and then to direct the flow of information.

1.2.4 Real Things

Real things, also referred to as realia, include real objects such as soil, live animals and plants, equipment and apparatuses. This type of instructional media and technology is more simulative and interactive to the learner (Thungu, Wandera, Gachie & Alumande, 2010). While it is important to expose learners to real things, it is quite challenging to bring about real objects in the classroom due to limited space and costs involved. To overcome this barrier, simulation can be done. This is supported by Farrant (1999, p. 300) who has this to say: "sometimes, for practical reasons, it is more convenient to simulate experiences rather than use the real things. Due to this, it is useful to consider both real and simulated media."

The use of real things have the following instructional benefits (Thungu, et al., 2010, p. 14): First, learners can easily relate to them especially when they have been involved in collecting or preparing them. Secondly, they provide a clear and true experience compared to any other form of teaching aids. Next, they capture the learners' interest, thus making teaching-learning to move effectively. Also they enhance development of manipulative skills and finally, they enhance retention of concepts during the teaching and learning process.

According to Farrant (1999, p. 300-302) real things can be categorised into various types including the following:

- Specimen: A good example of specimen can be drops of animal or human blood for laboratory functions.
- Artefacts: These are man-made articles such as tools, weapons or clothing. They include those of ancient origin and modern ones.
- Models: These are made to look just like the real things. A model can be designed to demonstrate a processor a concept. These are referred to as diagrammatic. But when models are constructed so that they actually work, they are referred to as working models.

- Dioramas: These are scenes or places or activities set out in a box. These can be viewed by the teacher and the learners from an open side of the box during the teaching-learning process.

2. Research Methodology

This section addresses the methodology used in carrying out this study. It addresses such issues as research design, population and sampling techniques, validity and reliability and data analysis procedures.

2.1 Research Design

The study employed survey research design. Survey research design can be defined as a way of collecting data which involves a numerous instruments including questionnaire. Mugenda and Mugenda (1999) describe survey as the best method to describe existing conditions in educational environments. Cohen, Manion and Morrison (2013) further consider survey as characterized by the study of relationships among variables. With this respect, the present study, among other objectives, established interrelationships among variables under investigation.

2.2 Population and Sampling

The present study employed simple random sampling procedure to determine respondents to the questionnaire. Five out of seven secondary schools (71.4%) were randomly selected through systematic sampling procedures to participate. In each school, one stream of form three students was randomly selected and students were given the questionnaire to fill. As a result, a total of 241 students participated by filling the questionnaire.

2.3 Validity and Reliability

Validity of the questionnaire was assured through expert judgment. An expert in research from the University of Arusha was given the questionnaire to validate before the pilot study was conducted. The expert gave recommendations on how the questionnaire would be improved, and the recommendations were incorporated.

Table 1: Reliability Analysis

SN	Variable	Items	Cronbach's Alpha	Interpretation
1.	Competence	9	.769	Reliable
2.	Audio	3	.728	Reliable
3.	Visual	7	.739	Reliable
4.	Audio-Visual	3	.754	Reliable
5.	Real Things	4	.752	Reliable

Reliability of the questionnaire, on the other hand, was ensured through running data into the SPSS software for calculation of the Cronbach's Alpha in each variable under investigation. The SPSS running resulted

Cronbach's Alpha greater than 0.7 in each variable as seen in Table 1, meaning all questionnaire items were reliable.

2.4 Data Analysis Procedures

Data was coded into the SPSS software. An expert from the School of Education, University of Arusha, assisted to

analyze the data. Data was analyzed through both descriptive and inferential statistics. Descriptive statistics established mean scores and standard deviation of responses. Some research questions called for testing of null hypotheses. This necessitated the running of inferential statistics in term of t-test and Pearson Correlations to establish differences and relationships among variables under investigation.

3. Results and Discussion

Analysis was guided by the four research questions. Two research questions were analyzed through descriptive statistics in terms of mean scores and standard deviation under the following interpretation of mean scores:

- 3.50-4.00 = Strongly Agree
- 2.50-3.49 = Agree
- 1.50-2.49 = Disagree
- 1.00-1.49 = Strongly Disagree

Two research questions called for hypothesis testing and therefore were analyzed through inferential statistical tools namely t-test and Pearson Product Moment Correlation Coefficient.

Research Question One: *What is the level of English Competence among secondary school learners in Monduli District?*

This research question sought to establish perception of students on language competence. In order to answer this question, it was important to establish the mean scores to nine items in the questionnaire. As seen in Table 2, the mean score to all nine items was between 2.50 and 3.49, denoting agreement. Therefore, respondents agreed that they are able to read and analyze literary works, they are able to understand complex texts, they are able to write using appropriate English in various situations and settings and they are able to respond to texts from various sources.

Table 2: Perception of Students on Language Competence

SN	Items	Mean	Interpretation
1.	I am able to read and analyse literary works.	3.23	Agree
2.	I am able to read and understand complex texts.	3.16	Agree
3.	I am able to write using appropriate English in various situations and settings.	3.02	Agree
4.	I am able to respond to texts from various sources.	2.99	Agree
5.	I m able to listen to and understand various simple English texts	2.86	Agree
6.	I am able to Write simple texts in English	2.60	Agree
7.	I am able to express myself orally in English using complex sentences	2.59	Agree
8.	I am able to read intensively a variety of simple English texts.	2.51	Agree

Furthermore, they agreed that they are able to listen to and understand various simple English texts, they are able to write simple texts in English, they are able to express themselves orally using complex sentences and they are able to read intensively a variety of simple English texts. This finding is worth noting because English competence is key component for effective teaching and learning when the language is used as medium of instruction. The finding, however, is against that of Mtalo (2015) which revealed that English as medium of instruction is one of major challenges affecting the teaching and learning process in Tanzanian secondary Schools and that of Lupago (2014) which came up with a conclusion that English acts is a setback in learning processes in Tanzania secondary schools and it is still an uphill task for the Tanzania learners to achieve learning objectives through the use of English language.

Research Question Two: Is there significant difference in English Competence by learners categorized according to their gender?

Having established the English competence level, it was necessary to determine variation of the competence by gender. This research question called for testing of a null hypothesis which states *there is no significant difference in English Competence by learners categorized according to their gender.* The null hypothesis was tested through t-test. As indicated in Table 3, the mean score for male students was 2.84 while that of female students was 2.78. The mean score for both groups was between 2.50 and 3.49, denoting agreement.

The Sig of .334 in table 4, which is greater than the critical value of .005 leads to acceptance of the null hypothesis and therefore maintaining that there is no significant difference in English competence by learners categorized according to their gender. Therefore, gender does not determine competence level in the medium of instruction.

Table 3: Group Statistics for English Competence by Gender

	What is your gender?	N	Mean	Std. Deviation	Std. Error Mean
COMPETENCE	Male	150	2.84	.482	.03938
	Female	91	2.78	.473	.04960

Table 4: Independent Samples Test for English Competence by Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
COMPETENCE	Equal variances assumed	.117	.732	.965	239	.336	.06139	.06363	-.06396	.18674
	Equal variances not assumed			.969	192.921	.334	.06139	.06333	-.06352	.18630

Research Question Three: What is the rate of the use of various types of instructional media and technology in teaching and learning process among secondary schools in Monduli District?

It was also necessary to establish the rate of the use of various types of instructional media and technology in the teaching and learning process. As indicated in Table 5, the

mean score in all types was between 2.50 and 3.49, denoting agreement. This reveals the fact that English Language Teachers use visual materials, audio materials, audio-visual materials as well as real things as instructional resources to enhance effective learning.

Table 5: The Use of Instructional Media and technology

SN	Instructional Media	Mean	Std. Dev	Interpretation
1.	Visual Materials	2.92	.633	Agree
2.	Audio Materials	2.80	.736	Agree
3.	Audio-Visual Materials	2.57	.749	Agree
4.	Real Things	2.56	.725	Agree

Research Question Four: Is there significant correlation between the use of various types of instructional media and technology and learners' mastery of English as medium of instruction?

This research question called for testing of a null hypothesis which stated *There is no significant relationship between language competence and the use of various instructional media and technology types.*

Table 6: Correlation between Language Competence and Instructional Media Types

VARIABLES	Audio	Visual	Audio-Visual	Real
Lang. Competence Pearson Correlation	.403**	.386**	.669**	.760**
Sig. (2-tailed)	.000	.000	.000	.000

The null hypothesis was tested through Pearson product Moment correlational Coefficient. As seen in Table 6, there is a Significant positive yet weak correlation ($r=.403$, Sig .000) between Language Competence and the use of audio type of instructional media and technology. Secondly, there is a significant positive yet weak correlation ($r=.386$, Sig .000) between Language Competence and the use of visual type of instructional media and technology. Furthermore, there is a significant positive yet moderate correlation ($r=.669$, Sig .000) between Language Competence and the use of audio-visual type of instructional media and technology. Finally, there is a significant positive yet strong correlation ($r=.760$, Sig .000) between Language Competence and the use of Real Things type of instructional media and technology. Therefore, the use of each type of instructional media and technology contributes to mastery of English Language competence

4. Conclusions and Recommendations

Based on findings of this study, this section presents conclusions and recommendations.

4.1 Conclusions of the Study

Based on findings of this study, the researchers came up with the following conclusions regarding the use of instructional media and technology and students' competence in English Language:

1. Respondents perceived to be competent in the use of English Language as medium of Instruction. Particularly, they agreed that they are able to read and analyze literary works, understand complex texts, write using appropriate English in various situations and settings, respond to texts from various sources, listen to and understand various simple English texts, write simple texts in English,

to express themselves orally using complex sentences and read intensively a variety of simple English texts.

2. There is no significant difference in English Language competence by learners categorized according to their gender. Therefore, gender does not determine competence level in the medium of instruction.
3. English Language Teachers use visual materials, audio materials, audio-visual materials as well as real things as instructional resources to enhance effective learning.
4. The use of Audio and Visual instructional media types slightly influence English language competence. The use of audio visual type moderately influence English language competence while the use of real things strongly influence English language competence.

4.2 Recommendations of the Study

Based on four conclusions above, the researcher give the following recommendations:

1. Teachers of various subjects should take advantage of students' competence in the use of English language as medium of instruction by teaching effectively. This will enhance learners' achievement and pave ways for them to proceed with higher education.
2. Since the use of real things has more positive influence toward competence of English as medium of instruction, teachers should be encouraged to use such type of instructional media and technology with the support of the audio, the visual and the audio visual types.

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