
Effect of the Effective Use of Instructional Materials on Pupils' Understanding of Subject Matter and Interest in Learning

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ABSTRACT

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Subject matter, Instructional materials, Interest in learning, Retention, Primary education

This study investigated the effect of the effective use of instructional materials on pupils' understanding of subject matter and their interest in learning at the primary school level. The study adopted a descriptive survey research design and was conducted among public primary schools in Nkanu East Local Government Area of Enugu State. The population comprised primary school teachers, from which a sample of 100 teachers was selected. Primary data were collected using a structured 35-item questionnaire designed to elicit teachers' perceptions on the use of instructional materials in the teaching-learning process. The instrument was validated, and the data collected were analyzed using mean scores. A criterion mean of 2.50 was used for decision-making, where mean scores of 2.50 and above indicated acceptance of an item, while mean scores below 2.50 indicated rejection. The findings revealed that the effective use of instructional materials significantly enhances pupils' understanding of subject matter and increases their interest in learning. The study further established that instructional materials promote active participation, improve retention, and make learning more meaningful at the primary school level. Based on these findings, the study concluded that the effective use of instructional materials is essential for achieving the objectives of primary education. The study therefore recommended that head teachers and education administrators should ensure strict compliance with the use of relevant instructional materials during classroom instruction.

1. Introduction

Primary education occupies a significant position in the educational system of any society. In Nigeria and in some other countries; the primary education serves as the foundation of the formal educational system. The above assertion is anchored on the premise that the quality of primary education a person has determines, to a great extent, the success or failure that the person would record at the secondary and tertiary levels of education.

According to Jeremiah (2007), the quality of primary education determines the overall quality of the other layers of education. The Nigerian Government is aware of the crucial role that primary education plays in laying solid educational foundation for academic success in Nigeria. This is why Government has initiated series of educational policies to raise the quality of education at the primary school level. One of such programmes was the Universal

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Primary Education, UPE of 1976. Through this programme, the Nigerian Government sought to provide free primary education to all Nigerian citizens. In 1999, the Federal government modified the UPE programme to Universal Basic Education, UBE.

The UBE programme comprises six years of primary school plus three years of junior secondary, namely; JSS1-3. Participants of UBE programme are to enjoy six years of primary school and junior secondary tuition free. The Federal Government made it a serious offence against any parent or guardian stopping or depriving a child of school age the fundamental right of enjoying basic education in Nigeria.

It is however sad and worrisome that in spite of the concerted effort that the Nigerian Government is deploying to raise the quality of education at the primary school level, the standard of education at this level remains poor.

Major stakeholders in the Nigerian educational system such as the parents and the classroom teachers continue to decry the lack of competence and skill of graduates of primary school into secondary schools. There are some pupils that have difficulty writing and expressing themselves. According to these stakeholders, the poor quality of education at the primary level is having negative effects on secondary education and the tertiary level of education.

In view of the pivotal role of primary education as a foundational class to the overall quality of education in Nigeria, there is the urgent need to come up with concrete strategies on how to raise the quality of education at this level. It is against this background that this study sought to find out the effects that the use of relevant instructional materials can have on teaching-learning at the primary school level. The question is; what role does instructional materials in the teaching-learning process play towards the realization of the objectives of primary education in Nigeria?. To what extent could the use of relevant instructional materials in the teaching-learning process guarantee effective teaching-learning at the primary school level? It is to get meaningful answers to these questions that this study was initiated.

2. Literature Review

For Agu (2008), curriculum materials are aids to teaching and learning that enable the curriculum objectives to be achieved. They not only facilitate learning but also stimulate children to take active interest in learning and bring the lesson down to real experience of the learner. Instructional materials also encourage the reasoning and valuing ability in the learner while at the same time aids the learner in remembering what is learnt and in the transfer of learning.

According to Okoli and Ezeanolie (2005), the ultimate aim of curriculum instructional materials is to enhance learning. In their view, instructional materials essentially have been developed to facilitate learning as they appeal virtually to all children. According to them, instructional or curriculum materials are devices used in learning situations to supplement the spoken word in the transmission of knowledge, attitude and values. They include things or objects brought into play to clarify the object of instruction. They described instructional materials as aids or supplements to the normal processes of instruction and consist of material and techniques which competent teachers make use of in their everyday teaching. They see instructional materials as those aids which teachers use that have the capacity to promote teaching-learning activities. Finally, they stated that instructional materials contribute essentially to develop the cognitive, affective and psychomotor domains of the learner.

Olumba (2000) is of the opinion that the aim of utilizing curriculum materials is to be sure that all educational planning, educational management and curriculum development have in the end justified themselves by the effectiveness of the outcome. He stresses the fact that the effectiveness of the teaching-learning process is appraised within the context of its relevance in meeting the educational developmental needs of the learner and provision of meaningful solution to the problems of the society. The use of curriculum material in the teaching process makes this possible.

Alio (2007) studied the three inter-related aspects in which instructional materials can play effective roles in the promotion of learning. The study highlighted the effective roles instructional materials play in the form of audio-visual aids.

Okorie (2006) proposes that any instructional material used to supplement the normal teaching process of listening, seeing, reading and writing are to be regarded as audio-visual aids. However, the dictionary of education, defined audio-visual instruction as the branch of pedagogy which treats of the production, selection and utilization of materials of instruction that do not depend solely on the printed word or instructional techniques employing materials and procedures not dependent solely on the printed word.

According to Alio, through the effective use of audio-visual materials, a teacher can remarkably enhance instructional delivery in such a way that the students will be adequately groomed and well informed. He further stressed that instructional aids can help to present facts and information as well as arouse concepts and principles, impress pictures and images vividly in the minds and memories of learners and can help in the transfer of learning.

Alio (2009) also pointed out that audio-visual instructional aids have been found to be useful in the assessment of learning outcomes. Collaborating Alio (2009) on the benefits of audio-visual in the teaching-learning process, Okoli and Ezeanolie (2005) pointed out that audio visual materials when used effectively can stimulate interests among the learners. They usually induce longer retention of factual ideas or concepts as the learners come into contact with what is being described.

Okoli and Ezeanolie (2005) observed that the use of audio-visual aids give new concepts of things outside the range of ordinary experience. They cited how the motion picture of kainji dam for example can effectively stimulate the learning interest among geography students by giving them opportunity to have fair idea of what the dam looks like even though they have not visited the place. Elaborating further, they noted that through the use of audio-visual aids, members of the group or learners are given an opportunity to share an experience together which will lead to the development of skills and the formation of attitudes, opinions and values about what was observed.

Okoli and Ezeanolie (2005) stressed the fact that audio-visual aids are available for various age groups and for those with varied learning abilities. Audio-visual instructional materials provide integrated experiences which may vary from the concrete to the abstract and they possess the characteristics of holding the attention of all the learners throughout the duration of the lesson and even after the lesson.

Alio (2009) also found out that instructional materials can play effective roles in the form of technology media. Olumba (2000) observed that films radio and television have been wonderfully effective in the training of students in many countries of the world. He pointed out that through video tape recording of capable teachers, many students would effectively learn in advance the learning experiences that the teacher would eventually teach or present.

Instructional materials have been defined by various educationists. Onyejemezi (2009) sees them as resources or teaching materials, which a teacher utilizes in the course of presenting a lesson in order to make the content of the lesson understandable to the learner.

According to Dike (2010), instructional materials are all the devices with instructional contents and functions, which are used, for teaching purposes. They include textbooks, supplementary reading materials, and audio-visual script for radio and television instrumentation programmers for computer managed, packaged, sets of materials. They represent all the alternative channels of communication, which can be used to communicate and represent information in a more vivid form to learners. They are those devices used to effect a pre-determined purposeful change in the behavior of a learner. They are used by teachers to make their lessons explicit. They are used by teachers during the teaching-learning process to concretize a concept. They can be manipulated, seen, heard, read or talked about.

3. Methodology

3.1 Research Design

The survey research design was used to execute this study. A survey research design is one in which a group of people or items is studied by collecting and analyzing data from only few people or items considered to be representative of

the entire group. (Akuezilo, 2007). The researcher adopted this design because it is most appropriate for this study in view of its large population.

3.2 Area of Study

The Primary data for this study was collected from the teachers teaching at the public primary school level in Nkanu East Local Government of Enugu State.

3.3 Population for the study

The population of this study is 350 teachers teaching at the public primary school level in Nkanu East Local Government Area. This comprised the male and female teachers. Teachers teaching in private schools were not part of this study group.

3.4 Sample and sampling technique

The sample size for this study is 100 teachers at the primary school level in Nkanu East local government area. The researcher got this sample size using the random sampling technique. Through this technique, the researcher initially resolved to select 5 primary school teachers from 25 public primary schools in Nkanu East LGA giving a total of 125 teachers. All the selected teachers were listed as respondents for this study. In selecting the sample size, the researcher ensured that they have homogenous characteristics. In other words, all the teachers are teaching at the primary school level in public primary schools in Nkanu East LGA. They were either male or female gender.

3.5 Instrument for data collection

The instrument used in collecting data for this study is the questionnaire. This is a structured questionnaire. It is formulated in line with the 4-point scale of Strongly Agree (SA)_4, Agree (A)_3, Disagree (D)_2, Strongly Disagree (SD)_1

This instrument was formulated by the researcher. It is made up of two sections A and B. Section A is the letter of introduction requesting the respondent to help in filling the questionnaire form.

Section B is the main questionnaire items. It is made up of 35 items for the research questions, five items for each research question. The respondents were requested to tick (✓) on any of the statements that represent their opinion.

3.6 Validation of the instrument

To validate or determine the content validity of the items, the researcher sent the instrument to 3experts for vetting. Two lecturers came from the Educational Foundation Department, Enugu State College of Education and Technical. The other validator came from the department of Measurement and Evaluation, Enugu State University of Science and Technology, ESUT. To enable the validators to have clear understanding of the instrument, the researcher also made available to them the topic, research problem, purpose of the study and research questions. When the researcher took delivery of the validated instrument, only those items accepted by the validators were used for this study.

3.7 Reliability of the instrument

The researcher determined the reliability of the instrument through pre-testing the validated instrument on the teachers teaching at the public primary schools in Enugu East LGA. The data collected from this pre-test exercise were analyzed using the spearman RHO statistics. A value of 0.05 was recorded and the research considered this value adequate to carry out the study.

3.8 Method of data collection

A total of 25 public primary schools were used for this study. The opinion of 5 teachers in each of the schools were sampled. A total of 125 copies of the questionnaires were sent out to the teachers. The researcher employed two research attendants to cover selected schools. The researcher received 100 copies of the questionnaire. this means

that 25 teachers that initially collected the questionnaires forms failed to return their copies. It is these 100 teachers that served as the sample size of the study.

3.9 Method of data analysis

The mean scores of the respondents were computed and used to answer the research questions. A mean of 2.50 was taken as a criterion in line with the 4-point scale. This means that any mean up to and above 2.50 was accepted to mean that respondents accepted the statement. On the contrary, a mean less than 2.50 was not accepted. This means that respondents did not accept the statement. A cumulative mean of the 5 items were computed to determine the respondents opinion on a research question. A cumulative (grand) mean of 2.50 and above was interpreted that majority of the respondents acceptance less than 2.50 was interpreted that majority of the respondents rejection of the statement.

4. Findings

4.1 To what extent does the use of instructional materials in the teaching-learning process help primary school pupil to have better understanding of the subject matter?

Table 1- Effects of the use of instructional materials on primary school pupils better understanding of the subject matter.

N-100

Questionnaire items	SA	A	D	SD	X	R
1. Primary school pupils understand easily instructional content that are meaningful to them.	50	40	4	6	3.34	A
2. The use of instructional materials in the teaching-learning process simplifies the lesson for the pupils understanding than when the lesson is presented theoretically.	42	32	16	10	3.06	A
3. Primary school teachers easily achieve instructional objectives through the effective use of instructional materials than relying on their ability to speak.	30	40	20	10	2.90	A
4. Primary school pupils understanding of lesson is greatly enhanced when their five senses are activated through the use of instructional materials.	20	40	30	10	2.70	A
5. The use of instructional materials in teaching-learning at the primary school level does not have any significant positive effect on the pupils understanding of the lesson.	0	0	50	50	<u>1.50</u>	<u>R</u>
Cummulative X					2.7	A

As recorded on table 1, a mean of 3.34 was computed for item number 1. This means that majority of the respondents accepted that statement to be true. However, a mean of 1.50 was recorded for item number 5. This means that majority of the respondents rejected that statement. This means that in the opinion of majority of the respondents the use of relevant instrumental material in teaching primary school pupils enhances their capacity to understand better the topic that their teachers taught them.

A grand mean of 2.7 was computed for item 1-5 which shows that respondents accepted the statement that instructional materials promote better understanding of lesson among pupils.

4.2 What role does the use of instructional materials in the teaching-learning process at the primary school level play in promoting children's interest in their studies?

Table 2- Effects of instructional materials on the promotion of pupils interest in their studies.

Questionnaire items	SA	A	D	SD	X	R
6. Pupils tend to show interest in learning something that easily appeals to their five senses.	60	20	10	10	3.30	A
7. The use of instructional materials in the teaching-learning process captures the interests of primary school pupils than lessons taught theoretically.	30	30	20	20	2.70	A
8. Primary school pupils show more interest in learning and mastering lessons packaged in instructional media like computer programmes than those presented in traditional lecture method.	50	20	20	10	3.10	A
9. The use of instructional materials in the teaching-learning process at the primary school level makes the lesson real and interesting to pupils than lessons taught theoretically.	40	30	20	10	3.00	A
10. The use of instructional materials in teaching-learning process does not have any significant positive effect in promoting primary school pupils interest in the subject.	0	0	60	40	1.60	R
Cummulative (grand) X					2.74	

As shown on table 2, a mean of 3.30 was computed for item number 6. This means that majority of the respondents accepted that statement to be true. In the same vein, a mean of 2.70 was computed for item number 7. This also means that majority of the respondents accepted that statement to be true. However, a mean of 1.60 was computed for item number 10. This means that in the opinion of majority of the respondents the use of instructional materials in the teaching-learning process promotes the interest of learners at the primary school level.

A cumulative mean of 2.74 was computed for items 6-10. This shows that majority of the respondents believe that instructional materials promote learners interest.

At the end of data analysis, the following findings were made.

- The use of instructional materials in the teaching-learning process raises pupils understanding of the subject matter.
- The use of instructional materials in the teaching-learning process increases pupil's interest in their studies.

5. Discussion

A Cumulative mean of 2.7 was computed for items 1-5 on research question 1 which sought to ascertain the opinion of the respondents on the effects of the use of instructional materials at the primary school level on the pupils understanding of the subject taught. The computed mean value shows that majority of the respondents believed strongly that the effective use of instructional materials, truly enhances learner understanding at the primary school level. This finding has been corroborated by Nzewi (2000). According to Nzewi's finding, the use of instructional materials on the teaching-learning process simplifies the lesson. Instructional materials if used relevantly make learning more permanent in the minds of the learner. They facilitate the learning of abstract concepts and ideas.

Effective use of instructional materials in the teaching-learning process, according to Nzewi's finding stimulates learning in view of the fact that it makes the lesson concrete and natural to the learners. Alio (2007) corroborated finding number 1 of this study. According to Alio, when the relevant instructional materials were used in the teaching-learning process they contribute significantly in making the lesson easy and very comprehensible to the learner. This finding is very clear considering the mental development of pupils at the primary school level. Seeing, touching, feeling, smelling and tasting the material used in teaching enables them to understand what the teacher was teaching.

A grand mean of 2.74 was computed for items 6-10 on research question 2. Research question 2 sought to find out the views of the respondent on the effects of the use of instructional materials in teaching-learning process towards increasing the pupil's interest in the lesson. This mean value shows that majority of the respondents believed that the use of relevant instructional material in organizing lesson for primary school pupils has the tendency to increase their interest in what they were taught.

This finding has been supported by Onurah (2007). According to the author, one main principle that facilitates learning is learner's interest in the lesson taught. The use of instructional materials elicits learner interest in the lesson. The National Educational Research and Development Council (NERDC) 2013 on the 9 year Basic Education Curriculum also supported this finding in its Teachers' Guide on the implementation of the programme.

The Guideline directed teachers teaching at the basic education level, that is, primary 1 to Js3 to make their lessons interesting through the use of variety of activities and instructional materials. For doing so will raise the interest of the pupils to what the teacher was teaching. The UBEC Programme Guideline made it clear that children learn something that they show interest in.

6. Conclusion

This study investigated the effect of the effective use of instructional materials on pupils' understanding of subject matter and their interest in learning at the primary school level. The findings revealed that the effective use of instructional materials significantly enhances pupils' understanding of subject matter and increases their interest in learning. The study further established that instructional materials promote active participation, improve retention, and make learning more meaningful at the primary school level. Based on the findings of this study, the following recommendations were made: Educational providers at the primary school level must emphasize the use of instructional materials at the primary school level and Government should live up to its promise of providing educational resource materials at each public primary school so as to meet the instructional materials of the school. The researcher encountered some challenges in the course of conducting this study. The first was the challenge of money. The researcher spent a lot of money to gather data for the study. In the same vein, the production and administration of the instrument for this study imposed a huge financial burden on the researcher, but however, the researcher was able to overcome this financial challenge through the help from sponsors and well-wishers. To further deepen this study, the following topic is suggested. The impact of Computer Applied Instruction (CAI) on the teaching-learning process at the primary school level in Nkanu East Local Government Area.

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