
**Effect of Instructional Media Selection and Utilization on Teachers' Performance in
Secondary Schools in Uyo Senatorial District**

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ABSTRACT

The study sought to examine the influence of instructional media selection and utilization on teachers' performance based on years of teaching experiences in secondary schools in Uyo Senatorial District. Two objectives and hypotheses were formulated to guide the study. The study adopted a survey-research-design. The population of the study included all the male and female teachers and students in 96 secondary schools in the 6 local Education Committees (LEC) of Uyo Senatorial district of Akwa Ibom state. The researcher developed an instrument tagged "Media Utilization Questionnaire (IMUQ) and Questionnaire on Students' Perception of Teachers' Performance (QSPTP)" for data collection. To ensure that the instrument is reliable, split-half reliability estimate using 0.86 and 0.73 reliability coefficient was run on the questionnaire. The hypotheses were analysed using T-test and F-test analysis respectively. From the result of the findings, it was observed that there is significant influence of teachers' knowledge of selection of instructional media on teachers' performance. The result further showed that there is significant effect of instructional media utilization on teachers' performance based on short, average and long years of teaching experiences. One of the recommendations was that Secondary school teachers should be adequately motivated to develop and use instructional media during lessons and care should be taken in selection and utilization of a given instructional media to guarantee objective realization.

KEYWORDS: Teachers' knowledge, instructional media, utilization, teachers' performance, teaching experiences, secondary schools.

Introduction

An effective teacher has been described as one that uses available and a variety of instructional materials in his lessons (Ibe-Bassey, 1992). Instructional media selection therefore remains an important aspect of the teaching-learning process. Teachers should be able to present their lessons using appropriate instructional communication principles and practice, be dependable, cooperative and have a good knowledge of his subject matter and also make effective use of a variety of instructional materials. Learners learn more effectively too when such learning experiences and activities are illustrated with instructional media (Akpan 1997). Such materials can be matched to the learners' characteristics, content, behavioural objectives, instructional approach and evaluation techniques (Etim, 1996). The teacher's management styles and classroom routine can be integrated into the lesson through the selection and utilization of such instructional media. Ibe-Bassey (1991) has reported that Gagne (1977) and Briggs (1970) have limited the selection of instructional media for instruction to models and theories which are

useful to designers and not teachers. He advocated the materials-first-rationale model because curriculum and objectives come from instructional materials which contain information in themselves.

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Effective utilization of instructional media has equally been found to increase the rate of learning of students and save teachers time as instructional delivery may be accomplished with ease. Sleeman and Schramm (1997) illustrated that all instructional media can instruct and learners can learn from virtually all media. The study was supportive to the utilization of instructional media but did not direct properly the design and utilization principles to gain the best from them. However, the turning point lies in providing answers to the questions on how one can best use a given medium for a given act of instruction.

Statement of Problem

For many teachers, selection of instructional media for their own students is largely on initiative task. This assertion is supported by the work of several researchers who studied how teachers planned their lessons. It was discovered that teachers do not follow the systematic approach to lesson planning. Behavioral objectives, an important component of the instructional system most times have not been stated prior to the specification of contents and material to be used. Also, teachers usually plan from materials not to materials because the curriculum development is tied in a very concrete way to the materials that are available in the school building. This had been attributed to how teachers select and use instructional media and to how teachers try to match instructional objectives to instructional materials. This attitude had affected students rather on the negative, students may find it difficult to follow the teacher's line of instruction. This study therefore seeks to find out the effect of teachers' selection and utilization of instructional media on teachers' performance in secondary schools in Uyo Senatorial District.

Objective of the Study

The study aimed to find out the influence of instructional media selection and utilization on teachers' performance based on years of teaching experiences in secondary schools in Uyo Senatorial District.

1. To examine the effect of teachers' knowledge of selection of instructional media on teachers' performance.
2. To ascertain the effect of instructional media utilization by teachers based on short, average and long years of teaching experiences on teachers' performance.

Research Question

1. Can teachers' knowledge of instructional media selection affect teachers' performance?
2. Can instructional media utilization of teachers based on short, average and long years of teaching experience affect teachers' performance?

Hypotheses

1. There is no significant effect of teachers' knowledge of selection of instructional media on teachers' performance.
2. There is no significant effect of instructional media utilization of teachers based on short, average and long years of teaching experiences on teachers' performance.

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Review of Instructional Media Selection:

From the abundance of an array of instructional media in secondary schools and colleges, basic selection process should be adopted to select materials that can match the learners' experiences (Etim, 1996). Woodbury (1998) in finding a suitable process for instructional media selection asserted that just as instructional materials range widely in format and quality, so do the means of selecting them also vary abundantly. Instructional media selection is a complex operation and multi-faceted activities that involves many people agencies and even organization. However, the final decision on instructional media selection rest upon the teachers, curriculum planners, and managers of instruction, (Ibe-Bassey, 1996). This implies that teachers have authority vested on them because of their professional training as well as power and influence that enable them to choose materials fitting for instruction.

In the selection of instructional media for classroom, Ibe-Bassey (1996) identifies several roles that a teacher performs in a given classroom. The teachers as managers of learning situation should be able to organize the circumstances that provide the best opportunity for learning to occur more effectively. The concept of a manager of the learning environment introduces the decision making polices which a manager should make a classroom. Ibe-Bassey (1996) therefore identifies the concept of authority, power and influence that a teacher exercises within a classroom as affecting such decisions making policies. It becomes essential that a teacher should acquire the necessary knowledge of what the selection process of instruction materials is in order to select appropriate instructional materials.

Wittich and Schuller (1997) reports that teachers with educational background in instructional media have greater knowledge about selection process. The selection of an appropriate media has followed certain models, principles and guidelines. Erickson (1970) as cited by Inyang-Abia (2004) proposed four methods for selecting instructional media:

- A preview panel
- Classroom layouts
- A combination of the above
- Individual teachers

In adopting these methods Erickson (1990) as cited by Inyang-Abia (2004) developed guidelines and standards for judging the value of instructional media which include: Portability, Rug, Cost, Ease of operation, Quality of performance, Effective design, Ease of maintenance and repair, Local equipment status, Available service, and Reputation of manufacturers.

Brown (1993) pointed out that there is no simple formula for assisting the classroom teacher to select an appropriate medium. Brown (1993) enumerated several variables to be considered in selecting instructional media. These variables include: The variety of hardware and software available, the physical facilities available for the instructional programme, the experiences from which the teacher must select to achieve the objectives, the number of learning objectives stated or implied in the subject, and various intellectual capacities and the divergent backgrounds of learning in a given class.

Woodbury (1998) noted that teachers were in an equivocal position in relation to selecting instructional media for use in the classroom. This is because teachers were hampered by censorship by the administrators and parents on one hand, feelings of inadequacy on the other hand are possibly by boredom over the entire selection process. EPIE (1997) study shows that 65% of classroom instructional time involves the use of textbooks. The reason is obvious. Little is known about how teachers should select instructional media for use in the classroom.

Mager (1975) and Taba (1962) as cited by brown (1993) developed the objective – First-Rationale Model of instructional media selection. According to the model, the teachers in planning their lesson should:

- State learning objectives
- Select appropriate learning activities and materials
- Evaluate the effectiveness and efficiency of the outcome based on their earlier stated objectives.

The implication is that, the ends or expected outcomes of instruction are delineated prior to the determination of appropriate means of achieving those ends.

For many teachers, selection of instructional media for their own students is largely on initiative task. This assertion is supported by the work of Carr (1998) who studied how teachers planned their lessons. Carr (1998) discovered that teachers do not follow the systematic approach to lesson planning. Behavioural objectives, an important component of the instructional system must be stated prior to the specification of contents and material to be used. Accordingly, Torkelson, (1992) observed that teachers usually plan from materials not to materials because the curriculum development is tied in a very concrete way to the materials that are available in the school building. Most of the researchers in instructional media selection and utilization, example Bretz (1992) as cited by Brown (1993) have been limited to models and theories construction. Many more researchers for example Brown (1992) and Brussel (1992) in their studies on how teachers select and use instructional media observed that teachers try to match instructional objectives to instructional materials.

When making decisions for selecting material, teachers were influenced by the content of the lesson taught and their professional training rather by than stating behavioral objectives. Integrated instructional design should include a consideration on the mental and initiative efforts of teachers and the quality of materials and not after needs assessment (Ibe-Bassey, 1996). Teachers should therefore acquire the necessary knowledge through training in the process of instructional media selection for a given lesson or units of instruction. Bretz (1992) as cited by Brown (1993), pointed out that selection of instructional media has traditionally been viewed within a model of planning hence the total process of choosing instructional media for classroom

is complex though teachers make the final selection decisions on what materials are to be used within the teaching learning process. Ibe-Bassey (1988 as cited by Brown (1993), had outlined certain influences on the selection of instructional media. Such influence include:

- Teachers' professional training
- Contents of lesson taught
- Behavioural objectives of the lesson
- Teachers' initiative efforts
- Availability and accessibility of the materials in schools.

This is predicated on the premise that the competency of teachers in the selection process is enhanced by their professional training as well as availability of instructional media in institutions of learning. As a follow up to these presumptions, certain guidelines must be followed for effective media selection for use in the teaching-learning process.

Analyse the audience characteristics so that instructional media so selected can be matched with the abilities and interest of the learners. Such analysis involves gender, previous experiences and other inherent traits of the learners. Media so selected must be made compatible with the cultural expectations of the learners. Researchers have shown that learners participate actively in the lesson and learn more in a given instructional process if the materials are matched with the behavioural objectives of the lesson and as such instructional objectives is paramount in the selection process (Mayer, 1975) as cited by Brown (1993).

Instructional Media Utilization:

The primary task of any professional educator is the design of the learning system. This implies that diversification in the teaching-learning system is imperative to achieve the desired outcome. It is true that the nature of the secondary schools delivery system has relevance for the planning and subsequent production and utilization of structural media for enhancing the effectiveness in the teaching-learning process. The quality of education and graduates from the secondary schools will depend on the input-output relationship in the teaching process of the secondary school teachers. The accountability of teachers is measured in terms of quality product. Accountability means demonstrating quality returns on quality investment with products and services to provide more effective and more efficient instruction to satisfy the products demands and meet their expectations.

An Educational Information Product Exchange (EPIE, 1997) study on how teachers and students use instructional media indicates that in about 90% - 95% of all K- 12 classroom, instructional media were used. This condition could be tied to a number of variables including availability and accessibility of those media, competency in the design and knowledge of utilization among other variables. The utilization should be intensified in the teaching-learning process of the teachers in Secondary schools. Woodbury (1998) reported a significant relationship between attitudinal factors and media usage and between demographic factors and media usage among teachers in High Schools, Florida, and United States of America. Brussel (1992) reviewed the literature on the practices that would measure the knowledge of instructional media specialist. According to Brussel (1992), an instructional media utilization included the following:

- Introduction /Cueing: Introducing the lesson and the concept to the learners and reviewing their previous experiences; response guidance; informing the learners of the objectives; written practices; distribution of reviews; repetitive practices and feedback.

Heinich, Molenda& Russell (2002) mentioned other utilization practices and procedures as thus:

- Previewing the instructional media to avoid the use of wrong instructional media, correct wrong concepts and update where necessary,
- Preparing the environment e.g. ventilation, sitting arrangement, shading of the room, where necessary especially where films are to be used to support the intended instruction
- Preparing the students: this involves making them to be aware of the lesson and the lesson objectives. Determining the parts students will play during the lesson.
- Use the materials
- Obtain students feedback
- Evaluate the feedback

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They mentioned that maximum learning could occur if knowledge of the practice of the media utilization procedures were followed. Willis (1981) as cited by Brown (1993) reported that library media specialist were more knowledgeable than teachers in the area of media utilization. This view attracted a lot of contentions because teachers remain the implementers of the curriculum and planners of the instructional system not the librarians who only store and make available instructional media for use as their job description in the library. Adeyanju (2005) however, in recognition of this, added that teachers with educational background in instructional media have greater knowledge of media utilization than those without such courses. Such knowledge might be attributed to assistance from the library media specialists or the attendance at workshop and in-service programme in media utilization organized by school media districts and coordinators.

Robert (1994) stated that the instructional media utilization are of stages. Such stages like: Introduction, Presentation and Evaluation. Archer (2006) stressed that teachers use of instructional material increase when the teachers have immediate access to extensive collection of non-print media in their own schools media centre. Akubuiro (2002), further reported that teachers use more locally produced instructional materials. The idea is supported by the fact that the light financial restriction which most schools authorities cited for not supporting the acquisition of commercially produced instructional media can be circumvented in addition to meeting basic pedagogical ideas. The implication of Akubuiro's (2002) assertion is that the teachers can control instructional media in their schools and thus acquire experiences that can be effective and engaging. Utilization of instructional media can thus be seen as function within a given classroom.

Instructional media utilization therefore is an important component of the instructional system. The list of instructional media we have in our schools, Colleges and Universities, libraries, resource centres, and our classrooms will become useless if the media facilitators and teachers in such resource centres and units, cannot select such materials in lessons effectively (Ibe-Bassey, 1993).

Instructional media utilization will enable easy access to information by many learners and people at the same time. The nature and purpose of secondary school education has significantly underscores the imperative of instructional media design, selection and utilization. This is more so since it is believed that instructional media ensure the effectiveness of teaching and learning through among others concretizing ideals and engendering creativity (Adesina, 1993). Such effectiveness is predicted on the obvious advantages when instructional media inject into teaching-learning situation when properly used. Ahmad (2002) had asserted when properly used, instructional media could achieve effective teaching and learning in secondary schools.

Methods

Research Design

For the purpose of the study, survey research design was used.

Area of the Study

The area for the study was Uyo Senatorial district which covers Uyo, Nsit Ibom, Etinan, Uruan, Nsit Atai, Ibesikpo Asutan, Itu, Ibiono, and Nsit Ubium, inhabited by Ibibio speaking people.

Population of the Study

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The population of the study included all the male and female teachers and students in 96 secondary schools in the 6 local Education Committees (LEC) of Uyo Senatorial district of Awa Ibom state. The population of the teachers was estimated at 2,864 representing 1,534 males and 1,330 females. The enrolment figure of Senior Secondary Two (SS2) students in the area at the time of the study (2007/2008 academic session) stood at 32,689 representing 17,962 males and 14,727 females.

Sample and Sampling Technique

The sample consisted of 600 secondary school teachers and 360 SS2 students from 30 selected secondary schools. Stratified random sampling technique was used in the study to categorise the sampled area into 6 strata. The hat-and-draw method was further used to randomly select 5 secondary schools from each strata making a total of 30 schools and 12 SS2 students.

Instrumentation

The instruments for data collection were designed by the researcher. They are: Instructional Media Utilization Questionnaire (IMUQ) and Questionnaire on Students' Perception of Teachers' Performance (QSPTP).

Validity of the Instrument

Face, content and construct validation of the two instruments were ascertained by experts in measurements and evaluation.

Reliability of the Research Instrument

In order to ensure the reliability of the instruments, split-half reliability estimate using 0.86 and 0.73 reliability coefficient was run on the questionnaire.

Method of Data Analysis

Data generated was analysed using T-test and F-test analyses.

Hypotheses Testing/Discussion of Findings

Hypothesis One

The null hypothesis states that there is no significant effect of teachers' knowledge of instructional media selection on teachers' performance. In order to test the hypothesis, two variables were identified as follows:

- 1) Teachers' knowledge of instructional media selection as independent variable
- 2) Teachers' performance as dependent variable.

T-Test analysis was used in comparing the mean scores of the high teachers' knowledge of instructional media design and low teachers' knowledge of instructional media design strategies, in order to produce t-value.

Table 1: T-test Analysis of the Effect of Teachers' Knowledge of Instructional Media Selection on Teachers' Performance

VARIABLES	N	X	SD	T
High knowledge	436	56.78	7.31	32.80*
Low knowledge	164	36.12	5.52	

*Significant at 0.05 level; df = 598; critical value = 1.96 Dr. EKONG, Xavier Moses

From Table 1, the obtained t-value was 32.80; the calculated value was tested for significance by comparing it with the critical t-value (1.96) at 0.05 level with 598 degree of freedom. The obtained t-value (32.80) was found greater than the critical t-value (1.96), hence the result was significant. The result signifies high positive influence on the two variables. It means that the higher the teachers' knowledge of instructional media selection, the higher or more effective the teachers' performance in the classroom and vice versa. The significance of the result caused the null hypothesis to be rejected while the alternative one was accepted. The result therefore means that there is significant effect of teachers' knowledge of instructional media selection on teachers' performance. The significance of the result is in agreement with the opinion of Inyang-Abia (1998), who stated that effective communication, teaching and learning are enhanced and guaranteed by careful selection and skillful utilization of appropriate instructional media in the classroom.

Hypothesis Two

The null hypothesis states that there is no significant effect of instructional media utilization on teachers’ performance based on short, average and long years of teaching experiences. In order to test the hypothesis, two variables were identified as follows:

- 3) Teachers’ short, average and long years of teaching experience as independent variable
- 4) Teachers’ performance as dependent variable.

One-way analysis of variance was used in comparing the different mean scores of instructional media utilization based on short, average and long years of teaching experience, in order to produce F-value.

Table 2: One-Way Analysis of Variance in Instructional Media Utilization of teachers based on short, average and long years of teaching experiences and teachers’ performance

SOURCE OF VARIATION	SS	DF	MS	F
Between Groups	15462.294	2	7731.147	72.43*
Within Groups	63727.040	597	106.745	
Total	79189.333	599		

***P<0.05; df = 2 & 597; critical F-value = 3.00**

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From Table 2, the obtained F-value was 72.43; the calculated value was tested for significance by comparing it with the critical F-value (3.00) at 0.05 alpha level with 598 degree of freedom. The obtained F-value (72.43) was found to be greater than the critical F-value (3.00), hence the result was significant. The result signifies high positive difference on the two variables. It means that the longer the teachers’ years of teaching experience, the more positive the teachers’ performance in the classroom and vice versa. The significance of the result caused the null hypothesis to be rejected while the alternative one was accepted. The result therefore means that there is significant effect of instructional media utilization of teachers based on short, average and long years of teaching experiences on teachers’ performance. The significance of the result is in agreement with the opinion of Okon (2000), who stated that very long years of teaching experience enhances teaching and learning situations, and also improves teachers’ performances in terms of skills and methods applied. Experience here is the best teacher, because it is through this, teachers are effective and efficient in the daily encounter with their students. An experienced teacher is so unique in applying his wealth of experience, ability, techniques, skills and capacity needed to plan, decide, develop, produce, select, utilize, evaluate and combine both human and no human media resources to effect teaching and learning (Akude, 1990).

Conclusion

From the analysis and the result presented, it could be concluded that there is significant effect of teachers’ knowledge of instructional media selection on teachers’ performance. Also, there is significant effect of instructional media utilization on teachers’ performance based on short, average and long years of teaching experiences.

Recommendations

1. The researcher recommends that while planning for any learning experience, instructional resources should be considered with the complete analysis of learner's characteristics and the general goals of the lesson as presented by the Ministry of Education or the examining body – West African Examination Council (WAEC). Thereafter, considerations can be given to behavioural objectives, contents and instructional strategies.
2. Instructional materials should be made available and accessible to all the secondary school teachers and students at all times.
3. Secondary school teachers should be adequately motivated to develop and use instructional media during lessons and care should be taken in selection and utilization of a given instructional media to guarantee objective realization.

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