INSTRUCTIONAL MEDIA PREFERENCE AMONG STUDENT-TEACHERS IN AKWA IBOM STATE COLLEGE OF EDUCATION, AFAHA NSIT.

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Abstract

Performance in teaching practice could predict future success as a teacher. Therefore, the need to adopt appropriate skills in media selection and utilization is germane. The study ascertained the most preferred instructional media used by student-teachers. It also ascertained whether the utilization of instructional media among student-teachers was significantly high. One research question guided the study and one hypothesis was tested at 0.05 level of significance. The population comprised all the 1200 student-teachers for the 2015/2016 session in College of Education, Afaha Nsit. The sample which was selected through the multistage sampling technique comprised 354 of them. The "Instructional Media Preference Scale" (IMPS) was used to gather data for the study. Descriptive statistics indicated that the chalkboard/white-board was the most preferred instructional media while computer-related media ranked 6th among nine media. The least in the order of magnitude were projected media. Contigent chi-square indicated that that there is significant difference in the use of various instructional media by student-teachers (x^2 = 1295.25; df = 24, crit. x^2 = 36.42). The implication of the findings is that service delivery would be greatly reduced due to low use of computer-related media. One of the recommendations was that lecturers in Educational Technology and those who teach the teaching methods in different subject areas should emphasized the use of ICT-related media in teaching and learning due to the rewards derivable through their use. Practical ICT use and integration should form an integral part of the courses taught.

Introduction

The integration of media of classroom teaching has brought education one step higher from the traditional technique/teaching method to a more interactive and interesting teaching and learning process. The traditional methods of teaching being adopted by teacher-trainees in Nigeria are based on the objectivist epistemology which has been faulted. Constructivist epistemology which guides current thinking on the process of learning demands a shift from traditional learning methods to a teaching method which requires the use of various teaching and learning resources in pursuit of learning as well as requiring the students to construct their own knowledge learn more independently and

in the process acquire a habit of self-reliance (Heinich, Molenda, Russel & Smaldino, 2001.)

Incorporating media technology into the classroom has become a global trend, and in recent years, schools and institutions of higher learning in Nigeria and the world-over are integrating multimedia into their educational curricula to enhance the teaching learning process (Oliver & Towers, 2000). Dodge & Weiss (2012) list the reasons for technology use in teaching and learning to include: professional development, helping students with low attention span, encouraging home work and learning from experts.

The use of instructional media is always necessary despite the subject or the level that one teaches. Observing teachers in training in various contexts has revealed that effective use of media is better than lengthy explanations. Research has shown that the use of varied media is vital in concept formation by learners thereby sustaining students' attention, increasing the meaningfulness of abstract concepts, encouraging deep processing and boosting class performance through increased content acquisition. (Baylor & Ritchie, 2002).

Olamini & Campbell (1994) opine that teaching using media can extend the opportunities for learning far greater than chalk-and-talk. The learner is able to piece together patterns of new concepts using multiple sensory dialogues. These senses are not always stimulated at the same time. Much of their stimulation depends on the media the teacher uses.

Bruner in Heinich & Molenda (1996) observes that learning proceeds from direct experience through representation of that experience to symbolic conceptualization. The sequence in which a learner encounters materials therefore has a direct effect on mastery, retention and usability of abstract symbols.

Instructional media lend support and authenticity to whatever the teacher says, through the use of media, learning effectiveness is increased and learners are more likely to retain and recall with ease a greater percentage of what they hear, see and manipulate (Ajebabi, 2000).

Inspite of the relevance of instructional media in teaching, evidence abound to show that teacher-trainees are not exploring instructional media effectively in the classroom. One of the challenges inhibiting teachers' use of instructional media in the classroom is that teachers and lecturers alike have richer experiences in conventional classroom teaching and that sudden change from what is familiar to something different and new, may result in resentment or rejection. This makes them face difficulties to

transfer current teaching practice to a media and technology-driven learning environment (Charatdao & Intratat, 2004).

Ponticell (2003) also opines that teacher-trainees rely so much on traditional teaching methods and reflexively resist curricular and instructional innovation. A study by Majed (1996) found that teacher-trainees in Malawi extensively use the chalkboard as compared to other instructional media. Results showed that they could not reject using the chalkboard as it is user-friendly, freely available, need no power expect in the case of electronic white boards and can be used with a variety of other materials for a broad-range of teaching. Also, a 2005 U.S. Department of Education study found that traditional teaching was the most common format experienced by teachers in regular education academic classes (Lim, 2005).

Availability and accessibility of instructional technology resources are important factors that determine the frequency with which teacher-trainees use instructional media. It therefore suggest that the frequency with which school teachers use instructional media is related to the availability of technological hardware in the classroom. A study by Fuller (2000) found that in higher institutions in Turkey, 814 faculty members reported having no access to computers and the internet. It was then concluded that improved availability and fairness of access to technology resources by teachers is essential,

Gender gap exists in education is sub-Saharan Africa, and out-of-school children, more of whom are girls, are deprived of any opportunity to gain ICT related knowledge and skills in school. African women have the lowest enrolment rates in the world in science and technology education at all levels. A study conducted in four African countries established that women are less confident than men in their computer skills and this may result in incompetence of using the computer as an instructional media in the class (Derbyshire, 2003).

Improving teacher-trainees' skills in the utilization of instructional media in the classroom requires changing teachers attitudes towards their application of instructional media, because their application is affected by their attitudes.

Borko & Putnam (1995) opine that teachers' poor attitude towards the use of instructional media in the classroom is sometimes attributed to lack of knowledge in using visual materials and media. They get reluctant in getting acquainted with different innovations because they feel it will invade their professional autonomy and expose their inadequacy.

Piper (203) reports a significant influence of knowledge on novice teachers' classroom uses of technology. In fact, evidence suggests that the teachers lacked the required skills and knowledge to use technology in their classrooms. Similarly, the barriers to ICT use in tertiary institutions in Nigeria include: low level of technology education, inadequate technical supportive staff, poor power supply, low quality service, low level of funding, and lack of government policy (Ebo, 2013). It is suggested that time and effort should be devoted to increasing teachers' knowledge for using technology, not just to accomplish administrative and communication tasks but to facilitate students' learning (Piper, 2003).

The present study ascertained student-teachers' preference of instructional media in the classroom. Furthermore, it determine whether their use of instructional media in instructions was generally high. It also provided empirical evidence regarding the state of instructional media integration in the classroom and its implication for effective instructional delivery.

Theoretical Framework

The theoretical bedrock upon which this paper is anchored is the Theory of Instruction by Jerome Bruner (1966). Bruner a renown psychologist averred that learning should proceed from direct experience to symbolic representation as in words. In his theory of instruction, he said, the sequence in which a learner encounters materials has a direct effect on achievement or mastery of the task and the development of instruction, differentiation and integration in the learning, process. Bruner's emphasis applies not just to children but to adults who have no relevant experiences on which to draw. Learning is facilitated when instruction follows a sequence from actual experience through iconic, to symbolic representations (Enactive → Iconic → Symbolic representations).

The Problem

Teaching practice is a key part of teacher training programme. It is an exercise that requires teacher-trainees to put into practice the theories, methods and principles they have studied during the training programme. It provides a period for would-be teachers to become socialized into the profession. Performance in teaching practice could predict future success as a teacher. It is also known as field experience or internship. One of the objectives of teaching practice is to develop in the would-be teachers skills in selecting and using instructional media.

In Akwa Ibom State College of Education, Afaha Nsit, all 300 level students of the college are required to undertake the exercise for 24 weeks. Even though the gains of teaching practice are obvious, there are indications that a lot of teachers who had undergone training and are practicing still deliver instructions that are predominantly characterized by traditional/conventional methods instead of multimedia (Charatdao & Intratat, 2004). Student-teachers also face challenges in the improvisation of instructional media (Archibong, Effiom, Ogar & Edet, 2009).

Hence, it could be imputed that student-teachers' preference for traditional media to other more suitable media could lead to variations in students' performance and educational service delivery. It is against this backdrop that the researchers ascertained the instructional media often preferred by student-teachers during teaching-practice. It also provided empirical data which ascertained whether student-teachers' utilization of instructional media during teaching practice was significantly high.

Research Question

One research question was posed to guide the study,

1. What is the most preferred instructional media utilized by student-teachers during Teacher Practice?

Hypothesis 1

There is no significant difference in the use of various instructional media by student-teachers.

Method

The study adopted a descriptive survey design. Hence, the variables in the study were not manipulated. Also, a sample was drawn from a larger population and inferences were made from generalizations/findings. It also described, interpreted and assessed the level of use and the most preferred instructional media among teacher-trainees in Akwa Ibom State College of Education, Afaha Nsit.

The population for the study comprised 1200 (One thousand Two Hundred) 300 level teacher-trainees (student-teachers) for the 2015/2016 academic session in College of Education, Afaha Nsit.

Furthermore, 550 (40%) of the respondents (student-teachers) participated in the study. The respondents include 300 females and 250 males. The multistage sampling

procedure was adopted to select the respondents. Firstly, the researcher considered the sex (male and female), the their teaching subjects (science, business-related, technology and elementary). They were also drawn from the three (3) senatorial district of Akwa Ibom State (Uyo, Eket and Ikot Ekpene Local Government Area). In addition, they were purposively selected to respond to the instrument.

The instrument used for data collection was the "Instructional Media Preference Scale" (IMPS). It was constructed by the researcher and subjected to face validity. The internal consistency of the IMPS was established using the split half method and a reliability index of 0.83 was obtained.

The IMPS contained parts 'A' and 'B'. The first part sought the personal information about the respondents with 6 items while part 'B' dwelt on instructional media preference with 9 items. Hence, it was a 15-item structured questionnaire. Also, part 'B' was structured on a four-point scale and the respondents were required to indicate how they preferred using 9 different categories of instructional media. The IMPS was scored thus: "Very Strongly" = 4; :Often" = 3; "Sometimes" = 2 and "Never" = 1. The IMPS was administered by the researchers and some supervisors through direct contact during the 6th and 7th weeks of the exercise.

The data collected for the study were analyzed using descriptive statistics and chi-square (x^2) statistical analysis.

Research Question 1: What is the most preferred instructional media used among student-teachers during teaching practice?

In response to this question, descriptive statistics was used to establish the number of respondents and percentages of all the responses, categorized as follows: Very Often, Often, Sometimes, and Never respectively. The result of the analysis is presented in Table 1.

Results

The results are presented in the table below.

Table 1: Summary of Responses of Student-Teachers on the Most Preferred Instructional Media in the Order of Magnitude.

Instructional Media	Responses	Very	Oft	Sometimes	Never	Total	X^2

		Often	**n**		**r**	**l**	
Chalkboard/white board	Observed	208	130	16 82 4%	92	354	
	Expected	102	78			354	
	Percentage	259%	37%			100%	
Charts, posters, pictures, drawing, etc.	Observed	160	149	29 82 8%	16 92 25%	354	
	Expected	102	78			354	
	Percentage	245%	42%			100%	
Print media (textbooks, workbooks, magazines, newspapers, etc)	Observed	200	100	36 82 10%	14 92 4%	354	129 5.25
	Expected	101	37			354	
	Percentage	251%	92%			100%	
Songs, music, recitations, riddles,	Observed	104	94	62 82 18%	97 92 2	354	
	Expected	101	78			354	
		0	2		2	5	

& jokes	d	2	7		6	4
	Per	2	%		%	1
	cen	9				0
	tag	%				0
	e					%
Magneti	Obs	8	6	108	1	3
c	erv	2	1	82	0	5
display	ed	1	7	31	3	4
and	Exp	0	8	%	9	3
bulletin	ecte	2	1		2	5
boards	d	2	7		2	4
	Per	3	%		9	1
	cen	%			%	0
	tag					0
	e					%
Comput	Obs	5	7	179	5	3
er-	erv	0	2	82	3	5
related	ed	1	7	51	9	4
media	Exp	0	8	%	2	3
(e-mail,	ecte	2	2		1	5
internet,	d	1	0		5	4
PowerP	Per	4	%		%	1
oint,	cen	%				0
social	tag					0
media –	e					%
faceboo						
k,						
twitter,						
etc)						
Electro	Obs	6	3	158	9	3
nic	erv	4	8	82	4	5
media	ed	1	7	45	9	4
(televisi	Exp	0	8	%	2	3
on,	ecte	2	1		2	5
radio,	d	1	1		6	4
tape	Per	8	%		%	1
recorder	cen	%				0
s, video,	tag					0
etc)	e					%
Real	Obs	2	3	98	2	3
objects	erv	2	3	82	0	5
	ed	1	7	28	1	4
	Exp	0	8	%	9	3

	ecte	2	9		2	5
	d	6	%		5	4
	Per	%			7	1
	cen				%	0
	tag					0
	e					%
Projecte	Obs	2	2	56	2	3
d media	erv	8	1	82	4	5
(overhe	ed	1	7	16	9	4
ad	Exp	0	8	%	9	3
projecto	ecte	2	6		2	5
r, film	d	8	%		7	4
projecto	Per	%			0	1
rs,	cen				%	0
opaque	tag					0
projecto	e					%
rs, etc)						

* Significant at 0.05; df = 24; Cal. X^2 = 1295.25; Crit. x^2 = 36.42

Table I revealed that the most preferred instructional media by student-teachers was chalkboard/white board showing 59% for Very Often, 37% for Often. 4% for Sometimes and 0% response for Never. This is followed by charts, posters, pictures, drawings, etc with 45% for Very Often, 42% for Often, 8% for Sometimes and 5% for Never. This is closely followed by the print media (textbooks, magazines, etc) with 57% for Very Often, 29% for Often, 10% for Sometimes and 4% for Never. In this sequence others followed thus: intangible resources (songs, recitations, riddles & jokes) > magnetic, display and bulletin boards > computer-related media (e-mail, internet, PowerPoint and social media) > real objects > projected media (OHP, film etc.)

Hypothesis 1:
There is no significant difference in the use of various instructional media by student-teachers.

To test the hypothesis the contingency chi-square was used to test it at 0.05 level of significance. The analysis in Table 1 shows the results of the contingency chi-square (x^2) value of 1295.25 at 24 degrees of freedom at 0.05 level of significance. This implies that the calculated x^2 value (1295.25) is greater than the critical x^2 value of 36.42 at 0.05 level of significance with 24 degrees of freedom. This means that there is significant difference in the use of various instructional media by student-teachers.

Discussion
The finding with regards to research question 1 revealed that chalkboard/whiteboard was the most preferred instructional media among student-teachers in College of Education,

Afaha Nsit. This was followed by charts, posters and pictures. Conversely, in the order of magnitude in the use of media among student-teachers, computer-related media (email, internet and social media) ranked sixth (6^{th}) among the nine (9) categories of media considered. Also, electronic media (television, radio, etc), real objects and projected media ranked 7^{th}, 8^{th} 9^{th} respectively.

The results revealed that despite the notable advantages of computer-related media in teaching and learning, their use is still relatively low. This finding is similar to an earlier one by Abimbade and Ogar (2006) who found out that the use of ICT among English Language teachers was still at a very low ebb and the chalkboard was the most frequently utilized media among the teachers. Similarly, Tak (2013) states that though teachers recognize the role of technology in instructional delivery, the do not feel comfortable using them. In addition, Bose & Sharma (2010) state that student-teachers possess skills to use ICT and have access to advanced technologies, yet they not use them frequently for teaching and learning. The probable reason for the relative low adoption and diffusion rate of ICT in schools could be attributed to inadequate infrastructure (including hardware, software, and bandwidth), poor power supply, teacher factor and poor maintenance culture (Anyaogu, 2012). Also, pre-service teachers have low knowledge technology, especially in designing electronic materials despite their belief about the benefits of technology use on students' learning (Turel & Vard, 2012).

Furthermore, the hypothesis testing proved the result to be significant, meaning that there is significant difference in the use of various instructional media by student-teachers. The reason for this positive attitude and commitment is not far-fetched. At this stage, student-teachers are closely monitored and supervised by the faculty and supervisors, and so they put in much efforts to score high in the course in order to increase their Cumulative Grade Point Average (CGPA).

In addition, the probable reason for the low use of real objects among student-teachers is because they face challenges in the improvisation and use of instructional media. Archibong, Effiom, Ogar and Edet (2009) ascertained the challenges faced by student-teachers and improvisation skills and use of instructional media ranked second (2^{nd}) among the fifteen (15) items.

Similarly, the use of projectors (OHP, film and opaque) ranked 9^{th} (the least) in terms of usage among student-teachers. One of the probable reasons is because these equipment are no longer available in schools. Even when they were available, most teachers could not use them due to lack of electricity and poor operational skills. Today, where there are PowerPoint projectors have almost replaced other projectors.

Conclusions

There are various instructional media preferred by student-teachers in Akwa Ibom State College of Education, Afaha Nsit and those instructional media are chalkboard/white board, charts, posters, pictures, drawings, print media (textbooks, magazines, etc), intangible resources (songs, recitations, riddles & jokes) > magnetic, display and bulletin boards > computer-related media (e-mail, internet, PowerPoint and social media) > real objects > projected media (OHP, film etc.). The identified gains of the various

instructional media enjoyed by the students of the college would be hardly there if student-teachers still rely on chalk-and-talk (conventional approach) with minimal use of ICT-related media. The low use of real objects (realia) which might be found within the neighbourhood/environment indicates that teachers' level of resourcefulness through improvisation is low. This lowers service delivery in terms concretizing and familiarizing learners with the environment. Without improvisation, teachers' and learners' level of creativity will also be reduced. It is also pertinent to note that there is significant difference in the use of various instructional media by student-teachers.

Implications for Educational Service Delivery

Any educational process should be beneficial to the learner and the society. It should be almost stress-free and an enjoyable activity. One of the ways that could engender this is through the use of appropriate media. They concretize knowledge; cater for all domains of learning (cognitive, affective and psychomotor), cater for all categories of learners (slow, physically challenged, etc); enable learners to learn at their own pace; and enhance feedback and immediate knowledge of results.

The implication is that optimum results would be reduced especially during this age of globalization. It also implies that student-teachers in the University may not function adequately and appropriately when compared with their peers globally while learners would also be deficient mentally and otherwise.

Recommendations

The following recommendations were made to improve student-teachers' use of related media during teaching practice.

1. Lecturers in Educational Technology and those who teach the teaching methods in different subject areas should emphasized the use of ICT-related media in teaching and learning due to the rewards derivable through their use. Practical ICT use and integration should form an integral part of the courses taught.
2. Institutions and government should introduce and implement the policy of one laptop to one student and teacher respectively. Laptops could be supplied through subsidized installmental payments or free to them. Also computer rooms/centres should be provided in schools with necessary arraignment for electricity supply.
3. The capacity of student-teachers should be improved upon so that they will be guided on how to select and use instructional media. Hence, the relevant course lecturers should upgrade and improve on their teachings approaches to be in tune with modern trends. Also, student-teachers who have passed through the faculties and teachers in service should be given refresher courses (seminars and workshops) on instructional media utilization on regular basis so as to increase their propensity in terms of media utilization in all instructional settings.

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