ANALYSING THE INFLUENCE OF ‘TELEMATICS’ ON ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS IN ANAMBRA STATE

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Abstract

Educational and instructional television programmes are vital to academic achievement. The success of any instructional programme will depend on the instructor’s skill in encoding symbols that are meaningful to the audience and on their skill in decoding them. The question therefore is ”are the target audience of these programmes exposed to it and if they do, of what use do the targets of these programmes put it. This is however what this survey study investigated using 250 students of Christ the King College and Queen of the Rosary College Onitsha as study groups. The objectives of this study were to find out whether the respondents are exposed to telematics, how often they watch it and also to find out whether exposure to the programme improved their academic performance. The findings revealed that respondents’ academic performance was enhanced through constant exposure to telematics. The study suggested among others that special time should be made available in school curriculum for teachers to summarise and analyse contents of educational and instructional broadcast programmes which students had watched at home. This is with a view to ensuring better utilization of such programmes by students.

Keywords: Telematics, educational, television, academic, achievement

Introduction

Education in essence is any act or experience that has a formative effect on the mind, character or physical ability of an individual. In its technical sense, education is the process by which a society deliberately transmits its accumulated knowledge, skill, and values from one generation to another (UNESCO, 2008). Educational activities no longer conform to classroom alone, even the use of radio and television is not a new thing any longer; the new information and communication technologies have proved to be more potent in the art of educating, informing and entertaining the audience.

Information and Communication Technologies (ICTs) are a diverse set of tools and resources used to communicate, create disseminate, store and manage information (Igboamuchey, 2012). These technologies include computers, internet, broadcasting technologies (radio and television) and telephony. There is increasing interest on how computers, televisions and internet can be used to improve education at all levels in both formal and non-formal educational settings (Blurton, 2002).

The broadcast media are virile tools for communicating with target audience. One of the roles of the broadcast media, just like every other media, in the society is education. According to Onwuka (1988), education is a never-ending process by means of which learners acquire the knowledge, skills, habits, sentiments and values which will enable them live usefully and happily in their society. Educational broadcasting has been defined as the process of teaching, training or learning through the broadcast media with a view to improving knowledge or developing skills of the audience (Nwabueze, 2004, p.6). This could be formal or informal educational broadcasting. Formal educational broadcasting presupposes a well thought-out philosophy of education, curriculum organization, designated personnel for curriculum implementation, evaluation and certification process (Onwuka and Enemuo, 1990). These types of programmes are basically targeted at students (children and adults). Some examples are instructional television (ITV), University on Air, Open University of Nigeria, among others.

However, broadcast programming is dominated by informal educational broadcasting. These are programmes that develop or improve the knowledge, judgments, skills, attitudes, habits, values, interest, among other qualities or virtues, of a person which he acquires or develops as a result of personal interest in reading, by association and
other life experiences (Nwabueze, 2004, p.5). Most programmes aired by broadcast media have educational content which is informal in nature. These informal educational programmes make the greatest impact on the audience. Before general elections in Nigeria for instance, various political programmes are aired with a view to educating the electorate on political trends in the nation.

Education in Nigeria today, has assumed an important position as the country’s major development programme. The federal government through special packages such as Tertiary Education Trust Fund has shown great interest in developing education at all level of education. All these may be the reason why the present state government is investing heavily on it.

Onabajo (2000) argues that mass media of communication comprises the institutions and techniques which specialized groups employ technological devices i.e. the press, television, radio and film to disseminate information to large heterogeneous, anonymous and scattered audience. In 1959, the Western Nigeria television was established and this lead to establishment of other television stations in other parts of the country. Education was seen as major reason for introducing television in Nigeria. Time and facilities were made available to the then regional Ministry of Education which in turn directed its school broadcasting unit to produce series of educational programmes (Onabajo, 2000). According to Uphamedu (1992, p.2) cited in Okenwa (2000), television programmes do help teachers in stimulating the students’ interest, open up possibilities for further investigations, present meaningful information and create room for new activity.

In 1960, the Eastern Nigeria Broadcasting Television Service (ENBS/TV) started what looked like educational broadcasting with the help of the eastern ministry of education, but the programming then was mainly informed. A typical ENBS/TV programme in this category was "the tortoise club" a programme for a very young children. This type of programme continued until the outbreak of civil war in 1966. Later in 1973, Nigeria television Lagos, reviewed its educational programme by introducing some foreign films on science. It was meant for children between the ages often to fifteen. It was at this point that the idea of school broadcasting in science, mathematics, arts, crafts, English languages and history came up and was introduced to many of the Nigerian television station (Ukonu, 2006).

ABS channel 27 Onitsha was one of the stations that introduced school broadcast in English language, mathematics and other science subjects in its programmes schedule. In 1983, the station started a formal education programme, and till date it has the following programmes to its credit - science quiz, telematics and teletutor.

In 2006, the programme “telematics” was introduced by and jointly produced by ABS channel 27 Onitsha and ABS channel 24 Awka. The format for the production of this programme is drawn along side the school scheme of work of secondary schools in Anambra State. The programme comes on air in ABS Onitsha on Tuesday by 4.30pm and in Awka on Fridays by 5.30pm.

The production of “Telematics” is serial, one subject matter leading to the development of another. The scheme is drawn alongside the school certificate syllabus in mathematics. The target audience of the programme is secondary school students in Anambra state. It is a 25 minutes programme and there is always a weekly schedule for quarter so as to meet up with the allotted time for the programme. The aim of the programme is to clear the fear which the students have towards mathematics; to help the students know the fundamental rules necessary for solving mathematical problems; to help to simplify mathematics to the simplest formular ever; to allow the average students make mathematics one of their best subjects; and to help increase the level of passes in mathematics in external examinations.

The idea of using television for instructional and educational purpose is a very good advantage to the school teacher. This is because it will reduce the work load of the teacher in the school; the films and the materials used in explaining the theories by experts could have a positive effect on both the students watching the programme and also their teacher who will later teach them in school. It is
against this backdrop that this study is aimed at ascertaining the influence of “telematics” on secondary school students in Anambra State.

**Mass media and education development: focus on formal educational broadcasting**

Katze and Wedell (1998) write that broadcasting has in the last few decades closely identified itself with education as part of the nation’s building process in both the developed and developing countries. This according to Katze and Wedell is because there is direct link between the creation of a communication system that can reach out to the population of a country on a scale previously unheard of and the use of such a system for educating the population in a way thought useful by the government. Sounder (1974, p.20) defines visual aid as “something that is apart from written words with many subjects which provides clear mental picture, speed up understanding, easy to memorize and provide a lasting experience.”

For example, the Nigeria Broadcasting Corporation with the help of Ford Foundation established school of broadcasting service in Ibadan. The foundation provided some fund to launch the programme and agreed to maintain it for eighteen months. During that period about two hundred programmes were recorded in advance, it turned out that most of the recorded programmes were of very poor quality and were just a wasted effort and money (Ukonu, 2006).

According to Potanshink and Capper (2002), older ICTs such as radio and television have been used over the years for open and distant learning, although print remains the cheapest, most accessible and therefore most dominant delivery mechanism in both developed and developing countries. Potanshink and Capper further write that in addition to class room application and growth of electronic learning opportunities for knowledge attainment, educators involved in student affairs programming have recognized the increasing importance of computer usage with data generation for and about students. Salame (1999) writes that that education through the mass media is very expensive but added that the cost of educating each individual should be related to the educational opportunity given to him and services which he will be able to render to his country. Salame also agreed with the fact that the television and radio can provide excellent complementary material that can serve as a continuous stimulus to students working on their own.

According to Okenwa (2000), the broadcast medium especially television has added advantage of combining sound with vision qualities to make it one of the most powerful communication force in the history of civilization and one of the most effective for educational advancement and development. Onabajo (2000) states that in the developed world, television has become widely accepted and available as a source to supplement and enrich the curricular of elementary and secondary schools.

Educational broadcasting should be undertaken in partnership in order to meet the educational needs of the public especially the youths, to democratize decision making and for effective production and delivery of educational programmes. Learning is guided by instruction and instruction is the job of the teacher (Onabajo, 2000). The relevance of formal educational broadcast programmes necessitates qualitative production of such programmes in partnership with teachers in formal educational institutions. Such partnership could ensure meaningful utilization of content by pupils.

**Statement of problem**

Every broadcast station in Nigeria today and indeed in other countries features one educational programme or the other, whether formal or informal educational programme. Today, programmes like schools debate, quiz competitions, Take-a-Step, instructional television and other educational programmes are featured frequently by most broadcast stations to meet the education needs of the teeming audience members. Anambra Broadcasting Service (ABS) for instance features educational programmes like science quiz, schools debate, teletutor, and telematics. In spite of the presence of all these educational programmes, it is not certain whether the real and potential target of these programmes are exposed to the programmes and if they do, it is also not certain whether these students utilize the contents of these programmes. This was considered a gap in
knowledge which the outcome of this study is expected to fill.

**Theoretical framework**

This study is anchored on the uses and gratifications theory. Media use is the application of media message to bring about change in attitude and behaviors and consequently compel actions by allowing those messages to get to them. The decision to practice selective exposure depends primarily on the uses, which members of the mass media audiences want to make of media messages and the benefits derivable from using the media messages.

These uses and gratifications are determined by the needs which inform exposure to media contents by audience members. Such needs might be education, information, self esteem and prestige etc. Through uses and gratification theory, it is discovered that people selectively expose themselves to mass media contents, choosing only those media messages that would serve the function of satisfying or gratifying their needs (Okoro and Agbo, 2003).

In relation to this study therefore, the uses and gratifications theory is used to explain why secondary school students in Anambra State watch telematics. Could it be because exposure to the programme helps in enhancing their performance in mathematics? This study is set out to determine whether students are exposed to “telematics” because the programme satisfies an educational need which is good performance in mathematics.

**The method**

The survey research method used in this study to study a select number of students from a large population. The population of study comprised of SS1 students in Anambra State from which two schools were selected: Christ the king college Onitsha and Queen of the Rosary College Onitsha. A sample size of 250 was selected from the SS1 students in the two selected school in Anambra state based on purposive sampling technique. The purposive sampling technique was used to ensure that those sampled are those who watch the programme and also to avoid the possible of over sampling a respondent. The measuring instrument for the study was questionnaire.

**Result**

The researchers distributed a total of 250 copies of a 19 item questionnaire; 200 copies were returned and found usable while the remaining 50 copies were unreturned. Ninety (90) respondents representing 45 percent are males while 110 representing 55% are females. The result also shows that more of the respondents, 105 or 52.5% are boarding students while 95 or 47.5% are day students.

**Answers to research questions**

**Research question one**

Are you exposed to “telematics”?

**Table 1: Data on whether the respondent are exposed to "telematics"**

<table>
<thead>
<tr>
<th>Response category</th>
<th>No of respondents</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>175</td>
<td>87.5</td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011

Data in the above table shows that majority of the respondents 175 (87.5%) said "yes" while 25 (12.5%) said "no", the inference drawn from this analysis, therefore, is that the respondents are exposed to the programme "telematics".

**Research question two**

How often do you watch the programme?

Data presented in table 2 indicate the answers to this research question.
Table 2: Respondents' Answers to the Question

<table>
<thead>
<tr>
<th>Response category</th>
<th>No of respondents</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly</td>
<td>90</td>
<td>45</td>
</tr>
<tr>
<td>Monthly</td>
<td>45</td>
<td>22.5</td>
</tr>
<tr>
<td>Bi-monthly</td>
<td>35</td>
<td>17.5</td>
</tr>
<tr>
<td>No watching</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey 2011

A breakdown of data in the above table shows that 90 (45%) respondents watch telematics "weekly", 45 (22.5%) respondents said they watch it monthly; 35 (17.5%) respondents said they watch it twice a month while 30 (15%) respondents do not watch the programme. Therefore, the deduction is that majority of the respondents watch the programme always

Research question three
Is there any significant relationship between exposure to telematics and respondents' academic performance?

Table 3: Data on whether there is any Significant Relationship between Exposure to Telematics and Respondents' Academic Performance.

<table>
<thead>
<tr>
<th>Response category</th>
<th>No of respondents</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>120</td>
<td>60</td>
</tr>
<tr>
<td>No</td>
<td>65</td>
<td>32.5</td>
</tr>
<tr>
<td>Can't say</td>
<td>15</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey 2011

An analysis of the above table shows that 120 (60%) respondents said "yes" 65(32.5%) respondents said "No" while 15(7.5%) respondents chose to remain undecided on the issue. The inference is that there is significant relationship between exposure to telematics and respondents, academic performance.

Test of hypothesis
Ho: There is no significant relationship between exposure to telematics and respondents’ academic performance.
Table 4: Analysis of the Influence of Telematics on Respondent's Academic Performance

<table>
<thead>
<tr>
<th>Response Category</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>120</td>
<td>60</td>
</tr>
<tr>
<td>No</td>
<td>65</td>
<td>32.5</td>
</tr>
<tr>
<td>Can't say</td>
<td>15</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey 2011, Df=2, PO.05, table value = 5.991

The test shows that the calculated chi-square ($X^2$), which is 82.7 is greater than the table value which is 5.991 with 2 as value of degree of freedom at a predetermined probability level of 0.05. The decision rule is, if the calculated chi-square is greater than the table value, reject null hypothesis, but if reverse is the case, then accept null hypothesis. Since the calculated value (82.7) is greater than the table value (5.991), then the null hypothesis is rejected and the alternative accepted.

Based on this statistical test, it can be inferred that "there is significant relationship between exposure to telematics and respondents' academic performance.

Discussion of Findings

The import of this study is that instructional television (telematics) programmes contributes significantly to academic performance of students in secondary schools. The study found that majority of the students studied are frequently exposed to ‘telematics’. This could be probably because the programme satisfies the students’ educational needs. This supports the uses and gratifications theory which states that the audience members expose themselves to media contents based on gratifications they derived from such programmes (Okoro and Agbo 2003).

An important finding of the study was that instructional or educational programme enhances students' performance academically. The students tend to understand more when school subjects are taught practically on television. This however substantiates Uphamedu's (1992, p.2) view that television programmes do help teachers in stimulating the students' interest, open up possibilities for further investigations, present meaningful information and create room for activity.

In other words, present day student learns better and faster when the subject is presented and taught in television. On the whole, findings of this study agree that telematics helps to improve the academic performance of students.

Conclusion

Based on the findings of this study, the following conclusions were drawn. Telematics enhances students' academic performance, this is because; majority of the students tend to forget what they were taught in school than what they watch on television.

It was also discovered that this programme is very popular among its target audience and this is the reason why majority of the target audience were also able to say what they know about the programme and were also able to make direct comparism with the subject being taught in class and that of the television.

Recommendations

The following recommendations are made: Television sets should be made available to all the secondary schools in the state to enhance more students' participation especially for the benefit of the boarding students. Parent Teachers Association (PTA) should make this provision to help the students and the schools.

A special time should be included in the school curriculum to take care of educational broadcasting and schools should be made to observe this period. In addition to that, adequate means of feedback should be clearly spelt out to link the producer and the students who constitute the programmes' target audience.

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References


