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Effect of Captioned Film Instructional Package (CFIP) on Academic Performance of Hearing Disabled Students in English Language in Special Schools in Akwa Ibom State, Nigeria (Pp. 263-274)

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Abstract

This paper aimed at determining the effect of Captioned Film Instructional Package on academic performance of hearing disabled students in English language in special schools in Akwa Ibom State, Nigeria. The Study adopted non-randomized pretest posttest design. The subjects were divided into experimental and control groups. Experimental group was treated with Captioned Film Instructional Package while control group was treated with conventional sign method. Researcher-made English language Performance Test (RELPT) was used for the data collection of the study. Kuder

Richardson formula (K-R 20) was used to obtain the reliability coefficient of 0.88. Research question and hypothesis were tested using mean, standard deviation and Analysis of Covariance. The study revealed that the hearing disabled students exposed to Captioned Film Instructional Package (CFIP) performed better than the group treated with conventional sign method. This implies that, the application of Captioned Film Instructional Package (CFIP) in learning environment has significant influence on the hearing disabled students' performance in English language. The study therefore, recommended the use of captioned film instructional package (CFIP) to be encouraged in learning identification and meaning of words in English language in special schools in Akwa Ibom State, Nigeria.

Introduction

The Nigerian educational system is undergoing transformation due to cultural, political, social and economic changes in the country in conformity with the global reform agenda of Information and Communication Technology (ICT) which has multifarious applications in the education of children with disabilities. It is often believed that physically challenged children require different methodologies for learning purposes. In fact, this concept of using different methodologies to teach the disabled student has given rise to the emergence of special schools.

In Recent years there has been an increased registration of special needs students in schools. For instance, Heward (2000) reported that over 5.7 million special needs children were identified in various public schools in the United States. The same trend exists in some developing countries such as Nigeria, where the prevalence of disability is likely to be higher than what is obtained in advanced countries, Meadow-Orlans & Erting (2000). However, the physically impaired students have slimmer chances of accessing quality education compared with their colleagues in advanced countries.

At the present time more than 50 genetic syndromes have been identified by which hearing loss may occur. Hearing loss is an invisible condition resulting in communication problems that can ultimately interfere with learning and social development Davis (1990). Shea and Bayer (1994) maintain that physically impaired students have specific difficulties in one or more academic areas; poor coordination, problem paying attention, hyperactivity and impulsivity, problem organizing and interpreting visual and auditory information; disorders of thinking, memory, speech and hearing, and difficulties making and keeping friends. Shea and Bayer further comment

that early diagnosis is important so that students with learning disabilities do not become terribly frustrated and discouraged. Heward and Orlansky (1988) opined that a hearing impaired child who receives no specialized assessment, amplification or training until the age of 5 or 6 will undoubtedly bear a great disadvantage in communication and general development. Mates (2001) maintains that visuals such as pictures, models, diagrams, realia are common resources used to enhance effective learning experience of handicapped learners especially in English Language.

In some special schools in Akwa Ibom State the curriculum adopted to handle the disabled students are similar to the one prescribed for non-disabled children of the same age group. However some exemptions are made with regard to specific disability areas. For example, children with hearing impairment are exempted from learning the second and third languages since communication is the major challenge for them. Hearing disability exists on a continuum ranging from mild to profound. Consequently, the extent of hearing loss in an individual learner would to some extent interfere with his or her school performances. Individuals with significant degrees of hearing loss do find it too difficult to understand speech and reading of letters of alphabet which is the fundamental of English language Heward (2000). As a result they would depend heavily on their sight to engage in communication for academic and non academic purposes.

Ademokoya (2006) posits that impaired learner self concept and will power will greatly determine his or her academic pursuit especially in English language which is regarded as a core subject for candidates intending to further their education. Udosen (2000) opined that appropriate matching of picture with words in English language increase learning and understanding of the learners.

Captioned Film Instructional Package (CFIP) has been recognized as the driving force in the knowledge-based and skill oriented development activities in special schools in developing countries. For the goal of teaching English Language in special school to be achieved proper matching of video clips' pictures on Video Compact Disc and proper application to the course content to replace what is done in the classroom using sign language must be evolved. Braveman (1980) states that captioned film is a visual presentation of spoken word onto a screen. Jelinek (1999) posits that captioned film promotes educational advancement of deaf persons. Keifer (1989) in his study on Effects of Captioned Film on Engineering hearing impaired

Students observed that 32 deaf engineering technologies students viewed two captioned versions of a film about cement manufacturing; that both high and low reading groups benefited from instruction when the captions were on an 8th grade level, while only the high reading group benefited from the 11th grade level captions.

This study showed how the development of technology along with a sound educational research program may lead to optimal teaching and learning strategies. Achuonye (2004) comments that film when combined with other types of teaching materials and methods are relatively effective in learning and development of skills. Achuonye further comments that filmstrips allow the teacher to backup visual display to review specific points and commentary and that the teacher would also capitalize on a large visual display to point out critical items. This agrees with Akunde (2005) who believes that videotaped lesson can serve as an alternative to face to face teaching mode which increases the students' cognitive, affective and psychomotor academic abilities.

Instructional film as observed by Fakomogbon (1997) has been successful in the teaching mathematics, science and social science since they provide useful demonstration, instruct and convey idea to the learner or viewer. Instructional captioned film provides interactive facility which affect hearing impaired students' academic performance and their ability level positively. Captioned pictures open up awareness for important learning experiences for the deaf. Captions can convey development in language usage, new term, new idiomatic expressions and social changes to deaf persons in such a way that their experiences can expand into the real world. Hence appropriate training with captioned film instructional package should make a difference in the lives of the hearing disabled student thereby enabling the deaf person reach an optimum physical, mental and social functioning level in communication.

Statement of the problem

Dominant post teaching-learning behaviour indices of the special education school pupils reveal a lack of appreciable ability of these children in identifying simple objects in English language. Worse still is their inability to differentiate between words, memorize and reproduce English words after long periods of time. It is pathetic for instance that the special education school pupils there is no difference between "see" and "sea". Nor is "gun" anything different from "gone" or "maize" from "mace".

The researchers were opportuned to evaluate Junior Secondary School Certificate Examination (JSSCE) in English language in the Special Education Centre in Akwa Ibom State. It was also observed that 38.5% passes were recorded. This was attributed to the conventional mode of teaching English language. Our society ironically is blessed with a multitude of communication-based multi-media one of such is captioned film that can be adopted to stem the problem and avert this looming academic catastrophe. The television and captioned film are such media that can be very useful in the exercise of improvement of pupils' cognitive skills and abilities of special students with various disabilities. As stated by Abimbade (1997) studies, "we remember 10% of what we read, 20% of what we hear, 50% of what we see and 70% of what we say and 90% of what we say and do." For this reason, the application of multi-media (television, videotapes, computer and captioned film) in cognitive abilities for identification of objects, words formation, storage and retrieval of information by pupils within a long period of time is essential in the learning process of English language in both primary and junior secondary school system. The question now is can captioned film instructional package (CFIP) be effective to change this poor performance? The study is therefore designed to answer this question.

Purpose of the study

The study is aimed at determining the effect of Captioned Film Instructional Package (CFIP) on academic performance of hearing disabled students in cognitive abilities of identification of objects and words formations in English language in special schools in Akwa Ibom State.

Research question

One research question was raised to guide the study. How does Captioned Film Instructional Package (CFIP) affect the academic performance of hearing disabled students in cognitive abilities of identification of objects and words formations in English language in special schools?

Research hypothesis

There is no significant difference in the performance of hearing disabled students in English language taught with Captioned Film Instructional Package (CFIP) and those taught using conventional sign language method.

Research design

The non-randomised pretest-posttest control group design was used for this study. The structure of the design is as follows:

| | | | |
|-------|-------|-------|---|
| O_1 | X_0 | O_2 | C |
| O_1 | X_1 | O_2 | E |

Where

| | | |
|-------|---|------------------------------|
| O_1 | - | Pretest |
| O_2 | - | Posttest |
| X_0 | - | Conventional Sign Language |
| X_1 | - | Instructional Captioned Film |
| C | - | Control group |
| E | - | Experimental group |

Area of Study

The study was conducted in Uyo Local Government Area. It is one of the 31 Local Government Areas in Akwa Ibom State. It is bounded in the North by Itu, Uruan and Ikono Local Government Areas, in the south by Etinan, Nsit Ibom and Ibesikpo Asutan Local Government Areas and in the West by Abak and Ikot Ekpene Local Government Areas and in the East by part of Uruan Local Government Area. Uyo is one of the oldest education centers in Nigeria. Uyo Local Government is situated between Latitude $4^{\circ} 48^1$ and $5^{\circ} 23^1$ North and Longitude 7° and 8° East of the equator. Uyo Local Government was created on 23rd of September 1987. The settlement patterns in the region are- Rural, Urban and Semi-urban. Uyo Local Government Area is composed of four clans, namely, Oku, Offot and Ikono clans. It has one special education center for the physically challenged students in the state. The school has well equipped computer laboratory with the computer having Job Access with Speed Software (JAWS) for the blind and others impaired students.

Population of the study

The population of the study consisted of all the 48 Junior Secondary III English language hearing disabled students in the Special Education Centre in Akwa Ibom State.

Sample and sampling technique

The total of 40 hearing disabled students was drawn from two Special Education Centres in Akwa Ibom State.

The purposive sampling technique was adopted in selecting the two classes. The classes selected were assigned as experimental and control groups respectively.

Instrumentation

The instrument developed for the data collection was 20 items multiple choice Researcher-made English Language Performance Test (RELPT), and the control group was taught with conventional sign method while experimental group was taught with the use of Captioned Film Instructional Package (CFIP).

Validation of the instrument

Face and content validation of the instrument was established by experts in Special Education, Test and Measurement and Educational Technology. The experts duly examined the performance lesson note and multiple choice questions.

Reliability of the instrument

Kuder Richardson formula (K-R 20) was used to calculate the reliability index of 20 items of a researcher-made multiple choice question, thus a calculated index of 0.88 was obtained.

Data collection

In order to collect and analyze data, twenty paired objects such as, see and sea, gun and gone, maize and mace, carpenters saw and saw, steel and steal, ear and hear, fork and spoon, bank and 'river' bank were selected. The lesson on objects identification, words formation, storage and retrieval of information within long periods of time was taught without television, captioned film instructional package, pictures, and textbooks during the pilot study. The same lesson was taught using television, pictures, captioned film instructional package and textbooks during the experimental study. The objects were exposed to the pupils in class to identify them. They were asked to form words from the twenty paired objects.

Identify the following objects:

| | | | | | |
|-----|-----|------|------|-----|------|
| See | and | sea | it | and | eat |
| Gun | and | gone | tame | and | term |

| | | | | | | |
|--------------|-----|--------------|---------------|------|------------------|------------------|
| Maize | and | mace | sheep | and | ship | |
| 'Carpenters' | saw | and | saw | talk | and | torque (physics) |
| Steel | and | steal | broke (break) | and | broke (no money) | |
| Ear | and | hear | touch | and | torch | |
| Fork | and | spoon | ice | and | eyes | |
| Bank | and | 'river' bank | bite (chew) | and | bite (mosquito) | |
| Mite | and | might | tight | and | tithe | |
| Knight | and | night | cut | and | cot | |
| Years | and | yes | test | and | taste | |
| Order | and | other | | | | |

They were asked to correctly spell the words. They were also asked to store and retrieve the information after two weeks of the lesson. The pupil were evaluated on the basis of their cognitive ability and were tested using twenty paired such as objects; see and sea, gun and gone, maize and mace, 'carpenters' saw and saw, steel and steal, ear and hear, fork and spoon, bank and 'river' bank, forming words from them, storing and retrieving information after a long period of time.

Scoring of the instrument

The score was dichotomously (right or wrong). Correctly answered items were scored 5 marks each and incorrectly answered items was scored zero. This gave a maximum score of 100 marks and minimum score of zero.

Method of data analysis

Data collected were analysed using mean, standard deviation and Analysis of Covariance (ANCOVA). The mean score was used in answering the research question while Analysis of Covariance result was used in testing one research hypothesis.

Result and discussion of finding

Research question: How does Captioned Film Instructional Package (CFIP) affect the academic performance of hearing disabled students in cognitive abilities of identification of objects and words formations in English language in special schools?

From the Table 1 the Researcher-made English Language Performance Test (RELPT) was answered. Those who are exposed to CFIP have a mean score of 72.50 while those who were exposed to conventional sign method scored 50.00. The mean score difference between the two treatment groups is 22.50. This finding answers the purpose of the study which is to determine the effect of captioned film instructional package (CFIP) on academic performance of hearing disabled students in English language in special schools in Uyo.

Research Hypotheses: There is no significant difference in the performance of hearing disabled students in academic performance of hearing disabled student in English language taught with Captioned Film Instructional Package (CFIP) and those taught using conventional sign language method.

The result in Table 2 shows that F-cal for the main effect of instructional strategy is 16.62 while its corresponding critical value is 4.13 at 0.05 level of significance. Based on this result the null hypothesis was rejected and the alternate hypothesis accepted that there is significant difference in the performance of hearing disabled students in English language taught with Captioned Film Instructional Package (CFIP) and those taught using conventional sign language method.

The result indicates that Captioned Film Instructional Package (CFIP) was the more effective approach in enhancing students' high performance in English language while conventional sign approach was the less effective approach. This agrees with Akunde (2005), that videotaped lesson can serve as the alternative to face to face teaching mode which increases the students cognitive, affective and psychomotor academic abilities. Udosen (2000) also confirmed that appropriate matching of pictures with words in English language increase learning and understanding of the learners. These findings also support the research work of Mates (2001) who maintains that visuals such as pictures, models, diagrams, realia are common resources used to enhance effective learning experience of handicapped learners especially in English language.

Summary

The situation stated above indicates an urgent need for a review of the Nigerian special education curriculum. The classroom performance objectives need to be redefined to be in common goal and tune with the National Policy on Primary Education. The teaching-learning process in English language should be made to reflect the broad national objectives by using improvised materials and multimedia in educating the children.

Teachers would also need to be re-educated in the philosophy of the Nigeria education with emphasis on the use of multi-media such as captioned film instructional package in teaching hearing disabled students.

Conclusion

Based on the finding it is subsequently concluded that Captioned Film Instructional Package (CFIP) is an effective tool for teaching hearing disabled students which greatly enhanced their creative ability level and in turn have positive effect on their academic performance.

Recommendation

Based on the finding the following recommendations are made:

1. Captioned Film Instructional Package (CFIP) should be encouraged in learning meaning of world in English language in Special schools in Akwa Ibom State.
2. Special Education teachers should be encouraged by government by making funds available and accessible to help produce CFIP on every topic in English language in Junior Secondary III.
3. The government should equip the Special Education Centre with computer programmed packages for effective teaching and learning concerning disabled students.
4. There should be constant power provided by the government to encourage the use of multi-media in public schools. Conclusively, special education teachers must employ both methods and media 'attributes' in a way that would support necessary cognitive events in learning.

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Table 1: Mean and standard deviation of students' pretest and posttest performance in English language classified by treatment

| Treatment Groups | Sample size | Pretest | | Posttest | | Mean Difference. |
|------------------|-------------|-----------|------|-----------|-------|------------------|
| | | \bar{X} | SD | \bar{X} | SD | |
| CFIP | 20 | 44.25 | 8.63 | 72.50 | 10.32 | 22.50 |
| Conventional | 20 | 36.00 | 9.81 | 50.00 | 9.03 | |

Table 2: Analysis of Covariance (ANCOVA) of students' post-test scores classified by treatment groups with pre-test as covariate

| Source of Variation | Sum of Squares | df | Mean Square | F (Cal.) | F (crit.) | Decision at p<.05 level |
|------------------------------------|----------------|----|-------------|----------|-----------|-------------------------|
| PRETEST: (Covariate) | 1063.24 | 1 | 1063.24 | 15.03 | 4.13 | Significant |
| Main Effect: (Treatment) | 1176.06 | 1 | 1176.06 | 16.62 | 4.13 | Significant |
| Error | 2405.87 | 37 | 70.76 | | | |
| Corrected Total | 6097.30 | 39 | | | | |