An Assessment of the Performance of Social Studies Students Taught with Improvised Instructional Materials and those Taught with Conventional Materials

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ABSTRACT

This study sought to assess the performance of social studies students taught with improvised instructional materials and those taught with conventional materials. Survey and quasi-experimental research designs were used. The study was carried out in the Central Senatorial District of Cross Rivers State comprising of six local government area namely: Abi, Boki, Etung, Ikom, Obubra and Yakurr. The population of the study consisted of all the social studies teachers and students in the 89 secondary schools (JSS II) in the Central Senatorial District of Cross River State. The total sample size of 612 subjects drawn from 12 secondary schools was used for the survey study. The sample consisted of 12 teachers teaching and 600 students offering social studies in JSS II students from selected schools. The two main instruments used for the study were questionnaire and performance test. The face, content and construct validation of the two researcher-designed instruments were ascertained. The research hypothesis was answered using independent t-test at .05 level of significance. The study concluded that social studies students taught with improvised instructional materials perform better in academically than those taught with conventional materials. Also, there is significant difference in the performance of social studies students taught with improvised instructional materials and those taught with conventional materials. It was therefore recommended that schools should give room for acquisition of skills and knowledge and development of self- confidence and self- actualization to student. In addition, school administration should enable both the teachers and students to participate actively and effectively in lesson sessions using improvised instructional materials.

KEY WORDS: Social Studies Students, Instructional Materials, Improvised Materials, Conventional Materials.

Introduction

Social Studies is a study connected with all aspects of human beings to enable them live a fulfilled, comfortable and full of achievement life. It studies people in relation to the social, academic, economic, cultural, physical and psychological lives. It has to do with all round development of human beings to enable them become useful citizens in the society. Wesley in Kochhar (2012) saw social studies as those portions of the social sciences selected for instructional purposes, applied to include anything pertinent to the immediate purpose of learning and adapted to the level of comprehension of the student. Abdu-Raheem (2011) observed that the objectives of social studies is yet to be achieved as a result of poor teaching and lack or inadequacy of instructional materials to motivate students. Ofuani (2014) also attested to inadequacy of instructional materials and resources in all the schools sampled in his study. Instructional materials are essential and significant tools needed for teaching and learning of

school subjects to promote teachers' efficiency and improve students' performance. They make learning more interesting, practical, realistic and appealing. They also enable both the teachers and students to participate actively and effectively in lesson sessions. They give room for acquisition of skills and knowledge and development of self- confidence and self- actualization. Ikerionwu (2000) saw instructional materials as objects or devices that assist the teacher to present a lesson to the learners in a logical and manner.

In addition, Ajayi and Ayodele (2001) stressed the importance of availability of instructional materials to achieving effectiveness in educational delivery and supervision in the school system. Ogbondah (2008) alerted on the gross inadequacy and under-utilization of instructional materials necessary to compensate for the inadequacies of sense organs and to reinforce the capacity of dominant organs. He noted that school teachers should try their possible best in the provision of locally made materials in substitution for the standard ones to promote their lessons. Enaigbe (2009) noted that basic materials such as textbooks, chalkboard and essential equipment like computer, projector, television and video are not readily available in many schools.

However, Akinleye (2010) attested that effective teaching and learning requires a teacher to teach the students with instructional materials and use practical activities to make learning more vivid, logical, realistic and pragmatic. Esu, Enukoha and Umoren (2004) agreed that instructional materials are indispensable to the effective teaching and learning activities. Ekpo (2004) also supported that teaching aids are always useful in supporting the sense organs. Despite the fact that instructional materials are essential tools that can make learning practical and knowledge acquisition easier, they are not readily available in Nigerian secondary schools leading to low level of performance of learners in government examinations (Abdu-Raheem 2014).

National policy on Education (2004) further stated that the provision and use of available instructional materials for teaching will lay a sound bases for scientific and reflective thinking among students. The real materials that are the conventional instructional materials are imported or factory made labouratory equipment for science teaching. Examples of conventional instructional materials are: microscope, herbarium, labouratory reagents, labouratory glassware, Bunsen burner, tripod stand. However, if these conventional instructional materials are not available or inadequate, they can be locally made by using resources in the environment as alternative. These will include used electrical bulb for round bottom flask; beverage tins for convex and concave mirror; juices of unripe orange as acid, solution of ash from wood as base, candle or stove as burner, teaspoon for spatula (Okebukola, 2006). Improvised instructional materials may not be identical with the conventional one; therefore, teachers should be skillful in their handling and using them (Igwe, 2003). Improvisation requires a considerable development through imaginative planning and good knowledge. According to Ajayi (2004), improvisation is the provision of alternatives to real things. Improvisation is the making of substitutes when the real equipment or material is not adequate or available (Okebukola, 2002). It is the art of providing and using alternative materials or resources in the absence of the real or factory made one. Oyediran (2010) also defines improvisation as the art of using materials or equipment obtained from local environment or produced by the teacher, and with the assistance of the local personnel to enhance instruction. In order to teach by inquiry method or use activity based instructions, improvisation is required since instructional materials seem not to be adequate

(Okebukola, 2002). Bassey (2002) defined improvisation as the process of making equipment and materials by the students or by engaging the services of others in the absence of real or manufactured ones. Generally, improvisation of instructional materials is an attempt to adapt and make use of local resources in the teaching/learning process when the ready- made materials are not available or are in shortfall or not within the reach of users. The teacher and the students could produce the improvised instructional materials. The teacher initiates the production of the alternative resources, which is constructed by either the teacher or the local artisans e.g. carpenter's blacksmiths etc. The teacher may use the students for improvising some of the needed materials or equipment.

Statement of the Problem

It is evident that much instruction in secondary schools takes place without instructional material. Most teachers often use teaching method that do not rely on the use of instructional materials. Above all, most of the conventional instructional materials are culturally and ecologically unsuitable to some subject matter as well as other aspects of our educational aspirations. This, no doubt, has some adverse consequences on the teaching and learning of most subjects in the secondary school curriculum including social studies. The causes of students' poor performance in schools' subjects (including social studies) could partly be attributed to poor-teaching, inadequate and poor use of instructional materials. Thus the classroom teacher is compelled to be creative, resourceful and to look inwards in order to enhance effective teaching and learning. The question now is: can teachers' utilization of improvised instructional materials significantly affect and influence students' performance in social studies? This study will attempt to provide answers to this global problem.

Objective of the Study

- To compare the performance of social studies students' taught with improvised instructional materials and those taught with conventional materials.

Research Question

- To what extent does the performance of social studies students taught with improvised instructional material differ from those taught with conventional materials?

Hypothesis

- There is no significant difference in the performance of social studies students taught with improvised instructional materials and those taught with conventional materials.

Comparative Performance of Students Taught with Improvised Instructional Materials and Those Taught with Conventional Materials

Hornby (1990) defined achievement as the act of having things done successfully especially with effort and skills. However, student achievement could be viewed from three standpoints: first as the totality of what they have learnt in school, secondly as the end product of a learning environment, and thirdly as the result of teaching and schooling expressed in terms of students' test scores, examination scores and grade obtained at the terminal stage of any learning (Akubuiro, 2002). According to Umoinyang, Asim, Akwa and Bassey (2004) maximum

performances indicate how well an individual performs in an assigned task when adequately motivated. Bloom (1956) clarified students' performance into three categories: cognitive, affective and psychomotor outcomes. Cognitive outcomes include abilities, aptitude and reasoning skills. Affective outcome includes attitudes, interests, values, self-concept whereas psychomotor outcomes include motor skills. Students' performance could be determined using several means or instruments. The cognitive ones are determined by using achievement test, aptitude test, intelligence test and verbal test. Effective performances are measured using attitude scales, inventories, checklists and questionnaires, while psychomotor outcomes are basically assessed by observations, schedules and rating scales (Okpala, Onocha and Oyedeji, 1993).

These three measures of students' performance have been regrouped into cognitive and non-cognitive outcomes. For this work, the cognitive outcomes, which are called academic performance, will be examined. The potential determinants of students' performance could be described as factors, variables or indicators that directly or indirectly affect students' learning. These factors include: individual students' viewpoints; family inputs, peer group inputs, teachers' inputs, school inputs and societal inputs. For this study, teacher's inputs only (utilization of improvised or conventional instructional materials) will be considered. The teacher remains very indispensable in the teaching – learning process. At best, they facilitate teaching and learning using a variety of instructional materials. Instructional materials are resources whose primary functions are to facilitate the teaching and learning of skills, facts, concepts, principles, values and attitudes. Some of these materials are improvised (teacher-made) while others are conventional (standard). There is a consensus among educational technologists and other stakeholders in education that the use of different types of instructional materials (conventional or improvised) does not only improve the quality of teaching but also make learning meaningful to the students. But opinion differs as to which of the instructional materials (improvised or conventional) enhances a more effective teaching and learning.

There is evidence from the literature to prove that the use of systematically designed local media resources (improvised) can produce significant gains in the teaching-learning processes, compared to the conventional materials (Aniemeka, 1992; Ekpo, 1992). Ekpo (1992:91) also contended that:

> *Commercially acquired materials are often not quite suitable for our specific audience. They may be too general and broad in treatment of subjects and may make little or no provisions for individual differences in capability or cultural background. Besides the current economic stringency puts a sort of check on what should be denied the learning experiences they could derive through using any of the imported media, rather than this gap must be bridged with locally designed and produced materials.*

In the same vein, Obuzor (1986) argued that the use of improvised materials reduces cost and makes available instructional materials using local materials without compromising the learning experiences of the students. Utilization of improvised instructional materials will stimulate educational practitioners in planning, designing and producing materials that will match the curriculum objectives and learning styles of students. Gbamanja (1997:118) puts the idea succinctly thus:

> *An appropriate educational technology is one best suited to the specific cultural, social, economic and political climate found in the location where the technology is to be utilized.*

Ekpo-Eloma (2004) noted that the use of media materials that are among the people, they are familiar with and are amenable to the local situation of learners would have an inestimable positive impact on them. Fuglesang (1982) maintained that besides being time consuming, local and home-made materials are often educationally more effective. And that since they are products of the peoples' environment it will strike immediate sparks of interest and enthusiasm than the sophisticated ones. Gbamanja (1997) also argued that Nigeria for a long time depended on imported educational technology, which has failed to educate the people adequately and appropriately.

Stressing on the importance of improvised instructional materials over conventional materials and the need to encourage improvisation, Aniemeka (1992:14) advised that

> *Teachers and students should be encouraged, guided and assisted in making their own teaching and learning resourceful because the objective for which the material is meant for is the makers own and so the users/characteristics are known and considered when developing them. Commercially produced materials though fanciful may not meet the needs of the classroom teachers and those of the learners.*

He further emphasized that local technology is appropriate technology, which is likely to bring higher successes than sophisticated technology.

Elekwa and Eze (2002: 232-233) outlined the advantages of teacher-made (improvised) instructional materials over commercially produced ones thus:

i. They are custom-made to meet the objectives of the lesson for which it is designed. Conventional materials may have more or even less of what is required.
ii. They are usually less costly compared to conventional ones.
iii. The design and production process adds to the teachers' professional growth and competence.
iv. Teachers usually involve students' in the design and production and this develop students' production skills and they also learn better.
v. Teachers teach better with materials produced by them.
vi. It makes teachers more resourceful, creative, versatile and less dependent on other people for the solution of their instructional problems.

In a study on teachers' perception of the effect and use of learning aids in teaching basic and secondary school students in Winneba, Ghana by Adeyanju (2005), teachers were specifically asked to indicate the type of teaching materials they would prefer to use in their lesson. The result showed that six teachers liked to use projectors; 34 preferred non projected materials; 19 liked to use other methods while the rest numbering 21 preferred to use locally-made (self-made charts) and other visual materials. The analysis of the result puts improvised materials as ranking second in the list of materials utilized.

Elekwa and Eze (2002) observed that some teachers develop an aversion to and phobia for the use of improvised instructional materials despite their effectiveness in the instructional process. They further contended that most teachers are unwilling to explore alternative solution to the problem outside the realm of their experience. Despite their usefulness, (improvised) locally produced materials are often criticized due to their peculiar nature. Ogunniyi (1986), identified three of such general criticisms. That these materials have crude finishing, their degree of accuracy is rather low and that unless they were well constructed they may not last.

Improvised instructional materials when effectively utilized could promote resource – based learning. In line with this, Aniemeka (1992:19) said:

> *People may look down upon a centre stocked with local materials because of their crude finishing. But we should not lose sight of the fact that resource-based learning is better propagated if the resources are products of local technology. Local technology is the same thing as appropriate technology. It is cheap and need-serving orientation.*

Improvisation is likely to bring higher success than the advanced and sophisticated technology that may not be relevant to the school needs. It should be noted that not all instructional materials can be improvised, especially the more sophisticated and complex ones. Teachers should be as resourceful as possible so that the classroom environments are not impoverished or lacking in challenging instructional materials. This would go a long way in enhancing student's performance. But, unfortunately, inadequate funding to produce instructional materials of their own handicaps most of our classroom teachers.

Gbamanja (1987) also advocated for a search for alternative (improvised) media in the instructional process. Akanbi (1991) advanced three reasons in favour of improvisation as:

1. Local production usually brings forth very good, precise and suitable materials which otherwise could not have been available.
2. It involves the teachers and the pupils in realistic problem-solving activities which stimulate learning.
3. Local production helps the teachers and pupils' visual literacy as they engage the makers in thinking and communicating through non-verbal means.

Similarly, Ogunmilade (1984) noted the advantages of improvised materials to include:

1. Materials are tailor-made to fit particular needs or situations.
2. The teacher can decide how materials can be produced in an appropriate form to meet the teaching needs, and
3. Materials can be made current instead of using obsolete ones.

Method

Research design

A research design is essentially a plan for the conduct of a study. For the purpose of this study, survey and quasi-experimental designs were used.

Study area

The study was carried out in the Central Senatorial District of Cross Rivers State comprising of six local government area namely: Abi, Boki, Etung, Ikom, Obubra and Yakurr.

Population of the Study

The population of the study consisted of all the social studies teachers and students in the 89 secondary schools (JSS II) in the Central Senatorial District of Cross River State. The population of teachers was estimated at 89 representing 53 males and 36 females. The enrolment figure Junior Secondary School Two students in the area at the time of the study (2005/2006 academic session) stood at 39,870 representing 22,173 males and 17,697 females.

Sample and Sampling Technique

A total sample of 100 subjects drawn from 10 secondary schools was used for the survey study. The sample consisted of 20 teachers teaching and 80 students offering social studies in JSS II students from selected schools.

Instrumentation

The two instruments used for the study was questionnaire and performance test.

Validation of instruments

The face validation of the instrument was carried out using expert in test and measurement.

Reliability of the instruments

Pearson Product Momen Correlation Coefficients was used to determine the level of reliability of the instrument used in the study with a reliability coefficient of 0.83

Method of Data Analysis

Research question was answered using descriptive statistics while the research hypothesis was answered using independent **t**-test formulated for the study at .05 level of significance.

Results

Research Question One

The research question sought to find out the extent to which the performance of social studies students taught with improvised instructional material differ from those taught with conventional materials. To answer the question descriptive statistics was performed on the data as shown in table 1.

TABLE 1: Descriptive statistics of the difference in performance of social studies students taught with improvised instructional material and those taught with conventional materials

Group	N	$\overline{X}$	Mean Diff.
Experimental (taught with			

Improvised materials)	50	65.67		
				8.31*
Control (taught with Conventional materials)	50	57. 36		

***Remarkable Difference**

Table 1 presents the descriptive statistics of the performance of social studies students taught with improvised instructional material and those taught with conventional materials. From the results it was observed that the social studies students taught with improvised instructional material (65.67) performed remarkably better than those taught with conventional materials (57.36). This proves that effective improvised instructional materials promote better academic performance than conventional materials of social studies students in Central Senatorial District of Cross Rivers State.

Hypothesis One

There is no significant difference in the performance of social studies taught with improvised instructional materials and those taught with conventional materials.

Independent variable: The type of instructional materials used which is categorized into improvised instructional materials and conventional materials.

Dependent variable: Students' performance in social studies

Test statistics employed: Independent t-test analysis

The independent variable is the type of instructional materials used in teaching while the dependent variable is students' performance in social studies. The mean scores obtained by the two groups were subjected to an independent t-test analysis of significant. The results of the analysis have been presented in Table 2

TABLE 2: Independent t-test analysis of the effect of type of instructional materials used on students' performance in social studies

Group	**N**	$\overline{\mathbf{X}}$	**SD**	**t**
Experimental (taught with Improvised materials)	50	65.67	7.84	
				4.949*
Control (taught with Conventional materials)	50	57. 36	8.92	

***Significant at 0.05; df = 98; N = 100; critical t = 2.00**

Results of the analysis in table 2 shows that the calculated t-value (4.949) was higher than the critical t-value (2.00) at 0.5 level of significance with 98 degrees of freedom. The null hypothesis was therefore rejected. These results imply that there was a significant difference in the performance of social studies students taught with improvised instructional materials and those taught with conventional materials out-performing their counterparts taught with conventional materials.

Findings from this study showed that there was a significant difference in the performance of social studies students taught with improvised instructional materials and those taught with conventional materials, with those taught with improvised materials performing better. These findings are in agreement with works of Aniemeka, 1992; Ekpo, 1992 and Iheanacho, 1995 who maintained that the use of systematically designed local media resources can produce significant gains in the teaching-learning process compared to the use of conventional materials.

Conclusion

Based on the study, the following conclusion was drawn:

Social studies students taught with improvised instructional materials perform better in academically than those taught with conventional materials. There is significant difference in the performance of social studies students taught with improvised instructional materials and those taught with conventional materials.

Recommendations

Based on the study, the following recommends was drawn:

1. The use of improvised instructional materials will be successfully to operate and promote resource – based learning.
2. The school should give room for acquisition of skills and knowledge and development of self- confidence and self- actualization to student
3. The school administration should enable both the teachers and students to participate actively and effectively in lesson sessions using improvised instructional materials.

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