

EFFECTS OF INQUIRY METHOD ON STUDENTS' ACADEMIC PERFORMANCE IN UPPER BASIC SOCIAL STUDIES IN KWARA STATE, NIGERIA**BY****Baba Kudu SABA: Department of Arts and Social Sciences Education, Faculty of Education, Ahmadu Bello University, Zaria-Nigeria; Email: sabakudu64@gmail.com****Prof. Haladu Isa Bayero: Department of Arts and Social Sciences Education, Faculty of Education, Ahmadu Bello University, Zaria-Nigeria; Email: bayeroabuedu1@gmail.com****&****Ibrahim Danjuma Abubakar Ph.D: Department of Arts and Social Sciences Education, Faculty of Education, Ahmadu Bello University, Zaria-Nigeria; Email: ibromayanchi@yahoo.com****Abstract**

*The study investigated the effects of inquiry method on students' academic performance in upper Basic Social Studies in Kwara State. Research design employed was the two by two pre-test, post-test experimental and control design. Sample sizes of 300 students were used out of 10,244 JSS II Social studies students. A structured instrument titled Social Studies Performance Test (SSPT) was used for the study. Two (2) research questions and two (2) hypotheses were tested using inferential statistical tool and independent-test at 0.05 level of significance. The validity of the instrument was subjected to the confirmation of face and content validity by qualified experts in Social Studies and statistician. The result revealed that there were no significant differences that existed in the academic performance of students taught with inquiry method versus those taught with conventional method. It further revealed that no significant different on the basis of location of the students taught with inquiry technique versus those taught with lecture method. Based on the findings, the use of inquiry method on instruction should be widely encouraged among social Studies teachers of secondary school especially JSS II. Social Studies teachers should be well motivated through incentives so that they can develop their knowledge through capacities building such as workshop, seminars, symposium and conferences. **Keywords: Effects, Inquiry methods, Social Studies, Students' academic performance***

Introduction

Social Studies is the training given to individuals in order to enable them appreciate their environment and how to become useful to themselves and the society at large. According to Anegbe and Adeoye (2006) the Nigerian child is introduced to Social Studies right from the primary school. The essence is to enable the learner to develop interest in Social Studies, learn Social Studies, 'do' Social Studies and contribute effectively to the scientific and technological development of the nation. The foundation of Social Studies is presented to the learner at the basic level of education. The name Basic level of education was introduced into the Nigerian educational system under the Universal Basic Education (UBE) program. UBE is a reformed program in Nigeria's basic education delivery system, (from primary one to junior secondary 3) designed to reinforce the implementation of the National Policy on Education (NPE) in order to provide greater access and ensure quality learning throughout the federation as it is free and compulsory (Adomeh, Arhedo & Omoike, 2010). The structure of the UBE program is made up of three levels in the following sequence; lower basic education (primary 1-3), middle basic education (primary 4-6) and upper basic education (junior secondary school (JSS) 1-3).

Following the declaration by the Federal Government of Nigeria for the introduction of 9-year free and compulsory basic education structure which cover the primary and junior secondary school, strategies have been put in place by the Nigerian Education Research and Development Council (NERDC) to re-structure and re-align the school curricula for the 9-year basic education (Obioma, 2006). A total of 19 curricula have been produced to cover the Lower basic (years 1-3) middle basic (years 4-6) and upper basic or Junior Secondary School (JSS) (years 7-9). Education is a prerequisite for meaningful and

sustained national economy. No nation can rise above the quality of its educated citizenry. The purpose of education is to assist individuals to maximize their potentials for optimal self and national development. The teacher at any level of education is the pivot of learning. Therefore, the teacher's instructional method plays an important role in skill acquisition and meaningful learning (Ezenwa & Yaki, 2013). In Nigerian schools, classroom teachers mostly prefer a teacher-centered approach to student-centered teaching strategy. This is a one-way process in which the teacher directly presents information and skills dictated from a textbook. Students generally remain passive throughout the lesson. Adegoke (2011) reported that students are not actively involved in developing knowledge; they receive information passively and are less motivated. When students are not encouraged to contribute to class discussions by voicing their opinions and supporting their answers because of persistent use of a didactic teaching method in which acquisition of factual knowledge and memorization are over emphasized, school becomes a tedious chore. Schooling becomes suffused with anxiety and boredom, destructive of curiosity and imagination, producing cramming machines (Gambari, 2009; Gupta & Pasrija, 2010; Thomas, 2012).

Inquiry has been defined by many scholars in different ways, its generally refers to the art and science of asking questions that are accessible, and can be answered in part or in whole, and ones that lead to meaningful tests and explorations (Herbrank, 2004). The inquiry technique usually involves careful observations and assessment, hypothesizing and interpreting, and theorizing. It requires experimentation, reflection and recognition of the strengths and weaknesses of its own techniques. In education, while much thought and research have been devoted on the role of inquiry in science education, this effort can be replicated to other disciplines such as social sciences, arts, humanities to mention but a few. Inquiry learning is referred to as a way of acquiring knowledge through the process of investigation. In this approach, the learners generate their own question or are posed with a question by the teacher, or by an electronic device (computer). However, no matter the source of the question, this approach requires a more pro-active role of the learner in given solution to the question or problem through investigation, discovery, experimentation or problem-solving means.

There are various levels of inquiry learning approach, such as confirmation inquiry, structured inquiry, guided inquiry, as well as open inquiry (NAS, 1995). In a confirmation enquiry (level 1), learners have been taken through a lesson by the teacher, then questions and procedure that guides the students through an activity that defines the result, the teacher thereafter confirms students understanding through assessment of any sort. In a structured inquiry approach (level 2) allows the learners to show their creativity in discovery true solutions of questions possessed by the teacher in the course of teaching. In the guided inquiry (level 3), the role of the teacher changes, he becomes an active partner and guides and advices students on the procedure of defining research questions and possible solutions. In an open enquiry (level 4), the learner becomes the investigator, he formulate research question(s), design, develop procedure, generate data, analyse, discuss findings and communicate results. Although, this stage of inquiry is done within the framework of quasi/experimental research designs.

Due to the student-centred premise behind instruction, Hazaria, North and Moreland (2009), differentiate inquiry teaching from traditional teaching by focusing on the unique role of the student "learners construct personal interpretation of knowledge based on their previous experience and application of knowledge in a relevant context". It was stated by Oliver-Hoyo (2011) that, constructivist learning, inquiry based activities involve the use of "manipulatives or hands-on materials", "incorporating, inquiry, discovery and problem-solving approaches and applying Social Studies and science concepts to real-world context". Moreover, inquiry method of learning associates with the activities in the classrooms to distinct careers and involves the original data analysis. It also inspires both collaboration and communications by the students (Marshall, 2010). Marshall found support for the idea that, there is effectiveness for inquiry presentations for improving the performance

of students as well as satisfaction of the teachers when progress has been made on the side of the students.

In a wide variety of perspectives and in a broad number of methods in the seventy years since Dewey (1938) hinged education as a progressive movement, there is still a strong predisposition toward using teacher-directed methods of instruction. With respect to the teaching of Social Studies which was considered previously, although many believe memorization of basic operational and computational facts and concepts must be accomplished using traditional method (Coddling, 2009), proponents of inquiry methods suggest that there needs to be some sort of declaration of real world Social Studies concepts before any elementary skill sets are committed to memory (Hazaria, North & Moreland, 2009). Dewey moved on to state that the presentation of teachers giving students a theatrical set of information comes from an era that predicated the past and future would not be dissimilar. Also, when the movement of progressive education began about 70 years ago, change was thought to be unavoidable. This review covers the suggestions, theories, and ideals of both Dewey and Vygotsky (1962) and their writings will be sufficiently examined. These writings are imminently critical to a comprehension of the teaching framework called inquiry strategy which forms the pivot of the present study “Effect of Inquiry Teaching on Performance of Upper Basic Social Studies Students in Kwara State.”

Furthermore, Dewey (1938) predicted the teacher’s part in inquiry-based instructional environment as an exquisite designer. This person is charged with renewing the associations between the period experiences of “the students with the given subject area and offer new connections to learners who are then able to create more skills, connections and factual evidence”. During the process of comparing teachers in the two instructional methods (inquiry vs lecture method). Dewey (1938) acclaimed that there is much more lead time for planning for inquiry method because they must assuredly give exposure and continually build on the previous experiences of the students. Olukayode (2012) started with the supporting proposition, “our habits of mind, innate curiosity, and ways of thinking and acting are shaped and developed through immersion in experience and repeated practice”. Here, the investigators supposed that the method in which students were presented with learning materials are equivalent paramount to the absorption of the content that is learned. In turn, more compelling teachers should have a purpose to create unique instructional sessions as was suggested by Olukayode (2012), and attempt to create an environment that is conducive to an ever developing global cultural setting as was defined by Cornigh (2004).

Indeed, the concept of teachers as designers and the teachers who bring out and direct curiosity remain to be important part of education that is inquiry rooted. It was found by Kazempour (2009), that inquiry educator developed opportunities that would be a significant contributor as a factor during the process of implementing inquiry education in the classroom of today. His study looked at the changing of the perceptions of a secondary school teacher’s necessity and abilities toward the implementation of inquiry education that came from the professional development presented through a series of long vacation workshops. Along with these development opportunities, the teacher was found to have greater certainty in his capability to design for education that is inquiry-rooted and also direct the students along their learning path.

Purpose of the Study

The study investigated the effects of Inquiry teaching method on students’ performance in Upper Basic Social Studies in Kwara State. More specifically, the research has the following objectives to;

- Investigate the influence of gender on the performance of Social Studies students taught using inquiry teaching method versus those taught with conventional instructional strategy.
- Examine the interactive effect of location on the performance of Social Studies students taught using inquiry teaching method versus those taught with conventional instructional strategy.

Null Hypothesis

H₀₁: There is no significance difference between the mean performance score of male and female students taught using inquiry teaching method versus those taught with conventional instructional strategy.

H₀₂: There is no significance difference between the mean performances score of Social Studies students taught using inquiry teaching method versus those taught with conventional instructional strategy on the basis of location.

Methodology

The quasi experimental design was used for the study. The choice of this design was by the reason that, the study was sought to find out the effect of inquiry method on students performance which require having both experimental and control groups with different treatments. The population is all Upper Basic School Social Studies students in Kwara State. The sample sizes of three hundred (300) were purposively selected from the total population of the research. The structured instrument titled Social Studies performance test was used to elicit information on the effect of inquiry teaching method on the students academic performance in social studies. The instrument was content ad face validated by Social Studies practitioners and statistician while the content was subjected to Cronbach's alpha reliability test of internal consistency. Based on Cronbach's alpha of 0.81, the instrument was adjusted for reliable for the data collection for the study. The study made use of fifty (50) multiple Social Studies test. The test was employed for pre-test in order to determine the level of academic equivalence of subjects and as a post-test in order to measure the potential effects of the intervention of examining the difference in the pre-test and post-test results.

Results

Hypothesis One: There is no significance difference between the mean performance score of male and female students taught using inquiry teaching method versus those taught with conventional instructional strategy

Table 2: Independence t-test statistics on difference in the performance of students taught performance score of male and female students taught using inquiry teaching method versus those taught with conventional instructional strategy

Groups	N	Mean	S.D	Mean difference	Df	α	Tcal	Tcri	P-value	Decision
Experimental	15	58.66	11.828							
	0			9.156	298		7.22	1.96	000	
						0.05				Rejected
Control	15	49.50	10.064							
	0									

Calculated $p < 0.05$, computed $t > 1.96$ at df 298

Their mean performances are 58.66 and 49.50 by males and females students taught with inquiry and those taught with lecture method respectively, this implies a mean difference of 9.156 in favour of the males and females students with structured inquiry. The outcome of the t test independent showed that there is significant different in the performance of upper basic II Social Studies students taught with lecture and those taught with inquiry method in Kwara state. This is because the calculated p value of 0.000 is lower than the 0.05 alpha level and their computed t-value of 7.221 is higher than the 1.96 t-critical at df 298. Therefore, this null hypothesis which stated that there is no significance difference in the performance score of male and female students taught with structured inquiry and lecture method in Kwara state is hereby rejected.

Hypothesis Two: There is no significance difference between the mean performances score of Social Studies students taught using inquiry teaching method versus those taught with conventional instructional strategy on the basis of Location.

Table 2: Independent t-test statistics on difference on effect of structured inquiry method on location on the mean performance of students scores of Upper Basic Social Studies students Kwara state

Groups	N	Mean	S.D	Mean difference	Df	α	Tcal	Tcri	P-value	Decision
Experimental	150	56.03	12.34	1.168	298	0.05	1.96	0.411	0.411	Retained
Control	150	49.50	10.06							

Pcalculated <0.05, tcomputed >1.96 at df 298

The outcome of the t-test statistics showed that there is no significant difference between urban and rural students' mean performance. The calculated p-value of 0.411 is greater than the 0.05 alpha level and the computed t-value of 0.824 is lower than the 1.96 t-critical value at df 298. So, the computed mean performance of both groups was 56.0309 and 49.5000 respectively. The mean difference between the groups is 1.168 which is in favour of the urban students. In this case, the null hypothesis which states that, there is no significant difference on the effect of structured inquiry method on location mean performance of scores among upper basic II Social Studies students in Kwara State is hereby retained. The results of the data analysis from this experiment revealed among others that the use of structured inquiry method of teaching Social Studies is significantly better than the lecture method of teaching the Social Studies.

Discussion

Hypothesis one tested for significant difference on the effect of the mean performance score of male and female students taught using inquiry teaching method versus those taught with conventional instructional strategy. The t-test result showed that significant difference existed in the performance of students taught with both inquiry and lecture methods. Indeed, the finding is in agreement with Olabode (2010), where it was reported that the use of inquiry method among the primary and secondary school students improved on academic performances of these category of students. The finding here is a proof of Oparah (2011) who reported a similar case that inquiry technique leads to higher level thinking academic achievement among the said words.

Hypothesis two tested for significant difference on the effect of inquiry teaching method on location mean performance scores among Upper Basic Social Studies students taught with inquiry method and those taught with lecture method. The result of the t-test revealed that student from both urban and rural setting had significantly higher mean scores when exposed to inquiry method. The null hypothesis was therefore retained. This finding supports the findings of Huseyin and Refik (2010), they discovered that inquiry based learning approach has positive effect when used for both urban and rural located students

Conclusion

The data collected through the administration of pre-test and post-test on the performances of Social Studies students in experimental and control groups is a personal experience of the researcher. However, the following general conclusions are therefore deduced. The application of inquiry teaching method among secondary school students was found to be highly efficient in improving academic performance of these wards. It was also observed that in the study that inquiry method of instruction produced same positive effect on both urban and rural students who were exposed to it unlike the lecture method. Therefore teachers in our upper basic schools should not relax using inquiry teaching

method because of the positive has on academic performance of Social Studies students

Recommendations

On the basis of the findings from this study, the following recommendations are hereby put forward:

1. The use of Inquiry method of instruction should be widely encouraged among the Social Studies teachers of secondary schools in Kwara state especially at the Upper Basic School. This is because students are prepared for their terminal examination from this level. Also, the knowledge of Social Studies serves as the hub of economic life of every human being.
2. Social Studies teachers should be well motivated through cash incentives so that they can develop their knowledge through capacity building such as; workshops, seminars, symposium and conferences. This will enable them meet the global quest of knowledge expansion.
3. The State Ministry of Education should make sure that only Social Studies teachers with vast knowledge of modern teaching techniques should be employed to teach Social Studies and other related subjects in both primary and secondary schools.
4. Social Studies teachers at all level to employ the use of inquiry method and other related teaching techniques that broaden the cognitive horizon of students in order to make them self-sufficient and problem solvers. This is the only way they can meet the taste of time.

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