

EFFECT OF ACTION LEARNING AND CONCEPT MAPPING STRATEGIES ON ACADEMIC ACHIEVEMENT OF SOCIAL STUDIES STUDENTS IN JUNIOR SECONDARY SCHOOLS IN SOUTH-EAST/WEST OF NIGERIA.

Dr. Imaobong M. Akpan
Department of Social Studies
Akwa Ibom State College of Education, Afaha Nsit, Nigeria

Email:akpanimaobong22@yahoo.com

ABSTRACT

The study examined the effects of action learning and concept mapping strategies on academic achievement of social studies students in junior secondary school in south-south geo-political zone of Nigeria. The study investigated the gender differences and school location on the achievement of students in social studies. The researcher adopted Quazi-experimental pre-test, post-test and control design. The population of the study consisted of all JSS III social studies students in all the secondary schools in south-south geo-political zone of Nigeria. The sample size was made up of three hundred (300) social studies student drawn from the six schools from the three states in the south-east-west zone of Nigeria (Akwa Ibom, Cross Rivers and Abia). Multi-stage sampling technique was used for the selection. The experimental groups were taught using action learning and concept mapping strategies and the control group were taught using conventional method. Social Studies Achievement Test (SSAT) was used to generate relevant data for the study. The face and content validity of the instrument was ascertained by expert in department and their suggestions and corrections was effected and also used to build the validity of the instruments. The reliability of the instrument was ensure using test-retest method and the reliability co-efficient was ascertained at the level of significant of 0.05. Findings of the study revealed that there was no significant difference in the mean achievement score between experimental groups and control groups. The study also revealed that there is no difference in the mean achievement score of male and female students but there is difference in the achievement of students' base on location. Therefore, the researcher recommended that teachers should adopt the use of action learning and concept mapping strategies for the teaching of social studies being an innovative method in order to facilitate better teaching and learning of social studies teachers. Social Studies teachers should be encouraged by government to attained seminars and workshops on teaching methods for exposures to more innovative methods.

Keywords: *Effect of Action learning and Concept Mapping Strategies, Students' Achievement, Social Studies, Junior Secondary School.*

INTRODUCTION

Education serves as a major tool which can be used for human development likewise the society of man. It is an instrument that transformed the totality of individual into a functional and meaningful citizen. It is a means of societal survival and perfection that involves series of processes that will support acquisition of meaningful knowledge and skills for functional living. Education came into the Nigerian society because of the agitation of these societal beliefs, needs and values. The above mentioned ethical beliefs and values of our society should be handed down from generation to generation. Education is indispensable to the national growth, hoping that the wealth of any nations can only be determine through her level of education. Also, education currently is not worth hoping for especially in Nigeria where there are high rate of vices, corruption, human trafficking, killings, criminals offences, etc. Since this has become the order of the day of Nigerian society, Social Studies over the years focused attention on how to improve social studies instruction and teaching in schools by trying to move beyond the stereotype methods of obtaining knowledge in social studies.

Social Studies as become an indispensable tool, no nation, develop or developing, wishing to progress in socio-economic society, political emancipation, technologically and socially transformed, etc will afford to relegate the learning of Social Studies in schools. This is true according to Akpan, (2018) who added that producing citizens who will proffer sustainable solution to the problems caused by human as they interact in the environment. teacher owe the duty of equipping learners with appropriate skills to carry out this study. Social Studies for some years has become one of the relevant subject that pre-empt the survival of human being and its rapid citizenship development and inculcation of certain values which cannot be underestimated in any society. Akpan (2018) also stated that the primary task of the broad field of Social Studies is to produce citizen with highly needed functional citizenry. Learner under the situation require to possess an adequate understanding of himself as a human being and his expectation in relation to the environment in which he lives, work and play. The only sure way to accomplish this task is by assisting the learners to undertake holistic study of the complex reciprocal interactions between the humans and the environment.

Also, Social Studies can be defined as a structured field of study saddled with the responsibility of inculcating in the students some relevant values and skills that will aid them in understanding their environment and also capable of taking rational decisions as the need arises. (Akpan, 2018) The methods adopted by Social Studies teachers are important in order to understand Social Studies concepts. Sakiyo (2014) further explained that teaching methods as a means of instructional strategies designed and adopted by teachers help to facilitate teaching on the part of the teachers and learning on the part of the learners. This is in line with Dargu (2015) who stated that there are various teaching method but differs in different ways. Apart from the existence of various teaching methods other factors like age of the learners, body physique of the learners in terms of fitness or disability of learner should be taken into consideration during classroom implementation process. Teaching Social Studies therefore require that teachers should be intellectually sound in application of various methods and strategies for teaching the subject. It is on this premise that Milen (2015) is of the opinion that teachers is expected to implement a range of instructional strategies that will yield good academic success to all the Social Studies students.

Action learning strategy traced its roots from professor Reginald Revans in the middle of the 20th century. This methods of learning was developed in the coal board and later in livseitals in Uk in 1940s, he observed that the conventional teaching methods was totality ineffective. Action learning strategy involves working on the real problem, focusing on learning and actually implementing the solution. It is a form of learning by doing which create room for active participation of the learners.

Action learning therefore is an educational process whereby the participant (students) studies his own actions and experiences in order to improve performance (Kramer, 2007). Still on action learning process, Freeman, Eddy, McDonough Smith, Okoroafor, Jordt and Wenderoth (2014) highlighted that action learning strategy create the environment which can enable participants to reflect on their own personal development. His own opinion concerning action learning centred on the research of transformative learning which help in explaining the impact of existing frames of reference or habitual ways of thinking and feelings on participant existing within a set.

Again, Ayeni, (2020) added that action learning involves working on the real problem which geared towards learning and implementation of solution. It is a form of learning by doing which gives for active participation of students. Ayeni, (2020) also observed that action learning instructional strategy have indicated positive instructional strategies have indicated positive result by increasing the achievement of low performance students. Hence Afolabi, (2012) confirmed that lots of stories proved how researchers are using action learning strategy curb in urban setting.

Concept-mapping is another learning strategy which yielded positive result during teaching and learning of social studies. The term "concept-mapping" means representation of concept in a diagrammatic structure. It involves the use of arrows to indicate their relationship in order to represent a new knowledge structure. Scholars like Ojebiyi and Salako, (2013), added that concept mapping is a strong but simple way of using diagrams to illustrate information in a meaningful

manner in order to bring easy understanding and communication of complex information in the classroom setting.

Still in the idea of concept mapping strategy; Ajaja, (2013) in his study indicated that students taught Social Studies and other related subject like science, using mapping approach scored higher than those taught with lecture methods. However, there is no significant difference to their achievement based on gender. This, Akeju, Rotimi and Kenni, (2011) stated that concept mapping instructional strategy contributed immensely to the learning achievement, retention of the learners materials and learning attitude of students.

Statement of the Problem

The seal for quality and effective teaching delivery has been the desired hope of Social Studies education. Despite series of curriculum innovation and other attempts to promote Social Studies teaching in schools, the achievement of students in Social Studies was dwindling for some years now. The researcher observed that some Social Studies students believed that the subject is too broad, therefore considers that some concepts are very lengthy and are difficult to understand. This may be as a result of method of teaching used by social studies teachers. The researcher therefore, observed that majority of teachers used conventional teaching method which is sometimes not helping the students to understand some concepts in social studies as well as capable of developing analytical and critical thinking ability. The need of the study is to reduce the dwindling in the achievement of student and the wrong notion by the students about the broad area of some Social Studies concepts which demands the use of innovative methods that motivate the learners' critical thinking capacity. These innovative methods include action learning and concept mapping strategies.

Research Hypothesis

- H₀₁ There is no significant difference between the pre-test mean and post-test mean score of the students that use action learning concept-mapping and control group.
- H₀₂ There is no significant difference between male and female students' achievement in experimental and control group.
- H₀₃ There is no significant difference between achievement score of students in rural and urban location in the experimental and control group.

METHODOLOGY

The design adopted for this study is quasi-experimental of pre-test, post-test, and control group. The reason why the researcher choses this research design is that it will create room to make the determination of the effect of the treatments. The experimental group will be taught using action learning and concepts mapping strategies while the control group will be taught using conventional learning method.

Illustration below shows the pattern of the design used for the study

$$E_1 = O_1 : X_1 . Q_2$$

$$E_2 = O_3 : X_2 . Q_4$$

$$C = O_5 : X_2 . Q_6$$

Where : E₁ – Experimental group 1

: E₂ – Experimental group 2

: C – Control group

: O₁, O₃, O₅ - pre-test observation

: O₂, O₄, O₆ – post-test observation

: X₁ - Action learning treatment

: X₂ - Concept mapping

: C - Conventional method (Control group)

Population

The population for the study consisted of all the JSS 3 Social Studies students in the South East West of Nigeria. The sample size was made up of three hundred (300) Social Studies students selected, using multi-stage sample technique.

Stage 1 involves the random selection of states within the six (6) geo-political zones in the south-east-west of Nigeria which include Cross River, Rivers and Abia. The stage 2 involved selections of two local government areas from each state selected. The last stage was the selection of 50 students from six (6) schools from both urban and local areas involving – twenty-five (25) females and males.

Instrumentation

The instrument used for data collection is social in Social Studies achievement test (SSAT) which was made up of two sections: A and B. Section A was drawn to elicit information on student's personal data such as sex and location of school. Section B was made up of forty (40) items multi-choice question with five (5) options (A – E) which intends to measure students' achievement in Social Studies. The validity of the instrument was ensured by social studies experts and teachers from social studies department. The reliability of the instrument ascertained using test-retest method which the result of the reliability coefficient indicated 0.62 which made the instrument fit for the study.

Hypothesis 1: There is no significance between the pre-test mean scores of students taught with action learning, concept mapping and those taught using conventional method (control group).

Table 1: Analysis of Variance (ANCOVA) showing the Mean Achievement Scores of Students in Experimental Group and Central Group.

Source	JSS 3	DF	Mean score (MS)	F-cal	P-value
Correction Model	1196.442	3	377.554	51.610	2.4
Coverate (Pre-test)	46.217	1	142.418	24.125	3.6
Group	997.533	2	473.635	68.622	3.01
Error	2007.156	296	5.176		
Corrected Total	5573.397	299			
Total	102429.001	300			

P<0.05

Table 1: Indicated that f-cal (68.622) which is greater than p-value of (3.01) at 0.05 level of significant. The hypothesis is rejected. This is because there is no significant difference in the mean achievement scores of students taught with action learning, concepts mapping and control groups. In order to determine the treatment effect on the students' achievement, multiple classification analysis was conducted. The result is shown below in Table 2.

Multiple Classification analysis on students means achievement scores treatment

		Grand	Mean 20.60		
Variable category	N	Unadjusted devn'	Et ²	Adjusted for independent Covariate	Date
Action learning	100	0.40		4.03	
Concept mapping	100	4.12	.43	0.51	.47
Conventional	1000	-4.53		-4.54	
Multiple R					0.423
Multiple R ₂					0.080

Table 2: Shows that student exposed to action learning strategy had the highest adjusted mean score of 24.63 $20.60 + 4.03$ followed by student in concept mapping group 21.11 $(20.60 + 0.51)$, whereas student taught using conventional method had the least adjusted mean score of 16.56 $(20.60 + -4.54)$. Therefore, the use of action learning and concept mapping strategies would enhance student achievement in social studies. The treatment accounted for about 43% ($Et_2^2 = 0.43$) of the observed variance in students achievement in social studies.

Hypothesis 2: There is no significant different in male and female students achievement in experimental and control group.

Table 3: Analysis of variance (ANCOVA) of mean achievement score of male and female students experimental and control groups

Source	JSS 3	DF	Mean score (MS)	F-cal	P-value
Correction Model	1015.075	2	205.217	24.217	2.11
Sex	1.201	1	1.201	1.77	3.6
Group	1052.225	1	516.137	64.312	3.01
Sex x group	3.865	1	1.645	2.57	3.01
Error	2140.500	297	5.735		
Total		299			
Corrected Total		300			

$P < 0.05$

The result from **Table 3** above indicated that there is no significant difference in the mean achievement scores of male and female students in the post-test of experimental group and control group ($F_2 2.297 = 0.257$; at the level $P > 0.05$ level of significant. This therefore implies that the hypothesis is accepted, because there is no significant difference between in the mean achievement score of male and female students in experimental group and control group.

Hypothesis 3: There is no significant difference between the mean achievement score of students in rural and urban location in experimental and control groups.

Table 4: Analysis of variance (ANCOVA) and the mean achievement scores of students by location

Source	JSS 3	DF	Mean score (MS)	F-cal	P-value
Correction Model	1249.325	2	265.705	36.421	2.11
Location	104.601	1	104.601	17.035	3.62
Group	1052.225	1	713.123	76.312	3.01
Location x group	92.241	1	48.241	6.150	3.01
Error	2044.130	297	7.101		
Total	5517.575	299			
Corrected Total		350			

$P < 0.05$

From Table 4 above, it reveals that F-cal (6.15) is higher than P-value of (3.01) of 0.05 level of significance. The null hypothesis is rejected. This implies that there is no significant difference between the mean achievement scores of students in rural and urban location in the experimented and control groups.

Discussion of Findings

The finding of the study revealed that action learning strategy and concept mapping strategies indicated positive effects on the achievement of students in Social Studies. This was in agreement with Sakiyo, (2014) who stated that teaching methods being pentalogical strategies are arranged and adopted by the teacher to facilitate teaching on the teachers part and also facilitate learning

on the learners. Still on the action learning and concept mapping strategy, the findings of the study is also in agreement with that of Kyung-Hee and Soo-Gil, (2015) who added that action learning based team project teaching – learning methods are effective for improving meta-cognitive initiative in problem solving, understanding of interpersonal relationships and team efficacy among social studies students. Again, the result of the findings revealed that there is no significant difference in the mean achievement scores of male and female students in experimental and control groups. This implies that gender has no significant effect on students' achievement. The result of the findings is in consonance with Handelsman, J. and Brown, Q., (2016) who stated that is not associated with the scores of Social Studies among the students.

Moreover, Flynn, B. B. (2011) confirmed that differences in achievement of male and female in various subjects examine at the secondary school level. The findings of this study indicated a significant difference in the achievement of student in rural and urban location. This is in line with Afolabi and Akinbobola, (2012) who discovered that there is no significant difference in the academic achievement of male and female physics students taught with action learning strategy. Still Afolabi, (2012) observed that the body language of the literate revealed how researcher are using action learning influence to produce effective classroom learning situation in urban areas.

CONCLUSION

The conclusion from the study is that the use of action learning and concept mapping teaching strategies facilitate better academic achievement of Social Studies students compare to the use of conventional strategy. The study carried out, confirm that students taught social studies using action learning performed better in Social Studies, followed by concept mapping and lastly conventional method. Hence, both strategies will be rewarding for students' academic achievement if given necessary attention.

RECOMMENDATIONS

1. Action learning and concept mapping strategies should be adopted to teaching of Social Studies. This will enhance classroom learning situations and also help to improve learners' academic achievement.
2. Teachers of Social Studies should be encouraged on how to use action and concept mapping always during teaching/learning period.
3. Government should provide support to the school management to organize workshops and seminars on the use of innovative method of teaching.

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