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Effects of Pictorial Integrated Technology and Cooperative Learning Strategies on Pupils' Academic Performance in Social Studies in Katsina State, Nigeria

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Received: 14 July 2022 Accepted: 02 November 2022 Published: 04 February 2023 Abstract: Effects of Pictorial Integrated Technology and Cooperative Learning Strategies on Pupils' Academic Performance in Social Studies in Katsina State, Nigeria. Objective: The objective of this study was to investigate the effects of Pictorial integrated technology and cooperative learning strategies on pupil's academic performance in Social Studies. Methods: Five hypotheses were raised for the study. The study adopted pretest and posttest quasi experimental design with one hundred and twenty basic two pupils which consists sixty-two males and fifty-eight females. Social studies performance test, pictorial-integrated technology questionnaire, and cooperative learning strategy questionnaire were developed by the researchers. The data were analyzed using descriptive statistics and analysis of covariance at 0.05 level of significance. Findings: Pictorial integrated technology and cooperative learning strategies enhance pupil's academic performance in Social Studies when effectively utilized in the classroom. Conclusion: Pictorial integrated technology and cooperative more effects on basic two pupils' academic performance in Social Studies than lecture method.

Keywords: pictorial integrated technology, cooperative learning strategy, academic performance, social studies.

Abstrak: Pengaruh Gambar Terintegrasi Teknologi dan Strategi Pembelajaran Kooperatif terhadap Performa Akademik Siswa dalam Pelajaran Ilmu Sosial di Negara Bagian Katsina, Nigeria. Tujuan: Penelitian ini bertujuan untuk mengetahui pengaruh gambar terintegrasi teknologi dan strategi pembelajaran kooperatif terhadap prestasi akademik siswa pada mata pelajaran ilmu sosial. Metode: Lima hipotesis diajukan untuk penelitian ini. Desain quasi eksperimen pretest and posttest diterapkan dengan seratus dua puluh siswa sekolah dasar tingkat dua yang terdiri dari enam puluh dua lakilaki dan lima puluh delapan perempuan. Soal tes ilmu sosial, kuisioner gambar terintegrasi teknologi, dan kuisioner strategi pembelajaran kooperatif dikembangkan oleh para peneliti. Data dianalisis menggunakan statistik deskriptif dan analisis kovarians pada taraf signifikansi 0,05. Temuan: Gambar terintegrasi teknologi dan strategi pembelajaran kooperatif meningkatkan performa akademik siswa ketika digunakan secara efektif di dalam kelas. Kesimpulan: Gambar terintegasi teknologi dan strategi pembelajaran kooperatif lebih berpengaruh terhadap prestasi akademik siswa sekolah dasar dalam pelajaran ilmu sosial daripada metode ceramah.

Kata kunci: gambar terintegrasi teknologi, strategi pembelajaran kooperatif, performa akademik, mata pelajaran ilmu sosial.

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INTRODUCTION

Social studies as a dynamic and integrated subject help pupil to appreciate nature, people's culture, religion and societal norms. Anette (2020) asserts that the teaching of Social Studies starts early in Norwegian education system because it helps to curb the problem of diversity, inculcate social norms, societal issues and racism in the society. Edinyang & Ubi (2013) view social studies as a potent instrument that promote capital and human development in the society. That was why the National Policy on Education (2013) gave it a place of pride. Akpochato (2013) defines Social Studies as a subject that help pupils to develop and promote creative skills used in solving societal issues in the society. Osakwe (2014); Mezieobi, Ogaugwu, Ossai and Young (2013) assert that Social Studies as an integrated subject provides pupils with an in-depth knowledge, attitudes, values, norms, manipulative and problem-solving skills which enable them to contribute effectively to the well- being of the society. Ikem & Reuben (2012) opine that Social Studies help pupils to understand societal problems and ways of resolving it.

Despite the importance of Social Studies as a subject in early childhood education, pupils academic performance in Social Studies remain relatively poor due to inadequate instructional strategies. Adewale and Umoh (2016) state that one of the problems of Social Studies is lack of appropriate instructional strategies. The above statement aligns with Salome (2020) that asserts that inappropriate instructional strategies in the teaching of Social Studies have to led to low level of pupil's retention, boredom, lack of interest and relatively poor academic performance. Bhatnager & Das (2014) assert that pupils lose interest in Social Studies because of inadequate instructional strategies used in the delivery of the lesson in the classroom. In the Study carried out by Opoh, Adams & Akai (2017) affirm in the research carried out between 2010 to 2014 that students' performance in Social Studies in Junior Secondary School Certificate Examination (JSSCE) was relatively poor. In line with the above assertion, Wentzel (2018) agrees that students' academic performance in Social Studies in the National Examination Council (NECO) in 2016 was also relatively poor. Abdul Raheem (2016) and Yusuf (2014) affirm that the objective of Social Studies is yet to be realized because of inappropriate instructional strategies mostly based on teacher -centred approach However, if these prevalence problems of pupils' poor academic in Social Studies due to inappropriate instructional Strategy is not adequately addressed in the early years it could lead to high rate of school pupil's poor academic performance, lack of interest, poor retention and lack of pupils participation and lack of respect for human dignity in the society. In line with the above assertion, Etor, Mbon and Ekanem (2013) affirm that if a good foundation is not laid at early basic schools it might hinder pupil's academic apex of excellence in future. Hence, Onuoha & Okam (2014) maintains that teachers should engage pupils in participatory instructional strategies geared towards child centred learning approach during lesson delivery in Social Studies so as to help pupils to acquire in-depth knowledge of the subject matter. Yusuf (2014) and Haruna (2018) opine that multimedia, cooperative learning strategy and collaborative learning strategy should be used to enhance pupil's academic performance in Social Studies.

Delving further, pictorial is regarded as colourful and flashy picture materials that can be used to explain a particular concept vividly during teaching instruction while Pictorial integrated technology is the projection of picture materials in combination with word through the use of projectors, computers, and laptops during lesson delivery This statement aligns with Gutierrez (2014) that postulates that pictorial promote pupils ability to comprehend, and recall what is taught in the classroom. Okeke (2013) defines pictorial as visible picture materials used to improve learning process. Krukru (2015) posits that pictorials facilitate learning by supporting it with teacher's verbal information. Thomas (2013) that pupils lack concentration in the lesson without the use of pictorial especially when the lesson is dull. Gould and Roffey- Barentsen (2018) assert that 83 percent of pupils learning is achieved through the sense of sight. Pictorial enhances pupil's motivation, class management and pupils' learning attitude (Cardillo, 2017, & Aggarwal, 2014). Teng (2014) maintains that pictorial instructional approach also known as "Model method "has helped Singapore to achieved a commendable success in teaching Mathematics and Science. Hence, Hamilton (2014) defines pictorial integrated technology as an instructional device used by the teacher to facilitate teaching and learning process. Raja & Nagasubramani (2018) maintain that pictorial integrated technology increases pupils' motivation and participation in the classroom. Sivakumar (2018) postulates that pictorial integrated technology enhances pupils reading difficulties and also promote sense of reality on what is taught in the classroom. Carpenter & Olson (2011) carried out a study on the effect of teaching new vocabularies through pictorial. The study shows that there is significant advantage between male and female basic two pupils in the recall of Swahili words from pictorials compared with English translations. Boor (2013) carried out a research on the impact of projected still visuals on the academic performance of Junior Secondary School Students in Social Studies in Zaria Inspectorate Division in Kaduna State. This study shows that projected still visual

materials have remarkable effects on academic performance of Social Students in junior secondary schools. Based on the above assertion the researchers are motivated to investigate the effects of pictorial integrated technology on pupils' academic performance.

Furthermore, Cooperative learning strategy deals with grouping learning approach. Ajaja & Eravwoke (2012) define cooperative learning strategy as a process of organizing pupils in small groups so as to help them in learning the assigned material. Simek, Byilar & Kucuk (2013) affirm that cooperative learning strategy facilitates pupils' academic performance in Social Studies. Madumere-Obike & Nwabueze (2012) agree that cooperative learning strategy promotes collaboration, peers tutoring, problem -solving skill and enhance pupil's academic performance. Etaneki (2021) carried out a study on the effects of Cooperative and Questioning instructional strategies on Academic performance of upper Basic Social Studies in Delta State. The study revealed that there is significant difference in the mean scores taught with cooperative learning strategy. Topping, Buchs, Duran & Vankeer (2017) affirm that teachers find it difficult to assess the academic performance and the cooperative learning strategy in the classroom. Based on the above gaps, the researchers are motivated to investigate the effects of cooperative learning strategy on pupil's academic performance in Social Studies and how it could be used to fill the gaps in the study.

Hence, technology is viewed as an electronic device used to support pupils' learning. Anderson & Anderson (2011) define technology as a human-made idea used to perform a certain task. Inclusion of technology in the classroom is one of the new trends of early childhood education in Nigeria. The National Association of Early Years Children (NAYEC, 2012) in collaboration with Fred Rogers Center for Early Learning and Children's Media at Saint Vincent College recognizes the integration of technology in Early Childhood Education curriculum in Nigeria. Olowe, John and Okoroafor (2018) maintain that integrated technology has not been fully utilized into the programme of Early Childhood Education. Hence, Early childhood education is a type of learning given to children from birth to 8 years; therefore, lower basic schools falls under early childhood education (FRN 2013). Rapid brain development usually takes place in the early years of children.

Delving further, the study was based on Howard Gardner's Theory of Multiple Intelligence (1983), Richard Mayer's Cognitive Theory of Multimedia Learning (2005) and Vygotsky's Sociocultural Theory (1976). These theories are relevance to because it helps teachers, parents, government, publishers, Early childhood and future researchers to appreciate importance of pictures, colourful materials, pictorial integrated technology, multiple intelligence embedded in an individual child and also understand the importance of grouping learning and peer mentoring. Finally, it will help future researchers to understand the usefulness of pictorial and cooperative learning on basic pupils' academic performance in Social Studies and also look for gaps that are not covered in the study and work towards filling the gaps

Conclusively, the issues of consistence poor academic and inappropriate instructional strategies in basic schools across Nigeria motivated the researchers to embarked on the study using basic two school pupils. Basic two school pupils were chosen as the moderator variable in the study because basic two pupils falls under concrete operational stage of Jean Piaget cognitive development which usually takes place in pupils between the ages of seven to eleven years during which they acquire a better understanding of pictures and symbols during learning and teaching process. The study was carried out in order to tackle these challenges of relatively poor academic performance and inappropriate instructional strategies at early years so as improve the pupils interest in social studies and their academic performance in National and internal examinations within the basic schools by filling the gaps in the study using pictorial integrated technology and cooperative learning strategies as interventions to enhance instructional strategies and pupils academic performance in Social Studies.

In other hand, Social Studies is a subject that touches all spheres of human life and capital development. It is a dynamic subject that changes as the society revolts. Social Studies equips pupils with the current trends of happening around the world and also provide them with knowledge to solve environmental problems. Despite the relevance of Social Studies, there are challenges that need to be addressed. One of the major challenges of Social Studies is the consistence failure of pupils in Junior Secondary School Certificate Examination (JSSCE). Pupils' academic performances in Social Studies have been consistently poor because of poor utilization instructional strategies in teaching Social Studies which remain largely teacher-centred approach. Poor retention and lack of pupil's interest in Social Studies because of inappropriate utilization of instructional strategies

Furthermore, the utilization of integrated technology in early childhood classroom has not been adequately utilized. Hence, Cooperative learning strategy is also faced with the challenge of time and class management. There is need to addressed the above challenges at early years education by employing participatory and technology driven innovative instructional strategies such as pictorial integrated technology and cooperative learning strategies in the pedagogical process in the classroom.

However, the extent of utilization of pictorial integrated technology and cooperative learning strategies on pupils' academic performance in Social Studies in Katsina State, Nigeria has not been adequately focused and reported in the literature for lower basic pupils because most studies reviewed in the course of the study laid emphasis's on Junior Secondary Schools academic performance in Social Studies and neglecting the lower basic pupils academic performance in Social Studies which is seen as the foundational grounds for other levels of Education. This study could be used to fill the gap by providing information on the effect of pictorial integrated technology and cooperative learning strategies on pupils 'academic performance in Social Studies.

Therefore, the objective of the study aimed at investigating the effects of Pictorial Integrated Technology and Cooperative Learning Strategies on Basic Two Pupils' Academic Performance in Social Studies in Katsina State. Hence the study seeks to:

- 1. Investigate the effect of pictorial integrated technology, and cooperative learning strategies on Basic two pupils' academic performance in Social Studies
- 2. Examine the extent to which the mean performance scores of males and female basic two pupils taught Social Studies using pictorial integrated technology
- Find out the mean performance scores of male and female basic two pupils taught Social Studies using cooperative learning strategy
- 4. Find out the interactive effects that exist between Gender and learning strategies on basic two pupils' academic performance in Studies.

5. Examine the difference between the mean responses of basic two male and female pupils on the challenges encountered while learning social studies using pictorial integrated technology and Cooperative learning strategies.

METHODS

Research Design

The study adopted a pre-test and posttest quasi-experimental design. This design was chosen for the study because it deals with cause and effect. Relationship between independent and dependent variables (Loewen and Plonsky, 2016). Nworgu (2015) opines that quasi experimental design is used where it is not possible to assign the subjects to experimental and control groups randomly. consequently, the researcher had to use intact classes. The researcher used 3x2 factorial models.

 Table 1. Research design (3x2 factorial matrix model)

Experimental Groups	Moderator Variable
(Treatments)	(Gender)
Pictorial Integrated	Male
Technology	Female
Cooperative learning	Male
	Female
Control Group	Male
-	Female

Area of the Study

The Area of study is Malumfashi Zonal Inspectorate in Katsina State. It is one of the 34 Local Governments in Katsina State. This Local Government was established in 1975 and it bounded with Musawa Local Government Area in the North, Kano State in the East, Kankori Local Government in the west and Kafur Local Government Area in the South. is made of numerous communities such as Sabon Gari, Yaba, Yarimama, Karfi, Yaro, Fanisau, Dayi, Birin Dawa among others. It has four major forest reserves. The population of Malumfashi LGA is estimated at 202, 619 inhabitants. It occupies about 674 square kilometers and average temperature of 33°c. Malumfashi Zonal inspectorate is a home for one hundred and fifteen (115) government owned primary schools and numerous secondary schools. It is pronominally dominated by the Fulani and Hausa ethnic groups. The indigenes are mostly Muslim and there is the present of Sharia law in Malumfashi. The major Occupation of Malumfashi inhabitants are farming and rearing of cattle and other livestock (Manpower Nigeria 2021). The choice of Malumfashi was adopted because it one of the developing areas and also partially free from banditry operations at the moment in Katsina State.

Population of the Study

The Population of the study comprises of Four hundred and Eight Thousand Nine hundred and Ninety (408, 990) Basic two pupils in Katsina State, Nigeria while the target population for the study comprises of Twelve thousand seven hundred and eighty-three (12,783) Basic two pupils in Malumfashi Zonal Inspectorate in Katsina State. This consist of Six thousand six hundred and two (6,602) Males and Six thousand one hundred and eighty-one (6,181) females. The choice of basic two pupils was made because they fall under the concrete operational stage of Piaget cognitive development where pupils have clearer understanding of pictures and working in groups.

Sample and Sampling Technique for the Study

The sample size of the study was One hundred and Twenty (120) basic two pupils which consists Sixty- two (62) Males and Fifty- Eight (58) Females. Probability sampling technique was used to select three (3) Basic two schools in Malumfashi Zonal Inspectorate in Katsina State. Experimental Group (1) were made up of forty (40) basic two pupils which consists of Twenty-Three (23) Males and Seventeen (17) Females. Experimental Group (2) consist of forty (40) basic two pupils comprises of eighteen (18) Males and Twenty- two (22) Females while the Control Group were made up of forty (40) basic two pupils which comprises of Twentyone (21) Males and Nineteen (19) Females. This sampling technique is suitable for the study because it deals with representation of a wider population. One Intact class of Basic two pupils was purposively selected from each school for the study using their nominal roll in the school attendance register.

Research Instruments

The research Instrument considered for the study was Social Studies Performance Test (SSPT (1), Pictorial Integrated Technology Social Studies Questionnaire (PITSSQ), and Cooperative Learning Strategy Social Studies Questionnaire (CLSSSQ).

Social Studies Performance Test (SSPT)

The researchers designed Social Studies Performance Test (SSPT) which consists of twenty- five items. The Social Studies Performance Test was used to test was subdivided into SSPT (1) and SSPT (2). The items in SSPT (1) and SSPT (2) are the same content. The items in SSPT (1) were reshuffled to form SSPT (2) during the administration of posttest. Social Studies Performance Test cover test items in the following topics which include: drugs, categories of drugs, drug abuse, effect of drug abuse, ways of preventing drug abuse, harmful substance, ways of preventing in-take of harmful substances, danger and insecurity, how to keep away from danger. Social Studies Performance Test consists of four options (A-D). The instruments comprise of the demographical information of the respondent such as gender and name of school.

Self-designed Pictorial Module was developed for basic two pupils by the researcher by using Katsina scheme of work for third term. The self- designed Pictorial module consists of two types. Pictures with integrated technology and pictures only. The pictures with integrated technology were used to teach experimental group (1) while pictures with word was used to teach experimental group (2). The Lecture method was used to teach the control group. The pupils were taught four topics by the researcher using the selfdesigned pictorial module while the class teachers serve as researcher assistants. These nine topics were broken down into four teaching lessons. Each topic was taught within two (2) periods of 30minutes each per week. The self-designed pictorial module was used to teach the pupils so as find out effect of pictorial integrated technology and cooperative learning strategies in teaching of Social Studies in basic two pupils in Katsina State, Nigeria.

To develop the instrument, a test blue print was designed to serve as a guide in the construction of the test. The guiding principles for developing the test blue print laid emphasis on each aspect of the content in the curriculum and the number of periods it can take a qualified Social Studies teacher to cover a particular unit. In addition to the above considerations, the objectives of the contents taught were also considered. These objectives guided on the number of topics for each of the units and the levels of questions generated. Twenty-five (25) objective test items of the multiple-choice test were constructed on these content areas. These twenty-five (25) multiple

choice test items were constructed using the Test blue print or table of specification.

Pictorial Integrated Technology Social Studies Questionnaire (PITSSQ)

Pictorial Integrated Technology Social Studies is a ten -items questionnaire used to elicit response from forty (40)Basic two pupils in the experimental group (1) which consist of twenty-three (23) male and seventeen(17) female in order to find out the effectiveness and challenges encountered by the pupils during the researcher utilization of pictorial integrated technology PITSSQ was administered to the Basic two pupils three weeks after the commencement of the treatment . PITSSQ was developed by the researcher using four rating scales. Examples Strongly Disagree (SD), Disagree (D), Agree (A) and Strongly Agree (SA).

Cooperative Learning Strategy Social Studies Questionnaire (CLSSSQ)

Cooperative Learning Strategy Social Studies Questionnaire (CLSSSQ) is a ten items questionnaire used to elicit response from forty (40) Basic two pupils in the experimental group(2) which comprises of eighteen (18) male and twenty-two (22) female in order to find out the effectiveness and challenges encountered by the pupils during the researcher utilization of Cooperative Learning Strategy Social Studies Questionnaire. CLSSSQ was administered to the Basic two pupils three weeks after the commencement of treatment. CLSSSQ was developed by the researcher using four rating scales. Examples Strongly Disagree (SD), Disagree (D), Agree (A) and Strongly Agree (SA).

Validity of the Research Instrument

Face and content validities were established for the Social Studies Performance

Test (SSPT) Pictorial Integrated Technology Social Studies Questionnaire (PITSSQ) and Cooperative Learning Strategy Social Studies Questionnaire (CLSSSQ). To ensure the face validity, the initial copy of the instruments was presented to my two supervisors. The questions as contained in the instruments were designed in line with the objectives of the study. The samples of the research instruments were shown to the supervisors whose professional comments and corrections were incorporated into the final draft of the research instruments. The instruments were also subjected to face and content validation by three experts; two specialists from Measurement and Evaluation and one expert from early childhood education from Federal University Dutsin-Ma and University of Lagos.

Reliability of Research Instruments

To determine the reliability of the instruments (Social Studies Performance Test) for the study, the researcher used Guttman Splithalf method of establishing reliability. Twentyfive (25) multiple-choice Social Studies Performance Test (SSPT) items were given to forty (40) basic two school pupils from one basic two school that will not be used for the study. This method allows the researcher to use one administration of the test to determine the reliability of the test. To do this, the test items were separated into two halves (odd and even numbered) for each pupil. Then, the two subset were correlated.

The researcher used Statistical Package for Social Sciences (SPSS) to analyze the data collected for basic two school pupils to determine the reliability of the test. The Guttman Split-half method reliability coefficient of 0.92 was obtained for the Social Studies Performance Test

This indicates that Social Studies Performance Test (SSPT) designed for basic two school pupils to collect data for the main study is highly reliable. Based on this, the researcher used the test to collect relevant data for the main study of the research.

Reliability for Pictorial Integrated Technology Social Studies Questionnaire (PITSSQ)

To determine the reliability of the instruments Pictorial Integrated Technology Social Studies Questionnaire (PITSSQ) for the study, the researcher used Statistical Package for Social Sciences (SPSS) to analyze the data collected for basic two school pupils to determine the reliability of the test. Ten (10) constructed items were given to forty (40) basic two school pupils from one basic two school that will not be used for the study which comprises Twenty (20) male and Twenty (20) female. PITSSQ was administered twice to the pupils in Experimental Group One (1). First administration was before the commencement of the treatment. Second Administration was done three weeks after the commencement of treatment. The instrument was re-administered to the pupils and the data collected were analyzed using Pearson Product Moment Coefficient which yielded a correlation index of 0.73. This indicates that Pictorial Integrated Technology Social Studies Questionnaire (PITSSQ) designed for basic two school pupils to collect data for the main study is highly reliable. Based on this, the researcher used the questionnaire to collect relevant data for the main study of the research.

Reliability of Cooperative Learning Strategy Social Studies Questionnaire (CLSSSQ)

To determine the reliability of the instruments (Cooperative Learning Strategy Social Studies Questionnaire) for the study, the researcher used Statistical Package for

Social Sciences (SPSS) to analyze the data collected for basic two school pupils to determine the reliability of the test. Ten (10) constructed items were given to forty (40) basic two school pupils from one basic two school that will not be used for the study which consists of Twenty (20) Male and Twenty (20) Female. CLSSSQ was administered twice to the pupils in Experimental Group Two (2). First administration was before the commencement of the treatment. Second Administration was done three weeks after the commencement of treatment. The instrument was re-administered to the pupils and the data collected were analyzed using Pearson Product Moment Coefficient which yielded a correlation index of 0.75. This indicates that Cooperative Learning Strategy Social Studies Questionnaire (CLSSSQ) designed for basic two school pupils to collect data for the main study is highly reliable. Based on this, the researcher used the questionnaire to collect relevant data for the main study of the research.

Method of Administration of Research Instruments

Data for the study were collected through Pre- test and Posttest using Social Studies Performance Test (SSPT (1) and SSPT (2) to test Basic two pupils. Before the commencement of the pilot study, the researcher seeks for the maximum cooperation of the Head-Teachers of the school involved to enable her build in her research programme into the school schedule without disrupting the latter. The researcher did this by explaining the purpose of the study and the benefits that could be derived if properly conducted and completed. This helped the researchers to get maximum co-operation to administer the test. The Head-Teachers thereafter introduced the researchers to the Social Studies teachers who served as the research assistants. The researchers were actively involved the 'execution of Social Studies Performance Test (SSPT (1) and SSPT (2), Pictorial Integrated Technology Social Studies Questionnaire (PITSSQ) and Cooperative learning Strategy Social Studies Questionnaire (CLSSSQ) for the treatment groups and control group.

Method of Data Collection

Data for the study were collected through Pre- test and posttest administration for Social Studies Performance Test (SSPT) for Basic Two the pupils. Three groups (experimental group I, II & control group) were used to cover the same learning contents using Pictorial Integrated Technology and Cooperative Learning Strategies and teacher conventional method (Lecture) respectively. Five weeks were used for the study. SSPT (1) was administered to the pupils one week before the commencement of the treatment while SSPT (2) was administered one week after the administration of the treatments. SSPT (1) and SSPT (2) was administered to both the experimental groups and control group .Data collected from SSPT (1) and SSPT (2), PITSSQ and CLSSSQ administration after treatments were used for data analysis and to determine the effects of the treatments (pictorial integrated technology & cooperative learning strategies) and conventional method. PITSSQ was administered to only experimental group (1) while CLSSSQ was administered to experimental group (2) during their normal school period on the school time table by the researchers with the aid of the research assistants at the background.

Development of Instructional Programmes *The Lesson Plans*

Four sets of lesson plans were prepared for the study with each lesson plan for the explanation supplemented with Pictorial Integrated Technology, Cooperative Learning Strategies and lecture method respectively. The lesson plans were prepared in accordance with each lesson topic with the help of the resident Social Studies teacher in the school. Each lesson plan was designed and it was used in teaching Pupils for within (2) period of 30 minutes per week.

Validation of the lesson plans

The drafts of the lesson plans were face validated by three (3) Social Studies primary school teachers.

Trial Testing

The face validated lesson plans for each of the lesson plan were subjected to field trials using qualified Social Studies teachers from primary schools different from validates schools. The field trials were done to ensure that the lesson plans would be readily useable during the main study. The field trials also helped to ensure that the lesson plans were designed in accordance with the stated objectives of each lesson. Useful feedbacks from the trial testing of the lesson plans were incorporated into the present form of the lesson plans.

Experimental procedure

Before the commencement of the experimental process, the researcher seeks for the maximum cooperation of the Head teachers of the schools involved to enable her build in her research programme into the school schedule without disrupting the latter. This helped the researcher to obtain their cooperation throughout the study. The Head Teachers thereafter introduced the researchers to the Social Studies teachers who served as the research assistants. The researchers then took time to familiarize herself with the teachers and discussed extensively with the teachers on the skills involved in the use of pictorial integrated technology and cooperative learning strategies for the teachers in the treatment group and conventional approach (lecture) for the teachers in the control school. The researchers were actively involved in the execution of the treatment programmes The Social Studies teachers in the intact classes in the treatment classes received explanations separately from those teachers in the control group before involving them in the trial testing for the study. The objectives were to ensure that those regular Social Studies teachers who served as research assistants acquired the necessary competencies for implementing the programmes.

Two weeks before the commencement of the experiment, the Social Studies teachers in the treatment group taught the pupils the skills involve by using explanation supplemented with Pictorial Integrated Technology and Cooperative Learning Strategy by clarifying, questioning, summarizing, supervising and monitoring them. The researchers administer SSPT (1) as Pre-test. The pretest scores were used as covariates to the pupils' post-test scores. The researchers administer and monitors the whole process with the resident Social Studies teachers at the background. Efforts were made to subject all those who took the test under the same conditions. The Social Studies Performance Test SSPT (1) and SSPT (2) were scored with the validated marking scheme designed for it. Each group was taught separately using the appropriate lesson plan designed for the study. Basic Two pupils in the intact classes in the schools in the treatment group were taught by the researcher using Pictorial Integrated Technology and Cooperative Learning Strategies strictly based on the lesson plans prepared for the purpose. The researchers taught the control group with the conventional method. The classes for subjects in the treatment group and the control group took place during their normal time on the school timetable. Each group met for within (2) periods of 30minutes per week for five weeks. The Social Studies Performance Test (SSPT (2) were administered to the subjects in the treatments and control groups as posttest a week after the treatment ends. The administration of the test was conducted in such a way that the subjects were exposed to the same testing conditions. The test was scored using the validated marking scheme designed for it.

Control of extraneous variables

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The following measures were taken to control extraneous variables that would likely affect the conduct of the experiment and results thereof: **Experimental Bias:** Intact classes of the sample schools were used so that the administrative set up of the schools was not disrupted. This helped to prevent creation of any form of awareness on the research.

Research Subjects' Interaction: The experimental and control groups were not of the same school. The schools that were used are far away from each other to avoid interaction. This made any form of interaction among the research subjects difficult.

Initial Group Differences: To eliminate error of nonequivalence or effect of initial group differences arising from nonrandomization of research subjects, Analysis of covariance (ANCOVA) was used for data analysis. The sample schools were ones that have close similarities.

Effect of Pre-test on Post-test: The posttest was adequately reshuffled. Also, the four weeks duration of the experiment was long enough to cancel out the effect of pre-test on post-test achievement.

Teacher Variable: To control error(s) that might arise as a result of teacher difference on pupils' academic performance, the researchers were introduced to the pupils as their new Social Studies teacher by their respective regular Social Studies teachers. The researchers taught both the experimental and control groups. This was to ensure that uniform treatment was given to the research subjects.

Data Analysis

The data collected were analyzed using descriptive statistic for research questions and inferential statistical tool Analysis of Covariance (ANCOVA) was used to test the null hypotheses at .05 level of significance.

RESULTS AND DISCUSSION Research Question 1

What are the effects of pictorial integrated technology and cooperative learning strategies on basic two pupils' academic performance in Social Studies?

Table 2 indicated that the pre-test mean score for pictorial integrated technology and cooperative learning strategies were 41.55 and 41.10 with standard deviation 5.45 and 5.41 respectively, indicating that both of the pupils in pictorial integrated technology and cooperative learning strategies have relatively equal academic performance in Social Studies before treatment. However, the post-test scores of basic two pupils in pictorial integrated technology and cooperative learning strategies were 52. 95 and 41.85 respectively with standard deviation of 6.28 and 5.47 respectively. The mean effect score for pictorial integrated technology was11.400 while that for cooperative learning strategy was 0.750 indicating that pictorial integrated technology has more effects on basic two pupils' academic performance in Social Studies.

Groups Method	Ν	Pretest Mean	SD	Posttest Mean	SD	Mean Effect
Pictorial Integrated Technology	58	41.55	5.45	52.95	6.28	11.40
Cooperative Learning	62	41.10	5.41	41.85	5.47	0.75

Table 2. Mean effects of pictorial integrated technology and cooperative learning strategies on basic two pupils' academic performance in social studies

The study accepted that the pretest mean score for pictorial integrated technology and cooperative learning strategies were 41.55 and 41.10 with standard deviation 5.45 and 5.41 respectively, indicating that both of the basic two pupils in pictorial integrated technology and cooperative learning strategies have relatively equal academic performance in Social Studies before treatment. However, the post-test scores of basic two pupils in pictorial integrated technology and cooperative learning strategies were 52. 95 and 41.85 respectively with standard deviation of 6.28 and 5.47 respectively. The mean effect score for pictorial integrated technology strategy was11.400 while that for cooperative learning strategy was 0.750 indicating that pictorial integrated technology has more effects on basic two pupils' academic performance in Social Studies. The corresponding hypothesis revealed there was a significant effect of pictorial integrated technology and cooperative learning strategies on basic two

pupils' academic performance in Social Studies. The finding is in line with the finding of Boor (2013) who maintained that children retain pictorial images before they develop the ability to interact with people in their immediate environment. The finding is also in agreement with the finding of Jerome Bruner, as cited by Lester (2012) who revealed that pupils remember and recall 80 percent of what they see and do. Hence, Pictorial integrated technology is the projection of picture materials in combination with word through technological devices such as projectors, computers, I-pods, I-pads, mobile phone and laptops during lesson delivery.

Hypothesis 1:

There is no significant effect of pictorial integrated technology and cooperative learning strategies on basic two pupils' academic performance in Social Studies.

Result of data analysis in Table 3 shows that F calculated value (35.240). Since this

Table 3. Analysis of covariance (ANCOVA) for the mean effect of pictorial integrated technology and cooperative learning strategies

Source of	Sum of	Df	Mean	F	p-value
variation	Squares		Square		_
Corrected Model	2384.571 ^a	3	794.857	30.691	.000
Intercept	5847.633	1	5847.633	225.786	.000
Pretest	380.993	1	380.993	14.711	.015
Group	1016.757	1	912.674	35.240	.000
Error	3030.183	117	25.899		
Total	10275.566	120			
Corrected Total	5414.754	119			

p-value (0.000) is less than the 0.05 alpha when tested at 0.05 level of significance, the null hypothesis which states that there is no significant effect of pictorial integrated technology and cooperative learning strategies on basic two pupils' academic performance in Social Studies is therefore rejected. Hence, there was a significant effect of pictorial integrated technology and cooperative learning strategies on academic performance.

Research Question 2

What are the mean performance scores of males and female basic two pupils taught Social Studies using pictorial integrated technology?

Result in Table 4 indicated that the pretest Mean performance score of male and female basic two pupils taught using pictorial integrated technology were 42.24 and 43.74 with standard deviation of 5.50 and 5.61 respectively and mean difference of -1.5 at pretest. This indicated that both male and female basic two pupils were relatively at the same performance before treatment. However, the post-test performance mean scores for male and female basic two pupils were 73.36 and 68.35 respectively with standard deviation of 7.57 and 6.95 respectively with mean difference of 5.01. The higher mean effect performance score of male basic two pupils (31.12) over female basic

Table 4. Mean performance scores of male and female who taught by using pictorial integrated technology

Teaching Method	Ν	Pretest Mean	SD	Posttest Mean	SD	Mean Effect
Male	32	42.24	5.50	73.36	7.57	31.12
Female	30	43.74	5.61	68.35	6.95	24.61
Mean difference		-1.5		5.01		

pupils (24.61) indicated that pictorial integrated technology has relative effect on male and female basic two Pupils performance.

It was accepted that the pre-test Mean performance score of male and female basic two pupils taught using pictorial integrated technology were 42.24 and 43.74 with standard deviation of 5.50 and 5.61 respectively and mean difference of -1.5 at p re-test. This indicated that both male and female basic two pupils were relatively at the same performance before treatment. However, the post-test performance mean scores for male and female basic two pupils were 73.36 and 68.35 respectively with standard deviation of 7.57 and 6.95 respectively with mean difference of 5.01.The

higher mean effect performance score of basic two pupils (31.12) over female basic two (24.61) indicated that pictorial integrated technology has relative effect on male and female basic two Pupils performance in Social Studies. The corresponding hypothesis affirmed that there was a significant effect between the mean performance scores of male and female basic two pupils taught Social Studies using pictorial integrated technology. The finding is similar with the finding of Carpenter and Olson (2011) who revealed that there is significant advantage between male and female basic two pupils in the recall of Swahili words from pictorials compared with English translations. The finding is in line with the finding of Madumere- Obike and

	-					
Source of	Sum of	Df	Mean	F	p-value.	Decision
variation	Squares		Square			
Corrected Model	10959.803 ^a	2	5479.902	35.744	.000	_
Intercept	9519.316	1	9519.316	62.079	.000	
Pretest	2967.443	1	2967.443	19.356	.000	S
Gender	9734.204	1	9734.204	63.493	.000	
Error	9198.651	60	153.311	•		
Total	63340.660	62				
Corrected Total	31670.33	61				_
D.C	$\mathbf{D} \mathbf{O} (\mathbf{A} 1) = \mathbf{A} \mathbf{I} \mathbf{D}$	Carranad	(12) G = (12)	<u>n:</u>		

Table 5. Analysis of covariance (ANCOVA) for the performance scores of male and female who taught by using pictorial integrated technology

a. R Squared = .782 (Adjusted R Squared = .612), S = Significant

Nwabueze (2012) who revealed that students perform excellently well when taught with cooperative learning strategies.

Hypothesis 2:

There is no significant effect between the mean performance scores of male and female pupils taught Social Studies using pictorial integrated technology.

Result of data analysis in Table 5 shows that the probability value associated with the calculated value of F (63.493) for the mean performance scores of male and female basic two pupils taught Social Studies using pictorial integrated technology is 0.000.Since this value (0.000) is less than the 0.05 alpha when tested at 0.05 level of significance, the null hypothesis is rejected. Hence, there was a significant effect between the mean performance scores of male and female basic two pupils taught Social Studies using pictorial integrated technology.

Research Question 3

What are the mean performance scores of male and female basic two pupils taught Social Studies using cooperative learning strategy?

Table 6 indicated that the pre-test Mean performance scores of male and female were 41.63 and 41.10 with standard deviation 5.45 and 5.41 respectively, indicating that both male and female basic two pupils taught Social Studies using cooperative learning strategy were relatively at the same level of performance. However, the post-test of male and female basic two pupils were 49.26 and 41.85 respectively with standard deviation of 6.02 and 5.47 respectively. The mean effect score for male was 7.62 while that for 0.75 was 0.75 indicating that cooperative learning strategy had effect on academic performance.

The study revealed that the pretest mean performance scores of male and female basic two were 41.63 and 41.10 with standard deviation 5.45 and 5.41 respectively, indicating that both male and female basic two pupils taught Social Studies using cooperative learning strategy were relatively at the same level of performance. However, the post-test

strategy

Groups Method	Ν	Pretest Mean	SD	Posttest Mean	SD	Mean Effect
Male	30	41.63	5.45	49.26	6.02	7.62
Female	28	41.10	5.41	48.85	5.47	0.75

Table 6. Mean performance scores of male and female who taught by using cooperative learning

of male and female basic two pupils was 49.26 and 41.85 respectively with standard deviation of 6.02 and 5.47 respectively. The mean effect score for male basic two pupils was 7.62 while that for female basic pupils was 0.75 indicating that cooperative learning strategy had effect on male and female basic two pupil's academic performance in Social Studies. The corresponding hypothesis affirmed that there is no significant effect of the mean performance scores of males and female basic two pupils taught Social Studies using cooperative learning strategy. The finding is in line with the finding of Jacobson and Baribor (2012) who stated that pupils working in group promotes critical thinking, leadership skills, team spirit, and interpersonal relationship among others.

Hypothesis 3

There is no significant effect of the mean performance scores of males and female basic two pupils taught Social Studies using cooperative learning strategy.

The analysis in Table 7 reveal the F calculated value of (3.218) and P-value .072. Since this p-value is greater than the 0.05 alpha when tested at 0.05 level of significance, the null hypothesis which states that there is no significant effect of the mean performance scores of males and female basic two pupils taught Social Studies using cooperative learning strategy is thereby retain. It implies that there is no significant effect of males and female basic two pupils taught Social Studies using cooperative learning strategy is thereby retain. It implies that there is no significant effect of the mean performance scores of males and female basic two pupils taught Social Studies using cooperative learning strategy.

Source of variation	Sum of Squares	Df	Mean Square	F	P-value
Corrected	900.048 ^a	2	450.024	4.575	.049
Model					
Intercept	671.064	1	671.064	6.823	.033
Pretest	592.023	1	592.023	6.019	.045
Gender	316.510	1	316.510	3.218	.072
Error	5507.959	56	98.356		
Total	5566.677	58			
Corrected	5176.375	57			
Total					

Table 7. Analysis of Covariance (ANCOVA) for the mean performance scores of males and female who taught by using cooperative learning strategy

Research Question 4

What are the interactive effects of Gender and learning strategies on pupils' academic performance in Social Studies?

Result in Table 8 showed that basic two male pupils taught with pictorial integrated technology strategy had more mean score than basic two pupils taught with cooperative learning strategy as indicated by the mean score of 73.36 and 49.26 respectively, female students taught with pictorial integrated technology strategy had more mean score than female basic two pupils taught with cooperative learning strategy as indicated by the mean level of 68.35 and 48.85. However, the interaction effects of strategies and gender on pupils' academic performance in social studies when taught with pictorial integrated technology and cooperative learning strategy favoured both male and female basic two

Gender	Strategies	Mean	SD	Ν
Male	pictorial integrated technology	73.36	7.57	32
	cooperative learning strategy	49.26	6.02	30
Pooled mean	Total	61.31	6.80	62
Female	pictorial integrated	68.35	6.95	30
		10.05	5 17	20
	strategy	48.85	5.47	28
Pooled mean	Total`	58.60	6.21	58
Gender Interaction	Male	61.31	6.80	62
effect	Female	58.60	6.21	58
	Total	59.96	6.51	120

Table 8. The interaction effects of gender and learning strategies on pupils' academic performance in Social Studies?

pupils indicated by pooled mean of 61.31 male and 58.60 female.

The study showed that male basic two pupils taught with pictorial integrated technology strategy had more mean score than the students taught with cooperative learning strategy as indicated by the mean score of 73.36 and 49. 26 respectively, female basic two pupils taught with pictorial integrated technology strategy had more mean score than the female pupils taught with cooperative learning strategy as indicated by the mean level of 68.35 and 48.85. However, the interaction effects of strategies and gender on basic two pupils' academic performance in social studies when taught with pictorial integrated technology and cooperative learning strategy favoured both male and female basic two pupils as indicated by pooled mean of 61.31 male and 58.60 female. The corresponding hypothesis affirmed that there is no interactive effects of Gender and learning strategies on basic two pupils' academic performance in Social Studies. This implied that the gender of the basic two pupils did not actually

combine with the learning strategies to influence their performance in social studies rather, the increase in the pupil's performance is not connected with the gender of the basic two pupils but based on the learning strategies used. The finding is in line with the finding of Kerubo (2016) who affirmed that pupils learn better and participate actively in class activities using pictorial integrated technology. The finding is also similar with the finding of Slavin (2013) who designed a study to find out the effects of cooperative learning strategy on Social Studies and discovered that a wellstructured cooperative strategy yielded a positive outcome than those innovative instructional strategies.

Hypothesis 4

There is no interactive effects of Gender and learning strategies on pupils' academic performance in Social Studies.

From Table 9, it could be observed that the Probability (P)-value associated with F calculated value of 2.154 is 0.132. Since this P-value is greater than 0.05 alpha, the null

Source	Type III Sum of Squares	Df	Mean Square	F	p- value
Corrected Model	14234.131ª	4	2311.501	133.754	.000
Intercept	1214.144	1	1214.144	52.522	.000
Pretest	6211.312	1	6211.312	421.021	.000
Group	221.127	2	221.127	5.527	.010
Gender	243.650	1	243.650	13.144	.000
Strategies* Gender	54.271	1	61.245	2.154	.132
Error	2653.732	116	22.877		
Total	21196.472	120			
Corrected Total	10598.236	119			

Table 9. Analysis of covariance (ANCOVA) of interaction effect of gender and learning strategies

hypothesis is thereby upheld. Hence, there is no interactive effects of Gender and learning strategies on basic two pupils' academic performance in Social Studies. This implied that the gender of the basic two pupils did not actually combine with the learning strategies to influence their performance in social studies rather, the increase in the pupil's performance is not connected with the gender of the pupils but based on the learning strategies used.

CONCLUSIONS

Finally, the researcher concluded that the interaction effects of strategies and gender on basic two pupils' academic performance in social studies when taught with pictorial integrated technology and cooperative learning strategy favoured both male and female basic two pupils and that there is no interactive effects of Gender and learning strategies on basic two pupils' academic performance in Social Studies. This implied that the gender of the pupils did not actually combine with the learning strategies to influence their performance in social studies rather, the increase in the basic two pupil's performance is not connected with the gender of the pupils but based on the learning strategies used.

The following recommendations were made based on the findings of this study: Pictorial integrated technology and cooperative learning strategies was recommended as the best instructional strategies for Social Studies teachers in order to promote team spirit and also bring what is taught in the classroom into reality. Social Studies teachers should be trained and retrained on the use of pictorial integrated technology and cooperative learning strategies for effective teaching and learning process. Government should provide stable power supply or solar energy, more computers, projectors and accessible internet facilities in primary schools to encourage the use of technology in the classroom. More enlightenment should be provided through the mass media and religious organization stressing the importance of western education to parents in katsina State.

REFERENCES

Abdulraheem, B. O. (2016). Effects of instructional materials on secondary schools' students' academic achievement in Social Studies in Ekiti State, Nigeria. *World Journal of Education*, 6(1), 32 –

39. Retrieved from http:// wje.sciedupress.com

- Adewale, C. O. & Umoh, S.U. (2016). Prospect and challenges of social studies teachers' professional development in Nigeria. Doi: 10.4018/ 978-1-5225-10677-3-Ch008.
- Aggarwal, J.C. (2014). *Essential of educational technology* (3rd ed.). New Delhi: Vikas Publishing House PVT Ltd.
- Ajaja, O.P. & Eravwoke, O. U. (2012). Effects of 5E-learning cycle on students' achievement in biology and chemistry. *Cypriot Journal of Educational Sciences*, 7(3), 244 -262
- Ajaja, O.P. & Eravwoke, O. U. (2012). Effects of 5E-learning cycle on students' achievement in biology and chemistry. *Cypriot Journal of Educational Sciences*, 7(3), 244 -262
- Akpochafo, W. P. (2013). Are best pedagogical practices in Social Studies really the best? A lead paper presented at the 29th National Conference of Social Studies Educators Association of Nigeria (SOSCEAN) at the Ignatus Ajuru University of Education, Rumuolumeni, Port-Harcourt, 15th -19th July, 2013. Retrieved from https:// www.yakkata.com/definitions.of
- Anderson, M. & Anderson, S. L. (2011). Machine ethics. New York: Cambridge University Press. Beaney, Michael. 2014. Analysis (Stanford Encyclopaedia of Philosophy). Available Online: http://plato.stanford.edu/entries/ analysis/
- Anette, R. R. (2020). Social Studies in early children education and care: A scoping review focusing on diversity. *Contemporary Issues in Early Childhood*, 21(1). Retrieved from Doi:10.1177/146.39491209539.

- Bhatnagar, N., & Das, A. (2014), Regular school teachers' concerns and perceived barriers to implement inclusive education in New Delhi, India. *International Journal of Instruction*, 7(2), 89 -102.
- Boor, C. H. (2013). Impact of projected still visuals on the academic performance of junior secondary school students in Social Studies in Zaria Inspectorate (Educational) Division in Kaduna State. A thesis submitted to the school of postgraduate studies in partial fulfilment of the requirements for the award of Master's Degree in Education (Instructional Technology). Department of Educational Foundation and Curriculum Ahmadu Bello, University, Zaria, Nigeria. Retrieved from https:// www.kubanni.abu.edu.ng/projectedvisual-aid 12th December,2021
- Cardillo, N. (2017). Visual aids supporting the learning of children in our classrooms. In book: The challenge of teaching. Springer, Singapore.Doi.10.1007/978-981-10-2571-6-10
- Carpenter, S. K. & Olson, K. M. (2011). Are pictures good for learning new vocabulary in a foreign language? Only if you think they are not. *Journal of Experimental Psychology*: Learning, Memory, and Cognition, 38(1),110. https://Public.psych.iastate.edu/shacarp/ carpenter-olson-2011.pdf on 13th December, 2021.
- Federal Republic of Nigeria (2013). *National policy on education* (6th edition). Abuja: NERDC Press.
- Edinyang, S. D. & Ubi, I. E. (2013). Gender, socio-economic status, teacher qualification and their interaction on Students' retention ability in Social Studies in Akwa Ibom State, Nigeria.

International Knowledge Sharing Platform, 2(2013), 35 – 40. Egbu, N. C. (2012). Approach to teaching methodologies. Abakaliki: Bolton Publishers Limited.

- Etaneki, A. F. (2021). Effects of cooperative and questioning instructional Strategies on academic performance of upper Basic Social Studies in Delta State. *International Journal of Research and Innovation in Social Studies (URISS)*, 5(8), 444 -452. ISSN 2454 -6186.
- Etor, C. R., Mbon, U. F. & Ekanem, E. E. (2013). Primary education as a foundation for qualitative higher education. Journal of Education and Learning, 2(2), 155. Retrieved from 164- doi:10.5539/jeI.v2n2p155.
- Gould, J. & Roffey- Barentsen, J. (2018). Achieving your diploma in education and training (2nd ed.). London: Facet Publishing.
- Gutierrez, K. (2014). Studies confirm the power of visuals in eLearning. http:// hp.com/large/.../power-of-visualcommunication.pdf
- Hamilton, C. (2014). Communicating for results: A guide for business and the professions. USA Wadsworth Cengage Learning.
- Haruna, M. (2018). Using teaching methods that promote learning. *Journal of Education & Humanities*, 2(3). 71-82.
- Ikem, K. & Reuben, D. (2012). Repositioning Social Studies for positive National Development in Nigeria. Nigerian Journal of Social Studies and Civic Education, 2(1). Retrieved from https:/ /www.researchgate.net/publication/ 328631618.
- Jacobson, B. N. & Baribor, V. (2012). The effects of teaching techniques on achievement in integrated science: The

cooperative learning dimension. *Journal* of Education and Training Technology, 3(1), 57 -64..

- Kerubo, I. P. (2016). African indigenous education as practiced by the Maasai of Kenya. A research project presented in partial fulfilment for the award of Master Degree in History Education University of Nairobi Kenya. Retrieved from erepository.uonbi.ac.ke/.../Kerubo-African%20indigenous%20Education on 12th December, 2021.
- Krukru, K. (2015). Effects of instrumental materials on student's academic performance in Social Studies in selected secondary schools in Nigeria. http://www.grin.com/en/e-book/ 338942/effects-0f-instrumentalmaterials-on-student-s-academicperformance-social on 13th December, 2021.
- Lester. M. P. (2012). Visual communication: Images with messages (6th ed.). Boston: Wadsworth Cengage Learning.
- Loewen, S. & Plonsky, L. (2016). An A Z ofapplied linguistics research methods. London: Palgrave Macmillan.
- Madumere- Obike, C. U. & Nwabueze, A. I. (2012). Quality teaching and learning in secondary schools: Achieving good standard of Education in South- East, Nigeria. Paper presented at the conference of the Nigerian Academy of Education held at Abuja in 2012. http:// www.researchgate.net/publication/ 324058745
- Manpower Nigeria (2021). About Dutsin-Ma Local Government (L.G.A.). Retrieved from: https:// www.manpower.com.ng/place/lga/462/ dutsin-ma
- Mezieobi, D. I., Ogaugwu, L. N., Ossai, J.N. & Young, S. C. (2013). Agenda for a

transformation implementation of Social Studies curriculum in Nigeria University. *Development Country Student*, 3(12), 100 – 104.

- NAEYC (2012). Technology and interactive media as tools in early childhood programs serving children from birth through age 8. Position statement. Pp 1-15. Retrieved from www.naeyc.org/ content/technology-and-young-children.
- Nworgu, B. G. (2015). Educational research: Basic issues and methodology (3rd ed.). Nsukka: University Trust Publisher.
- Okeke, T. A. (2013). Teaching Styles: A primary determination of students' motivation. *Journal of Education*, 16 (4), 12 -15.
- Olowe, P.K., John, N.B. &Okoroafor, N. A. (2018). Technology Materials Usage in Early Childhood Classrooms: Teachers' knowledge and availability Issues. https://www.researchgate.net/ publication/331318828
- Onuoha, J. C. & Okam, C.C. (2014). Repositioning social studies education in Nigeria: Issues and challenges. Nigerian Journal of Social Studies and Civic Education, 1(1). Retrieved from http://www.ripublication.com
- Opoh, F. A., Adams, A. P. & Akai, K. P. (2017). Evaluation of upper basic Social Studies students' performance trend in public examination between 2010 -2014 in Cross River State, Nigeria. International Journal of Innovative Education Research, 5(3), 42 -47.
- Osakwe, E. (2014). Social Studies and integrated National development in Nigeria, Ibadan: Kraft Book Limited. Retrieved from https:// www.yakkata.com/definitions.of...
- Raja, R., & Nagasubramani, P.C. (2018). Impact of modern technology in

Education. *Journal of Applied and Advanced Research*, 3(1), 533-535.

- Salome, S. F. (2020). New strategies and method for teaching the contemporary Social Studies and Civics in Jos North community. *Journal of African Social Studies*, 1(1). https:/jass.org.ng>newstrate...pdf
- Simek, U., Byilar, Y. & Kucuk, B. (2013). Effects of cooperative learning methods on students' academic performances in Social Psychology lessons. International Journal on New Trends in Education and Their Implications, 4(3), 1309 -6249.
- Sivakumar, R. (2018). Methods and resources in teaching Social Studies. *Journal of Contemporary Educational Research and Innovations*, 4(2), 207 -216.
- Slavin, R. (2013). Effective programmes in reading and mathematics: Evidence from the best evidence Encyclopaedia. School Effectiveness and School Improvement, 24, 383 -391.
- Teng, A. (2014). Singapore math is travelling the world. Retrieved from http:// www.straitstimes.com/singasporemaths-is-travelling-the-world on 12th December, 2021.
- Thomas, V. I. (2013). Exploring students' perceptions of their interest/ lack of interest in academic work at a five-year government secondary school in South Trinidad. Master's Thesis. University of Trinidad.
- Topping, K. J., Buchs, C., Duran, D., & Vankeer, I. I. (2017). Effective peer learning: From principles to Practical implementation. London and New York: Routledge.
- Wentzel, K. (2018). Social relationships and motivation middle school: The role of parents, teachers and peers. *Journal of*

Educational Psychology, 90(2), 202-209.

- Yusuf, A. (2014). Effects of cooperative instructional strategy on students' performance in Social Studies. Journal of Arts and Social Sciences Education, 1(1), 1-8.
- Yusuf, M. O. (2014). Electronic media use in education: Prospect and challenges in Nigerian context. Retrieved from http:// www.e-education/learning.html.