



**KWARA STATE UNIVERSITY, MALETE, NIGERIA
SCHOOL OF POSTGRADUATE STUDIES (SPGS)**

**EFFECTS OF NUMBERED-HEADS-TOGETHER AND HEURISTIC METHODS
ON PUPILS' ACADEMIC PERFORMANCE IN SOCIAL STUDIES IN ILORIN
EAST LOCAL GOVERNMENT AREA KWARA STATE**

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MATRIC NO: 19/37MED/00004

March, 2022



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**A M.Ed. THESIS SUBMITTED AND PRESENTED
BY**

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MATRIC NO: 19/37Med/00004

**In Partial Fulfillment of the Requirements for the Award of Master of
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**DEPARTMENT OF EARLY CHILDHOOD EDUCATION AND PRIMARY
EDUCATION**

FACULTY OF EDUCATION

KWARA STATE UNIVERSITY, MALETE

NIGERIA

March, 2022

DECLARATION

I hereby declare that this thesis titled “Effects of Numbered-Heads-Together and Heuristic Methods on Pupils’ Academic Performance in Social Studies in Ilorin East Local Government Area of Kwara State” is a record of my research. It has neither been presented nor accepted in any previous application for a higher degree.

Yahaya OLAREWAJU

Signature / Date

APPROVAL

This is to certify that this thesis by Yahaya OLAREWAJU has been read and approved as meeting part of the requirements of the Department of Early Childhood and Primary Education, Faculty of Education Kwara State University, Malete, for the award of the degree of Masters (M.Ed.), in Early Childhood Education

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DEDICATION

This thesis is dedicated to Almighty Allah for His mercy and protection.

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Abstract

Poor performance in Social Studies might be as a result of inadequate and inappropriate use of classroom practices by the teachers. The poor academic performance in general paper was experienced in previous common entrance examinations, of 2018 and 2019 respectively where pupils performed in general paper woefully in Kwara state. Therefore, the study examined the effects of Numbered-Head-together and Heuristic Method on pupils' Academic performance in Social Studies. The research design adopted for this study is the pre-test, post-test, control group quasi-experimental research design. A factorial design of 3x2x2 was adopted for the study. The population for this study consisted of all the primary school pupils in Ilorin East Local Government Area of Kwara State. The target population consisted of all the primary four pupils. Sample size for the study was 6 primary four classes. The multistage sampling technique was used. The purposive sampling technique was used to select 6 mixed primary schools (Boys and Girls schools) because of certain and relevant characteristics they possessed that is relevant to the conduct of this study. Schools were classified into two strata (public and private) from which four schools were randomly selected as the experimental groups and two schools for control group. Four Instruments were used to elicit information from the participants including treatment packages. They were made up of Performance Test (PT), Instructional Guide for Number-Head-Together Method (IGNM), Instructional Guide for Heuristic Method (IGHM) and Instructional Guide for Conventional Method (IGCM). Seven hypotheses were formulated to guide the study. The instruments were given face and content validity by some selected Social Studies teachers in primary schools, researcher's supervisor and some lecturers in the Department of Early Childhood and Primary Education Kwara State University, Malete for vetting and final approval. To establish the reliability of the SSPT, 25 copies of the final draft were trial-tested two times, giving two weeks interval on some randomly selected pupils outside the sample schools. Thereafter, the Pearson's Product Moment Correlation (PPMC) was used to determine the reliability index of 0.84. The demographic data of the participants were analyzed using frequency counts, mean and percentage, while the research hypotheses were tested, using Analysis of Covariance (ANCOVA) at 0.05 level of significance. Findings showed that there was significant effect of Numbered-heads-together and Heuristic methods on pupils' academic performance in Social Studies ($F_{(2; 104)} = 43.620, P < 0.05$). Based on the findings of the study, it can be stated that Numbered-Head-together and Heuristic methods can enhance better performance in Social Studies than the traditional method of teaching. Numbered-Heads-together method was found to be more effective than heuristic method. Recommendations were made, Social Studies teachers should be enlightened on the effectiveness of Numbered-Head-together and Heuristic Methods on pupils' academic performance in Social studies, Curriculum developers in Social Studies like, Federal and State Ministries of Education, school proprietors and Nigerian Educational Research should incorporate Numbered-heads-together and Heuristic methods into the curriculum as one of innovative strategies that would be used to teach Social Studies especially in primary schools.

Word count: 499

CHAPTER ONE

INTRODUCTION

Background to the study

The success of an educational institution is measured by academic performance or how well a pupil meets the standards set out by the institution. The performance of students has for long generated a lot of interest among educators, researchers, government officials, parents, and the students themselves. Many studies have examined the factors that influence student performance in the primary, secondary as well as tertiary education levels, with the purpose of enhancing learning at these stages and reducing the level of drop-out. Academic performance is defined as the measure of what a person has accomplished after exposure to educational program. Recent educational standards of social learning in United States of America proposed that all students should learn social studies both inquiry and learn social studies through project method (National Council, 2006). Moradeyo (2015) stated that academic performance refers to what children achieve in their studies and how they cope with or accomplish different learning takes given to them by their teachers.

Afolabi (2003) also stated that poor achievement by pupils are always linked to the inability on the part of pupils to understand what has been taught neglecting the fact that the totality of what took place around the learners amount to what influences the learners' performance most

especially the teachers and their classroom practices and characteristics. The poor academic performance in general paper was experienced in previous common entrance examinations, 2018 and 2019 respectively where pupils performed in general paper woefully in Kwara State (Kwara State Ministry of Education). Fareo (2013) defined pupils' poor academic performance as the desirable change in outcomes in pupils' behaviours after a period of effective and efficient teaching and learning takes place. This is usually used to determine the effectiveness of teaching and learning activities as related to educational goals and objectives especially in Social studies.

Social studies is the integrated study of the social sciences and humanities to promote civic competence, (National Teachers' Institute, 2006). Within the school programs, social studies provides coordinated, systematic study drawing upon disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics and natural sciences.

The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world. According to National Teachers' Institute (NTI, 2006), social studies is designed and introduced into the national curriculum of primary and junior secondary schools, to provide functional social education to Nigerian children and youths.

The traditional pedagogical practice, which is confined to conveying information and involves telling, reading, and memorising, and the teacher adopting the "fountain of knowledge" method,

have failed to cope with the problems Social studies and Social science related knowledge subjects needed for development (Kohle, 2012). Appropriate pedagogical methods need to be sought in passing the message of Social studies and Numeracy subjects across to learners. Ajiboye and Ajitoni (2008) observed that pupils learn best by being interested and actively involved in their work, seeing themselves, doing themselves, puzzling themselves, confirming their own suppositions, experimenting themselves, making decisions themselves on the strong-point of ground which they have gathered themselves. Pupils' always make mistakes which they themselves should rectify with the new knowledge and grounds that they have uncovered, themselves. This methodological concept should be participatory via interaction, unity, and action-oriented communication. Numbered-Heads-Together and Heuristic Methods belong to these pedagogic concepts.

It has been established that one of the cooperative learning which gives more time for pupils to think to improve their responses, which facilitates pupils to acquire higher level thinking skill from their peers is the Numbered-Heads-Together (Maheady,2006). Number Heads Together learning model is the process, whereby pupils are conditioned to contribute thoughts and responsibilities to the achievement of individual and group learning outcomes. According to Trianto (2013), the Numbered-Heads-Together learning model is the kind of cooperative learning that is designed to affect pupils' interaction pattern and as an alternative to the

traditional classroom structure; there are four phases in Numbered-Heads-Together learning, which are numbering, asking questions, thinking together, and answering.

Numbered-Heads-Together is a cooperative learning model which emphasizes pupil activity in which pupils are expected to interact with other pupils in the group so that they may increase their learning. Pupils will be divided into small groups with the aim they will share experience thought about the material provided by the teacher. Pupils have the opportunity to be active in the process of thinking and learning activities, there is separation between pupils who have a high level of intelligence and a lower one. Pupils will provide information about the material being studied, review the material covered in the lesson, check or examine their understanding of the lesson content. The method was introduced by Spencer (2007). Numbered Heads Together is an instructional technique built upon peer collaboration that provides the supports and structure necessary to promote effective teacher questioning and pupils responding.

Furthermore, one of the instructional strategies that is rarely adopted in teaching and learning activities is heuristic method. Heuristic is a word derived from the Greek language to “find” or “discover” is an adjective for experience-based techniques that help in problem solving, learning and discovery (Katarzyna & Jaszczolt, 2006). Heuristics method according to Aggarwal (2006) is a method in which children discover and find things for themselves and are placed in the position of discoverers or inventors. He maintained that pupils who are taught in this way, learn to be observant, exact and to think for themselves. Kimpley, (2006) specifically emphasized not

only the acquisition of knowledge, but also on how to solve problems with the required procedure; understand the problem, device a plan (translate), carry out the plan (solve) and look back (check and make decision). This may address the urgent need for improvement in social studies and Science, Technology and Mathematics (STM) education for sustainable development. With the increasing development in the world of science and technology, the science educators are further challenged with the task of producing competent manpower in the field of science and engineering. This imposes great demand on mathematics teachers to devise appropriate instructional strategies that could deliver the right candidates to face the emerging challenges at the tertiary level. Reflecting on the discussion, the study will look at the effects of Numbered-Heads-Together and Heuristic methods on pupils' academic performance in social studies, suggesting ways to strengthen the educational system to improve the social studies rate among the children irrespective of their gender (male & female).

There are so many factors affecting pupils' academic performance in Social studies such factors include: Poor study habits, Anxiety, Poor family structure, Gender, School type. Gender connects to the cultural attributes of both males and females (Nnamani & Oyibe, 2016). However, Brady (2001) stated that in school enrolment, there are more number of males than the females. It is expected that more males would offer social studies subjects than females. Calsmith (2007) explained the influence of gender and differences in academic performance as complex tasks, thus many studies appear to be contradictory. Studies have also observed gender

inequality in the classroom because of instructional design during teaching and learning process (Adigun, 2015).

Okoye (2008) maintained that because of biological differences in human make-up such as those between man and woman, people presume that one sex may have a learning edge over the other. Intrinsically, there are practically no significant differences in the intelligence between male and female that is traceable to gender differences. He argued that the fact that men are the dominant and even superior sex does not mean that they are artistically better than women. It has become a general feeling or stigma that social studies is a girl's domain. A study through a meta-analysis shows that females tend to perform better in social studies (Hyde & Mertz, 2009) while males tend to perform better in computation, and there is no significant gender difference in understanding literacy concepts. Another study conversely showed that females tend to earn better grades than males in social studies. Salami (2004) stated that, gender has no barrier to successful achievement in social studies teaching and learning as both male and female are engaged in education. This is one of the existing gaps which triggered the inclusion of this research work to find out differences that may exist in the academic performance in Social Studies based on gender and school types.

Many studies by Sociologists, Psychologists, and Educationists showed that the type of school a learner attends has a great influence on his learning outcome. For instance, Bibby and Peil (2004) stated that children who attended private primary schools do better than pupils in public

schools. This idea is also back-up by Lioyd (2006) maintained further that the public schools which saw education as a good thing aimed to leave the question of educational achievement or downfall in the hands of the public and their parents. It shows that public school educations are yet to meet up with the academic expectations. This, of course, is what may be the general indifference of the people to government-owned business or property, a situation that has resulted in a nonchalant attitude of government workers, including teachers in public schools who are made to believe that a brilliant child would achieve automatically at school with little or no active help coming from a teacher.

There was no meaningful difference in academic achievement between pupils in private schools and students in government schools, (Glewe, 2002). Household members selected school type for their children/wards based on their wealth and preference for academic performance. This raises the prospect of selection bias in empirical estimates of the effect of school type on just scores. In general, evidence from school survey is consistent with the long standing perception of the superiority of private schools over public schools. Based on this, there are differences in quality of education based on school type and this will be determined to further confirm what has been done by previous related research.

In this study, the researcher seeks the effects of Numbered-Heads-Together and Heuristic Methods on pupils' academic performance in Social Studies in schools in Ilorin East Local

Government Area of Kwara State. It has been observed from the literature reviewed that study of this type has never been carried out in Ilorin East Local Government Area of Kwara State. Therefore, this is meant to fill the gap requiring empirical evidence regarding the effects of Numbered-Heads-Together and Heuristic Methods on pupils' academic performance in Social Studies.

Statement of the Problem

Poor performance in Social Studies might be as a result of inadequate and inappropriate use of classroom practices by the teachers. This has been a source of concern to all stakeholders in education more especially that Social Studies is a major subject in schools. The poor academic performance in general paper was experienced in previous common entrance examinations, 2018 and 2019 respectively where pupils performed in general paper woefully in Kwara State.

While theoretical and empirical evidences on the learner-centered method of teaching have been documented in social studies across the globe, empirical evidence on some of these innovative strategies as combined in this study are not many. To the best of researcher's knowledge, there seems to be no documented empirical evidence on the effects of Numbered-Heads-Together and Heuristic Methods on pupils' academic performance in Social studies in Ilorin East Local Government Area of Kwara State, Nigeria. Although some researchers have worked on other strategies or teaching methods such as role play and problem-solving strategy, jigsaw method of

teaching. In spite of these efforts, the problem of pupils' poor academic performance in social studies persists. This creates a researchable gap in knowledge, the gap which this study intends to fill by investigating the effects of Numbered-Heads-Together and Heuristic Methods on the pupils' academic performance in Social studies in Ilorin East Local Government Area of Kwara State, Nigeria

Purpose of the study

The main purpose of this study is to examine the effects of numbered-heads-together and heuristic methods on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. Specifically, the purposes are to determine the;

- 1 Main effect of treatment on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.
- 2 Effect of gender on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.
- 3 Effect of school type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.
- 4 Interaction effects of treatment and gender on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.
- 5 Interaction effects of treatment and school type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

- 6 Interaction effects of gender and school type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.
- 7 Interaction effects of treatment, gender, and school type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

Hypotheses

The following research hypotheses were formulated for the study;

H₀₁: There is no significant main effect of treatment on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

H₀₂: There is no significant effect of gender on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

H₀₃: There is no significant effect of school type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

H₀₄: There is no significant interaction effect of treatment and gender on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

H₀₅: There is no significant interaction effect of treatment and school type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

H₀₆: There is no significant interaction effect of gender and school type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

H₀₇: There is no significant interaction effect of treatment, gender, and school type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

Significance of the Study

This study is hoped to be significant to all stakeholders in the education sectors such as curriculum planners and developers, classroom teachers, pre-school children, caregivers as well as other researchers in the society.

The findings that may emanate from this study shall be of immense benefit to curriculum planners and developers because the curriculum reviews and innovation are expected to go in line with the outcome of this study especially in the scheme of work. This is not only in social studies education but in other subject areas in primary schools in Nigeria as this study may provide evidences of the effects of numbered heads together and heuristic strategies on pupils' academic performance.

The outcome of this study may be made available for the teachers at both private and public library and also online so as to enlighten teachers on the importance of using the appropriate teaching method that would make children appreciate the value of their academic performance.

Also, the findings of this study would be beneficial to classroom teachers as it will help teacher to understand how effective the Numbered-Heads-Together and Heuristic methods are in the teaching and learning of Social studies at the primary school level, when it is being implement as teaching methods in primary school

More so, the preschool children may benefit from the findings is expected to be of great help to the pupils in the development of their critical thinking skills, creativity, social and intellectual abilities. It will help pupils to be able to interact well with their peers, get along with their classmates and take responsibility for themselves in the process of teaching and learning of social studies especially at the primary school level.

Finally, the school management and administration may also benefit from the study because findings would challenge them to change their method of content delivery. The policy maker may use the findings of this study to identify areas of concern and address them in the best interest of the pupils. Additionally the policy makers may be in position to identify the key important areas which needs to be reviewed so as to encourage teachers in improving their skills in making use of the appropriate teaching method. The findings of this study will be of great guide to other researchers who want to further their research in the areas relating to effects of Numbered-Heads-Together and Heuristic methods on the academic performance of pupils in social studies.

Delimitation of the Study

This research focused on the effects of Numbered-Heads-Together and Heuristic methods on pupils' academic performance in social studies. The moderator variables involved are gender and school-type. The reasons for involving gender and school -type was to know if both will have effect on pupils' academic performance in Social Studies and some researchers have dwelled on both gender and school type with positive and negative outcomes, the researcher intended to have positions. The pupils in primary four class were used because they were able to interact well with their peers , get along with others and take responsibility for themselves in the groups when the teachers uses Numbered-Heads-Together and Heuristic methods to teach in class. The study covered six primary schools (three public schools and three private primary schools) using primary four pupils in Ilorin East Local Government Area of Kwara State.

Operational Definition of Terms

The following terms are operationally defined in the context in which the researcher used it in the study:

Academic performance: This refers to the result of pupils' assessment in social studies which measured using pupils' Social studies Performance Test

Heuristic teaching method: This is the strategy which enables pupils think critically in order to solve particular social studies problem with the use of previous knowledge.

Numbered head together: This is a cooperative learning strategy that holds each pupil accountable for learning materials, pupils are placed in groups and each pupil is given a number and topic to study after then proffer answer to the teacher

Conventional teaching method: This refers to a teacher centered teaching strategy in which pupils do not necessarily participate in classroom activities or they passively participate.

School type: This refers to public primary school and private primary school in Ilorin East local government area of Kwara state

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter focuses on review of the relevant literature related to the concept of Number-Heads-Together and Heuristic methods on academic performance of pupils in Social Studies. The review is done under the following sub-headings:

Theoretical Review

Edward Thorndike theory of connectionism (1898)

Lev Vygotsky theory of Social constructivism (1978)

Conceptual Review of Literature

Nature and scope of social studies

Social studies curriculum in Nigeria

Importance of social studies

Methods of teaching social studies in Primary Schools

Concept of Numbered-heads-together method

Procedure for Numbered- Heads-Together method

Concept of heuristic method

Empirical Review of Literature

Numbered-heads-together and pupils' academic performance in social studies

Heuristic method and pupils' academic performance in social studies

Gender and pupils' academic performance in social studies

School type and pupils' academic performance in social studies

Appraisal of Literature Reviewed

Theoretical Review

Edward Lee Thorndike developed connectionism theory in (1898). Thorndike is an American psychologist, educator, and lexicographer, was a pioneer in the adult education movement and was one of the first to develop intelligence tests that distinguished between the ability to learn and already acquired knowledge. Associated with Teachers College, Columbia University during most of his professional career, Thorndike got his undergraduate and graduate degrees from Wesleyan and Harvard Universities. His theories about the learning process in humans contributed to the educational psychology practice significantly in the 20th century. Thorndike is best known for his Theory of Connectionism.

“Connectionist models exhibit parallel distributed processing (PDP). In contrast to symbolic models, which represent one idea per node, they represent concepts as patterns of activation distributed across many nodes and links. Nodes respond to input in parallel and in turn excite or inhibit the other nodes they connect to. Connectionist models learn by matching the output they generate to the correct output they are shown during training. Mismatch between the two results in an error signal that is fed back into the system, which adjust the strength of the links between nodes so the match is improved next time around.” (Andrade & May, 2004)

With his theory of *Connectionism*, Thorndike claims that the learning process is completed only when the subject makes accurate connections between the new information.

Laws of Learning based on Thorndike's Experiment

All laws explain how to strengthen / weaken S-R Bonds

1. Law of Effect: When a modifiable connection between stimulus and response is made and is followed by satisfying state of affairs, that connections strength is increased. When made and accompanied by an annoying state of affairs, its strength is decreased. It emphasizes the role of reward and punishment in education. Revised law of Effect: An unpleasant situation / punishment need not necessary decrease the strength of S-R connection.

2. Law of Exercise:

a. Law of Use – Other things being equal, the more frequently, a modifiable connection is made between a stimulus and response, that connection strength is increased.

b. Law of disuse: Other things being equal when a modifiable connection not made between stimulus and response over a period of time, that connection strength is decreased.

c. Revised law of exercise: Mechanical use / disuse does not necessarily lead to effective learning / total forgetting.

3. Law of Readiness:

The theory is relevant to the study in numerous ways; at first, the teaching and learning at lower basic classes it has to be from simple to complex, known to unknown which will always fosters

retentive knowledge among the children, by adopting this kinds of style will also pave the using previous experience to tackle present and future situations, furthermore, the theory lay more emphasis on try and error which naturally motivates the children learning with different learning resources, mechanical repetition which is all about active participation of children in the classroom activities (under the law of learning, exercise is learning by doing) and making necessary resources available for the teaching and learning for pupils it will go a long way in assisting pupils to learn what they supposed to learn and become a functional member of the society.

Lastly, Stimuli and response S – R connections of those things to be remembered by regular use/ practice, constant practice always promote retentive and rote learning which will be of benefit to the pupils, if a child is stimulated for learning it is normally make teaching and learning process to be fun and pave the way for response which will be forever remembered by the pupil, the connectionism theory is significant to the study.

Lev Vygotsky theory of Social constructivism (1978)

The study was guided by Lev Vygotsky's theory of social constructivism which was presented by different opinions, views, and arguments of scholars. Lev Vygotsky propounded his theory of social constructivism in the year 1897. He Emphases on the central importance of social factors, Vygotsky (1981) considered the child to be primarily an apprentice who learns the acceptable behaviors directly from social interaction with more knowledgeable peers. In addition to parents, other adults, and older children who provide essential support within a cultural environment.

According to Vygotsky, children have zones of proximal development representing all the skills and knowledge children alone cannot presently understand, but are capable of learning through some form of support and guided social interactions.

The work of Lev Vygotsky (1934) has become the foundation of several types of research and theories in cognitive development over the past several decades, particularly of what has become known as Social Development. Vygotsky has developed a sociocultural approach to cognitive development. He places considerably more emphasis on social factors contributing to cognitive development. Vygotsky states that cognitive development stems from social interactions from guided learning within the zone of proximal development as children and their partners co-construct knowledge. (Turuk, 2008).

Vygotsky (1978) sees the Zone of Proximal Development as the area where the most sensitive instruction or guidance should be given - allowing the child to develop skills they would then use on their own - developing higher mental function Vygotsky also views interaction with peers as an effective way of developing skills and strategies. He suggests that teachers use cooperative learning exercises where less competent children develop with help from more skillful peers - within the zone of proximal development. The conclusion being that guided learning within the ZPD led to greater understanding/performance than working alone (discovery learning). Vygotsky bobbed up with a rich, multi-layered theory through which he considered a range of subjects including the psychology of art, language and thought, and learning and development, including rivets on the education of pupils with special needs. Vygotsky identified the greater socio-cultural context.

According to Vygotsky, a child is completely dependent on other people in their early stages as the socio-cultural environment keeps on showing the child with various tasks and demands,

occupying the child in his world. These other people, especially parents who apprise the child on what to do, how to do it, as well as what not to do; originating the child's action. Parents, as representatives of the culture and the medium through which the culture passes into the child, actualize these directions primarily through language. Vygotsky further explicates that children appropriate these cultural and social heritages by acquiring knowledge through interactions with people as the first step (referred to as the inter-psychological plane) and then later understands and interiorize this knowledge with their value to it (referred to as intra-psychological plane) (Turuk, 2008). This modulation from social to personal holding is not seen as a mere copy; rather it is a transmutation of what had been learned through interaction, into personal values. In addition, Vygotsky arrogates that, in schools also; pupils are not copying the teachers' capabilities but transforming what teachers present them during the processes of annexation (Turuk, 2008).

Vygotsky accented that children and adults are both active agents in the process of a child's development. Cole and Cole (2001) mentioned that development in this regard is co-constructed. When applied to teaching it means that both the teacher and the pupils are seen as active agents in pupils' learning. The teacher's intervention in pupils' learning is necessary, but it is the quality of the teacher-pupil interaction which is considered crucial in that learning (Verenikina, 2010).

The theory emphasizes the essence of what the learner conveys to any learning environment as an active meaning-maker and problem-solver (Turuk, 2008). It admits the dynamic nature of the reaction between teachers, learners, and tasks, and provides a perceptive of learning as arising from interactions with others. Steiner and Mahn (1996) stated that Vygotsky's theory takes on that learning arises not through interaction, but in reciprocal action. A learner first succeeds in performing a new task with the aid of another resourceful person and then incorporates this task

so that they can practicalize it on their own. In this way, social interaction is propounded to intercede learning.

According to Ellis, the theory goes further to say that interaction which finally intermediate learning are those in which the learner discover the new project (Turuk, 2008). Vygotsky developed Zone of Proximal Development (ZPD) in 1896-1934. The ZPD is seen as the difference between what a learner can do without help and what he or she can attain with guidance and motivation from a skilled partner. Hence, the term ‘proximal’ refers to those skill learner is close to mastering. The zone of proximal development has been defined as the gap between the certain developmental level as compelled by independent problem solving and the level of potential development as driven through problem-solving under adult guidance or working together with more knowledgeable peers (Vygotsky, 1978). The ZPD is a moving goal.

The social constructivism theory is relevant to this study because it gives pupils the freedom to build knowledge for themselves.

All aims and evidence resulted in the development of a pupil-centered strategy such as the Numbered-Heads-Together of teaching which forms the pivotal to this survey. Some of the fundamental assumptions of the social constructivism theory focused on learning construction which has to do with the process and building of internal representation and sharing of personal experience through active involvement in the acquisition, organization, and evolution of knowledge, skill through experience. Conceptual growth emanated from the interaction with others and sharing of multiple perspectives of their internal representation with the help of real-world situations that based on the consolidation of the learning experience

Conceptual Review of Literature

Nature and scope of social studies

Scope of social studies refers to content or subject matter, skills, values, attitudes and beliefs that have been or can be included in the social studies program. It is the content coverage of the social studies syllabus, curriculum or program. The scope of social studies is vast or broad and ordinarily limitless. The scope of social studies is however extensive, covers the following; Content is tailored specifically to a particular society like Nigeria. Nonetheless, content can be drawn from anywhere in the universe to enrich or compliment the local content. The content focuses largely on what is on ground, the present with an eye on what it should be in the future. The past is never ignored as there are experiences that may be drawn to enrich the present or future content of social studies. The content of social studies is drawn from the social science, humanities, oral history, contemporary issues, mass media, personal or group experiences of learners, teachers, parents, and from resource persons and places, ideas, past activities and thoughts, and so forth. The syllabus or curriculum of social studies is flexible and accommodates new trends or changes, problem and aspirations in the world or in a society that bear relevance to social studies teaching as the classrooms must reflect the going-on in the society. The implication of this is that the scope of social studies is continuously enlarging to accommodate the rapidity of knowledge explosion and knowledge implosion (Mezieobi, 2008). The National

Council of the Social Studies cited in Ololobou, (2010) noted that meaningful social studies programs-highlight these features. Learners in social studies focus themselves in understanding the world they live. They focus on the problems around them; make inferences, conclusions and decisions based on observations made in the light of established societal values. Thus, social studies are the great connection between school learning and living in the real world. Learners are prepared through social studies for active, meaningful and challenging citizenship in a democratic setting like Nigeria.

Social studies curriculum in Nigeria

Social studies emerges as a subject of prime importance for study in schools. It studies the basic characteristics of man and detailed investigation into the varied expressions of the adaptation of man to the area in which he lives. The scope of social studies is wide because it involves the study of man. In social studies, man lives in space, society and time. Therefore, he is made aware of his relationship with the past, present and future. Thus, Kadiri (2009) concluded that, in social studies, man is investigated in details for a proper understanding. It is a discipline which studies man at work, at play, at school, in society, and so forth Social studies by its nature is an interdisciplinary subject. It enables the learners see relationship between man's events and activities. This is because man's activities cannot be compartmentalized. Events that take place do not respect boundary; for example, problems such as inflation, pollution, population,

illiteracy, crime and so forth. Social studies adapt concepts, facts and generalizations from the social sciences and the method of scientific investigation. Besides, social studies is wider and it is a holistic study of man.

Additionally, Ololobou, (2010) described the nature of social studies in terms of characteristics or essential features of the discipline. Some of these characteristics include: it is a study of man as he interacts with the environment man is the central or core concern as he relates with various aspects of the environment, it is integrated knowledge and information drawn from a wide variety of sources is used to study man comprehensively.

Social studies therefore portray the oneness and indivisibility of knowledge and the reality of man's interaction with the environment. Social studies is value based. All three domains of learning - cognitive, psychomotor, and effective are emphasized. However, the effective aspect of learning is given prime importance because social studies is interested in modifying the behavior of learners to get them integrated into their various cultural areas. Social studies is a problem-oriented area of study. It is a response to the problems of society with a view to seeking rational solutions to the identified problems. The core of all teaching instructions in social studies is inquiry instruction. Learners are expected to go into the environment to investigate, collect, analyze data to make inferences and conclusion on social issues and phenomenon. Social studies is citizenship education, it is a study that exposes learners to the basic tenets of citizenship which emphasizes rights and obligations, human dignity and worth, dignity in labor,

moral and spiritual principles in interpersonal relations to make them socially responsible citizens.

Importance of social studies

Social studies help in preparing the learner for living effectively now and in the foreseeable future. It does this by drawing upon the long and varied experiences of the human race for illumination into complex societal problem. Taylor in Enem (2000) noted that social studies prepare our youths to understand the rapid changes and the development that are taking place in our country. The roles of social studies in Nigerian development according to N. T. I. (2000) are as follows;

- **Promotion of Democratic Living:** Nigeria is trying to be one of the democratic countries in the world, though many Nigerians are yet to imbibe the desired political culture needed for the survival of democracy. Through Social Studies, the child will become exposed to some of the political norms and values of the society. These can be done during elections periods e.g. refraining from electoral malpractice, voting for the right leader, and discouraging corrupt malpractice. If the child gets this training from the beginning, he is likely (to grow into adulthood with the desired political orientation, patriotic attitude and national consciousness.

- **Inculcating Sense of Responsibility to Others:** The old adage of being ones brother's keeper had been eroded by the greedy desire for material wealth. We do not seem to regard our responsibilities to others as fundamental. This is not good because we are trying to destroy the

unique feature of our cultural life style. There are numerous ways we can feel concerned for our fellowmen. These include showing sympathy, consoling during grief, aiding during need, directing confusion especially in the case of strangers, and protections in the case of threat and so on. These attributes are fast dying among the youths and for this to permeate the youth is dangerous. Hence, the child in the primary school must begin to learn how to develop this spirit of concern and responsibility to others, and this can be done through Social Studies. The child therefore sees peace and security of others as his concern. Respect for the Worth and Dignity of Others: Nigeria is not only diverse in its ethnic, religious, cultural, linguistic and social composition, but respect for the worth and dignity of others. The nation now is facing crises in which some ethnic or religious groups try to dominate other because of self- assumed superiority. This brings rancor and prejudice, which cause disunity. The Nigerian child should learn from the beginning that all

Nigerians are equal in spite social and cultured differences between them. By its objective Social Studies helps to inculcate in the child the spirit of acceptance of the respect for the worth of every Nigerian.

- **Development of Tolerance:** Nigerians have different values and beliefs depending on their cultural background. Yet these differences are to be sunk in the interest of National Unity. Unfortunately, a number of Nigerians have failed to tolerate their fellow citizens with different religious, political and ideological views. A number of public disturbances in some parts of the

country have been the result of political and religious intolerance. For a Peaceful and United Nigeria, citizens must be made to understand that each social, political and religious group has a right to exist and co-exist. If we respect and tolerate one another, no one would be hurt.

- **Increasing Awareness:** What should border you is why most Nigerians are interested in breaking the laws of the land than helping to uphold them, which of course is one of their civic responsibilities. Some of these acts are done out of ignorance of the consequence. There is a study which reports that most of those who rigged or allowed themselves to be used to rig during the 1979 and 1983 general elections did so out of ignorance about the consequence their actions would have on the effective leadership of the nation. It is therefore necessary for the child to be exposed gradually to his rights and civic duties as a citizen. The creation of this awareness is one of the objectives of social studies in Nigeria Primary Schools.

- **Inculcation of National Consciousness and National Unity:** It is a pity that most Nigerians show more consciousness for their ethnic groups religious denominations and even clubs and societies than the nation. It is important to emphasize the need for us to be proud of our country Nigeria, because we do not have any other one. Americans are proud to identify themselves as Americans. The British do the same. If we are proud of a thing, we have the need to do everything possible to protect and preserve it. Hence, every Nigerian needs to develop a sense of attachments, awareness and identity for the country.

Primary School Social Studies helps the child to become acquainted with the National Symbols such as the Flag, the Anthem, the Pledge, and the pictures of leaders and so on. Are all Nigerians feel committed to the pride and preservation of the country? They would then have one thing in common, that is national consciousness which they would want to bequeath to their on - coming generations. This common interest and aspiration help to bind together for national unity.

• **Inculcation of Desirable Values And Social Attitude:** Social Studies as citizenship education has been seen as a means for the inculcation of desirable values and social attitudes in the child and as a means of social reform. It is in this light that while some people have seen Social Studies as a means of socialization others see it as a means of 'indoctrination. Which ever applies, what is importance is the inculcation of desirable norms and values of the society from one generation to another. Without doing this, the child will find it difficult to fit into the society. Doing this seems to be a unique role of Social Studies because the subject is largely based on socio - cultural context of the society. Some of the societal values to be inculcated are honesty, fair play, hard work, patriotism, obedience, discipline, loyalty, respect, self-confidence, among others.

Methods of Teaching Social Studies in Primary School

Education for All (EFA) documents stress and put forward the child centered education as vision regarding teaching-learning in the primary level in Nepal. EFA documents pointed out the emphasis on rote learning and teacher centered approach as dominant pedagogical practices at

the primary level. The child-centered approach, individualized instruction, formative assessments are pointed out to be practiced for reforming classroom pedagogical practices. EFA emphasized the inclusion of cultural, linguistic and other social values of the local communities in the existing education system (MOES 2002).

Education for All (EFA) documents also laid more emphasis on the child centered and activities based teaching learning process. These ideas reveals that educational commissions of Nepal also laid more emphasis on the child centered activities and teaching learning activities and methods. But these ideas and thoughts are implemented in real situations. Research studies carried out at centre for Educational Research Innovation and Development (CERID) have also repeatedly indicated that classroom teaching learning in the Nepalese schools is still dominated by rote learning. While studies related to classroom practices have mainly found classroom delivery to be teacher dominated with an emphasis on rote memorization of the content matter. The dominant approaches are lecturing, paraphrasing, drill, reading, and repeating from textbook and memorizing questions and answers. The classroom process, which is envisioned to be child centered, was found largely confined to the whole class teaching, with the effect that the weaker ones are left behind. A single language, single session, the same materials, the same method were the general practices in classroom delivery.

Van Sledright (2004) explained “the common preoccupation with having students commit one fact after another to memory based on history textbook recitations and lectures does little to build

capacity to think historically”.In addition, Hoagland (2000) observed that teachers need to connect the content to the individual interests of the students, thus increasing student interest in the content and actively engaging students in the learning process. This entails utilizing a variety of teaching techniques that help engage students in the learning process. Some examples of engaging instructional methods include cooperative learning, role playing, and technology (Driscoll, 2005). Stahl (1994) explains that using cooperative learning requires students to become active learners. Furthermore, Stahl (1994) believed that, “cooperative learning provides opportunities for students to learn, practice, and live the attitudes and behaviors that reflect the goals of social studies education” Using various teaching techniques is considered by many a best practice, and numerous studies conclude positive results with regard to the use of various instructional methods.

Dow (1979) concluded that direct observation, data gathering, reading, role-playing, constructing projects, and watching films are all excellent ways to provide students with new information. Using film to enhance social studies instruction has been found to be an effective instructional method (Russell, 2007; Russell, 2008; Paris, 1997). In 2006, researchers concluded that using simulations heightened student interest and increased understanding (Russell & Byford). As well, researchers have found that the discussion method is a valuable method for teaching social studies (Harwood & Hahn, 1990; Byford & Russell, 2007). In 2006, researchers concluded that 85% of the 8th grade teachers who participated in the study used whole class presentation

(lecture) as a method of instruction. As well, the researchers concluded that 64% of teachers had students reading textbooks and 54% had students complete a worksheet as part of the class activities. This data exemplifies that teachers utilize lecture-based instruction and non-engaging activities despite numerous research findings.

Concept of Numbered-Heads-Together Method

Numbered Heads Together is cooperative learning model which emphasizes student activity in which students are expected to interact with other students in the group so that they can increase their learning. Students will be divided into small groups aimed to understand the material provided by the teacher. Students have the opportunity to be active in the process of thinking and learning activities, there is no separation between students who have a high level of intelligence and a low. Students will provide information about the material being studied, reviewed the material covered in the lesson, check or examine their understanding of the lesson content. This method was introduced by Spencer, (2007). The cooperative learning type of Numbered Heads Together emphasizes on a structure is designed to influence the interaction patterns of students, and improving their academic mastery. It means that students share ideas or opinion and work in the group.

According to (Suprijono, 2011), Numbered Heads Together method begins with the numbering, then questioning, heads together, and answering. The numbering is that the teacher formed small groups and the number of each group should consider the number of concepts to be learned. For

example if a class consist of 40 students and divided into 5 groups according to the concepts that will be studied then each group consist of 8 students. Teacher gives the students a number 1-7. After this, the teacher gives a number of questions to be answered by the students referred to the questioning. Students in their group think of the answers called the Numbered Heads Together. After that the teacher calls students who have same number from different groups to provide the answer. It is called the answering.

Numbering is the initial activities led by teachers. The teacher divides the class into small groups. If a class consists of 40 students, the teacher divides it into five groups so that there are seven member of each group. Then the teacher gives the numbers 1-7 in every member of group.

Questioning is asking the question by teachers to students. The teacher gives opportunity to each group to find answers from questions that are given. This step is done after the group formation.

Head together is a process in which all members of the group think of the answer by uniting mind. They discuss several possible answer to find the right/correct answers to the questions.

Answering is a process where the students with the same number from each group answer questions in turn given by the teacher. This is done continuously from the number 1-7 so all students have equal opportunities in social studies. Based on the definitions above, it can be concluded that in Numbered Heads Together method, students are expected to gain thorough understanding of the material being taught.

The Numbered-Heads-Together approach is designed to create more active responses from the pupils while teaching (McMillen et al., 2016). Numbered-Heads-Together cooperative learning model has several advantages including: improving learning achievement, curiosity, self-confidence, teamwork, communication between students, and help students learn to use courtesy and respect the opinions of others (Isjoni and Ismail, 2008).

Procedure for Numbered- Heads-Together Method

There are five procedures of NHT of English based on Wright (2015):

- a. Create teams. The teacher divides the class into 4 person teams. Ideally, each team includes a mix of high, average, and low-achieving students. Students in each team assign themselves the number 1 through 4.
- b. State a question. The teacher poses separate queries to the class. After each question, the instructor tells students to “put your heads together, think of the best answer you can, and make sure that everybody in your group knows that answer.
- c. Allow think time. The teacher gives students 30 second to discuss an answer in their groups.
- d. Elicit student responses. The teacher randomly selects a number from 1-4 and says, “All number (1, 2, 3, or 4) students who know the answer, raise your hand.” The teacher then calls on one student with hand raised and asks him or her to give the answer. The teacher next says, “how many (1, 2, 3, or 4) students think that the answer is correct? Raise your hand. (Optional: The

teacher can call on additional students with hand raised to elaborate on previous students answer).

e. Give teacher feedback. Finally, the instructor gives feedback about the answer (e.g. verifying that it is correct, elaborating on the answer, providing corrective feedback for an incorrect response).

Concept of Heuristic Method

Santrock (2004) argued that heuristics are merely “rules of thumb” and educated guesses based on common sense. Xu Chung (2008) in his argument took a middle course. While he could not dismiss the heuristics as a virile tool for teaching, he noted that methods to learning which suggest a solution to a problem without actually ensuring its workability might be accompanied with errors. As an intervention to these raging controversies, and genuine quest for the most appropriate strategy for teaching linear algebra, this study is on a mission to provide empirical evidence on the efficacy of the heuristic method on students’ achievement in social studies. Heuristic education is an education idea regression on the educate-oriented. It corresponds with the inherent requirement of teaching ideas.

Commonly, heuristic is used to ask learners to come up with vocabulary and language forms and rules, and to brainstorm a topic at the start of a skill lesson. Heuristic teaching is beneficial to the

students in experimental class to cultivate students' creative thinking and creative ability. Heuristic enables the learners to understand the structure of knowledge, and the process of knowledge construction because knowledge is not absolute, but dependent upon concepts, theories and methodologies upon which world is viewed (Roehrig & Edwards, 2001).

Heuristics method according to Aggarwal (2006) is a method in which children discover and find things for themselves and are placed in the position of discoverer or inventors. He maintained that students who are taught in the way learn to be observant, exact and to think for themselves. In psychology, heuristics are simple, efficient rules, hard-coded by evolutionary processes or learned, which have been proposed to explain how people make decisions, come to judgments, and solve problems, typically when facing complex problems or incomplete information.

These rules work well under most circumstances, but in extreme cases lead to systematic errors or cognitive biases (Kahneman, Tversky and Slovic, 2002). Santrock (2004) argued that heuristics are merely “rules of thumb” and educated guesses based on common sense. Xu Chung (2008) in his argument took a middle course. While he could not dismiss the heuristics as a virile tool for teaching, he noted that approaches to learning which suggest a solution to a problem without actually ensuring its workability might be accompanied with errors. As an intervention to these raging controversies, and genuine quest for the most appropriate strategy for teaching

linear algebra, this study is on a mission to provide empirical evidence on the efficacy of the heuristic approach on students' achievement in linear algebra

Empirical Review of Literature

Numbered-heads-together and pupils' academic performance in social studies

Nursyamsi and Aloysius (2015) is a quasi experimental research aimed at investigating the effect of NHT learning strategy on student's retention. The design of this research was Pretest-Posttest Nonequivalent Control Design. The population of this research was all the students of class XI of state senior high school in Muara badak, East Kalimantan, Indonesia in the first semester of 2015/2016 academic year. The samples of this research were students of class XI natural science 1 and XI natural science natural 2. There were 30 students in each of the class. The results of the analysis showed that the learning strategy had an effect on the retention. He concluded that there is a difference of the retention between the students taught by using NHT learning strategy and those taught by using conventional learning. The students' retention of the NHT learning strategy is 23.83% higher compared to that of the conventional learning.

Wardhani, (2016).The study is aimed to improve the students' reading skill through Numbered Head Together. The results show that the students' reading skill improves significantly. The study consist of 78 male students and 92 female students It can be seen the average of score students in post-test II is higher than standardized score 59.80. The NHT method is able to

improve students' reading skill in each cycle which the T-calculation result show that T-calculation of cycle I is 2.51 and cycle II is 3.43, the mean of pre-test I is 53.07 and post-test I is 60.38. In cycle II, the mean of pre-test II, the mean of pre-test II is 54.42 and posy-test II is 59.80. So, it can be concluded that there is significant improvement of students' reading skill by applying Numbered Head Together in X B Class of SMA Muhammadiyah Plus Salatiga in the academic year of 2015/2016.

Siti and Ari (2018) which aims at knowing the difference of the average of mathematics learning outcomes between the students whose learning using cooperative learning model of type Numbered Head together (NHT) whose learning with the students using think pair share (TPS) on the subject matter of the circle. The population in this research is the eighth class of the second half of SMP N 1 Adiluwih in the academic year 2017-2018. Sampling was taken by cluster random sampling technique. Since the sample comes from a normal and homogeneous distributed data then it is continued with t-test. Result of the data analysis can be concluded that there is difference of the mean result of student learning of mathematics using NHT type cooperative learning models with a mean of mathematics learning result of student using TPS learning models and the mean of student learning result by using cooperative learning model of type NHT is greater than the average mathematics learning outcomes of students taught by using the TPS learning models. the researchers concluded that there is a difference in the average results of mathematics learning among students whose learning using cooperative learning NHT

models with the average results of students' mathematics learning that learning using TPS learning model the NHT model using TPS learning models using TPS learning models using TPS learning models on the subject of the circle.

Heuristic Method and Pupils' Academic Performance in social studies

Mano (2012) conducted study on the impact of using the heuristic teaching approach for teaching mathematics to tenth grade students in Jordan. The researchers followed the equivalent pre/post T test two group designs. To achieve the goal of the study, a pre/post- test was constructed to measure student achievement in mathematics. The sample for this study consisted of 142 students; 69 male students and 73 female students from tenth grade at King Abdullah School in Irbid, Jordan for the first semester of the academic year 2011/2012. The subjects of the study were distributed into an experimental group and a control group. The experimental group was taught mathematics using the heuristic approach while the control group was taught mathematics using the traditional method of teaching. The subjects were 34 male students for the experimental group and 35 male students for the control group, while the female students for the experimental and control group were 37 and 36 respectively.

Those subjects were distributed into two purposefully selected sections at king Abdullah School in Irbid. Descriptive statistical analyses were used (means and standard deviation) for the pre- and post- tests of students. Comparison statistical methods were used (Two Way ANOVA)

analysis of variance to make a comparison between the control and the experimental groups and gender variable. The findings of the study indicated that there were statistically significant differences in the post- test between the control and the experimental groups in favor of the experimental group, and there was no statistically significant difference in the students' achievement due to gender. There was no statistically significant difference due to the interaction between gender and group. The researcher proposes some recommendations to enhance the effect of using heuristic approach in teaching mathematics on students' performance such as conducting further studies in other universities.

Similarly, Adiel and Antony (2012) carry out study on the effects of Heuristic Teaching Approach on students' achievement Biology based on gender. This study was conducted in public secondary schools in Tharaka Nithi County, Kenya. Solomon Four – Group Non Equivalent Control Group Design was used. Data was collected from 12 schools randomly sampled from within the county. The sample comprised of 396 Form 2 students from four boys, four girls and four co-educational schools. A Biology Achievement Tests were developed and used for data collection. The instruments were pilot-tested in one boy's, one girl's and one co-educational school to ascertain its reliability. A reliability coefficient value of 0.83 was obtained. Hypotheses were tested using ANOVA, ANCOVA and t-test statistics at $\alpha = 0.05$ level of significance. Means were separated using Least Significant Difference (LSD) pair wise post-hoc

comparisons. The study found that Heuristics Teaching Approach facilitated students' achievements in biology regardless of gender.

Fasasi (2015) study was conducted to find out the effect of Heuristic Teaching Approach on academic achievement of Senior Secondary School Mathematics students in Adamawa State, Nigeria. A total of 100 SSII students was drawn from five (5) senior secondary schools using stratified random sampling technique with fifty (50) males and fifty (50) females. The instrument used for the study was a self-designed questionnaire with reliability coefficient of 0.84. Three research questions were raised and three hypotheses were formulated and tested using t-test statistical tool at 0.05 level of significance. The findings of the study revealed that students exposed to Heuristic Teaching Approach achieved higher than those taught with Conventional Approach. Also the male students achieved higher than the female students with a significant mean difference. Based on the findings, it was recommended among others that Heuristics teaching approach should be used in teaching mathematics and that mathematics teachers should be well trained on the use of Heuristic Teaching Approach so as to enhance students' academic achievement in mathematics.

Gender and Pupils' Academic Performance in social studies

Peter (2014) investigated the effect of gender on students' academic achievement in secondary school social studies. The study adopted a quasi-experimental design (2x2 non-randomised pre-test, post-test control group) comprising six groups made up of four experimental groups and

two control groups. Six schools and 180 upper basic II students. The instrument used in this study is the achievement instrument tagged "Social Studies Achievement Test (SSAT). The reliability of the instrument was established using Pearson product moment correlation coefficient and the reliability coefficient was 0.79. Means, Standard Deviation, Analysis of Covariance (ANCOVA). Result revealed that: gender (male and female) had no significant effect on students' Achievement in social studies and finally, result showed that there was significant interaction effects on treatment and gender on students' academic performance in social studies.

Nanman and Oyinbe, (2016). Carry out study on gender and academic achievement of secondary school students in social studies in Abakaliki urban of Ebonyi state. The study focus on gender and academic achievement of secondary school students in social studies the two research questionnaire and null hypotheses were tested at 0.05 level of significance. The population of the studies comprised 3,479 junior secondary school students selected from all the secondary schools in Abakaliki urban of Ebonyi state. The instrument used for the data collection was social studies achievement test), data were analysed using mean and standard deviation for all research question, and analysis of co-variance (ANCOVA) was used to test the null hypotheses at 0.05 level of significance. The findings of the study shows that there is no significant difference based on gender.

Weerakkody and Ediriweera (2008) reported in their comparative study of management and commerce students in Sri Lanka while using students' gender as independent variable and academic performance as dependent variable, that in the management- based special degree examination in Human Resource, Accountancy, Marketing and Commerce, female students had better and higher performance than the male students. To arrive at this finding, they collected data from a sample of 1,200 undergraduate students in University of Kelaniya, Sri-Lanka through stratified technique covering five academic sessions of 2002/2003 to 2006/2007.

Fauto and Friedman (2005), there was no significant difference between male and female cognitive ability .The study reviewed that there are significance difference in the achievement of secondary students in social studies based on gender Based on this submission, researcher want to investigate the effects of think-pair-share and jigsaw method of teaching on academic performance of pupils in Social studies in Ekiti Local Government Area of Kwara state to establish whether or not the performance is gender Stereotype.

School type and Pupils' academic performance in social studies

Pupils' academic performance more often than not is closely linked with their school type. For clarity and better understanding, some of the key research findings on school type and academic achievements are showcased in the following paragraph. Using data from Indonesia, Newhouse and Beegle (2005) evaluated the effect of school type on the academic achievement of junior

secondary school students (grades 7-9). The primary data source for the study was the three full rounds of the Indonesia Family Life Survey (IFLSI, IFLS2, and IFLS3). The result showed that students that attended public junior secondary schools, moderating for other characteristics, have higher test scores upon completion than those who attended private school.

Also, Alimi, Ehinola and Alabi (2012) investigated into the influence of school types and facilities on students' academic performance in Ondo State. The study was constructed to find out may be facilities and students' academic performance are related in private and public secondary schools, respectively. Descriptive survey design was used. Proportion random sampling techniques was used to select 50 schools in Ondo State. Two set of research instrument named School Facility Descriptive and Student Academic Performance Questionnaire (SFDAPQ) for head teacher; and School Facility Descriptive and Questionnaire for the teachers (SFDQ). T-test was used to analyse the data. Hypotheses was tested at a significant level of 0.05. The study revealed a significant difference in facilities available in public and private schools in Ondo State. The study also revealed that there is a significant difference in the facilities available between public and private senior secondary schools. It however revealed a no significant difference in the academic performance of students in the two types of schools.

Kathleen (2013) worked on the effect of school type on academic achievement in Indonesia. The study involved junior secondary school students (grades 7-9). That is students that graduated from public junior secondary schools. The finding of this study is robust to OLS, fixed effects,

and instrumental variable estimation strategies, students attending Muslim private schools including madrassas, fare no worse on average than a student attending secular private schools. The result provided indirect evidence that higher-quality inputs at public junior secondary schools promote higher test scores. Mores, in terms of competence, 85% of Indonesian students score below average scores according to the programmers for international students assessment (PISA) 43% of students score average and only 2% serves above average (OECD,2012; World Bank,2014). The finding of the study also revealed that in terms of quality, national exam scores of students in privates schools are still lower than those of their peers in public schools and there are also large variations within and between Islamic private schools.

Yusuf and Adigun (2010) examined the influence of school type, sex, and location on the students' academic performance in Ekiti state secondary schools. The sample of the study consisted of forty (40) secondary schools. Four (4) government colleges (State unity colleges) were purposively selected for the study while thirty-six (36) public secondary schools were randomly selected for the study. The sampled schools have been presenting candidates for both the West Africa Examinations Council and National Examination Council (WAEC & NECO) respectively. However, the findings of the study showed that the level of students' academic performance was low. It was also revealed that school type, sex, and location had no significant influence on students' academic performance. The researcher intends to have justification on whether the school type will have significant effect on the pupils' academic performance in

Ilorin East Local Government Area of kwara State, using Numbered-head-together and Heuristic Methods

Appraisal of Literature Reviewed

The literature review started with a holistic look at various views and opinions on constructivism and connectionism theory of learning which serve as the theoretical review that guided this study. This was followed by a critical review of the conceptual studies such as concept, aims and objectives, nature, curriculum, and scope of Social Studies, concept of Number Heads Together Method, Heuristic Method and concept of academic performance. It was established that pupils developed and learned social studies better when they are furnished with experiences that allow them to dig into and manipulate materials to construct and learn Social Studies ideas and through groups work. As pupils learn through purposeful, critical thinking and sharing experience, they build critical basic skills and communication skills for academic performance. The reviewed literature however did not establish how the variable of gender could influence pupils' performance. This apparent disregard is what necessitated this study.

On the independent variable of Number Heads Together and the Heuristic methods, the literature search was able to situate the review according to authors' views on their conceptual meanings, procedures for implementation and possible drawback of the strategies. However, to give the review a broader focus, empirical studies were reviewed to show the degree which previous

findings could be evaluated in relation to the problem of the study slated in Chapter One. Several empirical studies were carried-out in foreign educational settings and in other subject areas, language, social science, science and Numeracy, respectively. The researcher discovered that during extensive literature review in Number Heads Together and the Heuristic methods on the academic performance in social studies, most of the researchers found links between Number Heads Together and the Heuristic methods and social skills. Number-Heads-Together and the Heuristic methods have been discovered to provide the opportunity for children to practice and develop critical and social skills including perspective talking, sharing, cooperation, peer interaction, turn-taking, resolving social conflicts, and understanding social rules.

CHAPTER THREE

METHODOLOGY

This chapter focuses on the research design, population, sample and sampling techniques, research instrument, validity and reliability, the procedure for data collection, and method of data analysis.

Research Design

The research design adopted for this study is the pre-test, post-test, control group quasi-experimental research design. Here, there was non-randomization of the participants because they have to be in their intact classes. The design is suitable in establishing possible cause and effect relationship. It is a non-equivalent control group design. This is because primary school classes mostly operates as intact groups and as such most school heads would not permit a situation whereby the classes would be disorganized or re-arranged for the purpose of carrying out a research work. Moreover, Cohen, Manton and Morrison (2007) argued that quasi-experimental studies provide the researcher with the opportunity of comparing results between groups or resulting from the naturally occurring treatment of groups.

Hence, a factorial design of 3x2x2 was adopted for the study. The first factorial level was the two experimental groups (Numbered-Heads-Together and Heuristic Strategies) and the control group. The second factorial level was gender in either male (M) or female (F). While the third

factorial level was the school type in either public or private. This design allowed for the experimental groups to receive treatment while the control group did not receive treatment. Although the control groups received a placebo (this means that the control group was also taught the same topics as the experimental group using the traditional lecture method of teaching). However, both the experimental and control groups received the pre-test and post-test before and after the treatment respectively.

This is symbolically represented as follows:

Table 1: Factorial design on Numbered-Heads-Together and Heuristic Teaching Methods with a control group

Groups	Pre-test	Treatment	Post-test
Experimental group 1(NHT)	O ₁	X ₁	O ₂
Experimental Group 2(H)	O ₁	X ₂	O ₂
Control Group	O ₁	–	O ₂

KEYS

O₁ = Pre-test of experimental group 1 (NHT)

X₁ = Treatment of the experimental group 1 (NHT)

O₂ = Post-test of the experimental group 1 (HNT)

O₁ = Pre- test of experimental group 2

X₂ = treatment of the experimental group2

O₂ = Post-test of the experiment group2

O₁ = Pre-test of the control group

X₃ = Placebo treatment for the control group

O₂ = Post-test of the control group

Population

The population for this study consisted of all the primary school pupils in Ilorin East Local Government Area of Kwara State. The target population consisted of all the primary four pupils. There are eighty five (85) public primary schools with a total of 14,165 children enrolled and eighty three (83) private schools with a total of 7,661 in Ilorin East local government area, Kwara state, Kwara state School census report (2018-2019). The reason for selection of primary four pupils is because it's expected that, they will be able to interact more effectively among themselves.

Sample and Sampling Techniques

Sample size for the study was 6 primary four classes. The multistage sampling techniques were used. The purposive sampling technique was used to select 6 mixed primary schools (Boys and Girls schools) because of certain and relevant characteristics they possessed that is relevant to the conduct of this study. Schools were classified into two strata (public and private) from which six schools were randomly selected. Three private schools as well as three public schools were selected randomly as the experimental groups and control group. (One private and one public school as experimental group one) and (one private and one public school as experimental group two) and control group (one private and one public). Thereafter, primary four pupils of these schools were selected for the experimental groups as well as the control group.

Research Instrument

Four Instruments were used to elicit information from the participants including treatment packages.

- i. Social Studies Performance Test (SSPT)

Treatment Packages

- i. Instructional Guide for Number-Heads-Together Method (IGNM)
- ii. Instructional Guide for Heuristic Method (IGHM)
- iii. Instructional Guide for Conventional Method (IGCM)

Social Studies Performance Test (SSPT)

Social Studies Performance Test (SSPT) was constructed by the researcher with the aid of primary four curriculum. It consisted of two sections A and B. Section A is for the demographic data of the participants like school name, school type, gender, class and subject. Section B comprised 20 multiple choice items with four options (lettered A to D) based on the topics drawn from the social studies curriculum that were taught. The instrument constructed to measure participants' knowledge, understanding and application, as shown in the table. The instrument was validated by researcher's supervisor, co-supervisor and some lecturers in the Department of

Early Childhood and Primary Education and other lecturers at faculty of education, Kwara State University, Malete.

Table 2: Table of Specification indicates the number of test items that will be in each cell.

Topic	Knowledge	Understanding	Application	Total
The relationship of some members of the family	1	2	2	5
Culture	2	1	2	5
Unity in cultural diversity	1	2	3	6
Responsible parenthood	1	1	2	4
TOTAL	5	6	9	20

Source: survey

Instructional Guide for Number-Heads –Together- Method (IGNM)

The instrument guide was designed by the researcher to guide class teachers who were the research assistants in the experimental group 1. It consisted of six stages-introduction, presentation, clarification, evaluation, summary and assignment. There were 4 lessons in all. The treatment package lasted for six weeks. First week for the training of research assistants, second week for the administration of pre-test and 3-5 weeks for actual treatment. At 6th week post-test was administered. The instrument was validated by researcher's supervisor, co-supervisor and some lecturers in the Department of Early Childhood and Primary Education and other lecturers at faculty of education, Kwara State University, Malete

Instructional Guide for Heuristic Method (IGHM)

This was used to guide research assistants in the experimental group 2 .It consisted of six stages as the Heuristic method-introduction, presentation, clarification, evaluation, summary and assignment. There were 4 lessons in all. The treatment package lasted for six weeks. First week for the training of research assistants, second week for the administration of pre-test and 3-5 weeks for actual treatment. At the 6th week post-test was administered. The instrument was validated by researcher's supervisor, co-supervisor and some lecturers in the Department of Early Childhood and Primary Education and other lecturers at faculty of education Kwara State University, Malete.

Instructional Guide for Conventional Method (IGCM)

This was used to usher the class teachers who were research assistants in the control group. It consisted of six stages- introduction, presentation, clarification, evaluation, summary and assignment. There were 4 lessons in all. The placebo package lasted for six weeks. First and second week for the administration of pre-test and 3-5 weeks for the main activities. At 6th week post-test was administered. The instrument was validated by researcher's supervisor, co-supervisor and some lecturers in the Department of Early Childhood and Primary Education at faculty of education, Kwara State University, Malete.

Validity of the Instrument

Face and content validity by the researcher in the study. Social Studies Performance Test (SSPT), Instructional Guide for Numbered-Head-Together Method (IGNM), Instructional Guide for Heuristic Method (IGHM) and the Instructional Guide for Conventional Method (IGCM) was given face and content validity by researcher's supervisor, co-supervisor and some lecturers in the Department of Early Childhood and Primary Education and other lecturers at faculty of education, Kwara State University, Malete for vetting and final approval.

Reliability of the Instrument

Test retest method was used. The main instrument that was used is the "Social Studies Performance Test" (SSPT). To establish the reliability of the SSPT, 25 copies of the draft were trial-tested two times, giving two weeks interval on the randomly selected pupils outside the sample schools. Thereafter, the Pearson's Product Moment Correlation (PPMC) was used to determine the reliability index of 0.84.

Procedure for Data Collection

The researcher collected a letter of introduction from the Head of the Department of Early Childhood and Primary Education, Kwara State University, Malete. This enabled the researcher to seek for the permission from the school management and the class teachers concerned. Four research assistants were trained and involved. The research assistants were the class teachers of primary four pupils in the selected schools for treatment groups and they were trained in their

various schools by the researcher prior to the treatment period to acquaint them with the instructional guide. Research assistants were supervised by the assistant head-teachers of the selected schools. The study was carried out in 1st term 2021/2022 academic session. The data collection lasted for a period of six weeks. The first week was for the training of the research assistants. The second week was for the administration of the Social Studies Performance Test (SSPT) as the pre-test (to the pupils' in both experimental and control groups). Weeks three and five (3-5) was used to expose pupils to the treatment while the Pupils' Social Studies Performance Test (PSSPT) was administered as post-test to all the groups (both the experimental and control groups) in the six week. The class teachers for the control groups thought the control groups the same topics as scheduled for the treatment groups, using the conventional method.

Method of Data Analysis

The data were analyzed using both descriptive and inferential statistics. The demographic data of the participants were analyzed using frequency counts, mean and percentage, while the hypotheses were tested, using Analysis of Covariance (ANCOVA) at 0.05 level of significance. For the testing of hypotheses, the null hypotheses are retained when the observed probability value was greater than or equal to 0.05 level of significance, and when the observed probability value was less than 0.05 level of significance, the null hypotheses will be rejected.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

This chapter focuses on data analysis and the result of study. Demographic data of the participants were presented using frequency counts and percentages, while all the research hypotheses were tested using the Analysis of Covariance (ANCOVA) at 0.05 level of significance.

Table 3: Demographic Information of the Groups

Groups	No of Participants	Gender	Frequency	Percentage (%)
Number-Heads-Together	42	Male	20	17.07
		Female	22	18.80
Heuristic Method	28	Male	12	10.25
		Female	16	13.67
Control group	47	Male	24	20.51
		Female	23	19.65
Total	117		117	100.0

Table 3 shows the demographic data of the groups (Numbered-Heads-Together Method group, Heuristic Method group and Control group). There were forty-two participants in Numbered-Heads-Together Method group in which 20 were males (17.07%) and 22 were females (18.80%). There were also 28 participants in Heuristic Method group in which 12 were males (10.25%) and 16 were females (13.67%) while the control group had 47 participants in which 24 were males (20.51%) and 23 were females (19.65%). There were 117 participants altogether.

Hypothesis One: There is no significant main effect of treatment on pupils' academic performance in social studies

Table 4: Showing summary of Analysis of Co-variance (ANOVA) on effect of treatment on pupils' academic performance in social studies

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	920.767 ^a	12	76.731	6.484	.000
Intercept	5279.663	1	5279.663	446.162	.051
Pretest	12.870	2	6.435	.544	.582
Main Effect					
Treatment	516.175	1	516.175	43.620	.000
Gender	87.814	2	43.907	3.710	.068
School type	4.146	1	4.146	.350	.555
Two way Interaction					
Treatment * Gender	40.010	1	40.010	3.381	.069
Treatment * School type	1.531	2	4.537	.065	.937
Gender * School type	6.282	2	3.141	.265	.767
Three way Interaction					
Treatment * Gender * School type	13.900	1	13.900	1.175	.281
Error	1230.686	104	11.834		
Total	124792.000	117			
Corrected Total	2151.453	116			

Table 4 shows the effect of treatment on pupils' academic performance in social studies. There

was significant effect of treatment on pupils' academic performance in social studies ($F_{(1; 104)} =$

43.620, $P < 0.05$). The hypothesis is therefore rejected in the light of the result since the

significant value (.000) is less than 0.05. This implies that treatment had significant effect on

pupils' academic performance in social studies.

Table 5: Summary of Bonferroni's Post Hoc pairwise Comparison of the scores within the three Groups

Treatment	Mean Score	Experimental 1	Experimental 2	Control Group 3
Numbered-Heads-Together	81.755		*	*
Heuristic Method	77.657	*		*
Conventional Method	68.833	*	*	

Table 5 reveals that the significant main effect exposed by table 4 is as a result of the significant difference among: Numbered-Heads-Together Method, Heuristic Method and Conventional Method. Numbered-Heads-Together Method referred to experimental group 1, Heuristic Method referred to experimental group 2 and Conventional Method known as control group. This implies that those taught with Numbered-Heads-Together performed better than those taught with Heuristic Method and those taught with Heuristic Method out-performed significantly than those taught with traditional method.

Hypothesis Two: There is no significant main effect of gender on pupils' academic performance in social studies. Table 4 also reveals the effect of gender on pupils' academic performance in social studies. There was no significant effect of gender on pupils' academic performance in social studies ($F_{(2; 104)} = 3.710$; $P > 0.05$). The hypothesis is therefore not rejected in the light of the result since the significant value (.068) is greater than 0.05. This implies that gender had no significant effect on pupils' academic performance in social studies

Hypothesis Three: There is no significant main effect of school type on academic performance in social studies. There was no significant effect of school type on pupils' academic performance in social studies ($F_{(1,104)} = .350$; $P > 0.05$). The hypothesis is therefore not rejected in the light of the result since the significant value (.555) is greater than 0.05. This implies that school-type had no significant effect on pupils' academic performance in social studies

Hypothesis Four: There is no significant interaction effect of treatment and gender on pupils' academic performance in social studies. Table 4 also shows the interaction effect of treatment and gender on pupils' academic performance in social studies. There was no significant interaction effect of treatment and gender on pupils' academic performance in social studies ($F_{(1; 104)} = 3.381$; $P > 0.05$). The hypothesis is therefore not rejected in the light of the result since the significant value (.069) is greater than 0.05. This implies that treatment and gender had no significant effect on pupils' academic performance in social studies.

Hypothesis Five: There is no significant interaction effect of treatment and school-type on pupils' academic performance in social studies

Table 4 also shows the interaction effect of treatment and school-type on pupils' academic performance in social studies. There was no significant interaction effect of treatment and school-type on pupils' academic performance in social studies ($F_{(2; 104)} = .065$; $P > 0.05$). The hypothesis is therefore not rejected in the light of the result since the significant value (.937) is

greater than 0.05. This implies that treatment and school-type had no significant effect of treatment on pupils' academic performance in social studies.

Hypothesis Six: There is no significant interaction effect of gender and school-type on pupils' academic performance in social studies. Table 4 also shows the interaction effect of gender and school-type on pupils' academic performance in social studies. There was no significant interaction effect of gender and school-type on pupils' academic performance in social studies ($F_{(2; 104)} = .267; P > 0.05$). The hypothesis is therefore not rejected in the light of the result since the significant value (.267) is greater than 0.05. This implies that gender and school-type had no significant effect of gender and school-type on pupils' academic performance in social studies.

Hypothesis Seven: There is no significant interaction effect of treatment, gender and school-type on pupils' academic performance in social studies. Table 4 also shows the interaction effect of treatment, gender and school-type on pupils' academic performance in social studies. There was no significant interaction effect of treatment, gender and school-type on pupils' academic performance in social studies ($F_{(1; 104)} = 1.175; P > 0.05$). The hypothesis is therefore not rejected in the light of the result since the significant value (.281) is greater than 0.05. This implies that treatment, gender and school-type had no significant effect on pupils' academic performance in social studies.

Summary of Findings

1. There was significant effect of Numbered-Heads-Together and Heuristic on pupils' academic performance in social studies ($F_{(2; 104)} = 43.620, P < 0.05$).
2. There was no significant effect of gender on pupils' academic performance in social studies ($F_{(2; 104)} = .3.710; P > 0.05$).
3. There was no significant effect of school type on pupils' academic performance in social studies ($F_{(2; 104)} = .350; P > 0.05$).
4. There was no significant interaction effect of treatment and gender on pupils' academic performance in social studies ($F_{(2; 104)} = 3.381; P > 0.05$).
5. There was no significant interaction effect of treatment and school-type on pupils' academic performance in social studies ($F_{(2; 104)} = .065; P > 0.05$).
6. There was no significant interaction effect of gender and school-type on pupils' academic performance in social studies ($F_{(2; 104)} = .267; P > 0.05$).
7. There was no significant interaction effect of treatment, gender and school-type on pupils' academic performance in social studies ($F_{(2; 104)} = 1.175; P > 0.05$).

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter focuses on discussion, conclusion and recommendations of the study. In the discussion, findings were examined in connection with the findings from relevant previous studies especially those reviewed in chapter two of this study. Based on the discussion, conclusions were drawn and recommendations were also made while suggestions for further studies were made based on the limitation of this study.

Discussion of Findings

Findings emanated from this study revealed that there were significant effects of Numbered-Heads-Together and Heuristic Method on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. This signifies that the pupils taught using Numbered-head-together and Heuristic methods performed better than their counterparts taught with conventional method. In the sense that pupils learn best by being interested and actively involved in the teaching and learning activities, by seeing themselves, doing it themselves, puzzling themselves, confirming their own suppositions, experimenting themselves, making decisions themselves on the strong-point of ground which they have gathered themselves. The two strategies gave room for that because they were child-centered approaches unlike conventional method where teacher dominates the class during teaching and learning and pupils as tabularassa who have nothing to contribute. This findings supported the submissions of

Nursyamsi and Aloysius (2015) is a quasi- experimental research aimed at investigating the effect of Numbered-Heads-Together learning strategy on student's retention. They concluded that there is a difference of the retention between the students taught by using NHT learning strategy and those taught by using conventional learning. The students' retention of the NHT learning strategy is 23.83% higher compared to that of the conventional learning. The findings, is also in agreement with Wardhani, (2016).The study was aimed to improve the students' reading skill through Numbered Heads Together. The results show that the students' reading skill improves significantly. The NHT method is able to improve students' reading skill in each cycle which the T-calculation result show that T-calculation of cycle I is 2.51 and cycle II is 3.43, the mean of pre-test I is 53.07 and post-test I is 60.38. In cycle II, the mean of pre-test II, the mean of pre-test II is 54.42 and post-test II is 59.80. So, it can be concluded that there is significant improvement of students' reading skill by applying Numbered Head Together in X B Class of SMA Muhammadiyah Plus Salatiga in the academic year of 2015/2016.The findings also concurred with Siti and Ari (2018) which aims at knowing the difference of the average of mathematics learning outcomes between the students whose learning using cooperative learning model of type Numbered Heads together (NHT) whose learning with the students using think pair share (TPS) on the subject matter of the circle. Result of the data analysis can be concluded that there is difference of the mean result of student learning of mathematics using NHT type cooperative learning models with a mean of mathematics learning result of student using TPS

learning models and the mean of student learning result by using cooperative learning model of type NHT is greater than the average mathematics learning outcomes of students taught by using the TPS learning models.

Finding of this study was in tandem with the Mano (2012) conducted study on the impact of using the heuristic teaching approach for teaching mathematics to tenth grade students in Jordan.

The experimental group was taught mathematics using the heuristic approach while the control group was taught mathematics using the traditional method of teaching. The findings of the study indicated that there were statistically significant differences in the post- test between the control and the experimental groups in favor of the experimental group. The findings of this study is also in support of Fasasi (2015) study conducted to find out the effect of Heuristic Teaching Approach on academic achievement of Senior Secondary School Mathematics students in Adamawa State, Nigeria. The findings of the study revealed that students exposed to Heuristic Teaching Approach achieved higher than those taught with Conventional Approach.

The second finding of study showed that, there was no significant effect of gender on pupils' academic performance in Social studies. This implies that gender had no significant effect on pupils' academic performance in Social studies in Ilorin East Local Government Area of Kwara State. This implies that the gender of the pupils do not have any significant influence on pupils' academic performance. The findings from this study was supported by the findings of Fauto and Friedman (2005),who submitted that there was no significant difference between male and

female cognitive ability. The findings also support the submission of Nanman and Oyinbe, (2016) which shows that there is no significance difference based on gender.

The submissions from Vernon (2002) was against the findings of this study which reported that, many comparisons show average scores of boys and girls to be the same on general intelligence test. He said that, girls do a little better on most verbal tests and on tests involving rote memory than boys. On tests of inductive reasoning and arithmetical ability, though with a great deal of overlapping, the average differences, he said, seldom exceeds about four points of intelligence quotient. He added that, the most marked difference occurs on spatial and mechanical tests, and wonders if such ability might be attributed to the cultural influences on our civilization, which encourages boys to develop physical, constructional and mechanical interests. He concluded that, many surveys demonstrate that the range or spread of ability is slightly more restricted in girls.

Also Adigun, Adiel and Antony (2012) carry out study on the effects of Heuristic Teaching Approach on students' achievement in Biology based on gender. The study found that Heuristics Teaching Approach facilitated students' achievements in biology regardless of gender.

The third finding also revealed the effect of school-type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. There was no significant effect of school-type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. This implies that school-type had no significant effect on pupils' academic performance in social studies, attending either public school or private school

do not influence academic performance of pupils'. The findings collaborated the findings of Yusuf and Adigun (2010) who examined the influence of school type, sex and location on students' academic performance in Ekiti State secondary schools. Based on their findings, it was also revealed that school type, had no significance effect on students' academic performance. Also, Alimi, Ehinola and Alabi (2012) who investigated the influence of school type and facilities on students' academic performance in Ondo State. They revealed a no significant difference in the academic performance of students in the two types of school.

Contrary to the findings of the study, Newhouse and Beegle (2005) evaluated the impact of school type on the academic achievement of junior secondary school students (grades 7-9) Using data from Indonesia. The primary data source for the study was the three full rounds of the Indonesia Family Life Survey. The result revealed that students that attended public junior secondary schools, controlling for other characteristics, have higher test scores upon completion than those who attended private school. The findings negated the finding of Okon and Archibong (2015) who examined the difference in the academic achievement of students in both private and public secondary schools in Akwa Ibom State. The findings revealed that students in private secondary schools performed better than those in public schools.

The forth finding also revealed the interaction effect of Numbered-Head-together and Heuristic methods and gender on pupils' academic performance in social studies Ilorin East Local Government Area of Kwara State. There was no significant interaction effect of Numbered-

Head-together and Heuristic methods and gender on pupils' academic performance in social studies. This implies that Numbered-Head-together and Heuristic methods and gender had no significant effect on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. This shown that, be it female or male doesn't influence their performance based on Numbered-Head-together and Heuristic methods.

The fifth finding disclosed the interaction effect of Numbered-Head-together and Heuristic methods and school-type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. There was no significant interaction effect of Numbered-Head-together and Heuristic methods and school type on pupils' academic performance in social studies. This implies that Numbered-Head-together and Heuristic methods and school-type had no significant effect on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. This finding implies that the school type, (public and private schools) do not influence academic performance of the pupils' based on Numbered-Head-together and Heuristic methods

The sixth finding divulges the interaction effect of gender and school-type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. There was no significant interaction effect of gender and school-type on pupils' academic performance in Social studies. This implies that gender and school-type had no significant effect on pupils' academic performance in Ilorin East Local Government Area of Kwara State.

The seventh finding brings to light the interaction effect of Numbered-Head-together and Heuristic methods, gender and school-type on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. There was no significant interaction effect of Numbered-Head-together and Heuristic methods, gender and school-type on pupils' academic performance in social studies. This implies that Numbered-Head-together and Heuristic methods, gender and school-type had no significant effect on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State.

Conclusion

The study investigated the effects of Numbered-Heads-together and Heuristic methods on pupils' academic performance in Social studies in Ilorin East Local Government Area of Kwara State. Based on the findings of the study, it can be explicitly stated that Numbered-Head-together and Heuristic methods can enhance better performance in Social studies than the traditional method of teaching and learning. But Numbered-Heads-together method is more effective than heuristic method.

Recommendations

In the light of this conclusion, the following recommendations were made:

1. Social studies teachers should be enlightened on the effectiveness of Numbered-Heads-together and Heuristic Methods on pupils' academic performance in Social studies.
2. Curriculum developer in Social studies like, Federal and State Ministries of Education,

school proprietors and Nigerian Educational Research and Development Council (NERDC) should incorporate Numbered-Heads-together and Heuristic Methods into the Social studies curriculum as one of the innovative strategies that would be used to teach Social studies especially in primary schools.

3. It is also essential that Colleges of Education and Universities (Faculties of Education) should be sensitized on their responsibility to train pre-service teachers on the use of Numbered-Heads-together and Heuristic Methods in learning. Similarly, practicing teachers should be encouraged to learn the use of Numbered-Heads-together and Heuristic Methods through seminars and workshops.
4. Pupils' academic performance should not be determined by the teachers, head teachers and proprietors/proprietress based on their gender and school type because, the two factors have been discovered not to be strong factors that hinder pupil's academic performance.

Implications of the Findings of the Study

The study examined the effects of Numbered-Heads-Together and Heuristic Methods on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State and reported a significant main effect of treatment on pupils' academic performance in social studies in Ilorin East Local Government Area of Kwara State. The implication of this, therefore, is that Numbered-Heads-Together and Heuristic Methods had signs of improvement on pupils'

academic performance in social studies. It then becomes necessary for Numbered-Heads-Together and Heuristic Methods to be given considerable attention in the teaching and learning processes, at all levels of education.

Limitation of the study

The study was limited to primary four and basic operation were: the relationship of some members of the family, culture, unity in cultural diversity and responsible parenthood also limited to primary schools and carried out in Ilorin East Local Government Area of Kwara State. If the investigation had a wide coverage such as all pupils in primary schools in both public and private schools in Kwara State, the findings would have had a more generalizable effect.

Suggestions for Further Studies

Further researchers could carry out the study to investigate the effects of Numbered-Heads-together and Heuristic Methods in Social studies contents. This can be stretch-out to other subject areas throughout the primary levels of education. This study can be replicated on different groups of pupils, preferably from other locations throughout the nation to ascertain whether the findings generated from the study is valid and generalizable to a larger or different context.

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18. Gonorrhoea and syphilis can be classified as an example of
- a. STDs b. HIV c. AIDS d. Malaria
19. To avoid AIDS the couple must be
- a. faithful b. untrustworthy c. intolerant d. unfaithful
20. Which of the following options can be identified as a way one can get infected with AIDS?
- a. handshake b. laughing with others c. blood transfusion
- d. working with an infected person

ANSWER GUIDE

1. B related by blood
2. A parent
3. A smallest family units
4. D obeying them
5. C stepchild
6. C culture
7. D Sleeping
8. A Yoruba
9. C 3
10. D respect
11. A with respect
12. B Hausa, Igbo and Yoruba
13. D elements
14. B multi-lingual culture
15. C diversity
16. C marriage
17. D antenatal
18. A STDs
19. A faithful
20. C blood transfusion

Instructional Guide for Numbered-Heads-Together Method (IGNM)

Lesson 1

Subject: Social Studies

Date:

Class: Primary Four

The relationship of some members of the family

Average age of the pupils: 8 years

Duration: 40 minutes

Strategy: Number Heads Together

Behavioral Objectives: by the end of the lesson pupils should be able to think and

- 1) identify members of the nuclear and extended family
- 2) explain how members of extended family are related to one another
- 3) draw a family tree
- 4) name the benefit of a good relationship
- 5) mention the responsibilities of a child and of the family

Instruction materials: A charts showing pictures of nuclear family, extended family and a family Tree.

Reference Materials: Basic Social Studies for primary schools Book 4

STAGES	Teachers' Activities	Pupils' Activities	Duration	Remark
Introduction	Teacher introduces the lesson to pupils by asking them to identify both the nuclear family and the extended family and also interpret the family tree	Pupils were able to identify them correctly	3min.	Pupils were able to provide answers to the questions satisfactorily
Presentation-Step I	<ol style="list-style-type: none"> 1. Teacher divides the pupils' into groups of 3-4 pupils. Gives a number to each pupil in the group, group form by combination of different social background, race ethnicity, gender and learning ability. 2. The teacher gives each group the questions based on the behavioral objectives 3. The teacher allows the pupils to put HEAD TOGETHER and discuss each sub-topics and make sure that every member of the group knows the questions 4. The teacher will ask class that the pupils that know the answer should raise hand and allow the pupil to answer after them he will ask the class if 	pupils accept and tolerate themselves	3min.	

	the answer is correct, and ask them to elaborate the answer 5. The teacher will feed the class back by telling them the correct answer.			
Step II	Teacher presents her lesson by giving books for each pupil in a group to allow them reason together and identify and name members of nuclear family and extended family	Pupils listen to their teacher's explanation and ask questions	3 min.	
Step III	Teacher allows each group to discuss about how members of the extended family are related to one another	Pupils will be discussing about how member of the extended family are related to one another	7min.	
Step IV	Teacher asks pupils to discuss the benefits of a good relationship between family members from at length in each group.	Pupils also note the it for discussion	8min.	
Step V	Teacher asks the pupils to look at their book and mention ten members of an extended family	Pupils attempt the questions individually in the group	4min.	
Step VI		Pupils explain their ideas and answers to one and other in the group.	3min	
Step VII		Representative of each groups come out one after the other to explain their ideas and answers to the class.	3min	
Clarification	Teacher clarifies the concept through supervision and guiding during when	Pupils also listen to their teacher and	3min.	

	pupils are writing the notes into their note-books	ask questions for more clarification and understanding of what they are writing		
Evaluation	Teacher asks each groups to think and answer one question each from the following: <ol style="list-style-type: none"> 1. Mention three things children do for their parents at home. 2. Mention three responsibilities of parents to their children and wards 3. Mention three benefits and importance of family relationship 	Pupils respond to the questions based on what they have learnt in the class in a group	5min.	Pupils provide answer to the questions correctly
Summary	Teacher summaries the whole lesson by re-explaining the major parts of it for better understanding and asks pupils who missed it to write the correction	Pupils write it into their exercise books	3min	
Assignment	Teacher assign the pupils with the following questions: What is the culture Identify element of the culture	Pupils also write the questions into their note-books	3min.	

Instructional Guide for Numbered-Heads-Together Method (IGNM)

Lesson 2

Subject: Social Studies

Date:

Class: Primary Four

Topic: Culture

Average age of the Pupils: 8 years

Duration: 40 minutes

Strategy: Number Heads Together

Behavioral Objectives: by the end of the lesson pupils should be able to think and;

- 1) give the meaning of culture
- 2) identify at least five elements of culture
- 3) explain at least five reasons why different people practice different cultures
- 4) mention at least three areas of similarities in our culture s
- 5) mention the aspects of culture to be preserved and discarded

Instruction material: Charts showing people putting on different attires to represent their Cultures.

Reference Materials: Basic Social Studies for primary schools Book 4

STAGES	Teachers' Activities	Pupils' Activities	Duration	Remark
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Introduction	Teacher introduces the lesson to pupils by asking them to identify the culture of people that is on the chart placed on the chalk-board	Pupils were able to identify them correctly	5 min.	Pupils were able to provide answers to the questions satisfactorily
Presentation-Step I	<ol style="list-style-type: none"> 1. Teacher divides the pupils' into groups of 3-4 pupils. Gives a number to each pupil in the group, group form by combination of different social background, race ethnicity, gender and learning ability. 2. The teacher gives each group the questions based on the behavioral objectives 3. The teacher allows the pupils to put HEAD TOGETHER and discuss each sub-topics and make sure that every member of the group knows the questions 4. The teacher will ask class that the pupils that know the answer should raise hand and allow the pupil to answer after them he will ask the class if the answer is correct, and ask them to elaborate the answer 5. The teacher will feed the class back by telling them the correct answer. 	pupils accept and tolerate themselves	3 min.	
Step II	Teacher presents the book for each pupil in a group and page they can get meaning of culture, identification of some examples of the elements of culture	Pupils commence the discussion in each group	7 min.	
Step III	Teacher asks pupils to study the area of similarities in our cultures	Pupils listen to their teacher's explanation and ask questions and then continues with discussion	10min.	

Step IV	Teacher asks the pupils to look at the book and explain some reasons why different people practice different cultures	Pupils attempt the questions individually in the group	5min.	
Step V		Pupils explain their ideas and answers on the question to one and other in the group.	3min.	
Step VI		Representative of each groups come out one after the other to explain their ideas and answers to the class.	3min.	
Clarification	Teacher clarifies the concept through supervision and guiding during when pupils are writing the content into their note-books	Pupils also listen to their teacher and ask questions for more clarification and understanding of what they are writing	3min.	
Evaluation	Teacher asks each groups to think and answer one question each from the following: 1. Mention at least five aspect of our culture to be preserved. 2. Mention at least five aspect of culture to be discarded. 3. Identify at least five reasons why different people practice different culture	Pupils respond to the questions based on what they have learnt in the class in a group	5 min.	Pupils provide answer to the questions correctly
Summary	Teacher summaries the whole lesson by re-explaining the major parts of it and asks pupils who missed it to write the correction	Pupils write it into their exercise books	2min.	
Assignment	Teacher assign the pupils with the following questions: 1. Write four types of food people eat in (a) Yoruba (b) Igbo (c) Hausa	Pupils also write the questions into their note-books	3min.	

Instructional Guide for Numbered-Heads-Together Method (IGNM)

Lesson 3

Subject: Social Studies

Date:

Class: Primary Four

Topics: Unity in cultural diversity

Average age of the pupils: 8 years

Duration: 40 minutes

Strategy: Number Heads Together

Behavioral Objectives: by the end of the lesson pupils should be able to think and:

- 1) explain the concept of culture, diversity and unity.
- 2) explain in simple terms what unit in cultural diversity means.
- 3) Give examples of different ways of promoting unity in cultural diversity.

Instruction materials: charts showing; different modes of dressing in Nigeria's minority groups: Efik, Edo, Epira and Fulani, Various ethnic groups in Nigeria, differences in customs and traditions.

Reference Materials: Basic Social Studies for primary schools Book 4

STAGES	Teachers' Activities	Pupils' Activities	Duration	Remark
Introduction	Teacher introduces the lesson to pupils by asking them to identify the ethnic group of each pictures on the chart placed on the chalk-board belongs to.	Pupils were able to identify them correctly.	5 min.	Pupils were able to provide answers to the question satisfactorily
Presentation-Step I	<ol style="list-style-type: none"> 1. Teacher divides the pupils' into groups of 3-4 pupils. Gives a number to each pupil in the group, group form by combination of different social background, race ethnicity, gender and learning ability. 2. The teacher gives each group the questions based on the behavioral objectives 3. The teacher allows the pupils to put HEAD TOGETHER and discuss each sub-topics and make sure that every member of the group knows the questions 4. The teacher will ask class that the pupils that know the answer should raise hand and allow the pupil to answer after them he will ask the class if the answer is correct, and ask them to elaborate the answer 5. The teacher will feed the class back by telling them the correct answer. 	pupils accept and tolerate themselves	3 min.	
Step II	Teacher asks the pupils to read and discuss the following Culture, diversity and unity	Pupils watch and listen to their teacher	5 min.	
Step III	Teacher gives books to pupils and tell them page number of each area to discuss	Pupils listen attentively to their teacher's explanation	3min.	

		and asks questions		
Step IV	Teacher asks the pupils to think and mention at least three ethnic group in Nigeria and the language they speak	Pupils attempt the questions individually in the group and firstly discuss each area and give different ideas	5min.	
Step V		Pupils explain their ideas on how they arrive at answer to one and other in the group.	3min.	
Step VI		Representative of each groups come out one after the other to explain their ideas and answers to the class.	3min.	
Clarification	Teacher clarifies the concept through supervision and guiding during when pupils are writing the concept into their note-books	Pupils also listen to their teacher and ask questions for more clarification and understanding of what they are writing	3min.	
Evaluation	Teacher asks each groups to think and answer each question from the following: 1. Mention three differences in customs and traditions. 2. Mention three similarities in customs and tradition 3. Give three different ways of promoting unity in cultural diversity in our community.	Pupils respond to the questions based on what they have learnt in the class in a group	5 min.	Pupils provide answer to the questions correctly
Summary	Teacher summaries the whole lesson by re-explaining the major parts of it and asks pupils who missed it to write the correction	Pupils write it into their exercise books	2min.	
Assignment	Teacher assign the pupils with the following questions: 1. How do you treat (relate to) people who do not speak your language in the community? Give at least 5 points. 2. Mention the type of cloth, music and food that are common in your ethnic group	Pupils also write the questions in their note-books	3min.	

Instructional Guide for Numbered-Heads-Together Method (IGNM)

Lesson 4

Subject: Social Studies

Date:

Class: Primary Four

Topics: Responsible parenthood

Average age of the Pupils: 8 years

Duration: 40 minutes

Strategy: Numbered Heads Together

Behavioral Objectives: At the end of the lesson, pupils should be able to think and:

- 1) list various characteristics of responsible parenthood
- 2) mention some of the problems of irresponsible parenthood
- 3) identify values that can be developed to avoid irresponsible parenthood
- 4) mention sources of HIV infection and the effects of STDs and HIV/AIDS on the family.

Instructional materials: Charts showing a nurse advising expectant mothers; a nurse immunising a baby and an AIDS patient

Reference Materials: Basic Social studies for primary schools Book 4

STAGES	Teachers' Activities	Pupils' Activities	Duration	Remark
Introduction	Teacher introduces the lesson to the pupils by asking them to identify each roles played by the pictures on the chart	Pupils respond to their teacher's questions positively based on what they see on the chart	5 min.	Pupils were able to provide answers to the questions satisfactorily
Presentation-Step I	<ol style="list-style-type: none"> 1. Teacher divides the pupils' into groups of 3-4 pupils. Gives a number to each pupil in the group, group form by combination of different social background, race ethnicity, gender and learning ability. 2. The teacher gives each group the questions based on the behavioral objectives 3. The teacher allows the pupils to put HEAD TOGETHER and discuss each sub-topics and make sure that every member of the group knows the 	pupils accept and tolerate themselves	3 min.	

	<p>questions</p> <p>4. The teacher will ask class that the pupils that know the answer should raise hand and allow the pupil to answer after them he will ask the class if the answer is correct, and ask them to elaborate the answer</p> <p>5. The teacher will feed the class back by telling them the correct answer.</p>			
Step II	Teacher presents the book to the Pupils and mention areas to be disc used	Pupils watch, listen to their teacher starts the discussion immediately	4 min.	
Step III		Pupils listen to their teacher's explanation and ask questions, each pupils will be eager to answer the question after they are all discuss the topics	6min.	
Step IV	Teacher asks the pupils to respond to some of the question	Pupils attempt the questions individually in the group	5min.	
Step V		Pupils explain their ideas on how they arrive at answer to one and other in the group.	3min.	
Step VI		Representative of each groups come out one after the other to explain their ideas and answers to the class.	6min.	
Clarification	Teacher clarifies the concept through supervision and guiding during when pupils are writing the notes into their note-books	Pupils also listen to their teacher and ask questions for more clarification and understanding of what they are writing	3min.	
Evaluation	<p>Teacher evaluates her lesson by asking the pupils to think and answer the following question:</p> <ol style="list-style-type: none"> 1. Write four ways HIV can be contracted. 2. Mention 2 types of STDs 3. What is the best way to prevent HIV/AIDS? 	Pupils respond to the questions based on what they have learnt in the group	5 min.	Pupils provide answer to the questions correctly
Summary	Teacher summaries the whole	Pupils write it into their	2min.	

	lesson by re-explaining the major parts of it and asks pupils who missed it to write the correction	exercise books		
Assignment	Teacher assign the pupils with the following question : Write four ways of preventing HIV/AIDs infection and explain each of them in your exercise book.	Pupils also write the questions into their note-books	3 min.	

Instructional Guide for Heuristic Method (IGHM)

Lesson 1

Subject: Social Studies

Date:

Class: Primary Four

Topic: The relationship of some members of the family

Average age of the Pupils: 8 years

Duration: 40 minutes

Strategy: Heuristic

Behavioral Objectives: by the end of the lesson pupils should be able to:

- 1) identify members of the nuclear and extended family
- 2) explain how members of extended family are related to one another
- 3) draw a family tree
- 4) name the benefit of a good relationship
- 5) mention the responsibilities of a child and of the family

Instruction materials: A charts and book showing a family tree

Reference Materials: Learn Africa Basic Social Studies Book 4

STAGES	Teachers' Activities	Pupils' Activities	Duration	Remark
Introduction	Teacher introduces the lesson to the pupils by asking them to identify some of the pictures of the types of natural disasters on the chart placed on the chalk-board	Pupils were able to identify it all correctly	3 min.	Pupils were able to provide answers to the questions satisfactorily
Presentation-Step I	Teacher groups the pupils into groups and also provide the books materials that will allow them to discover and identify the following; identify members of the nuclear and extended family, explain how members of extended family are related to one another, draw a family tree, name the benefit of a good relationship and mention the responsibilities of a child and of the family. The pupils will proffer different solution to the problem, select and implement solution to the problem by exploring available materials and evaluate the solution.	pupils accept, tolerate themselves and starts the discussion	8 min.	

Step II	Teacher present her lesson by giving the groups guide and materials.	Pupils watch and listen to their teacher taking each of the topic into discussion	4 min.	
Step III		Pupils' work individually in the group by learning their topics and later presents their work one after the other to their groups.	5min.	
Step IV		Pupils will be busy and sharing ideas on the correct answer to the topics.	5min.	
Step V		Members of the group share their ideas with one another and ensures that they all comprehend the topic.	6min.	
Step VI		Pupils will know details of the topics	4min.	
Clarification	Teacher clarifies the work through supervision and guiding during when pupils are presenting to each other in the group	Pupils peer teach themselves in the group.	2min.	
Evaluation	Teacher evaluates the lesson by assigning one of the home group to present their work to the whole class.	The group presents their work to the whole class	5 min.	The group did well in their presentation.
Summary	Teacher summaries the whole lesson by re-explaining the major parts of the work and asks pupils who missed it to write the correction	Pupils write it into their exercise books	3min.	
Assignment	Teacher gives the pupils the following assignment: 1. Draw a family tree.	Pupils copy the assignment into their note-books	2min.	

Instructional Guide for Heuristic Method (IGHM)

Lesson 2

Subject: Social Studies

Date:

Class: Primary Four

Topics: Culture

Average age of the pupils: 8 years

Duration: 40 minutes

Strategy: Heuristic Approach

Behavioral Objectives: by the end of the lesson pupils should be able to:

- 1) give the meaning of culture
- 2) identify at least five elements of culture
- 3) explain at least five reasons why different people practice different cultures
- 4) mention at least three areas of similarities in our cultures
- 5) mention the aspects of culture to be preserved and discarded

Instruction material: Charts showing people putting on their different attires to represent their Cultures.

Reference Materials: Learn Africa Basic Social Studies Book 5

STAGES	Teachers' Activities	Pupils' Activities	Duration	Remark
Introduction	Teacher introduces the lesson to pupils by asking them to identify the culture of people that is on the chart placed on the chalk-board	Pupils were able to identify them correctly	3min.	Pupils were able to provide answers to the questions satisfactorily
Presentation-Step I	Teacher groups the pupils into groups and also provide the books materials that will allow them to discover and identify the following; identify members of the nuclear and extended family, explain how members of extended family are related to one another, draw a family tree, name the benefit of a good relationship and mention the responsibilities of a child and of the family. The pupils will proffer different solution to the	pupils accept and tolerate themselves	3 min.	

	problem, select and implement solution to the problem by exploring available materials and evaluate the solution.			
Step II	Teacher presents the pupils the book and materials they needed to understand the topics based on the following; 1. Identify the element of culture 2. Mention areas of similarities in our culture 3. Mention an aspect of our culture to be preserved and the aspect to be discarded.	Pupils watch, listen to their teacher and start the discussion immediately	3 min.	
Step III		Pupils work individually in the group by learning their topics and later presents their work one after the other to their groups.	5min.	
Step IV		Pupils will be responding to the topics positively because they have talked about each topic	5min.	
Step V		Members of the group share their ideas with one another and ensures that they all comprehend the topic.	5min.	
Step VI		Pupils almost master the topics and they are still deliberate on the topics	3min.	
Clarification	Teacher clarifies the work through supervision and guiding during when pupils are presenting to each other in the group	Pupils peer teach themselves in the group.	2min.	
Evaluation	Teacher evaluates the lesson by assigning one of the home group to present their work to the whole class.	The group presents their work to the whole class	5 min.	The group did well in their presentation.
Summary	Teacher summaries the whole lesson by re-	Pupils listen to the teacher explanation and write it into	3min.	

	explaining the major parts of the work and asks pupils who missed it to write the correction	their exercise books		
Assignment	Teacher assign the pupils with the following questions: 2. Write four types of food people eat in (a) Yoruba (b) Igbo (c) Hausa	Pupils copy the assignment into their note-books	3min.	

Instructional Guide for Heuristic Method (IGHM)

Lesson 3

Subject: Social Studies

Date:

Class: Primary Four

Topics: Unity in cultural diversity

Average age of the pupils: 8 years

Duration: 40 minutes

Strategy: Heuristic Approach

Behavioral Objectives: By the end of the lesson pupils should be able to:

- 1) explain the concept of culture, diversity and unity.
- 2) explain in simple terms what unity in cultural diversity means.
- 3) Give examples of different ways of promoting unity in cultural diversity.

Instruction materials: Charts showing; different modes of dressing in Nigeria's minority groups: Efik, Edo, Ebiraland and Fulani, Various ethnic groups in Nigeria, differences in customs and traditions.

Reference Materials: Learn African Basic Social Studies Book 4

STAGES	Teachers' Activities	Pupils' Activities	Duration	Remark
Introduction	Teacher introduces the lesson to pupils by asking them to identify the ethnic group which each pictures on the chart belongs to.	Pupils were able to identify them correctly.	3 min.	Pupils were able to provide answers to the questions satisfactorily
Presentation-Step I	Teacher groups the pupils into groups and also provide the books materials that will allow them to discover and identify the following; identify members of the nuclear and extended family, explain how members of extended family are related to one another, draw a family tree, name the benefit of a good relationship and	pupils accept and tolerate themselves	5 min.	

	mention the responsibilities of a child and of the family. The pupils will proffer different solution to the problem, select and implement solution to the problem by exploring available materials and evaluate the solution.			
Step II	Teacher presents the pupils the book and materials they needed to understand the topics based on the following; <ol style="list-style-type: none"> 1. Explain the word: culture, diversity and unity 2. Explain what unity in cultural diversity means 3. Mention the different ways of promoting unity in cultural diversity in our community 	Pupils watch, listen to their teacher and start the discussion immediately	5 min.	
Step III		Pupils work individually in the group by learning their topics and later presents their work one after the other to their groups.	5 min.	
Step IV		Pupils share ideas among themselves and conclude on the possible answer to the questions	5 min.	
Step V		Members of the group share their ideas with one another and ensures that they all comprehend the topic.	5 min.	
Step VI		Pupils reached compromised on the answers to the questions	4 min.	
Clarification	Teacher clarifies the work through supervision and guiding during when pupils are presenting to each other in the group	Pupils peer teach themselves in the group.	2 min.	
Evaluation	Teacher evaluates the lesson by assigning one of the home group to present their work to the whole class.	The group presents their work to the whole class	5 min.	
Summary	Teacher summaries the whole lesson by re-explaining the major parts of the work and asks pupils	Pupils listen to teacher's explanations and write the correction in their notes-	3 min.	

	who missed it to write the correction	books		
Assignment	<p>Teacher gives the pupils the following assignment:</p> <ol style="list-style-type: none"> 1. How do you treat (relate to) people who do not speak your language in the community? Give at least 5 points. 2. Mention the type of cloth, music and food that are common in your ethnic group 	Pupils copy the assignment into their note-books	3 min.	

Instructional Guide for Heuristic Method (IGHM)

Lesson 4

Subject: Social studies

Date:

Class: Primary Four

Topics: Responsible Parenthood

Average age of the Pupils: 8 years

Duration: 40 minutes

Strategy: Heuristic Approach

Behavioral Objectives: at the end of the lesson, pupils should be able to:

- 1) list various characteristics of responsible parenthood
- 2) mention some of the problems of irresponsible parenthood
- 3) identify values that can be developed to avoid irresponsible parenthood
- 4) mention sources of HIV infection and the effects of STDs and HIV/AIDS on the family.

Instructional materials: Charts showing a nurse advising expectant mothers; a nurse immunising a baby and an AIDS patient

Reference Materials: Learn Africa Basic Social studies Book 4

STAGES	Teachers' Activities	Pupils' Activities	Duration	Remark
Introduction	Teacher introduces the lesson to the pupils by asking them to identify each roles played by the pictures on the chart	Pupils respond to their teacher's questions positively based on their experience	3 min	Pupils were able to provide answers to the questions satisfactorily
Presentation Step I	Teacher groups the pupils into groups and guide them in the activities	pupils accept and tolerate themselves	3 min	

Step II	<p>Teacher presents the pupils the book and materials they needed to understand the topics based on the following;</p> <ol style="list-style-type: none"> 1. List various characteristics of responsible parenthood 2. Mention some of the problems of irresponsible parenthood 3. Identify values that can be developed to avoid irresponsible parenthood 	Pupils watch, listen to their teacher and start the discussion immediately	3 min	
Step III		Pupils work individually in the group by learning their topics and later presents their work one after the other to their groups.	5 min	
Step IV		Pupils share ideas among themselves and conclude on the possible answer to the questions	5min	
Step V		Members of the group share their ideas with one another and ensures that they all comprehend the topic.	5min	
Step VI		Pupils reached compromised on the answers to the questions.	3min	
Clarification	Teacher clarifies the work through supervision and guiding during when pupils are presenting to each other in the group	Pupils peer teach themselves in the group.	2min	
Evaluation	Teacher evaluates the lesson by assigning one of the home group to present their work to the whole class.	The group presents their work to the whole class	5min	
Summary	Teacher summaries the whole lesson by re-explaining the major parts of the work and asks pupils who missed it to write the correction	Pupils listen to teacher's explanations and write the correction in their notes-books	3min	
Assignment	<p>Teacher gives the pupils the following assignment:</p> <ol style="list-style-type: none"> 1. Write four ways HIV can be contracted. 2. Mention 2 types of STDs 	Pupils copy the assignment into their note-books	3min	

	3. What is the best way to prevent HIV/AIDS?			
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Instructional Guide for Conventional Method (IGCM)

Lesson 1

Subject: Social studies

Date:

Class: Primary Four

Topic: The relationship of some members of the family

Average age of the Pupils: 8years

Duration: 40 minutes

Strategy: Conventional method

Behavioral Objectives: By the end of the lesson pupils should be able to:

- 1) identify members of the nuclear and extended family
- 2) explain how members of extended family are related to one another
- 3) draw a family tree
- 4) name the benefit of a good relationship
- 5) mention the responsibilities of a child and of the family

Instruction materials: A charts showing a family tree

Reference Materials: Basic Social studies for primary schools Book 4

Stages	Teachers' activities	Pupils' activities	Duration	Remarks
Introduction	Teacher introduces the lesson to the pupils by asking them to differentiate between nuclear and extended family	Pupils respond to their teacher's questions positively based on their experience	5min	Pupils were able to provide answers to the questions satisfactorily
Presentation Step I	Teacher presents her lesson to pupils by explaining how members of extended family are related to one another	Pupils watch and listen to their teacher	5min	
Step II	Teacher explains the benefits of a good relationship and the responsibility of a child and that of parent on the chalk-board with pertinent illustration for better understanding of the topic and asks them to write in their note-books	Pupils listen to their teacher's explanation and ask questions	7min	
Step III	Teacher draw a family tree on the chalk-board for the pupils for better understanding of the topic and asks them to draw it in their note-books	Pupils watch and listen to their teacher as she draws the family tree and later draw it in their notes-books	5min	
Clarification	She clarifies the concept	Pupils also listen to their	55min	

	through supervision and guiding during when pupils are writing the concept into their note-books	teacher and ask questions for more clarification and understanding of what they are writing		
Evaluation	He evaluates his lesson by asking the pupils to answer the following questions: 1. Mention 2 effects of natural disasters. 2. State two ways of caring for victims of natural disasters. 3. How can natural disasters be controlled? Mention 2 ways.	Pupils respond to the questions based on what they have learnt in the class	5min	Pupils provide answer to the questions correctly
Summary	She summaries the whole lesson by re-explaining the major parts of it for better understanding and asks pupils who missed it to write the correction	Pupils write it into their exercise books	5min	
Assignment	The teacher assign the pupils with the following question; Draw a family tree	Pupils also write the questions into their note-books	3min	

Instructional Guide for Conventional Method (IGCM)

Lesson 2

Subject: Social studies

Date:

Class: Primary Four

Topic: Cultural

Average age of the Pupils: 8 years

Duration: 40 minutes

Strategy: Conventional method

Behavioral Objectives: By the end of the lesson pupils should be able to:

- 1) give the meaning of culture
- 2) identify at least five elements of culture
- 3) explain at least five reasons why different people practice different cultures
- 4) mention at least three areas of similarities in our culture s
- 5) mention the aspects of culture to be preserved and discarded

Instruction material: Charts showing people putting on their different attires to represent their Cultures.

Reference Materials: Basic Social studies for primary schools Book 4

Stages	Teacher's activities	Pupil's activities	Duration	Remarks
Introduction	Teacher introduces the lesson to pupils by asking them to identify the culture of people that is on the chart placed on the chalk-board	Pupils were able to identify them correctly	5minutes	Pupils were able to provide answers to the questions satisfactorily
Presentation Step I	Teacher presents her lesson by giving the meaning of culture and identify some examples of the elements of culture to the pupils	Pupils watch and listen to their teacher	5minutes	
Step II	Teacher writes and explains reasons why different people practice different cultures and area of similarities in our culture on the chalk-board	Pupils listen attentively to their teacher and ask questions	4minutes	
Step III	Teacher mention aspect of our culture to be preserved and the ones to be discarded		4minutes	
Step IV	She explains all the given notes on the chalk-board to the pupils with pertinent illustration for better understanding of the topic and asks them to write in their note-books	Pupils listen to their teacher's explanation and copy the notes in their notes-books	7minutes	
Clarification	She clarifies the concept through supervision and guiding during when pupils are writing the notes on the chalk- board into their note-books	Pupils also listen to their teacher and ask questions for more clarification and understanding of what they are writing	5minutes	
Evaluation	She evaluates her lesson by asking the pupils to answer the following questions: 1. Mention three aspect of our culture to be preserved. 2. Mention three aspect of culture to be discarded. 3. Identify at least five reasons why different people practice different culture	Pupils respond to the questions based on what they have learnt in the class	5minutes	Pupils provide answer to the questions correctly
Summary	She summaries the whole lesson by re-explaining the major parts of it and asks pupils who missed it to write the correction	Pupils write it into their exercise books	2minutes	
Assignment	Teacher assign the pupils with the following questions:	Pupils also write the questions into their	3minutes	

	3. Write four types of food people eat in (a) Yoruba (b) Igbo (c) Hausa	note-books		
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Instructional Guide for Conventional Method (IGCM)

Lesson 3

Subject: Social studies

Date:

Class: Primary Four

Topic: Unity in cultural diversity

Average age of the Pupils: 8 years

Duration: 40 minutes

Strategy: Conventional method

Behavioral Objective: By the end of the lesson pupils should be able to:

- 1) explain the concept of culture, diversity and unity.
- 2) explain in simple terms what unit in cultural diversity means.
- 3) give examples of different ways of promoting unity in cultural diversity

Instruction materials: charts showing; different modes of dressing in Nigeria's minority groups: Efik, Edo, Ebiraland and Fulani, Various ethnic groups in Nigeria, differences in customs and traditions.

Reference Materials: Basic Social studies for primary schools Book 4

Stages	Teachers' activities	Pupils' activities	Duration	Remarks
Introduction	Teacher introduces the lesson to pupils by asking them to identify the ethnic group which each pictures on the chart belongs to.	Pupils were able to identify them correctly.	3 min.	Pupils were able to provide answers to the questions satisfactorily
Presentation Step I	She presents her lesson to the Pupils by writing and explaining the following on the chalk-board; Concept of culture, diversity and unity	Pupils watch and listen to their teacher	5 min	
Step II	She explains in simple terms what unity in cultural diversity means and gives examples of different ways of promoting unity in cultural diversity in our community	Pupils listen attentively to their teacher's explanation and ask questions	7min	
Step III	She explains all the given notes on the chalk-board to the pupils with pertinent illustration for better understanding of the topic and asks them to write in their	Pupils listen attentively and copy the notes in their notes-books	7 min	

	note-books			
Clarification	She clarifies the concept through supervision and guiding during when pupils are writing the notes on the chalk-board into their note-books	Pupils also listen to their teacher and ask questions for more clarification and understanding of what they are writing	5 min	
Evaluation	Teacher asks each groups to think and answer each question from the following: 1. Mention three differences in customs and traditions. 2. Mention three similarities in customs and tradition 3. Give three different ways of promoting unity in cultural diversity in our community.	Pupils respond to the questions based on what they have learnt in the class in a group	5 min	Pupils provide answer to the questions correctly
Summary	She summaries the whole lesson by re-explaining the major parts of it and asks pupils who missed it to write the correction	Pupils write it into their exercise books	3minutes	
Assignment	Teacher assign the pupils with the following questions: 3. How do you treat (relate to) people who do not speak your language in the community? Give at least 5 points. 4. Mention the type of cloth, music and food that are common in your ethnic group	Pupils also write the questions in their note-books	3min.	

Instructional Guide for Conventional Method (IGCM)

Lesson 4

Subject: Social studies

Date:

Class: Primary Four

Topics: Responsible parenthood

Average age of the Pupils: 8 years

Duration: 40 minutes

Strategy: Conventional method

Behavioral Objective: By the end of the lesson, pupils should be able to:

- 1) list various characteristics of responsible parenthood
- 2) mention some of the problems of irresponsible parenthood
- 3) identify values that can be developed to avoid irresponsible parenthood
- 4) mention sources of HIV infection and the effects of STDs and HIV/AIDS on the family.

Instructional materials: Charts showing a nurse advising expectant mothers; a nurse immunising a baby and an AIDS patient.

Reference Materials: Basic Social studies for primary schools Book 5

Stages	Teachers' activities	Pupils' activities	Duration	Remarks
Introduction	Teacher introduces the lesson to the pupils by asking them to identify each roles played by the pictures on the chart	Pupils respond to their teacher's questions positively based on what they see on the chart	5min	Pupils were able to provide answers to the questions satisfactorily
Presentation Step I	Teacher presents her lesson to the Pupils by writing the characteristics of responsible parenthood on the chalk-board	Pupils watch and listen to their teacher	4min	
Step II	Teacher mention some of the problems of irresponsible parenthood and identify values that can be developed to avoid it on the chalk-board	Pupils listen attentively to teachers explanation	7min	
Step III	Teacher writes and explain the sources of HIV infection and its effects on the chalk-board for the pupils with pertinent illustration for better understanding of the topic and asks them to write in their note-books	Pupils listen to their teacher's explanation and ask questions	7min	
Clarification	She clarifies the concept through supervision and guiding during when pupils are writing the notes into their note-books	Pupils also listen to their teacher and ask questions for more clarification and understanding of what they are writing	3min	
Evaluation	Teacher evaluates her lesson by asking the pupils to answer the following question: 1. Write four ways HIV can be contracted.	Pupils respond to the questions based on what they have learnt in	5min	Pupils provide answer to the questions correctly

		the class		
Summary	Teacher summaries the whole lesson by re-explaining the major parts of it and asks pupils who missed it to write the correction	Pupils write it into their exercise books	5min	
Assignment	Teacher assign the pupils with the following questions; 2. Mention 2 types of STDs 3. What is the best way to prevent HIV/AIDS?	Pupils also write the questions into their note-books	3min	

CONSENT FORM

AUTHORIZATION FOR MY CHILD/WARD TO SERVE AS A PARTICIPANT IN RESEARCH

I authorize the service of my child/ward named..... as a participant in the research investigation titled: **EFFECTS OF NUMBERED-HEADS-TOGETHER AND HEURISTIC METHODS ON PUPILS ACADEMIC PERFORMANCE IN SOCIAL STUDIES IN ILORIN EAST LOCAL GOVERNMENT AREA OF KWARA STATE.**

The nature and general purpose of the research procedure have been explained to me I understand that

(Child name) will be given pre-service explanation of the research and that he/she may decline to serve. Further, I understand that he/she may terminate his/her service in this research at any time he/she desires.

Signed

Date

(parent/guardian)

CORRELATIONS

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/VARIABLES=TEST RETEST
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

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Correlations

		TEST	RETEST
TEST	Pearson Correlation	1	.840**
	Sig. (2-tailed)		.000
	N	25	25
RETEST	Pearson Correlation	.840**	1
	Sig. (2-tailed)	.000	
	N	25	25

** . Correlation is significant at the 0.01 level (2-tailed).

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