



Pragmatic Approach to Use of Mastery Learning Model in Implementation of Social Studies Curriculum for Achievement of Sustainable Development Goal-4 in Nomadic Schools in Maiadua, Katsina State, Nigeria

TORPEV TERVER FRANCIS

Federal University, Dutsinma, Katsina State, Nigeria

Abstract. Acquisition of quality education for all is one of the basic concerns of societies in the world. This desire is anchored on universal protocol agreement contained in sustainable development goal four (quality education for all). The paper is therefore an attempt to investigate pragmatic approach to use of mastery learning model in implementation of social studies curriculum for achievement of sustainable development goal-4 in nomadic schools in maiadua, katsina state, Nigeria. A descriptive research design involving pre-test and post-test was used for the study. The population of the study was 78 headmasters in the 78 primary schools in the Local government area. Sample for the study was all the 78 headmasters who were purposively selected by virtue of their leadership positions in the schools. A Researcher designed questionnaire was used in data collection. The instrument was validated by two experts in test and measurement and one curriculum expert who were of the rank of senior lecturer and above. Reliability of the instrument was ensured by administering the instrument twice to 30 headmasters in Kurfi local government at interval of two weeks. The data collected was analysed using Pearson moment correlation coefficient. The coefficient of 0.67 was obtained which show that the instrument was reliable. Two objectives with corresponding research questions and hypotheses were raised and formulated respectively to guide the study. The research questions were answered using descriptive statistics: frequency count and percentage, while the hypotheses were tested using chi-square statistic at 0.05 level of significance. The findings of the study revealed that: headmasters' perception of mastery learning was positive as most of them responded positive to the items on the instrument, they had knowledge of mastery learning instructional model in implementation of Social studies curriculum in Nomadic schools in maiadua, Katsina State, Nigeria, they attempted to put to use knowledge of mastery learning in implementation of Social Studies

curriculum in Nomadic schools Katsina State, Nigeria, however they lacked the modern technique used in achievement of the instructional model. Based on the findings the following recommendations were made: deliberate effort should be made to improve the skills of teachers on the acquisition and use of mastery learning instructional strategy by ministry of education through organization of workshops and conferences for the teachers in basic schools. Mastery learning instructional strategy should be given prominence in teacher education programmes in higher tertiary institutions to enable the pre-service teachers acquire necessary knowledge and skill on the strategy and fresh graduates from Colleges of Education employed in nomadic schools should be sensitized on the benefits of mastery learning instructional strategy by school administrators using symposium and other available means to avoid attrition.

1. Introduction

Education is viewed as an effective instrument for the development of human society. Access to quality basic education is fundamental as it forms a foundation to all levels of education, which strive to achieve societal sustainable developmental goals. However, education provided to the culturally, economically and geographically disadvantaged people like Nomadic Fulanis who live in remote rural areas is more of access than quality (Mbayuav, 2022). It is worth mentioning here, that access to substandard or inadequate quality education that cannot meet global standards would hardly be of benefit to the beneficiaries as it may neither improve their living standard nor help them in addressing other pressing challenges. The former Secretary General of United Nations, Ban Ki Moon observed that Education should be the first priority of member states agenda for achievement of sustainable development goals, this can be realised by ensuring

that every child goes to school, receives quality education and imbibes values of global citizenship (UNAIDS, 2012; United Nations Press, 2013). He further opined that universal access to education is indeed crucial; ensuring that it is of high quality must also be a top priority to ensure young people have the skills needed to succeed and help their nations develop (United Nations News, 2013). Accordingly, education provided to the learners with aim of achieving sustainable goal (4) four which quality education for all should not only focus on access but its quality has to improve in order to prepare them to be productive citizens, ready to lead in the future. Bokova in United Nations News (2013) maintained that poor quality education has often reproduced and exacerbated social inequalities, even reinforcing discrimination, which has put social cohesion and stability in jeopardy.

In Nigeria, primary six schools, pupils particularly those from remote rural schools can hardly read, neither write simple passages nor calculate simple Mathematics (Ogbonna, 2016).

This portends danger to the entire society, as many of such learners who cannot measure up academically end up as school dropout and have become useful tools in the hands of criminals in the perpetuation of crimes. According to Prevatt and Kelly (2003); Lochner and Morentti, (2023) youth who drop out from school are at increased risk for displaying socio-emotional problems and engage in delinquent and criminal behaviours. These vices range from kidnapping, armed robbery, farmers-herders clashes to gruesome killing and destruction of lives and property. To address the challenges of nomads arising from inequality in education, the Federal Government of Nigeria established National Commission for Nomadic Education in the country. The goals of the commission among other ones are to integrate nomads into national life through relevant quality and basic functional education and also to raise both the production and income levels of nomads, as well as boost the national economy through improved knowledge, skills and practice of nomads.

The mandate of National Commission for Nomadic Education includes:

- Formulation of policy and issue guidelines in all matters relating to nomadic education in Nigeria.
- Provision of funds for the research and personnel development for improvement of nomadic education development of programmes and provision of equipment and

other instructional materials, construction of classroom and other facilities relating to nomadic education.

- Establish, manage and maintain primary schools in nomad settlements and grazing areas.
- Determine the standards of skills to be attained in nomadic schools. (National Commission for Nomadic Education, 2021).

In order to have a clear sense of direction and achievement of desired goals, the general objectives of nomadic education programme are spelt out. These include:

- To expose the nomadic children to elementary form of modern education.
- Enable the nomadic children take part in the development of their immediate environment.
- Make the children self-reliant to improve their living conditions.
- Help them modernize their techniques of herdsman ship on animal management, fishing or farming as the case may be.
- Assist the nomadic children develop rapidly and fully, both physically and intellectually to cope with the demands of the contemporary world and
- Develop the initiative of the nomadic children and stimulate in them scientific and analytical modes of thinking. (Federal Republic of Nigeria, 2014).

Consequently, the need for pragmatic use of Mastery Learning Model in the implementation of nomadic school curriculum becomes eminent. The model was developed by Benjamin Bloom in 1968 to address issues of quality education among learners of varying backgrounds and other variables that place others at disadvantaged positions in the acquisition of learning experiences at the same level (Witrock and Hindman, 2017). Aptitude of learners was used as a basic yardstick that could determine their learning process as those with high aptitude were considered as having ability to learn complex concepts and skills. Mastery Learning was developed as an instructional that could carry all learners along in the acquisition of knowledge and skills irrespective of their aptitude whether high or low.

1.2 Statement of the Problem

Nomadic education is one of the educational programmes initiated by Federal Government of Nigeria to provide access to education by the nomads. However, provision of access to education

without improved quality would not help to acquire higher-order thinking skills for self-reliance. The research was motivated by the desire to improve quality of educational attainment of nomads in Nigeria particularly those in the remote rural areas of the country, using Mastery Learning model in implementation of school curriculum in nomadic schools. The United Nations Sustainable Development Goals-4 makes it clear that every person, irrespective of his or her geographical, cultural, economic and other disadvantageous condition should have access to quality education for the purpose of eradication of illiteracy, improvement of security and harmonious living as well as achievement of other sustainable developmental goals. However, it is disheartening to note that the nomadic Fulanis in Nigeria, with a population of 9.1 million of whom 3.1 million of the school going age are yet to benefit from this global protocol agreement which Nigeria is a signatory to as their quality of educational attainment is still very low (NCNE, 2021). To address this challenge, the country has established various nomadic schools in all the states through Nomadic Education Commission. Despite the effort, the gap remains wide as the nomads usually move from one place to another in search of greener pasture for their herd and therefore require special instructional strategies for improvement of quality education among them. The intention of this study, is to find out the extent to which nomadic school teachers use mastery learning model that could make learning real, pragmatic, functional and problem solving- for improvement of quality education among learners.

1.3 Objectives of the Study

The general objective of this study was to find out headmasters' eachers' use of mastery learning strategy in implementation of social studies curriculum in Nomadic schools in Maiadua, Katsina State, Nigeria.

Specifically, the objectives of this study are to:

- find out the level of headmasters' use of Mastery Learning strategy in implementation of Social Studies curriculum in Nomadic Schools in Maiadua, Katsina State based on experience.
- ascertain the difference in the use of headmasters' mastery learning model in implementation of Social Studies curriculum in Nomadic Schools in Maiadua, Katsina State based on qualification.

1.4 Research Questions

The following questions would be answered in the study:

- What is the difference of headmasters' in the use of mastery learning model in the implementation of social studies curriculum in nomadic schools in Maiadua based on experience?
- What is the difference of headmasters' in their use of mastery learning model in the implementation of Social Studies curriculum in Nomadic schools in Maiadua, based on qualification?

1.5 Hypotheses

HO₁: There is no significant difference in the between experienced and less experienced headmasters' on their use of mastery learning model in Nomadic Schools in Maiadua, Katsina State, Nigeria.

HO₂: there is no significant difference between highly qualified and less qualified headmasters' in their use of mastery learning model in the implementation of Social Studies curriculum in Nomadic schools in Maiadua, Katsina state, Nigeria.

2. Research Methodology

This research assessed headmasters' use of Mastery Learning Model in Implementation of Social Studies curriculum for Achievement of Sustainable Development Goal-4 in Nomadic Schools in Maiadua, Katsina State, Nigeria. The population of this study comprised of all the 78 headmasters in 78 primary schools in Maiadua, Katsina State (Katsina state Ministry of Education, 2021). The sample for the study was all the 78 headmasters from the 78 primary schools in Maiadua, Katsina state. A purposive sampling technique was used in selecting the sample as only headmasters were involved in the study. A researcher designed instrument title: 'Questionnaire on Mastery Learning Model' (QMLM) was used for data collection. This instrument was used because it is believed that the entire sample involved in the study were literate enough to express their use of the instructional model by responding to the items on the instrument. The face and content validity of the instrument was done by three experts in curriculum development and measurement and evaluation from departments of Educational Foundations, Faculty of Education Federal University Dutsinma Katsina state, Nigeria. Their corrections and observations were incorporated in the instrument. The responses of the two administrations of the instrument on 30

headmasters in Kurfi at interval of two weeks were analysed using Pearson ‘r’ correlation co-efficient formula. This yielded an ‘r’ value of 0.67, therefore the instrument was considered reliable. The researcher collected letter of approval to carry out the research in Maiadua local government from Katsina State ministry of education. The instrument was administered to the respondents and retrieved immediately after their responses. This was made possible as the researcher made use of research assistance in the data collection.

2.1 Data Analysis Technique

The data generated was subjected to frequency count, percentage and Chi-square statistics. The research

questions were answered using frequency count, percentage, Chi-square statistics was used in testing the hypotheses at 0.05 level of significance.

3. Presentation of Results

Responses to research questions are presented on the tables below using frequency and percentage for its analysis:

Research Question 1: What is the difference of headmasters’ in the use of mastery learning model in the implementation of social studies curriculum in nomadic schools in Maiadua based on experience?

Table 1:

Variable	Experience	%	Highly Experienced	%	Total	%
	11	8.6	67	52.2	78	
None use	2	1.6	8	6.2	10	7.8
Use	9	7.0	59	46.2	68	53.0

Table 1 above showed analysis of headmasters’ application of mastery learning instructional model in implementation of Social Studies curriculum in schools based on experience. Detail of the analysis revealed that out of the 78 sampled teachers, 11 (8.6%) and 67(52.2%) were experienced and highly experienced respectively. Out of the 11 experienced teachers, 2 (1.6%) and 9 (7.0%) were non-users and users of the instructional approach respectively. While 8 (6.2) and 59(46.2) of the highly experienced were non-users and users of the instructional approach respectively. The total number of users and non-users stood at 10 (7.8%) and 68 (53.0%).

Research Question 2: What is the difference of headmasters in their use of mastery learning model in the implementation of Social Studies curriculum in Nomadic schools in Maiadua, based on qualification?

Table 2:

Variable	Qualified	%	Highly Qualified	%	Total	%
	49	37.4	30	23.4	78	
None use	9	7.0	5	3.9	14	10.9
Use	39	30.4	25	19.5	64	62.7

Table 2 above presented analyses of research question number 2. The analysis showed that out of 78 head teachers that responded to the items on the questionnaire, 48 (37.4%) and 30(23.4%) were qualified and highly qualified respectively. Out of the qualified head teachers, 9(7.0%) do not use mastery learning strategy in teaching while 39 (30.4%) made use of it in implementation of school curriculum. A total of 5(3.9%) of the highly qualified teachers did not make use of the strategy while 25 (19.5%) used the instructional strategy in teaching in the schools. The total number of non-users and users stood at 14(10.9%) and 64 (49.9%) respectively.

Hypotheses

HO₁. chi-square test showing differences of experienced and less experienced headmasters in their use of mastery learning model.

Table 3:

Variable	No	Mean	SD	Chi-cal	df	P-value
Experienced	11	31.25	2.732	.562	297	.565
Highly Experienced	67	31.44	3.215			

The result in table 3 indicated that there is no significant difference in the application of experienced and highly experienced head teachers of mastery learning instructional model. This is because chi-square test value of .572 is higher than the p-value which is .565. The null hypothesis which states that there is no significant difference in the use of experience and less experienced headmasters' use of mastery learning model in implementation of Social Studies curriculum in Maiadua, Katsina State is therefore accepted.

HO₂: There is no significant difference between qualified and highly qualified classroom teachers in their use of mastery learning strategy in the implementation of Social Studies curriculum in Nomadic schools.

Table 4:

Head teachers' Use	N	Mean	SD	Chi-cal	df	P-value
Qualified	48	31.33	2.952	0.68	297	.946
Highly qualified	30	31.37	3.02			

The result on table 4 above indicated that there is difference between qualified and highly qualified classroom teachers in their use of mastery learning. This is because the Chi-square value of 0.68 is less than the p-value of .946. The null hypothesis which stated that there is no difference between the use of qualified and less qualified headmasters on mastery learning model is rejected.

4. Findings of the Study

Based on the results of analysed data for this study, the following are summary of the major findings:

- Headmasters' general perception of mastery learning was positive as most of them responded positively to the positive items on the instrument.
- Headmasters' knowledge of mastery learning instructional strategy in implementation of Social studies curriculum in Nomadic schools Katsina State, Nigeria.
- Head teachers attempted to put to use knowledge of mastery learning instructional strategy in implementation of Social Studies curriculum in Nomadic schools Katsina State, Nigeria but they lacked modern instructional techniques in its implementation.
- Experience has no significant influence on the headmasters' use of mastery learning instructional model.
- Qualification has significant influence on the head teachers' use of mastery learning instructional model.

5. Conclusion

Having understood instructional model and the advantages that could be derived from it, it is hoped that stakeholders who are the main implementers of Nigeria school curriculum will intensify efforts in their areas of responsibilities to ensure that, nomadic children and others who are culturally and geographically disadvantaged in Nigeria would equally benefit from this instructional model, as it would enable them to academically improve in their educational pursuits.

The outcome of this research indicated that the prospect of using mastery learning model in implementation of school curriculum was high and teachers' attitude toward it was also positive. The teachers were optimistic that the model could contribute positively to the successful implementation of school curriculum achievement of sustainable goal (4) four in Nigeria.

6. Recommendations

Based on the outcome of the research, it was hereby recommended that:

- Deliberate effort should be made to improve the skills of teachers on the acquisition of modern techniques in the use of mastery learning instructional model by ministry of education through organization of workshops and conferences for the classroom teachers in basic schools.
- Mastery learning instructional model should be given prominence in teacher education

programmes in higher tertiary institutions to enable the pre-service teachers acquire necessary knowledge and skill on the strategy.

- Fresh graduates from Colleges of Education employed in nomadic schools should be sensitized on the benefits of mastery learning instructional strategy by school administrators using symposium and other available means to avoid attrition.
- Deliberate efforts should be made by headmasters to encourage classroom teachers on the use of mastery learning strategy.

References

- Federal Republic of Nigeria (2014) *National Policy on Education National Educational Research and Development Council Abuja, Nigeria.*
- Katsina State Ministry of Education (2021). Basic Teachers Population. State education Board
- Lochner, L. and Moretti, E. (2003). *Effect of Education on Crime: Evidence from Prison.* www.ojp.org
- Mbayuav, S .T. (2022). *Challenges and Prospect of Nomadic Education in Nigeria.* www.scribe.com
- National Commission for Nomadic Education (2021). Mandate. www.ncne.gov.ng
- Ogbonna, S. (2016). *Reflection on why education outcomes are declining in Nigeria.* www.esspin.org
- Prevatt, F. and Kelly, F.D. (2003). *Dropping out of school: A review of Intervention programs. Journal of school psychology.* www.psycnet.apa.org
- UNAIDS (2012). UN Secretary-General Ban Ki Moon Lounches Education First to send Every Child to School. www.uniads.org
- United Nations Global News (2013). Education System must Provide Basic Knowledge, Skills youth needs to thrive- UN Officials. *United Perspective Human stories.* www.news.un.org
- United Nations Press (2013). *Quality Education. News and media division New York.* www.un.org.
- Wittrock, M.C. and Hindman, E.L. (2017). *Learning for Mastery* www.programs.honolulu.hawaii.edu