

Achievement Effects of Multi-grade Teaching on the Basic School Pupils in Patigi Emirate, Nigeria: Teachers' Perception

By

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Abstract

The study was conducted to examine the teachers' perception of effects of multi-grade teaching on the basic school pupils in Patigi Emirate, Nigeria. Data were collected from 220 basic school teachers across the. The descriptive survey method was employed for the study. 220 teachers were selected through purposive sampling technique to cater for variables of teachers involved in multi grade teaching. The sampled teachers responded to a 20 items researcher-made questionnaire. Two research questions were raised and answered in the study. Mean of responses was used to answer the research questions. The result of the findings indicated that: the teachers at the Basic Education level had low positive perception of the effect of multi-grade teaching on the pupils' performance in basic schools but a higher perception of the of the organisational effectiveness of multi-grade teaching. Based on the findings, it was recommended that the basic school teachers undergo refresher courses, seminars and workshops on multi grade teaching that will improve their dispositions and expose them to new innovations in the pedagogy. Multi-grade instructional approach, techniques of communication skill and inquiry related strategies including organisational skills needed for effective use of the strategy should be integrated into basic methodology courses taught in teacher education programmes

Key words: Multi grade, achievement effect, Basic schools, Teachers' perception

Introduction

Education is one of the major indices used in the determination of countries whether developed or less developed. Education is an important key for the

development of any society and an instrument a society can use to solve her problems. Gene (2005) opined that lack of basic education is a silent killer of large number of poorest children in the less developed world. However, it is noted that if Nigeria is to be categorized as a developing nation, she has to remove illiteracy among the citizens by ensuring that every member of the society has access to western education. Probably that is why UNESCO (2003), asserted that all nations should ensure that education is a right for all their citizens. Nigeria is a signatory to Jomtiem declaration on Education For All (EFA) in September, 1990.

The declaration observed that learning begins at birth and early childhood education is an essential component of basic education. The Federal Government of Nigeria introduced Universal Basic Education (UBE) programme in 1990 to actualise the Jomtiem declaration for the purpose of sustainable development. Basic education is referred to, in the National Policy on Education, as the foundation upon which the rest of the educational system is built. One of the objectives of basic education in Nigeria is to provide access to education to all children and to inculcate in children permanent literacy and numeracy and the ability to communicate effectively. To be able to pursue this noble objective, it is the opinion of the researcher that multi grade teaching should be employed considering the inadequacy of teachers especially at the basic level of education.

Since the first Education for All conference at Jomtien, national governments and international donors have invested billions of dollars in programs

and reforms designed to improve access to quality education, with a focus on basic education. Despite considerable efforts by the federal state and local governments, towards achieving the goal of Education for All (EFA) in Nigeria, it is becoming a challenge (Global Monitoring Report, 2004). To break this cycle there is a need for alternative delivery methods of education services and, here, the development of multi grade teaching strategies will improve access, particularly in the rural areas where there were few teachers to handle all the classes. In multi-grade, according to Veenman (1995), and Little (2001), one teacher assumes responsibility for more than one class in the same room at the same time.

Multi-grade schooling is becoming a worldwide phenomenon in most of the rural areas. Multi-grade Teaching is emerging as a form of schooling which best fits the needs of many countries in the Africa especially Nigeria where teachers are inadequate, as they strive to meet their commitment to provide education for all. Multi-grade is effective and it provides an economic solution to the difficulties of providing increased access for children in a populated rural area where it is difficult to provide the adequate number of teachers needed for the mono grade classes.

Multi-grade teaching is a term used to describe the teaching in primary education of children from a number of grades usually in one class. But it is capable of different definition in different countries as the following examples demonstrate. It is also not necessarily the best term to use when translated into

other languages and cultures. Multi-grade Teaching in Nigeria has been described as the situation in which a teacher teaches more than one class at the same time either in the same classroom or in a different classroom. In Malaysia, Little (2001) noted that multi-grade teaching involves the teaching of children from two or more grade levels in one classroom. The combination is usually of grades close to each other; for example, one and two, five and six. In Pakistan and Australia, however, as many as five or six grades may combine in the one class. Such contexts require the employment of particular teaching methodologies and classroom administration.

Multi-grade teaching is also common in almost all rural areas of Nigeria. Miller (2005) observed that the multi-grade classroom is an organizational pattern widely used in schools in the United States. He noted that in 1918, there were 196,037 one-room schools, representing 70.8 percent of all public schools in the United States. By 1980, less than 1,000 of these schools remained (Muse, Smith, & Barker, 1987). But the multi-grade classroom persists. For example, in a study consisting of multi-grade classrooms of only two grades, Rule (1983), in Chris (2001) used a sample from a suburban district outside Phoenix, Arizona. Of the 21,000 elementary students in the district, approximately 17 percent were in classrooms that combined grades. In rural, small elementary schools the incidence of students served in multi grade classrooms may well be much higher.

Although rural, small schools may combine grades to save money, in the guise of the "ungraded classroom," multi-grade organization has also been a feature of urban and suburban districts. In the 1960s and 1970s, "open education" and individualized instruction became influential curriculum and instructional models. Such models were commonly implemented with multi-grade classrooms. Energized by developmental theories of learning, a large influx in federal money, and student-centred models of instruction, open education became a major educational innovation. As a result, multi-grade classrooms received new attention.

Large classes have been a reality for the vast majority of Nigerian pupils. This situation is aggravated by the fact that for many pupils enrolled in schools in rural areas, teachers have to combine a number of classes. Since education at the basic level is of great concern to government, and large classes are more prevalent in public schools than in the private sector.

Multi-grade classes, in which teachers work with more than one curriculum grade at the same time, are widespread in Nigerian rural schools. In most schools, multi-grade classes arise through necessity rather than choice. In many rural areas, parents do not have the opportunity to choose between sending their child to a school with multi-grade or mono-grade classes. If they choose not to place their child in a multi-grade class, the child will remain uneducated. Accesses to multi-grade classes, and the quality of teaching and learning in them, are teaching

strategies in the worldwide fulfilment of Education for All and the Millennium Development Goals for education.

Multi-grade teaching is organized as a "necessity model" or as a "design model". In the necessity model groups of children varying in age and numbers are combined together under the supervision of a teacher or two teachers to be taught as a class. This model may be a result of financial constraints, non-availability of teachers or lack of resources. Multi-grade classes of this type are commonly found in sparsely populated areas in rural settings or in areas with high student population but few teachers. Multi-grade teaching is also planned as a design with a rationale to meet student's individual needs. In this model students are grouped together across ages in combinations most beneficial to their educational stimulation and success.

Some efforts are made to help teachers develop knowledge and skills to teach in multi-grade schools, yet the problems of effective teaching in multi-grade are persistent. In order to address this, there is a need for a study of the situation to find out the existing range and quality of Multi-grade teaching practices and to work in the field to plan intervention for improvement.

Many teachers, administrators, and parents continue to wonder whether or not multi-grade organization has negative effects on student performance. Research

evidence indicates that being a student in a multi-grade classroom does not negatively affect academic performance, social relationships, or attitudes.

In recent years some significant studies have been carried out on the effects of multi-grade classes on student achievement. In Miller (1991) 13 experimental studies were reviewed assessing academic achievement in mono-grade and multi-grade classrooms and found there to be no significant differences between them. The data clearly support the multi-grade classroom as a viable and equally effective organizational alternative to mono-grade instruction. The limited evidence suggests there may be significant differences depending on subject or grade level. Primarily, these studies reflect the complex and variable nature of school life. Moreover, there are not enough such studies to make safe generalizations about which subjects or grade levels are best for multi-grade instruction.

Veenman (1995) conducted a research concerning the cognitive and non-cognitive effects of multi-grade and multi-age classes (45 of which were concerned with multi-grade classes), drawn from a wide range of countries and nations across the world, both developed and developing. Veenman (1995) in Higgins (2005) found that there were no consistent differences in student achievement between multi-grade and mono-grade classes. The overall median effect size for cognitive

outcomes was 0.00, while the overall median effect size for affective outcomes was +0.10.

Numerous studies compared the effectiveness of "open" classrooms (multi-grade organization with student-centred ethos and methods) and "regular" classrooms (mono-grade organization with traditional ethos and methods). We have learned a great deal from these innovative efforts. Working in an open, multi-grade school requires serious, ongoing teacher training and a commitment to hard work.

However, the finding of no significance difference which existed in the performance of pupils taught using multi-grade and mono-grade teaching was explained by Higgins (2005) due to the factors namely:

- Grouping alone is unlikely to have an effect; learning is more dependent on the quality of teaching than on organisational structure.
- Bias in selecting more capable students into multi-grade classes, if it occurs, would deplete the proportion of those students in mono-grade classes, producing non-equivalent samples for comparison.
- Teachers of multi-grade classes are inadequately prepared for teaching such classes and do not have available suitable materials for their teaching.

- Multi-grade teaching is demanding and leaves teachers with little energy to pursue potentially more effective grouping strategies in their teaching, resulting in the use of the same practices as in single-grade classes.

Most teachers have been trained to work in mono-grade classrooms. Their knowledge of teaching method is based on whole-class instruction and small-group instruction (with groups often formed on the basis of ability or achievement level). When placed in a multi-grade setting, teachers of the 60s and 70s discovered that the time requirements and skills needed to be effective were simply not part of their prior training and experience. Although the premises of "open" and "regular" (traditional) education can differ sharply, this finding still applies to multi-grade classrooms in traditional schools.

Against the foregoing background, the aim of this paper is to find out the perception of the basic school teachers on the achievement effects of multi-grade teaching on the performance of basic school pupils. Specifically, the objectives of the study are: find out the perception of teachers on the effects of multi-grade teaching on the performance of basic school pupils; determine teachers' perception on the organisational effectiveness of multi-grade teaching;

Research Questions

The following questions were answered in this study:

1. What is the perception of teachers on the effects of multi-grade teaching on the performance of basic school pupils?
2. What is the teachers' perception on the organisational effectiveness of multi-grade teaching?

Methodology

The survey design was adopted for the study. All the Universal Basic Education (UBE) teachers in Patigi Emirate constituted the population. Through the use of purposeful sampling technique, 220 respondents were sampled from the 856 that constituted the population of the study. Research instruments used for the study a questionnaire containing 15 items. The data were analysed to find out the perception of teachers on the effects of multi-grade teaching on the performance of basic school pupils. The researcher designed questionnaire items were structured on a four- point scale of Strongly Agree, Agree, Disagree and Strongly Disagree.

The questionnaire instrument was content validated by three lecturers at University of Ilorin, Ilorin. The test- retest procedure was used to ascertain the reliability of the instrument twice to 20 Basic School teachers in Patigi Local Government Education Authority who use multi- grade teaching but did not participate in the study. The scores were analysed using the Pearson Product Moment correlation coefficient and this yielded a coefficient of internal consistency of 0.63. The obtained data were analysed using mean.

Results

Research Question one: 1. What is the perception of teachers on the effects of multi-grade teaching on the performance of basic school pupils?

Table 1: Perception of Teachers on the effect of multi-grade teaching on the performance of basic school pupils

Item	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean
Multi grade teaching enhances increased access to education	81	35	54	50	2.67
Multi grade teaching enhances improved performance of the pupils	54	45	56	65	2.4
Multi-grade teaching is not an inferior strategy of teaching.	56	57	45	64	2.5
Learning outcomes in multi-grade classes is better than in the mono grade classes	46	58	58	58	2.42
Multi-grade teaching is an innovation	67	73	60	20	2.85
Multi-grade teaching is concerned students' social skill development	54	56	65	45	2.54
Multi-grade teaching provides opportunities for the enhancement of learning by the lower grade level group through exposure to upper grade level work,	122	58	12	28	2.98
Multi grade provides reinforcement of earlier learning for the upper grade level students,	122	58	12	28	2.98
Multi grade provides opportunities for children to learn through peer tutoring	122	58	12	28	2.98
In multi grade teaching it is easier for children to learn what others are taught	37	54	77	52	2.35

From the analysis on Table 1, it is observed that majority of the teachers who were respondents in the study had low positive perception of the effect of multi-grade teaching on the pupils performance in basic schools as reflected in their responses

to the items. The analysis showed that the mean scores of the respondents in all the items were all between 2.35 and 2.98. In other words, the respondents had low positive perception of multi-grade teaching

Research Question Two:

2. What is the teachers’ perception of the organisational effectiveness of multi-grade teaching?

Table 2: Perception of basic school teachers on the organisational effectiveness of multi-grade teaching

Item	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean
Multi-grade class is considerably more difficult to teach	67	73	60	20	2.85
Multi-grade teaching is too demanding	115	51	31	23	3.17
Teachers of multi-grade classes are inadequately prepared for teaching such classes.	111	51	35	23	3.14
Teachers do not have learning materials for their teaching multi grade classes.	122	58	12	28	2.98
In multi-grade teaching, there is less time for direct instruction	81	35	54	50	2.67
In multi-grade teaching, there is lower time-on-task for students,	60	58	54	48	2.59
In multi-grade teaching, there is ability-based group work across grade levels to help meet individual needs;	91	63	33	33	2.96
In multi-grade teaching, teachers lack relevant training	81	35	54	50	2.57

In multi-grade teaching, there is time for individual attention and remediation,	60	58	54	48	2.59
In multi-grade teaching, the teacher is able to cope with parental concerns about effects of multi-grade placement.	37	54	77	52	2.35

The analysis on Table 2 showed that the basic school teachers who were respondents in the study had positive perception of the organisational effectiveness of multi-grade teaching as reflected in their responses to the items. The analysis showed that the mean scores of the respondents in all the items were above 3.50 and This means that the respondents had higher positive perception of the of the organisational effectiveness of multi-grade teaching and were favourably disposed to the organisational effectiveness of multi-grade teaching.

Discussion

The findings of this study revealed that the teachers at the Basic Education level had low positive perception of the effect of multi-grade teaching on the pupils' performance in basic schools in Nigeria. This position might be due to the fact they recognised the necessity of multi grade teaching as a result of lack of adequate teachers. This finding is in line with Higgins, (2005) who also observed that the training of the teachers was in mono grade teaching strategy. Having noticed the inadequacy of the teachers to handle the classes, those teachers available had to

collapse different grades together to take care of those classes without teachers. This means that the use of multi grade teaching was a matter of necessity rather than orientation or training. The finding also showed that all the teachers were of opinion that multi grade teaching could lead to the realisation of the objectives of UBE that is providing increased access to education. This is because without multi grade teaching, some pupils would be marginalised.

It is also observed that the teachers had high positive perception of the organisational effectiveness of multi grade teaching. This is because the teachers had realised the advantages inherent in the multi grade teaching. This finding in the study that multi grade teaching has organisational effect on the pupils is in line with Miller (1990) who concluded that the multi-grade classroom as a viable and equally effective organizational alternative to mono-grade instruction. The limited evidence suggests there may be significant differences depending on subject or grade level.

Conclusion and Recommendations

Findings of this study have shown that the multi grade teaching is widely used in the rural areas of Nigeria and if effectively used can achieve the aims of UBE and EFA in Nigeria. This buttresses the need for adequate teacher preparation in this area of study. Teachers should be trained to acquire the needed knowledge, skills and disposition required for improvement in the use of multi grade teaching to enhance pupils' performance. It is realised that if the teachers were not exposed

to changes happening in the world of pedagogy, they might be left behind. The implication is that the teacher education providers should put in place opportunities in their training that would enable Nigerian teachers to be at par with their colleagues in other countries. In this regard the following recommendations are made:

Interactive programme in form of seminars and workshops should be organized for UBE teachers to enable them acquire the pedagogical disposition for effective use of multi grade teaching of the UBE curriculum in Nigeria. Multi-grade instructional approach, techniques of communication skill and inquiry related strategies including organisational skills needed for effective use of the strategy should be integrated into basic methodology courses offered in teacher training institutions.

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