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Family characteristics as correlates of academic performance among school children in fishing settlements in Ogun State, Nigeria

Adesoji A. Oni & Olaniran O. Lateef
Department of Educational Foundations
University of Lagos, Akoka – Yaba
Lagos, Nigeria.

Abstract

This present study investigated family characteristics as correlates of academic performance among school children in fishing settlements of Ogun state, Nigeria. Three null hypotheses were tested at 0.05 level of significance. A descriptive research design was adopted. The target population comprised all students in junior secondary school class two (JSS2) in Ogun Waterside Local Government Area of Ogun State. The samples for the study comprised 400 respondents and 8 junior secondary schools. Multistage sampling techniques were adopted. A self-designed questionnaire was used to collect relevant data. Data were analysed using frequency count, simple percentage, mean score, standard deviation and one-way analysis of variance (ANOVA). The researchers recommended for increased collaboration between parents/guardians and the school for improved learning and academic performance. They also recommended that the adoption of moderate family size as a practice to maximize available resources to support children learning and improve academic performance.

Keywords: *Academic performance. Family. Fishing. Fishing settlement.*

Introduction

Academic attainment is an important parameter used in measuring students' success or failure in a particular subject in schools. The correlation of family indicators and students' academic performance continues to pose concern to sociologists of education because of its implications for academic performance and for psycho-social development of children among others. Family structure has influence on students' academic performance (Odok, 2013). For the purpose of the present study, the focus was on specific family characteristics including family size, family type and family support and their impact on students' academic performance. Small family sizes are linked to higher educational attainment (Odok, 2013); Eristwhistle (1986). In case of large family whether rich or poor, such large families are difficult to maintain and are characterised by a high number of children, rowdiness and these could have negative influence on learning and on academic performance. Large family could lead to problems such as poor feeding, poor clothing, insufficient funds, and lack of proper attention for children. Similarly, disciplinary problems, which could impact negatively on students' academic performance, may arise in the case with a large family. The attention of parents is also reported to decline as the number of children increases as latter arrivals perform poorly than their senior siblings (Eristwhistle, 1986).

Children's family type is likely to be related to academic performance. In the context of the present study, the researcher focused on the nuclear, polygamous or extended family system. Nuclear family consists of the father, mother and their children. Children in nuclear families receive strength and stability from the two parents and where both parents are income earners, will supposedly have more opportunities due to financial ease of the two parents (Ella, Odok & Ella, 2015).

According to United States of America census data, almost 70% of children live in nuclear families and statistics have also shown that children from such families tend to fare better on cognitive, emotional and behavioral areas (Odok 2013). In contrast, polygamous and extended family systems are made up of more than two generations of people. Study (Imork & Uwah, 2008) revealed that in the extended family system, there is the tendency of parents not able to provide basic school needs as text books and other learning materials, which are critical to students' academic performance. Academic performance is generally regarded as the display of knowledge attained or skills developed and acquired in school subjects. Such performance is indicated by test scores or by marks awarded by teachers. It is the school's evaluation of students' classroom work as quantified by marks or grades (Gania & Mirashraf, 2013). To this end, when academic performance is good, it means the student has done well and when it is bad, it means there is academic failure. The implication is such that the children who failed may be asked to repeat a class, while the one who passed would move on to the next higher level especially in secondary school. It is against this backdrop that the present study examined family characteristics as correlates of academic performance among school children in fishing settlements in Ogun State, Nigeria.

Statement of the problem

The poor living conditions in fishing settlements have remained a source of concern. Fishing settlement is a rural environment. Like all such environments in Nigeria, they are characterised by poor or complete absence of infrastructures and social amenities, which makes living in such area tedious and unattractive. It is clear that there is a relationship between people's environment particularly that of school children and their social, educational, psychological well-being. The nature of fishing settlements is likely to have impact on children's learning. Family characteristics have been identified as determinant of academic success or failure (Oloko, 2003). For instance, poverty is disadvantageous to a child's educational success. Where children are undernourished, in poor-health conditions or sometimes with retarded mental development, where children are poorly provided for in school, they are likely to develop inferiority complex, which often result in poor academic performance. Where children receive support in the forms of proper nutrition, good health, and appropriate stimulation during pre–school years and then take optimal advantage of full complement of resources offered by any environment, effective learning takes place resulting in good academic performance. It is against this backdrop that the present study examined family characteristics as correlates of academic performance among school children in fishing settlements in Ogun State, Nigeria. Specifically, the study focused on family size, family types and family support.

Purpose of the study

The main purpose of this study was to examine the family structure as correlates of academic performance among school children in fishing settlements of Ogun State, Nigeria and to:

   i. Determine the influence of family size on academic performance of children;

   ii. Examine the influence of family type on academic performance of children; and

   iii. Explain the influence of family support on academic performance of children.

Research questions

This study provided answers to the following research questions:

   i. What is the influence of family size on children's academic performance?

   ii. What is the influence of family type on children's academic performance?

   iii. What is the influence of family support on children's academic performance?

Hypotheses

The following hypotheses were tested at 0.05 levels of significance.

   i. There is no significant influence of family size on children's academic performance?

   ii. There is no significant influence of family type on children's academic performance?

   iii. There is no significant influence of family support on children's academic performance?

Significance of the study

The findings of this study would be significant to stakeholders in the education sector namely; to students, parents, teachers, head of schools, education administrators, community leaders, policy makers as well as to the sociologists of education to mention a few.

Parents would see the need for them to provide their children with basic school needs. They would also guide them through their homework as well as provide adequate food, clothing and shelter.

The findings would provide necessary awareness on the diversity in social, economic and home experience of students, which serve as hindrances to schooling leading to low academic performance in school.

It is therefore expected that teachers would adopt best professional practice that would translate into good social skills, teaching methods, effective classroom delivery, and strategic motivation, all of which translate into quality lesson delivery that will enhance high performance of students towards high academic performance.

Similarly, the findings of the study would enable the teachers to adopt mutual working strategy that will act as a bridge between the school and the home through feedback mechanism and appropriate record keeping on student progress report in continuous assessment.

Furthermore, the findings of the study would assist in bridging the communication gap between the head of schools, the teachers and the students. It is also hoped that school principals will have a broad knowledge of the diversity in the social context of students with the aim of adopting better administrative strategies that would advance the psycho-social development of the students. The findings would make the heads of schools to give attention to the educational delivery process and prompt feedback mechanism through regular parent teacher association (PTA) meetings.

Theoretical framework

This research work is anchored on Household Decision-Making Theory by Becker Gary (1965). The theory states that the household act to maximise utility, which is a function of the number of children, school attendance per child, the leisure time per child, the leisure of the parents, and a composite consumption of good. The theory states that goods are produced using a composite commodity purchased in the market place and the time of household members. It further states that the time inputs to produce the composite consumable good can be supplied by the mother or by the children. Hence, household income can be earned by selling goods produced in a household enterprise or by working as a wage labourer. The inputs to the production of the household enterprise include physical assets owned by the family, parental and child labour. Also noting that the husband allocates time between market work and leisure; the mother allocates time among market work, child rearing, and home production; and children allocate their time among market work, education, leisure, and home production.

In view of this, there are five levels of uncompensated cross-elasticity in the theory of household decision-making concerning children. These according to Ella, Odok and Ella (2015) and Eristwhistle (1986) include:

i. An increase in the father's wage raises the implicit price of his leisure and will lead to substitution toward the child's education. Likewise, an increase in the father's wage will raise household income, thereby raising possibility of the child's education.

ii. An increase in the mother's wage increases the opportunity cost of each birth, thereby leading to lowering the optimal family size. To the extent that child quality is a substitute for child quantity, the fall in the optimal family size will raise investment in education. By the same token, the rise in the mother's wage will raise the demand for all goods. Quality children may be among these, in which case, educational attainment will rise.

iii. An increase in the child's wage raises the opportunity cost of time spent in school. Likewise, an increase in the child's wage raises the return to each birth to the extent that the subsequently larger family size leads families to trade off quality for quantity of children causing a decline in educational attainment.

iv. The impact of an increase in child's wage also depends on whether leisure and education are complements or substitutes. If leisure and education are complements, then the rise in the cost of leisure will induce a decline in the demand for education.

v. Lastly, an increase in land holdings or other family assets should increase income, thereby increasing educational attainment.

The relevance of the theory of household decision making to this present study is that it asserts the fact that socio-economic status of the family particularly in the aspect of family characteristics would likely determine success or failure of children in academic performance

Literature review

Concept of fishing settlement

The battle between people and environment dated from antiquity and has taken different dimensions with increasing environmental challenges arising from human struggle for survival. Odubanjo, Akinleye and Balogun (2007) asserted that Nigeria is blessed with inland water, brackish water and marine water fisheries resources. Fish and marine products include fresh water and ocean water fish, shellfish, ocean mammals and sea weed as well as plantation. These represent a major food source, which is invaluable for the protein such food contain. Odubanjo *et al.* (2007) added that fishing settlements represent one of the oldest forms of community living known to mankind and provide home for fishermen and women including children, men and women who evolved overtime different crafts, skills and technology for fishing and for day to day survival. The fisheries sector is dominated by artisanal fisheries in waterfront or coastal communities. These fishermen and women inhabit areas characterised by a lack of basic social amenities such as; potable water, electricity and medical facilities (Mabawonku, Igun & Bolaji, 1980). We argue that the education of children living in such settlement may be impacted in more ways than one.

Relationship between family size, family type and students' academic performance

The studies of Odok (2013) and Eamon (2005) reported that small family sizes are linked with higher educational attainment. Also, Olayinka (2009) pointed out that the family is the bedrock of the society and that a well-developed childhood is a product of a stable family. Eristwhistle (1986) stated that studies carried out in Scotland found that children with relatively small size families performed better in verbal and non-verbal tests, than children from large family size in the same test. This according to Eamon (2005) was because children from large families often have fewer interactions with adult's members of the family such as the father and mother. Similarly, parental attention declines as the number of siblings increases and children born latter perform less well than their earlier born siblings. Similarly, Bysenk and Locksoh (2011), affirmed that most extroverted children who come from smaller homes, adjust more easily to school environment, can express themselves easily in the classroom therefore, they achieve a greater academic performance as opposed to introverted children of larger family size. Booth and Kee (2006) confirmed that children from larger families have lower levels of education and also perform poorly in academics. However, Powell and Stellman (2010) and Van-Ejick and DeGraaf (2012) argued that children's academic attainment depends on inputs of time and money from their parents, the more children in the family the less of both inputs. These inputs are not money alone, but other essential things like; attention and resource dilution.

Relationship between family support and students' academic performance

Gonzalez-Pienda, Nunez, Gonzalez-Pumariega, Alvarez, Roces and Garcia (2002) indicated that without the children's parental support, it is hard for teachers to devise academic experiences to help students learn meaningful content. Similarly, Schneider and Lee (1990) linked the academic success of the East Asian students to the values and aspirations they share with their parents, and also to the home learning activities in which their parents involve with them. In fact, all parents have desired to do something better for their children according to their available resources. But the extent and effectiveness of parental support depends on a variety of reasons, such as, ethnicity, family income, and home environment and their awareness about the importance of education.

Family characteristics and students' academic performance

The home and the school play complementary roles in the education of the child. No other agency is so closely related to the school as the home. By the time a child enters elementary and then secondary school, he or she is already conscious of his family's status and his or her personality is almost formed. In his psycho-analytic theory Freud (1940) in Oni and Adetoro (2013) puts so much emphasis on the first five years of life of a child because whatever happens later in adults' life has a root in early critical periods of his or her life. The type of education a child receives at school depends on the family he or she comes from and this may later determine how well he or she will perform at school. According to Berns (1993) the progress children make at school is influenced by the motivation they get from home. These incentives include getting good schools for them, buying them all the necessary materials, good feeding, provision of home amenities that facilitate learning such as television, home library, a computer, and home lesson teachers that work with the children after official school periods. Oni and Adetoro (2013) posited that most students from non-literate and poor family background lack this stimulating atmosphere. Causes of poor academic performance have been attributed to many factors such as; teachers, method of teaching, poor funding, poor facilities, students' attitude and others (Oni & Dosunmu, 2010). Failure of parents to meet a crucial set of physical and emotional needs can have wide-ranging and long-lasting negative effects on students. Harderves (1998) in Oni and Adetoro (2013) asserted that the family whose children are doing well academically, exhibit characteristic such as encouraging children's development and progress in school; that is, maintaining a warm and supportive home, showing interest in children's progress at school, helping them with homework, discussing the value of a good education and future career with children among others.

Methodology

The mixed research method was adopted. The descriptive research design and interview schedule were used to elicit information from the respondents. Both quantitative and qualitative data were generated respectively for the study. The area of study was Ogun Waterside Local Government Area of Ogun State with latitude 60291N, 40241E and 6.4830N4.40E (Oloruntoba & Adegbite, 2006). The target population comprised male and female students in public junior secondary schools. Multistage sampling process was used for the study. Eight junior secondary schools

two (JSSII) were selected through random sampling method. A self-design questionnaire was used to collect relevant data. Students' Cumulative Average Score, (S-CAS) during the cause of the study in all examinable subjects in junior secondary school (JSS2) was adopted for academic performance. The content and face validity of the research instruments were ascertained by experts in Measurement and Evaluations. The reliability coefficient of the instruments was 0.76 using the Cronbach Alpha split-half statistical tool.

Data analysis

Data generated for the study were collated and analysed using simple percentage, frequency count, the mean score, standard deviation, analysis of variance (ANOVA) and independent t-test. Hypotheses 1, 2 and 3 were tested using ANOVA. All findings were held significant at the 0.05 Alpha levels.

Results

Descriptive data analyses of respondents are presented in table 1 and 2 below.

Table 1: Distributions of respondents by gender

Gender	Frequency	Percentage
Male	181	45.25
Female	219	54.75
Total	**400**	**100**

Evidence in table 1, shows that 181 representing 45.25 percent of 400 respondents were male, whereas female 219 representing 54.75 percent were female.

Table 2:   Distributions of respondents exposed to work by gender

Gender	Frequency	Percentage
Male	151	54.51
Female	126	45.49
Total	**400**	**100**

Evidence in table 2 indicates that 151male respondents representing 54.51 percent of a total sample of 400 were exposed to work, and 126 female respondents representing 45.49 percent were exposed to work.

Testing of hypotheses:

Hypothesis one: There is no significant influence of family size on children's academic performance.

Evidence in table 3 below shows that 199 respondents representing the highest were from moderate family, 78 respondents representing the least were from small family size, 123 respondents belong to large family size.

Table 3: **Mean and standard deviations of influence of family size on children's academic performance**

Family Size	N	Mean	Std. Deviation
Small Family	78	59.55	5.48
Moderate Family	199	58.28	7.55
Large Family	123	58.11	7.04
Total	400	58.48	7.04

While respondents from small family size had the highest mean score of 59.55, the respondents from large family size has the least mean score with 58.11 whereas those from the moderate family size has mean score 58.28. The table above also shows that respondents with moderate family size recorded the highest mean deviation with a score 7.55, the least mean deviation was from respondents with small family size whereas respondents from large family size has a mean deviation score 7.04.

Table 4: **Analysis of variance (ANOVA) in family size and children's academic performance**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	114.588	2	57.294	1.158	.315
Within Groups	19647.162	397	49.489		
Total	19761.750	399			

Significant at $p < 0.05$; df= 2, 397

The result in table 4 shows that at 2 degrees of freedom between group, 397 degrees of freedom within group and 0.05 level of significance the F-stat.1.158 > P-Val. 0.315. This means academic performance is not significantly different among family sizes. As a result, the null hypothesis, which states that 'there is no significant influence of family size on children's academic performance', is hereby accepted.

Hypothesis two: There is no significant influence of family type on children's academic performance.

Table 5: **Mean and standard deviations on influence of family type on children's academic performance**

Family Type	N	Mean	Std. Deviation
Extended	172	57.78	7.18
Polygamous	78	59.97	6.85
Nuclear	150	58.49	6.89
Total	400	58.48	7.04

The result in table 5 shows that 172 respondents representing the highest are from extended family, the higher comes from nuclear family and 78 respondents which is the list were from polygamous family. It is equally observed that the polygamous

family had the highest mean score 59.97; the nuclear family had the higher mean score 58.49 while those from extended family had the least mean score 57.78. It is observed that respondents from extended family had the highest mean deviation score 7.18; the nuclear family is higher with mean deviation score of 6.89 while those from polygamous family had the least with 6.85.

Table 6: **Analysis of variance (ANOVA), on influence of family type on children's academic performance**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	258.703	2	129.352	2.633	.073
Within Groups	19503.047	397	49.126		
Total	19761.750	399			

Significant at p<0.05; df= 2, 397.

The result in table 6 shows that at 2 degrees of freedom between group, 397 degrees of freedom within group, at 0.05 level of significance, the F-statistics 2.633 > P-Val. = 0.073. As a result, academic performance is not significant among the three family types. This means the null hypothesis, which states that 'there is no significant influence of family type on children's academic performance', is hereby accepted.

Hypothesis three: There is no significant influence of family support on children's academic performance.

Table 7: **Mean and standard deviation on influence of family support on students' academic performance**

Family Support	N	Mean	Std.Deviation
Always	179	59.34	5.95
Often	215	57.71	7.85
Not often	6	60.17	.983
Total	400	58.48	7.04

The result in table 7 shows that a total of 215, 179 and 6 respondents responded to "often", "always" and "not often" respectively in family support variable. It is observed that not often has the highest mean score (60.17), always has the nest mean score (59.34) while the 'often' has the least mean score (57.71). It is equally observed that the mean deviation scores in order of 7.85, 5.95 and 0.98 for often, always and not often respectively.

The result in table 8 below shows that at 2 degrees of freedom between group, 397 degree of freedom within group and 0.05 level of significance the F-stat. 2.800 > P. Val. = 0.062. As a result the null hypothesis which states that: There is no significant influence of family support on children's academic performance is hereby accepted.

Table 8:   **Analysis of variance (ANOVA) on influence of family support on children's academic performance**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	274.91	2	137.45	2.80	.06
Within Groups	19486.84	397	49.09		
Total	19761.75	399			

Significant at $p<0.05$; df = 2, 397

Table 9:   **Student academic performance of respondents based on index of family support**

(I) Family Support (PLS_ALL)	(J) Family Support (PLS_ALL)	Mean Difference (I-J)	Sig.
always	often	1.624	.058
	not often	-.831	.956
often	always	-1.624	.058
	not often	-2.455	.674
not often	always	.831	.956
	often	2.455	.674

Multiple comparisons

The result in table 9 shows a multiple comparisons of the students' academic performance based on the index of family support such as 'always support', often support' and 'not often support'. This is indicated in figure 1 below.
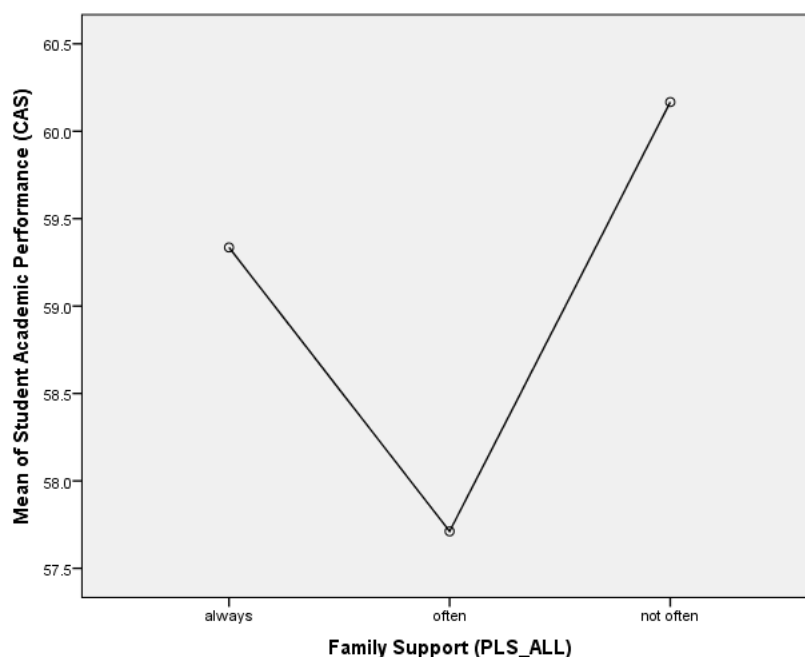
Fig.1. PLS= Parents' level of support

Figure 1 above shows the distribution of respondents' and their mean scores in academic performance according to levels of family support. The graph indicates mean scores 60.17, 59.34 and 57.71 accordingly with indicator, do not often get family support as the highest, followed by always get family support and often get family support as the least.

Discussion of findings

Hypothesis 1

This result is contrary to the finding of Odok (2013) and Eamon (2005) who attested that family sizes are linked to higher educational attainment of students. Odok (2013), Eamon (2005) and Eristwhistle (1986) explained that large families whether rich or poor are different to maintain. He argued that children with relatively small size families perform better in verbal and non-verbal tests, than children from large family size. Eristwhistle (1986) stressed that the reason is because children from large families have less frequent interactions with adults. Similarly, Powel and Stellman (2010) and Van-Ejick and DeGraaf (2012) argued that children's academic attainment depends on inputs of time and money from their parents, the more children in a family the less of both inputs to individual children with consequence for academic performance.

Hypothesis 2

The findings from hypothesis two indicate that there is no significant difference in academic performance of children and their family type. This is in contrast to Okon (1994) finding that the nuclear family tends to make for co-operation and democratic type of relationship and those parents in such families pay attention to the education of their children by providing physical materials while at same time preparing the child for subsequent career. Similarly, Iwork and Uwah (2008) were of the opinion that polygamous and extended family system is made up of more than one family unit and extends across more than two generations of human beings and that extended family system leads to parents not being able to provide basic school needs such as text books, which are necessary for students' academic performance. According to Ella, Odok and Ella (2015), the family type that a child comes from, nuclear, polygamous or extended, usually has an impact on a child's academic performance.

Hypothesis 3

The findings from hypothesis three indicate that there is no significant difference in academic performance of children and their family support. The study runs contrary to the position of Fan (2001) that parents' educational aspirations for their children prove to be strongly related to students' academic growth. The findings did not agree with the position of Scgreehneider and Lee (1990) in that they linked academic success of East Asian students to the values and aspirations they shared with their parents, and also to the home learning activities in which their parents were involved with them. In addition, Harderves (1998) in Oni and Adetoro (2013) asserted that families whose children are doing well academically exhibit characteristic such as motivating children's development and progress in school, which includes

maintaining a warm and supportive home, showing interest in children's progress at school; helping him or her with homework, discussing the value of a good education and future career with children among others. The finding could be partly due to some factor like intelligence of the students, self-support or motivation, effective classroom delivery, positive or healthy competition among students.

Conclusion and recommendation

It is evident that none of the indices or independent variables of family size, types and family support has a significant influence on students' academic performance in this context, the fishing settlements of Ogun Waterside Local Government Area of Ogun State of Nigeria. With regards to the findings of the study, the researchers recommend for increased collaboration between parents/guardians and the school for improved learning and academic performance. They also recommend that the adoption of moderate family size as a practice to maximize available resources to support children learning and improve academic performance.

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The development of a locally appropriate instrument for measuring children's readiness for school

Gabriel Y. Chamdimba & Symon Chiziwa
Chancellor College, University of Malawi

Abstract

Early Childhood Development and Education (ECDE) in Malawi is being implemented with shortfalls in a number of areas, one being the inability to rigorously assess children's readiness for primary education. ECDE in Malawi lacks a standardised instrument, which will produce an in-depth analysis of children's readiness in all developmental domains. This paper shares the results of an applied research study that developed an instrument based on the Malawi Early Learning Development Standards (ELDS) by using factor analysis to reduce and cluster items. For the pre-test, 41 children were used and 300 for the post-test on the 88 item instrument, which was divided into child development domains. Factors extracted in the domains explanations ranged from 50.672% to 56.088% of the total variance. The α Coefficient ranged 0.545 to 0.861. This implies that the resultant instrument can be used with confidence to assess pre-school children's readiness for primary education.

Keywords: Early years learning. Developmental domains. School readiness. Standardised instrument.

Introduction

The first six years of a child education in Malawi is spent as pre-schooling. Children are enrolled in kindergartens, nursery schools and Community Based Childcare Centers (CBCCs). After pre-school, children enter primary school at the age of 6 of which the first four years of teaching are in local language. After the eight years of primary school, there is four years of secondary education followed by tertiary education, which is dependent on the awards received. There are alarming figures of standard one repetition (27% boys and 25% girls) and dropout (12% boys and 14% girls) rates for boys and girls in Malawi that suggest among many factors that a number of children enrolled for primary education are not developmentally ready (Ministry of Education, Science & Technology, 2009). This implies that children who enter primary school are not assessed adequately to find out if they are ready for the transition to primary school activities, tasks, and the environment (UNICEF, 2010). When these children enrol in standard one, they fail to cope with the demands of the school, teachers, and the syllabus (Ministry of Gender & Community Services, 2011). Against this background, most children find the school environment hostile, incompatible and insecure. As a result, they do not perform as expected and consequently they are forced to repeat while others just drop out.

There is a growing body of evidence that show the link between the foundations of pre-school going children, and the level of success in education they experience later on (Robertson, Morrissey, & Rouse, 2018). A more robust solution is the use of a psychometrically, culturally appropriate instrument to measure children's readiness levels for school during pre-school programme before they transit to primary school

(Britto, Rana & Wright, 2012). The instrument provides ample time for the caregivers to assist children in weak areas (developmental domains) and it is not used to delay students or as a placement tool (Bain, Brizzi, Geier, Minglin, Veselsky & Weems 2014; Bingham & Whitebread, 2014; Little, Cohen-Vogel & Curran, 2016).

Ngauriya (2004), Brito and Lumlingan (2010), Zollitsch and Dean (2010), and Gehsmann and Templeton (2011) found out that Western instruments used for assessment in African pre-schools lacked the cultural aspect to suit the everyday activities expected by the society and that the instruments contain tasks expected to be mastered by children, which are not done locally due to lack of resources. Currently as a county, only one child development instrument with strong psychometric properties was developed in 2010 but is not used in CBCCs across the country. The Malawi Development Assessment Tool (MDAT) (Gladstone *et al.*, 2010), developed in Malawi only measures three developmental domains from the six defined in the ELDS with the majority of CBCCs using portfolios as tools to assess children achievement levels. The aforementioned was the impetus for the development of a locally appropriate school readiness instrument. The instrument is easily used and interpreted by caregivers to support instruction and assist in an early intervention of children at risk of future failure. Thus, smoothening transition to primary education, this will in turn reduce dropout and repetition rates for standard one in primary schools that is high in Malawi at the moment.

The research question, which guided the study, was: how can a locally appropriate psychometrically sound instrument to measure children's readiness for school assist caregivers to pinpoint developmental domains in which children are not developed fully and later provide a better transition of children to primary school?

Background to study

There is adequate evidence in literature (Diamond *et al.*, 2013; Bingham and Whitebread, 2014; Zhang, Ho & Kennedy, 2014) indicating that children readiness for school must be measured in the six domains namely: Physical health and well-being; Social development; Emotional maturity; Language and cognitive development; Spiritual and Moral Development; and Communication, and that high levels of readiness have an important impact on children's adjustment to school and short- or long- term school achievement. Early childhood leaders have advocated the use of authentic assessment approaches for accountability purposes, indicating that these methods are more appropriate for young children (Zollitsch & Dean, 2010; Rice, 2014; Bagnato *et al.*, 2014). Emerging research shows that authentic assessment approaches, used for accountability purposes, can yield technically adequate assessment data (Bagnato et al., 2014), without compromising the results of high-stakes assessment.

Research (Barbu *et al.* 2015; Zollitsch & Dean, 2010) have shown that the quality of a school readiness assessment is a direct function of its psychometric characteristics. The best measure of the quality of a school readiness assessment is built upon the degree to which it meets or exceeds standards for various psychometric qualities. According to Zhang, Ho and Kennedy (2014), Alotaibi and Youssef (2013), the psychometric properties of a school readiness assessment tool(s) necessitate the qualities of the tool.

Theoretical framework for assessing children's readiness for school

The research was based on the foundation that school readiness can be best understood by addressing the contextual variables within the different theoretical principles of child development and learning. The theoretical principles namely; children development is holistic, children learn best when their physical needs are met and children learn through social interaction with adults and fellow children are crucial in developmentally appropriate practices. The principles are based on Piaget's theory on Constructivist learning, which argues that humans generate knowledge and meaning from an interaction between their experiences and their ideas (Mogashoa, 2014; Amineh & Davatgari, 2015; Munafo, 2016). Knowledge is constructed as a result of dynamic interactions between the individual and the physical and social environments (Kimmerle, Moskaliuk, Oeberst & Cress, 2015; Tian, 2018).

The theory is a fundamental foundation of ECDE learning in CBCCs, as children are given tasks in and outside the classroom to play and explore around as such ideas are developed and skills learnt. In short, children discover knowledge through active experimentation (Taber, 2011). The teacher encourages and fosters a relationship with peers and other adults by supporting the child in his or her efforts and later allowing the child to function independently (Boren, Downer & Vitiello, 2015; Allen & Kelly, 2015). It is with this theory that in practice, children develop their emotional, social, and communication skills but also these interactions enable children acquire different skills.

Methodology

Study area

Zomba District is in the Southern Region of Malawi, with a population of over 579, 639 of which 52% are women (Zomba District Education Plan, 2010). As a District, Zomba has more than half of the population below the age of 19, representing a 55% which is eligible for education (Zomba District Education Plan, 2010). Community Based Childcare Centers in Zomba District were used to collect data.

Research design

A quantitative research was followed, which, according to Creswell (2013), is an approach tool in which the investigator primarily uses postpositive claims for developing knowledge that is, cause and effect thinking, reduction to specific variables and hypothesis and questions, and also use of measurement and observation. The choice was also based on the fact that it employs strategies of inquiry, amongst which collecting data on predetermined instruments that yield statistical data. A survey design was used to assess if the developed instrument and its five domains can be used to measure children's readiness for school. The research design was selected since its purpose is to generate from a sample to a population so that inferences can be made about some characteristics, attitudes, or behavior of the population (Benerjee & Chaudhury, 2010). This enables replication of the study. The design is in line with the nature of the instrument as it consisted of Likert scale items to which caregivers responded by observing children and using

their past experience with the children in the developmental domains mentioned above. The independent variables investigated are the age of a child (all must be 5 years of age at the time of assessment) and the type of pre-school the child attends which CBCCs only were used. The dependent variable investigated in the analysis is the scores of item responses.

Hypothesis

A locally appropriate instrument developed with strong psychometric properties will assess children's readiness for school than conventional instruments.

Study sample and sampling method

The target population included all CBCCs manned by SAFE, a non-governmental organization (NGO) working with children and the elderly in the Zomba rural and semi urban areas. A purposive sampling technique was used in the study, which comprised a total of 41 five-year old children during pretesting and 300 during post testing at the time of assessment. Children of 5 years old and enrolled in these CBCC were all considered for assessment. The selection of this age group was done because children of this age are expected to enroll in standard one of primary education the next academic year.

Data collection procedures

A children's 'readiness-for-school' instrument was developed and implemented to measure children's level of school readiness. The instrument has structured observation items which are used to collect information about each child's behavior, abilities and skills. According to Zollitsch and Dean (2010) employing a systematic approach in observation, caregivers regularly collect enormous information about individual child's abilities in the child's natural setting

The instrument was developed using Chichewa (the National language of Malawi) and included sections of the six domains as indicated above. Items from the instrument were formulated from the indicators of the ELDS in each domain while some items were adapted and in agreement with the ELDS changed to suit the local context. A school readiness instrument has some room for adjusting items to ensure relevance to local context (Janus, 2005; Maccow, 2015). The developed instrument was based on the presupposition of a holistic assessment of children's readiness for school. The instrument contains 88 items divided in different domains to measure children's level of development in several areas.

Reliability of the instrument was done in domains using the factors extracted when performing factor analysis. Reliabilities of factors in each domain were calculated to determine the inter-item consistency of each factor. Items, which decreased reliability of a factor, were excluded in the final instrument. Descriptive statistics were performed together with the Cronbach α Coefficient. The validity of internal structure evidence was attained by the success of factor analysis (Williams, Brown & Onsman, 2012). According to Cleary *et al.* (2015), this type of validity suggests that items line-up in a predictable manner, according to what thematically ties them together conceptually. Content validity was done by an expert from the University of Liverpool in the United Kingdom, who developed the Malawi Development and Assessment Tool (MDAT). Later, changes were made by restructuring items and adding emoticons to make the instrument child friendly.

Consultations were done with some caregivers on their understanding of the new version.

Data analysis and interpretation

Factor analysis was used to analyze the data. Firstly, data was checked to see if it is suitable for factor analysis and this was done by using the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of Sphericity (Karami, 2014). Then the principle component analysis method of extraction of the factors was chosen after comparing results with principal axis factoring and that the correlation matrix showed very little item correlations. After choosing the rotation method, the Kaiser Criterion (eigenvalue >1) and Scree plot graph were used in the investigation to determine the number of factors (Karami, 2014). The Varimax and Direct Oblimin methods of rotation were used. The Varimax was finally used because after running the Direct Oblimin method, there was no significant correlation of factors. Lastly, the factor loadings were interpreted and labeled. The whole steps were data suitability for factor analysis; how the factors will be extracted; the criteria to assist in determining factor extraction; rotational method selection; and interpretation and labeling of the factors.

The reason for employing factor analysis is because it is a multivariate statistical procedure that has many uses. Firstly, factor analysis reduces a large number of variables into a smaller set of variables (also referred to as factors). Secondly, it establishes underlying dimensions between measured variables and latent constructs, thereby allowing the formation and refinement of theory. Thirdly, it provides construct validity evidence of self-reporting scales, test, or instrument. Fourthly, it addresses multicollinearity, which is a situation where a number of independent variables in a multiple regression model are closely correlated to one another.

Findings

Results from testing the instrument and analysing the data showed strong psychometric properties. High values (>0.7) of a and r were obtained. The values in the analysis findings provided evidence of reliability (inter-rater, test-retest and split-half) and validity (content, construct, criterion referenced and face validity) of the instrument. Items have been reduced from 88 to 56, of which were able to explain about 60% of what the 88 items measured. The instrument yielded data that examines children's readiness for school level on a metric scale. Summative interpretation of the data provides an opportunity to caregivers for a holistic assessment of children's readiness for school.

Comparing factor methods

In trying to understand the nature of the items, factor analysis method; principal axis factoring (PAF) and principal component analysis (PCA) were run to check the behavior of the data so as to make a valid reason of which method to choose. Table 1.0 summarises the findings below.

Table 1.0 summary of the two factor analysis method

Factor Analysis Method	KMO	Approx. Chi-Square	Sig.	Factors Extracted	% of variance
Principal Axis Factoring	0.851	13370E4	0.000	22	67.027
Principal Component Analysis	0.851	13370E4	0.000	22	67.027

For PAF, the KMO was 0.851 while the Bartlett's Test of Sphericity showed a significance of 0.000 with Chi-Square of 13370. Twenty two factors in the domains were extracted cumulating to 67.027% of explained variance. On the other hand, PCA resulted in KMO of 0.851 while the Bartlett's Test of Sphericity showed a significance of 0.000 with Chi-Square of 13370. Again, twenty two factors in the domains were extracted cumulating to 67.027% of explained variance. It concludes that both methods have the same results on the data and to further investigate on uni-dimensionality, Promax was run on PCA to check correlations between the 22 factors extracted. The result showed the highest correlation was 0.462 between factor 21 and factor 8 with the rest having low correlations. This showed that there is no relationship between the factors. It was decided that the factor in each dimension will be extracted by PCA and Varimax rotation using Kaiser Criterion.

Statistical analysis of the domains

The item communalities were also investigated by means of the PCA and PAF and the axis were rotated according to Direct Oblimin and Varimax rotation methods to check the items statistical inter-correlation. In line with the "Children's readiness-for-school-instrument when such success of factor analysis is attained, it can be concluded that we have validity evidence supporting the conclusion that the scores from the instrument are a valid assessment of a children's readiness for school (Williams, Brown & Onsman, 2012). The kind of validity evidence is called internal structure evidence because it suggests that items line up in a predictable manner, according to what thematically ties them together conceptually (Salazar *et al*., 2015).

The Varimax rotation method was chosen as there was no significant statistical inter-correlation of items and the two rotation methods produced similar results. According to Arifin (2015), factorability of 0.3 indicates that the factors account for approximately 30% relationship within the data, or, in a practical sense, it would indicate that a third of the variables share too much variance, and hence becomes impractical to determine if the variables are correlated with each other or the dependent variable (multicollinearity). Salazar *et al*. (2015) found out that the practical differences between the two rotations methods are often insignificant, particularly when variables have high reliability. Item analysis involved running factor analysis for each domain. Result showed high figures of KMO and Bartlett's Test of Sphericity indicating that the items were fit for factor analysis. The reduced items are able to explain more than half of what the total items could explain. This entails that the new instrument explains readiness for school (total variance) similar to the first instrument. Table 2.0 summarises the findings of factor analysis below.

Table 2.0: Summary result of factor analysis

DOMAIN	(KMO)	BARTLETT'S TEST OF SPHERICITY	FACTORS EXTRACTED	TOTAL VARIANCE EXPLAINED	NO. OF ITEMS REMOVED	NO. OF ITEMS MAINTAINED
Physical Health and Wellbeing Development (PHWBD)	0.846	1139 (*p=0.000*)	2	50.672%	5	12
Social and Emotional Development (SED)	0.776	973.797 (*p = 0.000*)	4	58.088%	16	14
Language and Communication Development (LCD)	0.868	2158 (*p = 0.000*)	5	53.341%	9	23
Spiritual and Moral Development (SMD)	0.864	958.758 (*p = 0.000*)	1	51.17%	1	8

To check on reliability of the instrument, **α** coefficient for each factor were calculated and ranged from 0.545 to 0.861. The coefficients are all high strengthening the reliability of the instrument. Table 3.0 summarises the reliability results.

Table 3.0: summary result of factor reliability

DOMAIN	FACTOR	α COEFFICIENT
PHWBD	1	0.836
	2	0.716
SED	1	0.724
	2	0.751
	3	0.655
	4	0.615
LCD	1	0.807
	2	0.758
	3	0.762
	4	0.545
	5	0.687
SMD	1	0.861

Items for the final readiness instrument

Description of each of the different domains as well as the factors that were produced from the items is presented in Table 4.0. The factors formed sub-domains and are assigned names that relate to each item in them.

Table 4.0: Items per subdomain and domain of the final school readiness instrument

DOMAIN	FACTOR NUMBER	SUB-DOMAIN	ITEM NUMBER
Physical Health and Well-Being	1	Physical independence and gross & fine motor skills	9, 10, 11, 12, 14, 15, 16
	2	Physical and dietary needs	2, 3, 4, 5
Social and Emotional Development	1	Anxious behavior	42, 43, 44, 45
	2	Responsibility and respect	30, 31, 32
	3	Approaches to learning	19, 21, 23, 25
	4	Aggressive and impatient behavior	37, 38, 39
Language and Communication Development	1	Advance numeracy	66, 71, 72, 73, 74, 77
	2	Numeracy and attentiveness skills	62, 69, 70, 75, 76, 79
	3	Basic literacy and numeracy	49, 54, 61, 65, 67, 68
	4	Advance literacy	59, 60, 64
	5	Clear articulation	51, 51
Spiritual and Moral Development	1	Knowledge and awareness of religious practices and cultural values	80, 82, 83, 84, 85, 86, 87

From the first (draft) instrument of 87 items, 31 were removed. The final instrument has 56 items in six domains of which some are combined on the instrument.

Scoring the Likert scale and interpreting the results

The items in the instrument were divided in four sections, which represent the six domains. In these sections, items were also in groups, which are distinct by the levels of categories of the Likert scale. Fifty two items were four-point scales and the other items were measured on a three-point scale. The four domains were categorized for easy identification of areas requiring intervention, which were each allocated a 25%, all summing up to 100%. The final score was then subjected to the school readiness scale to assess the child's level of readiness. Figure 1.0 below shows the metric scale.

The scale provided an indication of the child's level of readiness and it emerged that it might assist caregivers to implement appropriate interventions. This is based on the calculations being done in each domain, which are $X = x_1 + x_2 + x_3 + x_4$ where X is the final score for the child, x_1 is the score for the PHWB domain, x_2 is the score for the SED domain, x_3 is the score for the LCD domain, and x_4 is the score for the SMD domain.
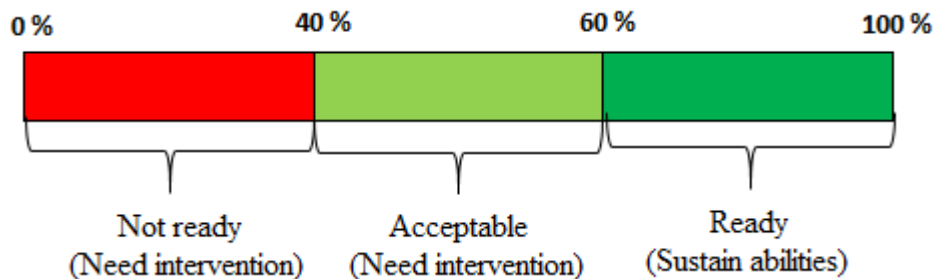
Figure 1.0: School readiness measurement scale

Discussion

This is one of the studies that developed a culturally appropriate instrument to mitigate effects of repetition and dropout rate in the first year of primary education. Thus, aligned with the need for valid and reliable instrument that is easy for caregivers to complete (Diamond *et al.*, 2013) the study developed a psychometrically sound instrument to examine children's readiness for school.

Overall, all the domains showed high values of the KMO with *p*-value of 0.000, providing significant evidence that the data in the domains were acceptable for factor analysis. In the PHWBD, 12 items maintained are explaining 50.67% of what the initial 17 items were. In SED, 14 items maintained are able to explain 58.08% of what the initial 30 items were. While in LCD, 23 items maintained are explaining 53.34% of what the initial 32 items were. In SMD, 8 items maintained are able to explain 51.17% of what the initial 9 items were. The result shows that reduction of items or questions in all the domains does not affect quality of the instrument to provide accurate information about children's readiness for school. Internal consistency validity of the instrument was attained from significant values of factor analysis. This gives strong evidence about validity of the instrument. High and acceptable values of **α** coefficient provided evidence of reliability.

In practice, the reduced number of items allows simplicity for caregivers to assess children in all the domains without compromising the results. Items from the final instrument are developed to provide different level of development: exploring, developing, building, integrating and applying that allow the caregivers to have a holistic measure of children's readiness for school. Evidence of validity and reliability demonstrate evidence that the instrument will produce accurate results even if used over time on the same children. According to Zollitsch and Dean (2010) reliable assessment instrument enables a caregiver to account for individual variation among children leading to a more vigorous measure of their readiness.

The study is based on the theory that child development is holistic and integrative and that several domains simultaneously contribute to academic

outcomes at an early and later stage. This necessitates that educators and educational policies must incorporate the information of the interdependency of children's early skills and inter connectedness of the different domains of school readiness to inform curricular design (Barbue *et al.*, 2015).

Policy makers in ECDE must incorporate policies that will standardize how children are assessed when they are on the verge of transition to primary schools and promote activities in CBCCs that will assist child development across all areas which all these will in turn improve children's readiness for school. This study used a multiple domain approach in developing the readiness for school instrument and can assist the caregivers and curriculum design by identifying teachable activities and skills that would contribute to academic success. The development of the locally appropriate instrument to measure children's readiness for school has conventional sound psychometric properties and does provide accurate assessment of children's potential success than the existing assessment tools like portfolios which specifically tackle one domain.

If children start standard one with positivity in them, the status alter children's perception of the most important stage and it leads to a successful primary school years as it improves children's attitudes and competences. If educators and preschool providers utilize this instrument well, it has the potential to function as one of the basis for curricular planning and approaches to teaching activities and styles in CBCCs. This is supported as the instrument takes multiple domains to assessing children's readiness for school as children development is valued as holistic. Malawi is seeing an increase in the number of providers of ECDE and the interventions should go beyond providing playgrounds but should be informed by research on children's readiness for school.

Limitations

Although efforts were put on strong psychometric properties, due to time, other psychometric properties like Differential Item Functioning (DIF) were not done. Although caution was engaged to ensure that items measuring constructs were not biased, it is likely that some items in the instrument would meet censure. According to Mohamed (2013), psychometric properties will always carry a degree of methodological difficulty. However, it is anticipated if the tool is retested at national level can yield results that will assist towards the development of a more robust tool for assessing school readiness.

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The responsiveness of civic education teacher training curriculum towards democratic citizenship in Zambia

Exsaviour Sakala
School of Humanities and Social Sciences
Kwame Nkrumah University

Kalisto Kalimaposo
School of Education
University of Zambia

Abstract
This study took into account the views of universities and colleges of education lecturers and student teachers on the responsiveness of civic education teacher training curriculum. The study was conducted in Lusaka and Kabwe Districts of Zambia. Face to face interviews with lecturers and focus group discussions with student teachers were used to collect data. Data was categorised into emerging themes such as the understanding of citizenship, pedagogical approaches and the challenges faced in the teaching and learning of civic education among others. the main findings of the study revealed that the teaching of civic education for the promotion democratic citizenship ideals in colleges of education and universities has not been successful as expected. The study established that majority of participants had a minimal understanding of the concept citizenship. Secondly, civic education teacher curriculum was deficient on active and practical learning pedagogies. Lastly, colleges and universities have a lot of challenges that hamper effective teaching of civic education and the promotion of democratic citizenship ideals. These range from huge student numbers to unqualified lecturers. In view of these findings, it is highly recommended that all the stakeholders involved in teacher preparation should come together and re-examine the civic education teacher training programme, with the view of closing the gaps that currently exists.

Introduction
Interest in civic education has increased worldwide in the last decade. Some scholars as Print and Lange (2012) view this dimension of education as an opportunity to prepare young people to understand and become democratic citizens involved in the civic life of their communities from the local to the global. Halstead and Pike (2008) view it as a way to respond to a range of existing social and civic concerns. Whatever the reasons, there has been an increase of research studies, formal discussions, and curriculum initiatives throughout the world as teachers, policymakers, and researchers attempt to understand and assess the complex processes by which young people learn about civic education to become democratic citizens.

At the centre of civic education is the issue of citizenship. Of late civic education has tried to broaden the scope and understanding of citizenship, from a narrow

perspective of belonging and membership of a nation to that of participation, rights and responsibilities (Bawa, 2011). However, democratic citizens can only be produced by competent teachers who are also democratic citizens conscious and motivated to teach civic education in schools. Citizens need to be taught democracy to become democrats (Bawa, 2011). There can be no democracy without democrats, without inculcating democratic and participatory skills in citizens, democracy remains an illusion.

The preparation of quality teachers is a challenging task in both developed and less developed countries (Molosiwa, Moswela & Mkhopadhyay, 2009) cited in Oats (2014). Zambia is not an exception and in this quest, particularly with regard to civic education teachers who are tasked to mould democratic citizenry. As a step towards the fulfilment of teaching civic education in schools, the Zambian Government has made it mandatory that all pupils undergo some training in civic education at secondary school level. This task meant that qualified teachers in civic education were to be trained for the subject to be responsive towards democratic citizenship (CDC, 2012). This is significant in that teachers, as an important variable in youth development, should be well equipped with civic education knowledge, values and skills so that they can effectively impart the same to the pupils.

Zambia has made relentless efforts in its endeavour to emulate the Western world such as England which has dedicated 5% of secondary school time to teaching civic education since 2002 (Halstead & Pike, 2008) by coming up with some packages to support its civic education programme. The National symposium on civic education spearheaded by Professor Geoffrey Lungwangwa in 1995 recommended that civic education be part and parcel of the school curriculum and introduced in all High schools (CDC, 2012). The demand for civic education in secondary schools has placed a corresponding demand on civic education teacher training and teacher staff development. The training is meant to ensure that teachers have well-grounded concepts and strategies to contribute to the children's moral, ethical and political development. It is thus of utmost interest to note that the teacher has been accorded such a high responsibility of shaping the future leaders of the nation.

However, of concern is the observation that very little seems to be known about the responsiveness of civic education teacher training curriculum towards a worthwhile cause for democratic citizenship. It has also been noted that very little research on responsiveness of civic education teacher training curriculum towards democratic citizenship seems to be available. This scenario motivated the researchers to conduct the study to establish the responsiveness of civic education teacher training curriculum towards democratic citizenship. The experiences of student-teachers and lecturers during the course of the programme and their reflections after undergoing the course are vital in establishing the efficacy of the programme. Biesta (2011) envisaged that engaging student-teachers in active participation in civic education is one avenue of making them more responsible and democratic citizens who will be empowered to mould responsible pupils in schools.

Statement of the problem
It appears the introduction of civic education as a teaching subject in colleges of education and faculties of education in universities in Zambia has been received with renewed interest among students. This is evident from the large numbers of students

studying civic education (Muleya, 2015). Civic education is premised on producing well informed, committed, active, critically reflective and democratic citizens who will be of service to their communities. However, since the introduction of civic education in colleges of education and universities in Zambia, little research has been conducted to establish whether or not the civic education teacher curriculum is responding to promoting democratic citizenship ideals in Zambia. Therefore, this study sought to assess the responsiveness of the civic education teacher training curriculum towards democratic citizenship in Zambia.

Purpose of the study

The main purpose of this study was to assess the responsiveness of civic education teacher training curriculum towards democratic citizenship in selected colleges of education and universities in Zambia that train teachers of civic education.

Research objectives

The study was guided by the following objectives:

1. To assess the understanding of the concept citizenship by lecturers and student-teachers as encapsulated in civic education teacher training curriculum.
2. To explore the pedagogical approaches lecturers' uses in teaching and equipping student teachers to enable them become democratic citizens through civic education.
3. To determine the challenges of learning and teaching democratic citizenship ideals through civic education in colleges of education and universities in Zambia.

Research questions

The study was guided by the following questions:

1. What is the level of understanding of the concept citizenship by lecturers and student-teachers as encapsulated in civic education teacher training curriculum?
2. What pedagogical approaches do lecturers use in equipping and teaching student teachers to become democratic citizens through civic education?
3. What are the challenges of learning and teaching democratic citizenship ideals through civic education in colleges of education and universities in Zambia?

Significance of the study

A study on the responsiveness of civic education teacher training curriculum towards democratic citizenship is vital in understanding the extent to which civic education was responsive towards democratic citizenship, and how it was impeding or promoting democratic citizenship ideals. The study will be useful to curriculum planners, lecturers, teachers and students by helping them come up with practical

insights about the teaching and learning of civic education in enhancing democratic citizenship ideals.

Ethical considerations

All ethical considerations in this study such as seeking permission from the university and college authorities, issues of confidentiality were taken into account and other basic research conventions.

Constructivist theory

Constructivism refers to the process by which human beings understand and actively make sense out of the world around them. Constructivism is therefore, seen as a lifelong learning process that enables the teacher to realise the necessity of self-reflective practice as key to professional growth (Robert & John, 2003). This is the logical necessary tool for teaching students to become reflective learners with regard to academic work. However, there is a commonly found reality that teachers who may be well-versed and highly proficient at constructivist teaching within the academic curriculum often resort to traditional, passive learning models for their social curriculum (Bentley, 2007).

According to White (2000), constructivism encourages student teachers participation in the learning process as agents of change. It requires that student teachers share what they have learnt from their teaching experiences by reflecting on the experience, and then generating and sharing new insights with their society (Crick, 2007), but the sharing of knowledge can only be effective with proper and responsive teacher training curriculum and use of appropriate learning and teaching pedagogies. This kind of activity is valued because of its context; it engenders shared learning experiences and creative thoughts focused on what is known to unknown. Constructivist theory is highly regarded as being efficacious in ensuring meaningful integration of knowledge and practical skills.

In terms of classroom situation constructivist theory is the means to the provision of greater variety in teaching methods with students participating and being actively engaged in the learning process (Crick, 2007). Based on this inherent principle of the provision of a variety of teaching methods, suitable teaching techniques in constructivist-oriented classrooms for teacher trainees could range from debate and discussion on topical national and international issues, group work, projects, service learning and visits to different strategic institutions and places (Kim, 2005). Similarly, student-teachers could be exposed to diverse range of assessment techniques such as individual assignments, coursework, oral presentations and projects or research activity in addition to examinations.

This study maintains that it will be too difficult or impossible for teachers to effectively transmit democratic citizenship values unless they use the constructivist theoretical approach for active and critical approaches to teaching and for this to take place teachers need deeper exposure to active teaching approaches during their training. As such this study is seen vital as it seeks to investigate the methodological approaches used in civic education in universities and colleges of education for the transmission of democratic citizenship ideals.

If civic education teacher trainees are exposed to an active learning environment they are likely to learn both the skills of participation and the value of tolerance, respect and equality. Consequently, they would apply these virtues while practicing as teachers (Boghossian, 2006). Based on the tenets of constructivism approach of knowledge construction by the learner, this study aimed to challenge some deep-seated assumptions and practices in civic education teacher training which are responsible for the production of civic education teachers who claim to be transmitters of democratic citizenship ideals but are not active and democratic themselves. The researchers believe it is time civic education student-teachers are developed into competent citizens who participate actively in social, political and economic processes to enable them to develop commitment to democratic beliefs, and further question existing processes in relation to democratic doctrines of freedom, equality, justice and value for diversity in society when in the teaching service.

Literature review

The notion and development of citizenship
The concept of citizenship emerged in Greece during the Archaic Age (776-479 BC) and has been a persistent human social need. It later flourished in the following classical age during which time it was the subject of some distinguished thinking (Heater, 2004). In the period of the Greek and the Roman civilisations, citizenship was adopted as a legal term and an expression of social identity (Heater, 2004). During the period of the Greek city states, the Roman Empire, the Medieval and Renaissance City and the nation state, each constructed its individual version of the concept. For this reason to present day citizenship and civic education are both contextual, as different states have different goals concerning the type of citizens they want to produce. It thus means that the cherished ideals, the subject matter and pedagogical issues will always differ from one country to another.

Heater (2004) expounds that re-invention and change on citizenship perception was propelled by forces such as political needs of participation and loyalty. There were also philosophical, military and economic forces. The philosophical forces were based on the notion of popular sovereignty which assumes that the existence of power by any individual or group of individuals is legitimate only if endorsed by the populace. The explanation from the economic point of view for the emergence of citizenship was due to the fact that in the early phases only the economically privileged classes held the status of citizenship in the society. It was this section of society which had full and better access to citizenship privileges. The military explanation on the other hand assumed that citizens were those who were able to defend their city. This was based on the fact that the Greek polis or city state was originally defensive in nature (Heater, 2004). Citizenship therefore emerged when the economic and military points of view matched with the political abolition of monarchical power. Other scholars such as McCowan (2009) distinguish citizenship according to the civic republican divide of rights and duties. The liberals in the civic republican thought argue for a right based approach of citizenship while the communitarians support the duty based approach.

Civic education curriculum as a means of teaching democratic citizenship
On the origins of civic education as a school subject, Heater (2004) writes that civic education had its origins in the United States and that it was subsequently adopted and popularised in the United Kingdom and only at a later stage infiltrated into Africa. In Africa, civic education spread partly as a result of the British influence on the curriculum activities in its colonies and partly as a result of the efforts of the Africans themselves to keep pace with educational developments in the Western world. It must be noted however, that civic education is also an African ideology. That is, Africans from time immemorial have transmitted civic education elements to their children (Kymlicka, 2003). These they did through family socialisation and initiation schools. As a formal school subject civic education started in the western world and has been contextualised for Africa to suit African conditions on realisation that the subject can have immerse input in instituting democratic citizenry ideals (Kymlicka, 2003).

On the rationale behind the introduction of civic education in Zambia, the Curriculum Development Centre (2012) points out that civic education as a subject was originally conceived soon after the national symposium on civic education spearheaded by Professor Geoffrey Lungwangwa. The subject was setup to equip students with information to address a range of social and political challenges facing the nation. These changes were also accompanied by new developments in terms of problems in culture, societal setups, communities and families (CDC, 2012). With time it also emerged that environmental and political problems could not be solved unless citizens were properly prepared to participate in their community and nation's decision making and problem-solving process. For this reason Civic education emerged to prepare citizens for these challenges.

CDC (2012) noted that in 1995, the Ministry of Education and the Southern University Democratic Governance Project USAID/Zambia convened a national symposium involving teachers, NGO representatives, traditional leaders and government to propose a new civic education syllabus for senior high school classes, grades 10 to 12 in 2003, which, previously, did not have the subject in the school curricula. The lack of the subject in these classes was viewed as a form of disjuncture or disequilibrium in the Zambian school curriculum. It was only after 2006 that the subject was introduced to all secondary schools while at the University of Zambia it was introduced in 2007 and at Kwame Nkrumah University in 2009. The secondary school curriculum on the other hand covers topic to deal with the immediate environment, regional and global, goes further to address contemporary and controversial issues (CDC, 2012).

CDC (2012) indicates that the rationale for introducing civic education in Zambia was to focus on issues and problems relevant to the experiences of the learners, communities and the nation at large. This was in view of the fact that some subjects that were in the school curriculum such as History, English or Mathematics though important for academic purposes, were deficient in content that could transmit democratic citizenship ideals (CDC, 2012). Though these subjects were valuable in the education of learners on academic issues, they were largely inappropriate when it came to the education of citizens for effective citizenship roles and addressing challenges and problems that confront them and their communities.

Some of the themes and topics that have been incorporated into the Grades 10 to 12 civic education syllabus are reflected with varying content depth in the colleges of education and university syllabi. These include topics, among others, constitution, citizenship, and governance system in Zambia, introduction to human rights, corruption, and introduction to cultural studies, substance abuse, family law, development planning, and poverty in Zambia, environmental education and global issues. Undoubtedly, the teaching and learning of civic education can help society recognise the role that this subject plays in our democratic and constantly changing world (CDC, 2012). The University of Zambia civic education syllabus has relatively similar content, showing a link with the subjects taught at secondary school. Among the courses taught at the University of Zambia include but not limited to the following the Introduction to civic education, introduction to governance, citizenship, constitution and human rights, social and economic development, Zambian culture and gender studies, civic education teaching methods, public legal education studies, themes and core principles in democracy, advanced civic education teaching methods and civic education project (UNZA, 2007)

Despite the interesting curriculum for democratic citizenship propagated by civic education curriculum, studies have revealed that the programme has numerous gaps in terms of citizenship training. In line with the above view Muleya (2015) in his study argued that following the right pedagogical practices in the teaching of Civic education can lead to social change and transformation of society. His study brought out important pedagogical issues that were lacking in civic education in schools that can promote democratic citizens. Civic education as it stands was not modelled on practices that can lead to producing democratic citizens; service learning approaches are rarely promoted in civic education lessons; teaching approaches in schools with respect to civic education are greatly lacking. The study by Muleya (2015) is echoing the importance of having practical and active pedagogical approaches in civic education that can help in the production of democratic citizenry to transform society. However, the study by Muleya (2015) did not look at the understanding of the concept citizenship by college and university student teachers and lecturers and the challenges faced in the teaching of civic education at college and university level. It also focused on the teaching of civic education in schools and not colleges of education and universities. This is the gap this study will address.

Masaiti and Manchishi (2011) in their study looked at the responsiveness of the UNZA pre-service Teacher Education Programme. The main findings of the study revealed that there were gaps between what the UNZA programme was offering and what was obtaining in the High Schools. There was evidence that UNZA trainee teachers were exposed to a broad content material which, in some cases, did not take into consideration what was obtaining in the Zambian High Schools. The study also revealed that UNZA prepared teachers were weak in the delivery of subject matter in terms of methodology and that professional ethics were not part of UNZA Teacher Education Programme. However, this study had nothing to do specifically with civic education and citizenship. The study was more general and covered all teachers who had graduated from UNZA for all subjects regarding their conceptualization of the responsiveness of the pre–service teacher programme and as such allows studies such as the current one which is better focused to assess the responsiveness civic education teacher training curriculum towards democratic citizenship.

Feasible ways to teach civic education for fostering democratic citizenship

The constructivists' theory has fundamental implications on how to approach the teaching of civic education in Zambia. The 1996 education reform regards a teacher as a key element in the entire education system in the country. The success of civic education to teach democratic citizenship in Zambia thus depends on the commitment, competence and resourcefulness of teachers in the education system (Ministry of Education, 1996). The role of the teacher in this endeavour has many aspects. The teacher is expected to communicate knowledge in a manner that helps children and young people to develop both desired values and ability to learn. This means that the teacher should have good command of the methods and content of the subject matter they teach and be resourceful in translating knowledge into effective and practical learning experiences for students. What the policy is calling for is change in teaching approach which has been found to be extremely teacher-dominated. It is believed that such change can only take place if a student-centred pedagogy was to be adopted by teachers or lecturers. The starting point is effective teacher training to prepare teachers on diverse active teaching methods, techniques and approaches such as service learning.

However, practical activity is lacking in civic education teacher training in colleges, universities and secondary schools which predominantly use classroom instruction approach than practical orientation to learning (Matebele, 2005). This study therefore, challenges the learning institutions with civic education components to organise community and service learning activities through which students could have direct experience since civic education is more about doing rather than sitting and listening. This necessitates that civic education in Zambia's learning institutions be taught in ways that bring out the ever constant link between knowledge and practice. The interaction between concepts and action gradually produces the ability to think, thus acting with accountability.

Methodology

Research design

The study was purely qualitative. It involved soliciting information from respondents about Civic Education Teacher Training Curriculum at UNZA, Nkrumah, Fairview and Paglory Colleges of Education. The study was concerned about getting detailed views of the respondents. The key idea behind qualitative research is to learn about the problem or issue from participants and to address the research to obtain that information, Creswell (2012). Basically the study used a phenomenological design. The researchers wanted to explore in depth the University of Zambia Nkrumah, Fairview and Paglory Colleges of Education Civic Education teacher training programme. Creswell (2012) defines phenomenological study as a descriptive and interpretive study of how individuals experience and understand a phenomenon.

Target population, sample size and sampling procedure

The study focused on two secondary teacher training colleges, Fairview College of Education and Paglory College of Education and two public universities: Kwame Nkrumah University and the University of Zambia. The two private colleges of education and two public universities were chosen on the basis of having and offering civic education as a teaching subject. Twenty-four (24) student-teachers twelve (12) pursuing their Diploma and twelve (12) Degree students in secondary

education with civic education as a major and eight (8) lecturers were targeted; four (4) university lecturers and four (4) college lecturers. All the participants of the study will be homogeneously purposive sampled.

Research instruments and data collection procedures
The study used in-depth interviews with lecturers and focus group discussions with student teachers. For triangulation purposes, other sources such as documentary study were consulted.

Data analysis
Data analysis commenced in the field. The narrative method was used to analyse emerging data. Data collected was categorised into emerging themes namely understanding of citizenship, pedagogical approaches and the challenges of teaching civic education, among others.

Reliability and trustworthiness
Reliability and trustworthiness relates to the researcher not misrepresenting the views of the respondents. Reliability and trustworthiness is demonstrated when participants recognise the reported research findings as their own experiences (Maxwell, 2005). To ensure reliability and trustworthiness, the researchers tape-recorded the interviews and transcripts were made of each interview for referral adequacy. The researchers went back to some of the participants to ascertain whether the transcribed data was a truthful version of their experiences.

Ethical consideration during the research
According to Maxwell (2005) ethics refers to the quality of research procedures, with regard to adherence to professional, legal and social obligations to the research participants. The study followed the ethics of voluntary participation, not posing any harm to the respondents, anonymity and confidentiality.

Findings of the study

Understanding of the concept citizenship
Defining the concept citizenship seemed to have posed a challenge, as many participants viewed the concept differently. As a result, this study found it very important to gather lecturers and student-teachers views on the concept of citizenship since the way they understand and practice it has far reaching implications for the country. The following is what some of the respondents said.

> *"I would define citizenship as the sense of belonging to a particular Country". "Citizenship is the right of belonging to a particular nation and having the status of citizenship". "It's the sense of belonging and membership to Zambia as a country". "Citizenship having been derived from citizen is the sense of belonging"*

Appropriateness of teaching strategies democratic citizenship in civic education
The study revealed that participants were of the view that civic education was not modelled on pedagogical approaches that could produce democratic citizens. Practical approach to civic education was largely missing that can enable student-

teachers to develop competence and be effective participants in society. The issue of mini-projects also emerged as participants felt when given frequent, relevant and practical assignments to investigate issues that affect the community; they can have a feel of the challenges facing the nation. For the student-teachers true citizenship and civic education entail hands-on activities in which students take the centre stage in driving learning activities. The following is what some participants said:

> "The only methods that are used here are lecture method and tutorials. It becomes difficult always when you propose the issues of field trips". "I think there is need to do it in a practical way to enable learners to exercise what they learn". "I think the only good way we can prepare these students is by engaging them in what we would call community service learning, we should design what we call SLP (Service learning programmes". "There is need to have emphasis now on pedagogical practices that allow reflection and action from the learners".

Challenges of transmitting democratic citizenship through civic education

The study revealed that the teaching of civic education at aims to promote democratic citizenship ideals in colleges of education and universities faces numerous challenges faced These include among others, time constraints, inadequate educational and human resources, huge student numbers and limited lecture theatres. The following is what some participants said:

> "I think the challenges are many I think we still have a challenge on latest books on Civic Education". "Civic Education is still using people from various fields so they also need an element of capacity building". "We have so many students so training so many numbers with the limited resources, in terms of books and other things becomes a huge challenge". "The undemocratic nature of colleges was a major challenge to democratic citizenship, college management is very adamant in allowing the formation of student union". "We fail to use practical and active methods because there is no time for practical activities because the lecturers are overloaded and have the course outline to finish". "The biggest problem with Civic Education sir is trying to find a connection between what is learnt in class and involving learners in practical approaches".

Discussion

The discussion is guided by the research objectives.

Understanding of the concept citizenship
The first objective was to find out the understanding of the participants on the concept citizenship. The term citizenship was viewed differently by the participants. While it is human to differ, it was however unusual in some instances to obtain narrow definitions of the concept citizenship. The study revealed that most of the

participants had a minimal understanding of citizenship. They defined citizenship in terms of belonging hence my conviction that one's conception of citizenship influences the way they consider themselves as citizens of their country.

While some participants provided inclusive definitions of the concept citizenship, the response on 'belongingness' stood out as a shocking episode that needs further attention. Scholars such as Heater (2004) argue that such conceptualisation was restrictive in nature in terms of one's outlook and this could inevitably influence their contribution into communal and national agendas. It was worrying to note the overemphasis on "belonging to Zambia, my country" without mentioning of participation by a huge number of participants in the study. The argument advanced by Biesta (2011) indicates several shortcomings of the approach of 'citizenship-as-status'. Biesta (2011) defines 'citizenship as an outcome' that characterises participation. Against this background we have argued for a shift in research, policy and practice from the teaching of citizenship to the many ways in which children and young people learn democracy through their engagement in the practices and processes that make up their everyday lives. This view is informed by the idea of 'citizenship-as-practice' and emphasises the crucial role of the actual condition of young people's citizenship for their formation as democratic citizens. While the teaching of citizenship may have a role to play in young people's democratic learning, this learning is always mediated by what children and young people experience in their everyday lives about democratic ways of acting and being and about their own position as citizens experiences that are not always necessarily positive.

Appropriateness of teaching strategies for democratic citizenship in civic education

The second objective of the study was to find out appropriateness of teaching strategies used in civic education for moulding democratic citizenship in civic education. The findings of the study revealed that the state of civic education teacher training climate at university and college level has an unappealing face. Simply put, while the majority of lecturers indicated that they believe in active and practical methods to teach civic education concepts their students rejected such claims. Muleya (2015) argues that failure by lecturers to be exemplary in the usage of active, interactive and practical methods of teaching had far reaching consequences. This outlook was dominated by the hegemony of teacher-centred methods. Freire (1970) also makes it clear that the lack of student contribution in the teaching process makes the teacher the subject in the learning process while students are melted to the territory of objects that are just receiving deposits. This practice has a potential of limiting and compromising learners' critical thinking and awareness. This is against the constructivist theory that underpinned this study that argues that teaching should be an active and interactive process.

Challenges of transmitting democratic citizenship through civic education

The third research objective was to find out the challenges faced in transmitting democratic citizenship through civic education. The findings of the study revealed that the teaching of civic education in colleges of education and universities faces

numerous challenges. These include among others, time constraints, undemocratic college governance, inadequate educational and human resources, huge student numbers and limited lecture theatres. The findings of the study have shown that the transmission of civic education for moulding democratic citizenship in particular is faced with numerous challenges. Scholars within the discipline of civic education such as Muleya (2015: 277) affirm that "teachers of civic education face numerous challenges in the teaching and learning of civic education in schools. Unless something is done to redress such challenges the subject might not be seen to been enhancing social change and transformation of society". Even outside the discipline of civic education Mhlauli (2010) affirms that some challenges attributed to the implementation of social studies in Africa include the lack of instructional material, definitional problems and lack of trained and experienced teachers. It is however surprising that some of these problems were picked by earlier research and they still persist.

Conclusion

The study sought to find out whether civic education teacher training curriculum was responsive towards promoting democratic citizenship. The study concluded that the teaching of civic education was not successful as expected. The participants showed a minimal understanding of the concept of citizenship. The teaching methods that were used in the teaching of civic education were not suitable for promoting democratic citizenship.

Recommendations

The following were the major recommendations of the study:

1. Training of teachers of civic education in colleges of education and universities in Zambia should be reoriented towards active approaches such as service learning if these teachers were to be democratic citizens relevant in society.
2. There is need to redefine and broaden the understanding of the concept citizenship to include issues of participation than restricting it to "belonging" to a state only.
3. The huge student-lecturer ratio and the human resource deficit issues in civic education programme should be addressed so that quality is not compromised.

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Prevalent acts of learner misconducts in selected secondary schools in Malawi

Innocent Dumba, Nertha K. Semphere & Symon Chiziwa
Department of Education Foundations
Chancellor College, University of Malawi

Abstract

Learner indiscipline remains an issue of serious concern among different stakeholders in any education system. There is, therefore, a need for in-depth understanding of its prevalence especially in different education sectors. However, a better understanding of learner misconducts calls for knowledge of developmental stages and tasks of the learners otherwise there can be confusion between actual learner misbehaviour and natural behaviour typical of a particular age. This study sought to investigate the prevalent of learner misconducts from a developmental perspective. A mixed methods approach was chosen, employing data collection methods which included individual interviews, focus group discussions and surveys. The investigation focused on two secondary schools in Blantyre Rural which were purposefully sampled to participate in the study. Results showed that learner's indiscipline problems are widespread in secondary schools in Malawi and these range from minor infractions like absenteeism, going out of school bounds, poor dressing code, to serious offences like teasing and bullying, sexual offences, vandalising of school property and fighting teachers. It has been argued in this paper that developmental changes that take place during adolescence have an impact on these misbehaviours; hence the techniques that are used to curb this vice should be informed by research and theories in developmental psychology.

Introduction

The problem of learner discipline in Malawi has been there ever since formal education was established in the country. However, it appears the problem escalated with the advent of political pluralism and democracy in 1994. As Kuthemba-Mwale, Hauya and Tizifa (1996) observe, the coming in of multiparty democracy in Malawi brought some challenges to the education system. Amongst the challenges was the issue of human rights and freedoms, which was misinterpreted as absence of restraint and control. The misunderstanding of human rights brought discipline problems to schools, as enforcing of good discipline was seen as restricting and even violating the supposed freedoms of students and teachers (Kuthemba-Mwale *et al.*, 1996). Chigeda (2006) shared the same sentiments and added that misunderstanding of democracy resulted into negligence of duties and responsibilities by some teachers and also defiance of school regulations on the part of students, which resulted into general breakdown of learner discipline.

The consequences of learner indiscipline are devastating to the concerned students, schools as well as the nation as a whole. Research has shown that learner indiscipline negatively affects students' performance (Simba, Agak & Kabuka, 2016). When a school has been plagued with student indiscipline, the offenders are likely to be involved in disciplinary hearing and serving their punishments which may divert their attention from academic work. This also might interfere with the teaching process as teachers will spend some of their precious time attending to disciplinary hearings instead of facilitating learning among students. On the other hand, when students are disciplined, they are likely to remain focused on their educational goals and aspirations, manage their time well, work harder in academic subjects and show determination to succeed academically (Simba *et al.*, 2016).

Apart from being a precursor for academic performance, learner discipline is also essential in attainment of societal goals. A good academic qualification without a good foundation of discipline of the individuals is of no use to the individuals, their families and the society (Simuforosa & Rosemary, 2014). Generally, students who are well disciplined develop self-discipline, show desirable qualities in and out of schools, act in a morally responsible manner and at most assume responsibility for their actions (Bear, 2005). On the other hand, long term goals of education and economic development can be compromised if learner indiscipline is rampant in schools.

Statement of the problem

Learner indiscipline remains an issue of serious concern among learners, teachers, school administrators and other stakeholders globally. As Simuforosa and Rosemary (2014) opined, learner discipline is a prerequisite for attainment of educational goals as lack of it results in ineffective teaching and learning, and eventually could lead to the production of irresponsible members of society. As such, this phenomenon requires attention of all stakeholders and in-depth understanding of its prevalence. Knowledge of prevailing learner indiscipline helps to devise effective strategies to deal with this vice. However, understanding of leaner misconducts calls for knowledge of developmental stages and tasks of the learners (Maraniak, 2015). In fact, knowledge of learner developmental stages helps teachers to differentiate the actual learner misbehaviour from natural behaviour typical of a particular age. In this regards, this study sought to investigate the prevalent learner misconducts in secondary schools in Malawi from a development perspective. This study was motivated by the paradox between the reports on escalating disruptive behaviour among students in secondary schools in Malawi, and the attention paid to developmental changes and tasks of the secondary school age students.

Purpose of the study

The main purpose of the study was to investigate the prevalence of learner misconducts in secondary schools in Malawi from a developmental perspective. This research was guided by the following research question; what acts of indiscipline are prevalent in secondary schools in Malawi?

Theoretical Framework

This study was informed by Dreikurs' social discipline model (Dahl, 2004). According to this discipline model, all learner misbehaviours are said to be goal-oriented. These goals as Dreikurs categorizes them include; attention seeking, power seeking, revenge and display of helplessness. For example, every healthy child demands attention, and most misbehaviour is due to the child's need for attention (UNESCO, 2006). However, some students misbehave to get extra attention. They want to be at the forefront and constantly distract the teacher and their classmates to gain an audience. They need some way of confirming their existence and significance. They may disrupt the class by reporting late or staying away without proper reasons because they know that they will get the attention that they crave or they will display their feeling of inadequacy or helplessness.

In addition, this model states that another goal of learner misbehavior is power seeking. As Dahl (2004) explains, some children feel good by manipulating others to get what they want. They measure their self-esteem by challenging adults and established boundaries. The constant testing of these limits can make adults feel frustrated or angry, making the child feel powerful and in control. The last goal of learner misbehaviour is revenge. According to Dahl (2004), a child that has suffered real or imagined harm may seek revenge through unfriendly words and/ or actions, or withdrawing or refusing to cooperate. The Dreikurs model is one of the developmental discipline models as it explicates learner misbehaviours in relation to their developmental needs. Generally, Dreikurs attributes learner misconduct to failure to meet their developmental goals. As such this model is a salient model to understand learner indiscipline from a developmental perspective.

Literature review

A number of studies have been conducted globally to investigate acts of indiscipline prevalent in schools (Ndaita, 2016; Simatwa, 2012; Mugabe & Maposa, 2007). Although such is the case, few studies have been conducted in Malawi. From the findings of these studies, it is apparent that learner indiscipline remains an issue of serious concern. Furthermore, the studies show that most misconducts which are observed in schools are common with some differences in degree and frequency of occurrence. For instance, a study conducted in Kenya by Ndaita (2016) revealed that learner indiscipline remains a source of worry to many teachers and other stakeholders in educational enterprise in Kenya. According to Ndaita (2016) study, a variety of learner misconducts were reportedly experienced in schools. These include noise making, bullying, fighting, failing to complete assignments, drug abuse, sexual deviance, sneaking out of school, stealing other students' property and general defiance of school authority and rules. The findings of this study by Ndaita corroborate with the findings of Bisetty (2001) who construed that in United Kingdom, the common cases of learner indiscipline include violence, use of foul language and being disrespectful towards authority and sexual abuses. This is also in agreement with the findings of Wolhuter and Steyn (2003) who surveyed subject-related literature on school discipline in the United States of America, the United Kingdom and Australia. They confirmed that learner discipline in schools in these three countries constitutes a problem, although it seems to be only relatively minor forms of misbehaviour that dominate.

A study conducted in Zimbabwe by Mugabe and Maposa (2007) construed that teachers in the country complain about cases of fighting, truancy, bullying, taking drugs and insubordination to teaching staff. This was also echoed by Simatwa (2012) who investigated learner misconducts that are commonly observed in Kenyan schools. The study by Simatwa revealed that secondary schools in Kenya encounter a wide range of disciplinary problems quite frequently. The minor infractions that were reported in this study included noisemaking and lack of punctuality in curricular and co-curricular activities. On the other hand, the most of the major infractions as reported in this study included indecency, drug sale and abuse, rioting and possession of inflammable substances and many more. Though these misconducts were reportedly experienced less frequently, it was observed that their effects were quite devastating as they resulted in loss of lives, valuable time and property.

In the Malawian context, there are few studies that have been conducted in the area of learner discipline as already alluded to. Nevertheless, these few studies corroborate in their findings that learner indiscipline remain an issue of serious concern in secondary schools in Malawi. For instance, Kuthemba-Mwale *et al.* (1996) conducted a study that aimed at determining and describing the impact of indiscipline on school life and school property; the students' life and the society in general. The findings of this study indicated that there is high prevalence of learner indiscipline in secondary schools in Malawi. According to the study by Kuthemba-Mwale *et al*. (1996) this high prevalence of indiscipline has been the case since the advent of democracy in Malawi in 1994. The reasons for this increase of indiscipline as elucidated by Kuthemba-Mwale *et al*. (1996) include misunderstanding, misconception and misrepresentation of the political pluralism especially human rights, freedom and democracy.

Another related study conducted by Chazema (2007) concurs with the findings of Kuthemba-Mwale *et al.* (1996) that learner indiscipline remains rampant in secondary schools in Malawi. According to the study by Chazema (2007) which was conducted in the Municipality of Zomba, head teachers, teachers, parents and students unanimously agreed that there are a lot of indiscipline cases taking place in secondary schools in Malawi. This was attributed to lack of proper structures like disciplinary committee in schools to curb this vice. In a related study by Chigeda (2006), it was construed that learner discipline remains a challenge in secondary schools in Malawi. According to this study by Chigeda, it was discovered that the rise of learner indiscipline in Malawi can be attributed to misunderstanding of democracy which has resulted into negligence of duties and responsibilities by some teachers and also defiance of school regulations on the part of students.

Adolescent development

The concept of adolescence is multifaceted and hence it has been subjected to varied definitions and interpretations based on distinct approaches and frameworks. Such definitions include the one by Cutis (2015) who defines adolescence as a complex multi-system transitional process involving progression from the immaturity and social dependency of childhood into adulthood. From a chronological angle, adolescence can be defined as the period between the ages of 10 to 18 but may incorporate a span of 10 to 25 depending on the source. Generally, adolescence is conventionally understood as the years between the onset of puberty and the

establishment of social independence (Dahl, 2004). In light of these definitions, it is apparent that most of secondary school students are passing through this stage in their lives.

During the period of adolescence, the child encounters new developmental tasks such as physical changes and changes in sexuality; increasing need and pressure for independence from parents; finding one's place among peers and making decisions for the future; hence, the exposure to stressful life events increases (UNESCO, 2006). At the same time the brain undergoes enormous functional and hormonal changes. As Tauber (2007) contends, during adolescence, some brain structures like frontal lobes which are critical for planning, decision making as well assessing the consequences of some risks are not yet matured. Such being the case, some of perceived disruptive behaviours among adolescents should be understood from this developmental perspective. For instance, it is typical for youths in this age group to act impulsively without considering the consequences of their action resulting in adolescent risky behaviours (Tauber, 2007). Understanding adolescents' disruptive behaviour from the developmental perspective helps to design successful disciplinary interventions that take into account the appropriate developmental characteristics of this age group (Dahl, 2004).

Methodology

This study was descriptive as it attempted to describe the prevalent acts of learner misconducts in secondary schools in Malawi. Creswell (2017) explains that descriptive survey attempts to describe or document current conditions or attitudes. The study adopted the case study design in which mixed data collection and analysis methods were used. The population of this study comprised both students and teachers of selected schools in Blantyre Rural in Malawi where two schools were purposefully selected. The total population size was 1030 comprising 970 students in these two selected schools and 60 teachers and administrators. The selection of these two schools was influenced by the convenient proximity of the schools to the researchers' workplace and place of residence. Furthermore, these schools were selected due to their overwhelming similarities in many aspects including geographical locations, availability of boarding facilities, organisational structure and discipline policies. Against this backdrop, these two schools were anticipated to face similar learner disciplinary problems and hence likely to give data that can be triangulated and generalised.

The sample comprised a total of 98 respondents. Out of this sampling size, 80 were students, 14 were teachers and 4 were administrators. A total of 40 students in forms 3 and 4 of each of the two selected secondary school served as a sampling population for administration of questionnaires. Different and appropriate techniques of analysis were applied for the qualitative and quantitative data analysis. The quantitative data analysis involved the following steps. Firstly, all filled in questionnaires were collected and then debugged and checked for validity. Thereafter, they were cleaned, coded, and entered into separately designed statistical application software called the Statistical Package for Social Sciences. Then, descriptive statistics; mainly, frequency, averages, and percentages were used in the presentation, analysis and interpretation of the findings.

Regarding the qualitative data, the interview reports as well focus group discussions were organised and major issues regarding the prevalent acts of learner

misconducts were identified and then categorized under selected themes such as truancy, stealing, teasing and bullying, fighting, drug and substance abuse, use of obscene language, poor dressing code, vandalism, sexual offences, pregnancy or responsible for pregnancy, subversive activities and possession of dangerous weapons. Then, areas of agreements and disagreements were identified and analysed to support the data obtained from other sources. This was done by triangulating qualitative data and quantitative data.

Results and discussion

Survey respondents who were 80 in total were provided with 12 different types of learner misconducts to indicate the options that best described the frequency of occurrence of each of misconduct per se at their school. The misconducts that were provided included truancy, stealing, teasing and bullying, fighting, drugs and substance abuse, use of obscene language, poor dressing code, vandalism, sexual offences, pregnancy or responsible for pregnancy, subversive activities and possession of dangerous weapons. Participants were asked to rate the frequency of the mentioned misconducts on a 5 point Likert scale. On the scale, 1 represented *not at all*; 2 represented *rarely*; 3 represented *frequently*; 4 represented *very frequently* and 5 represented *not sure*. The table below shows the statistical summary of the findings on the same.

FIGURE 1 : PREVALENT ACTS OF LEARNER MISCONDUCTS IN SECONDARY SCHOOLS IN MALAWI
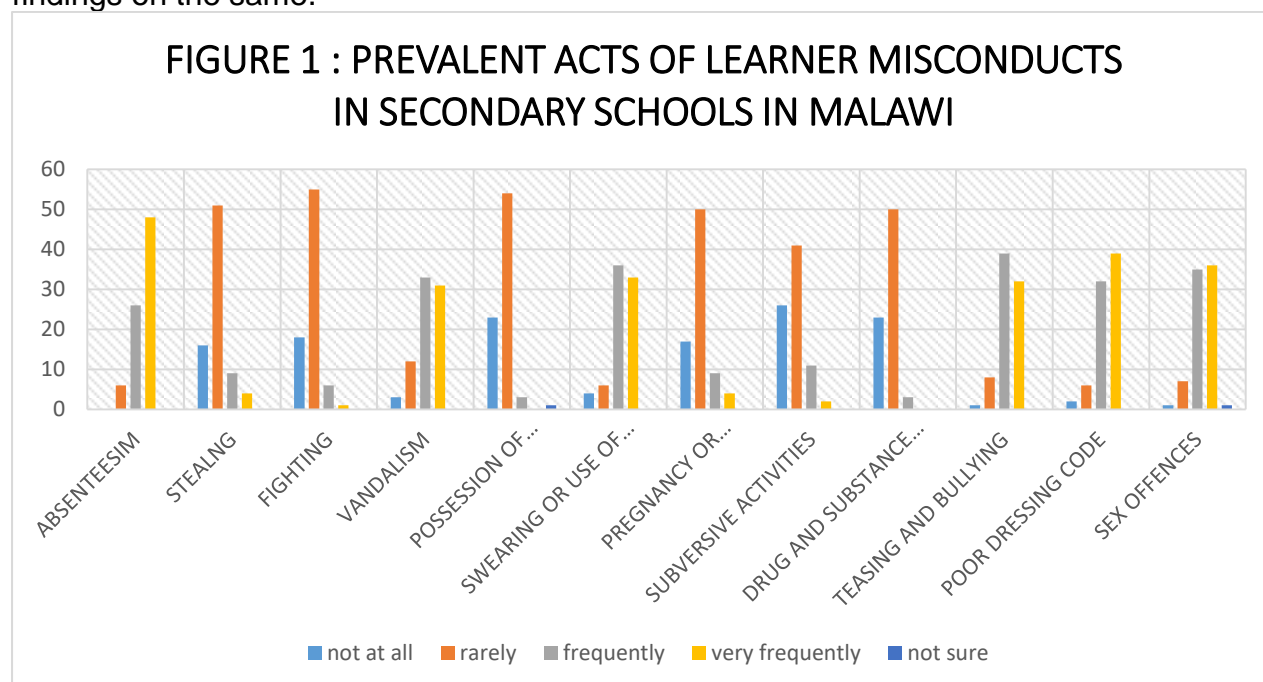
From the results, it is apparent that the most frequent observable learner misconducts include: sexual offences such as pairing, kissing and other immoral behaviours; absenteeism; poor dressing code; drugs and substance abuse; teasing and bullying; use of obscene language as well as vandalism.

Acts of immoral behaviour
The findings from the survey showed that the acts of immoral behaviours such as pairing, kissing, indulging in sexual intercourse are more prevalent among secondary school students in the study schools as shown in the figure below.

Table 1: Prevalence of acts of immoral behavior

	Frequency	Percent	Valid Percent	Cumulative Percent
not at all	1	1.2	1.2	1.2
Rarely	7	8.7	8.7	9.9
Frequently	35	43.8	43.8	53.8
very frequently	36	45.0	45.0	98.8
not sure	1	1.2	1.2	100.0
Total	80	100.0	100.0	

From the table above, 89% of the respondents indicated that this act occurs frequently or very frequently. This corroborates with findings from interviews with students who reported independently that sex offences are rampant at their schools. According to the findings from the interviews, many students indulge in sexual activities like watching pornographic materials, sexting, kissing and doing sexual intercourse. According to one student leader from school B, few are caught red handed while majority are never caught. One student interviewee had this to say;

> *It's true that many students are fond of doing sex related activities at this school. For instance, during evening prep some students abscond the prep and go to the nearby jungles where they do whatever they want, including sex itself. If you can go their right now I swear you are going to find a lot of used condoms. Come after prep at around 7.45pm, you will find boys holding girls escorting them to their hostels, others kissing each other. I personally know a good number of girls who jump the fence of their hostels at night and go to nearby rest houses just to engage in sex with older men.*

This finding was supported by one teacher during in a separate focus group discussion who had this to say;

> *There was a time when I found some students watching pornographic materials at the hostels. I snatched the phone and found several conversations in which the two were almost having sex on the phone. So yeah, a lot of sex offences are committed.*

These findings on prevalence of sexual offences in secondary schools clearly indicate that this offence remains rampant in schools.

Absenteeism

The findings from the survey also revealed that one of the most prevalent act of students' misconduct is absenteeism as shown in **table 2** below.

Table 2: Prevalence of absenteeism

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	0	0	0	0
	Rarely	6	7.5	7.5	7.5
	Frequently	26	32.5	32.5	40.0
	very frequently	48	60.0	60.0	100.0
	Total	80	100.0	100.0	

The table above shows that absenteeism among students still remains an issue in secondary schools in Malawi. 92.5% of students who participated in the survey indicated that this vice is frequently or very frequently observed at their schools. During focus group discussion with teachers in both schools, participants concurred with survey findings that absenteeism is one of the major problem faced in their schools. All 10 FGD participants reported that absenteeism remains to be an issue of concern. It was apparent in the discussions that there is a tendency among students to stay away from schools for no justifiable reasons in both schools. This was also echoed by the school administrators as well as student leaders of both schools. In fact, one head teacher had this to say:

> *Despite tremendous efforts made to sensitize our students on their responsibility to attend to all classes, most students choose not to abide to this. They behave in a very strange way that one can wonder if indeed these students know why they exist here. They choose when to attend classes or not. It's pathetic indeed.*

One student interviewee shared the same sentiments with the administrator and went further to reveal that some students at the school especially boys, abscond classes and attend to trivial activities like gambling at the hostels, watching pornographic materials through their phones, having social chats on mobile phones, WhatsApp, Facebook and other social forums. According to this interviewee, other absconders go out of school boundaries and have access to beer or Indian hemp.

Vandalism

It was also reported that vandalism is common misconduct in schools. Out of 80 students who participated in survey, 80% reported that this act occurs at their school as shown in the **table 3** below.

Table 3: Acts of vandalism

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not at all	3	3.8	3.8	3.8
	Rarely	12	15.0	15.0	18.8
	Frequently	33	41.3	41.3	60.0
	very frequently	31	38.8	38.8	98.8
	not sure	1	1.3	1.3	100.0
	Total	80	100.0	100.0	

One administrator rated vandalism as one of the most problematic behaviors prevalent at his school. According to him, deliberate breaking of school properties by the students has retarded infrastructural development at their school. The administrator had this to say:

> *Imagine students break the woods of their beds and turn them into firewood and use it for cooking assorted items in their hostels. Last term, we punished over seventy students for this malpractice. The vandalism is not limited to the beds alone no, the students even vandalize electricity system in their hostels, teaching area and what have you. Go into classrooms, you will find loose sockets, tampered switch boards and many things out of order. The state of vandalism at this school has reached disgusting levels.*

These sentiments were also echoed by members of staff from both schools. However, there is a contradiction between the findings from staff members and students. Both students' survey and student leader interviews indicated that vandalism is one of the rare occurring misconduct in schools.

Smoking and drinking alcohol

It was also reported that that smoking and drinking alcohol is more prevalent among students in secondary schools as shown in the **table 4** below.

Table 4: Drug and substance abuse

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not at all	1	1.3	1.3	1.3
	Rarely	8	10.0	10.0	11.3
	Frequently	39	48.8	48.8	60.0
	very frequently	32	40.0	40.0	100.0
	Total	80	100.0	100.0	

According to the data collected, this misconduct varies with gender. It was reported that the misconduct is mostly committed by boys than girls. Nevertheless, it was reported that girls especially in senior classes may also found drunk or under influence of marijuana especially during special events or ceremonies like school disco, farewell ceremonies and many more.

Teasing and bullying

The study also revealed that teasing and bullying is still taking place in secondary schools. It was repeatedly reported that students in senior classes oppressed their junior counterparts. This was reported during the interviews with the student prefects in both schools. According to one prefect from school B the practice of teasing and bullying is inherited by the young ones (the form ones) from the senior students. Another prefect from school echoed these sentiments by narrating his personal experience;

> *It's true teasing and bullying is rampant at this school only that it is not reported to administration as the teasers give serious warnings and threats to the ones being teased. I myself when I was in form one, I remember we were called by the form fours at around past ten in the night. This was a day after their graduation ceremony. We were told to parade and sing national anthem like a bakha (like ducks) at the hostels. Those who refused were beaten. There after we were assigned a form four person whom we were supposed to clean his clothes and beddings using our own soap and also we were told that the remainder of the soap should be given to the owner of the clothes. But one thing which they said was that if one dares to report to administration he would be beaten severely by the entire form four so nobody reported to administration. Most times when we are discussing with my friends the memories of this day majority says that they will revenge this.*

However teachers reported that teasing and bullying is taking place at a minimal extent and not as violent as it used to be in the past. Perhaps this perspective of teachers might be attributed to the fact that most cases of teasing and bullying are not reported to administration as already alluded by the student leaders.

Poor dressing code

The study found that one of the most common learner indiscipline in schools is poor dressing code. As a matter of fact, each school has its own dressing code and all students are supposed to abide to this code. Even though the two schools have uniforms of different colors, they shared many similarities in as far as their dressing codes were concerned. However, both administrators and teachers lamented over poor dressing exhibited by their students. One teacher during focus group discussions had this to say:

The way most students are used to dress at this school leaves a lot to be desired. Many students here do not abide to dressing code. Yeah, they might put on their school uniform but not dressed in an appropriate way. Most girls are fond of putting on miniskirts which according to our school rules is prohibited. The types of socks they put on and the way they wear their socks again is against school principles. With the pervasion of crogs (plastic flip flops) on the market most students are preferring to putting on these fashionable foot wear and not their covered black shoes. Worse still since boys are required to put on long sleeved shirts, they buy this type of shirt but sadly they roll the sleeve up above the elbow to look as if they have put on short sleeved shirts.

Pregnancy

It was reported that pregnancy is one of the misconduct common in schools. During survey, the students were asked to rate the frequency of occurrence of cases of pregnancy or responsible or pregnancy at their school. The table below summarises the findings on the frequency of pregnancy.

Pregnancy or responsible for pregnancy

		Frequency	Percent	Valid Percent	Cumulative Percent
	not at all	10	12.5	12.5	12.5
	Rarely	62	77.5	77.5	90.0
Valid	Frequently	8	10.0	10.0	100.0
	Total	80	100.0	100.0	

From the table above, all 80 respondents answered the question under discussion of which 62 reported that cases of pregnancies are reported at their schools though rarely. The qualitative data gathered on this issue were agreeing with the survey findings. During focus group discussion at school A, one member, had this to say;

We have several cases of girls being withdrawn due to this issue of pregnancy. Last term, 2 girls were found pregnant and we had to call their parents. However, the concerned girls did not reveal the father responsible for their pregnancies. Of course rumours had it that they were both impregnated by boys of their homes not at school. Prior to this many girls were withdrawn on the same issue.

An administrator of school B shared the same sentiments and had this to say;

We have not less than 3 girls at this school who have been readmitted after they delivered. So, yes we have cases of pregnancy, though it's not as frequently reported as what we hear from other schools.

This was also supported by student interviewees of both schools. In fact, during interviews, one student had this to say;

> *Yes, I can say that some girls at this school are found pregnant though it's not many. I remember here was a certain scandal when our friend was sick and we had to escort her to the hospital where It was revealed that her sickness was due to an attempt to abort. When he news reached at the school I remember it was in everybody's mouth and some boys were singing songs mocking the girls and the administration had to intervene.*

However, it was observed that boys who are responsible for pregnancy are rarely reported to administration for disciplinary action.

Going out of school bounds

There was a general consensus among the members of the FGDs and administrators as well as student leaders that going out of school bounds remains a top most learner infraction in boarding secondary schools. During the FGD in both schools, teachers lamented over this misconduct and reported further that some students, girls inclusive, go out of school bounds even at night. One participant reported a case in which five girls spent some nights outside the school campus without the knowledge of the school authorities.

Apart from the above mentioned misconducts, it was also reported that many students report late for classes especially the first period, period after tea break as well as lunch break. Additionally, it was also mentioned that some students are dishonest and tend to cheat in examinations, tests and in many school activities. This act was reported by 6 teachers who participated in FGD. However, it is interesting to note that students and school administrators did not highlight anything on this misconduct.

Furthermore, on the questionnaire, respondents were given an open ended question to state any other learner misconducts that were not included in the prior mentioned list. The respondents reported that going out of school boundaries without seeking permission from authorities, keeping or using electrical appliances, possessing cell phones, being noisy during class time or preparation time, taking visitors to hostels, taking food to hostels, writing graffiti on walls, desks and other government properties are observed. It was also mentioned that cases of student fighting teachers also occur in schools, though rarely.

Disobedience and lack of respect

All 10 teachers who participated in FGD complained of disobedience among learners. According to the teachers, lack of respect among students in schools is common now days. One teacher had this to say:

> *The issue of lack of respect and disobedience among learners is worse at this school. Imagine students reach the extent of fighting their teachers, stoning them especially when they are supervising them (students) during the night. It is very sad indeed. You can't believe it! Instead of our students fearing us teachers it's vice versa here, teachers are the ones who fear their students.*

During focus group discussions in school B, there was hot debate on the root causes of this vice. Two members were of the opinion that this is due to puberty and adolescence. One administrator shared the same sentiments with teachers that lack of respect and disobedience among students is always an issue during adolescence while others said this can be attributed to weak government discipline policies especially abolishment of corporal punishment in schools. One administrator attributed this problem to emphasis on human rights by government and Non-Governmental Organizations (NGOs):

> *Generally speaking, these days with the advent of human rights, teaching student good manners is a very big challenge to us (teachers). No wonder most of our students are very rude, notorious, disrespectful and cheaters. They generally fail to differentiate a right and freedom.*

Another administrator concurred with the teachers in her view concerning causes of high prevalence of disrespectful behavior among students but added that introduction of subjects like social studies in the school curriculum has promoted rudeness among learners. However, this misconduct was reported by students who filled questionnaire.

Generally, findings from the interviews and discussions on acts of learner misconducts in secondary schools in Malawi corroborate on the survey findings to a large extent that learner discipline is still rampant in schools. Both teachers and students agreed that there are a number of indiscipline cases reported in their schools. Some of the common cases include truancy, vandalism, defiance, alcohol and tobacco consumption, sex offences, going out of school bounds and many more. This supports the findings of a study by Kuthemba Mwale et al (1996) which construed that indiscipline cases in secondary schools in Malawi have increased since the advent of democracy. Interestingly, it appears most of misconducts that were reported in school A are also the ones that are reported in school B. However, the only observable difference between the schools was on the frequency of the occurrence of the misconducts. For instance, a statistical summary of the data on prevalence acts of vandalism in the two schools shows clearly that these learner misconducts happen in both schools as shown in the figure below;
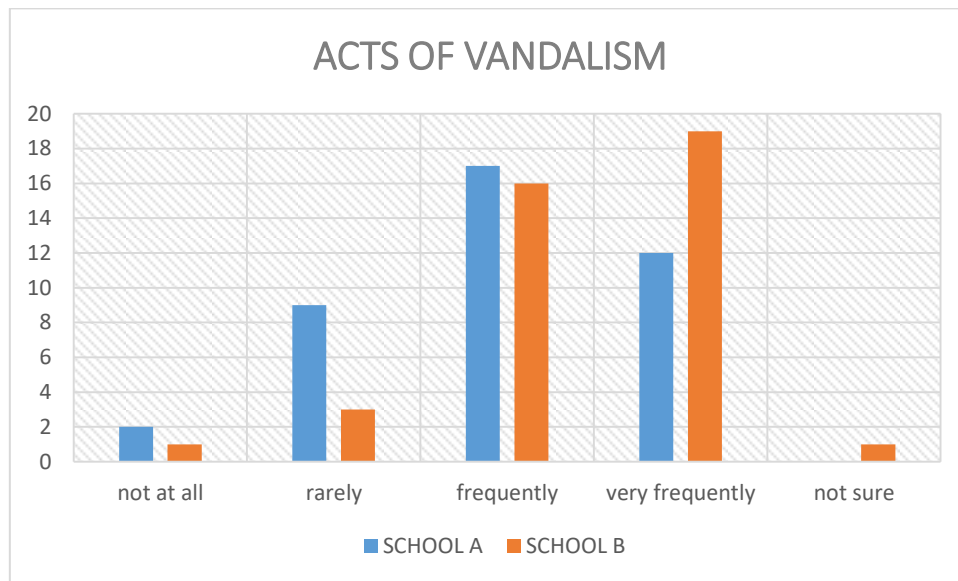
Figure 2

As it can be seen from the figure 1 above in both schools, many respondents were of the view that the acts of vandalism are frequent or very frequent. Similarly, during discussions and interviews the respondents from the two schools shared the same sentiments especially on the acts of misconducts prevalent in their schools. This clearly shows that learner indiscipline cases are common in schools only that they vary in frequency of occurrence.

From a developmental perspective, misbehaviours like vandalism and sex offences that were reported can be attributed to developmental changes that take place during adolescence. As Tauber (2007) contends, during adolescence youths undergo an important period of brain development. Their brain cells, as Tauber (2007) puts it, are being "pruned", which means that unused brain cell connections will be destroyed to increase the brain's efficiency. This process, may take years, beginning at the back of the brain and ending at the front of the brain. So the frontal lobe is the last to become fully mature. It should be noted that the frontal lobe is critical for planning and decision-making. Until the frontal lobe is mature youth under adolescent stage have difficulty foreseeing the consequences of their actions. They tend to act impulsively without thinking deeply about the consequences of things they are doing. They might do things that are risky, not considering the long-term outcomes. As such, most of the misbehaviours by this age group should be understood in the context of these developmental changes and hence the techniques to deal with these disruptive behaviours should be informed by theories and research in developmental psychology.

In addition, psychosocial theorists for instance Erik Erikson, postulates that adolescence is a period of identity formation (Kroger, 2002). As such, it is typical of teens to be very much concerned with their appearance in order to fit with the norms of the group they belong and at the same time to have their own unique style. Hence, cases of poor dressing code can be attributed to the developmental task of identity formation. Finally, cases of vandalism, bullying and indulgence in other risk behaviours as reported in this study may as well be attributed to physical, social and intellectual immaturity. All in all, it should be pointed out clearly that most of

secondary school students are undergoing the stage of adolescence and their behaviors should be understood within this perspective. Acceptance by their friends is more important for the student than the teacher's attention. As Dreikurs theorizes, the role of the teacher while teaching adolescents is to provoke student's engagement with material which is relevant and involving but at the same time teachers should always be aware of the student need for identity.

Conclusion

The study has revealed that learner indiscipline in the study schools remains an issue of serious concern. From the findings, it is evident that schools are experiencing a variety of learner misconducts which are observed in both the classroom school settings. The most common disciplinary problems that were reported include poor dressing, going out of school bounds, indulging in immoral acts, truancy, defiance to authorities and acts of theft. It has also been observed that most of these reported misconducts may be attributed to the developmental stage of the students, most of whom are under adolescence. As such, these learner misconducts should be perceived in a developmental context. Thus, the approaches to handle these learner misconducts are supposed to be informed by the research and theories in developmental psychology. This suggests that the use of developmentally appropriate discipline techniques can be a solution to the problem of learner indiscipline.

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Pre-service teachers' perception of the usability of telephone conferencing as a mode of instructional delivery in social studies

Kazeem A. Badaru & Emmanuel O. Adu
Faculty of Education, University of Fort Hare
East London Campus
South Africa

Abstract

Researchers in educational technology have consistently advocated the use of modern technologies in teaching and learning of social studies and we believe that the effectiveness of any media of instruction largely depends on the perceptions of the users. This study investigated the pre-service social studies teachers' perception of the usability of telephone conferencing as a mode of instructional delivery for pre-service social studies teachers in the faculties of Education of four selected universities in Southwestern Nigeria. The study adopted a descriptive survey design and data were collected using a questionnaire administered on a sample of one hundred and sixty (n=160) undergraduate students (60 males and 100 females); employing the stratified random sampling technique. Data were analyzed using simple percentage, frequency distribution tables and the mean. Findings indicated that a majority ($\bar{x}$ = 3.28) of the participants agreed that telephone conferencing is a usable mode of instructional delivery. The study therefore concluded that telephone conferencing is a usable mode of instructional delivery. The study recommended, inter alia, that telephone conferencing practice in social studies in particular, and in all teaching and learning situations in general, should be encouraged and promoted in higher education institutions.

Keywords: Pre-service teachers. Social studies. Teaching and learning. Telephone conferencing.

Introduction
Pedagogy and technology are inseparable elements of education process. The proficiency and successful integration of any technology into teaching and learning activities are largely dependent on how the teachers perceive its use and how they relate to its other dimensions. There is no gainsaying the fact that telecommunication technologies such as telephone conferencing facilitate interactions eventually between the teacher and students, and between students themselves; but the quality of interactions is a result of course designs, expectations (objectives) and beliefs (perceptions) of teachers (Bhushna, 2006).

The term 'social studies' is one of the compulsory subjects in the basic education curriculum taught at the primary and the junior secondary (upper basic education) levels in Nigerian education system. It is designed and developed to inculcate in learners an awareness and understanding of the societal values, skills and knowledge guiding the interactions of man with his world as a whole (Adediran, 2013). As a school subject, it is expected to develop in learners a sympathetic appreciation of the diversity and interdependence of all members of the local and

international community (Ajiboye, Adu & Amosun, 2005). It is therefore one of the disciplined being studied at the tertiary level of education in Nigeria. Social Studies pre-service teachers are undergraduate students undergoing professional training and teacher education programmes in the field of Social Studies both at the colleges of education and university levels in Nigeria.

Oshodi (2005) avers that social studies, as a school subject, require some effective teaching strategies and methods in order to achieve appreciable learning objectives and enduring learning outcomes. Hence, the interconnectivity of the use of telephone conferencing to the teaching of social studies would give room to a wide application for knowledge, conceptualization, deduction, derivation, evaluation and generalization. Disappointingly, the response of teachers to the use of the new methods, involving the use of modern technologies, has taken various dimensions, ranging from half-hearted compliance and defiance to outright condemnation (Adewuya, 2008). Beside the limitations imposed by the non-technological environment of the learners, teachers are apparently restricted from effectively carrying out their lesson delivery by lack of infrastructures such as electricity to operate audio-visual equipment, for teaching and learning, where available (Adewuya, 2008).

Considering the benefit and positive impact of the use of technology as an instructional tool for social studies teaching, Bhushna (2006) states that technologies, by themselves, are simply the tools or the implements. He argues further that it takes a teacher to impart substance, content and meaning to any technology and its use and that the element of interconnectivity and exchange is not intrinsic to any technology but that the form and substance imparted to it by the teachers influence its pedagogical use to a large extent. It is imperative to examine and understand how pre-service social studies teachers perceive and relate to technology because "for the teacher, education technologies are not simply the tools…rather they are the knowledge, values and practices which constitute the development and use of these tools" (Evans & Nation, 2013).

Interestingly, the world is today witnessing technological advancement leading to the increased efforts in the field of education to ensure that teaching and learning process is done without the need for the traditional face-to-face contacts between learners and their teachers. The traditional classroom settings where teachers and learners have to meet face-to-face before teaching and learning activities can hold have been confronted with a lot of problems (Adewuya, 2008). These problems include lack of infrastructures, absence of teachers from classes due to ill-health and other unforeseen contingencies such as strikes, even students playing truancy or unwilling to attend classes regularly due to the distance between their locations and lecture rooms, to mention but a few (Adewuya, 2008).

The motivation behind this study was that the researchers were interested in finding out whether the use of telephone conferencing for teaching and learning purposes could actually help in overcoming some, if not all, of these problems. The idea of using telephone as a means of instruction (teaching) for pre-service social studies teachers was conceived to test its usability as a pedagogical tool in this study. The study therefore investigated the pre-service social studies teachers' perceptions of the usability of the telephone conferencing as a mode of instructional strategy in selected universities in Southwestern Nigeria. To this end, the following research questions were raised in the study:

i. What are the pre-service social studies teachers' perceptions of the usability of telephone conferencing technology in teaching and learning process?
ii. What are the hindrances to the effective use of telephone conferencing technology in their learning?
iii. In what ways can telephone conferencing technology be effectively used in teaching and learning process?

The objectives of the study were as follows:

i. To ascertain the perceptions of pre-service social studies teachers about usability of telephone conferencing technology in teaching and learning process.
ii. To discover hindrances to effective use of telephone conferencing in their learning.
iii. To recommend ways by which telephone conferencing can be effectively used in teaching and learning process.

Theoretical framework and literature review

The study was based on two theories namely Technology Acceptance Model (TAM) and Nielson's usability attributes. TAM was proposed by Davis in 1986 and has been modified by a number of other authors such as Agarwal and Prasad, Moon and Kim, Lim, Venkatesh *et al.* (Surendran, 2012). According to these authors, TAM states that a user's intention willingness to accept and use any form of technology is largely determined by its perceived usefulness and ease of use (Surendran, 2012). Mavroidis, Karatrantou, Koutsouba, Giossos and Papadakis (2013) assert that perceived usefulness relates to the reliance that the use of a technological application will increase the performance of the use and ease of use to the reliance that the use of a technological application will not be related to increased effort. In other words, perceived usefulness of any technology by pre-service teachers implies that its use will enhance and increase their classroom performance as efficiently expected while the ease of use of technology suggests that pre-service teachers' use of technology for teaching and learning activities will be done effortlessly. Mavroidis, et al (2013) further affirm that TAM is one model which has become most commonly used in investigating "the acceptance, adoption and use of advanced information and communication technology applications in education." To this end, the study found it very suitable for use.

Nielson defines usability of a computer system in terms of the three main attributes namely: learnability, errors and satisfaction. Usability measures the quality of the user's experience with interacting with something whether a website, a traditional software application, or any device the user can operate in some way or another. Learnability refers to ease of learning which is measured by the time it takes a user to achieve some level of proficiency. Error is measured by the number of errors that occur as users are engaged in a given task. Satisfaction is measured in terms of how pleasing and pleasant is the system to the user (Downey *et al.*, 2005).

The concept of usability has been defined by a few authors in the literature (Hadjerrouit, 2010; Petersen, 2007; Simbulan, 2007). It can be defined in terms of technical and pedagogical perspectives. Both technical and pedagogical aspects of usability are regarded as being related to each other. According to Nielson (as cited

in Hadjerrouit (2010), technical usability is concerned with techniques aimed at ensuring a trouble-free interaction with the software. Pedagogical usability, on the other hand, is concerned with the focus on support within the learning process. Pedagogical usability can be considered useful to the learners only when it makes contributions to the learning process and outcome but not just by mere supporting efficient delivery of teaching activity (Tselios, Avouris & Komis, 2008).

In this study, usability of telephone conferencing implies the ease of use of telephone conferencing as an instructional mode in the preparation of pre-service Social Studies' teachers at the university level. This present study is therefore particularly concerned with the pedagogical usability of the telephone conferencing as an instructional tool for teaching and learning as far as the teacher education is concerned. The two theories were considered relevant for this study in the sense that their application would provide insights into the pre-service Social Studies teachers' perception of the usability of telephone conferencing as an instructional tool. More importantly, the theories would help to provide explanations for the pre-service Social Studies teachers' perceptions in terms of the perceived usefulness, ease of use and usability of telephone conferencing in teaching and learning process.

Gone are those days when teachers' uses of "chalk and talk" methods of teaching are in vogue. Today's teacher education programmes require the need for integration of the technology literacy into the curriculum to enhance the classroom performance of the pre-service teachers as well as the academic attainment of their learners. It is therefore important for all teacher education programmes to equip the pre-service teachers with technology-related skills and attitudes required for the integration of technology into classroom lesson delivery (Truesdell & Birch, 2013). The quality and quantity of technology experiences during teacher education programmes are important factors influencing the beginning teachers' adoption of technology (Tondeur, van Braak, Sang, Voogt, Fisser & Ottenbreit-Leftwich, 2012).

There is however a gap existing between how pre-service teachers are being exposed to their disciplines during their training and how they apply technology during their classroom lesson delivery (Tondeur *et al.*, 2012). The United States' study of 1439 institutions, which run teacher education programmes, reveals that "85% of those programmes reportedly have a course in educational technology aimed at helping the pre-service teachers to transfer knowledge and skills using appropriate instructional technologies". Shockingly, the findings show that the pre-service teachers do not feel they are being well equipped to effectively use technology-based instructions during their classroom lesson delivery (Tondeur *et al.*, 2012). Technology-based pedagogies are needed in teaching and learning in higher education and one of such is the telephone conferencing technology whose usability has been explored in this study.

Telephone conferencing has been described as a method of establishing group meetings, seminars, and tutorials through the medium of telephone, specifically for teaching and learning purposes (Lane, 2008). With telephone conferencing call, almost all activities taking place in face-to-face settings can also be conducted, no matter the distance, in the form of virtual classroom. Telephone conferencing is therefore a voice communication (audio teleconferencing) between participants and locations (Lane, 2008). Contributing to the educational use of telephone conferencing, Disbrow (2008) adds that audio conferencing via telephone calls has been found to create a sense of connection and participation among graduate students in social work. Martin (2005) also affirms that teleconferencing has

technological capabilities that can enhance collaborative learning between participants. He however points out that educators' lack of knowhow in the use of teleconference as well as its high cost are the major hindrances against its utilization for educational purposes. Milioritsas and Georgiadi (2010) also believe that telephone conferencing is an interactive communication tool capable of adding value to teaching and learning process and enhancing interaction between learners.

Similarly, telephone conferencing makes education more affordable for students and their parents because it reduces cost of accommodation and as such students do not necessarily have to stay on campus or commute to attend lectures in campus. The telephone conferencing is flexible because students choose to join classes at their convenient locations away from campus (Getter, 2008). In the same vein, Panagiotakopoulos, Tsiatsos, Lionarakis and Tzanakos (2013) affirm that telephone conferencing has the potential of promoting teaching and social interaction among student groups while also saving time as an added advantage. They however state that the use of telephone conferencing may involve stress of users being disconnected as a result of network failure arising from technical issues which may hinder the effective use of telephone conferencing for teaching and learning.

For effective utilization of telephone conferencing in teaching and learning, it is suggested that the facilitator should carry participants along in his presentation by way of identifying sources of his information. He/she should ensure that the call sessions give room for a great deal of interactivity and involvement of participants. There should be adequate feedback from participants by allowing them to ask questions, make comments or contributions and respond to exchange of ideas. There should be a time limit, say 3 to 5 minutes for participants to respond to questions, make comments and contribution to exchange of ideas in the call session. There should be a time keeper, aside the facilitator, who will keep time and limit discussions (Frey & Overfield, 2002).

A few studies have focused on the usability of telephone conferencing in the training and education of pre-service and in-service teachers in various higher education institutions (Frey & Overfield 2002; Moore & Kearsley, 2011; Dash, 2010; Milioritsas & Georgiadi, 2010; Panagiotakopoulos *et al.*, 2013; Sahoo, 2010). Mavroidis *et al.* (2013) conducted a study on the use of teleconference among postgraduate students of Hellenic Open University in Greece. Their findings showed that students' perceptions for the usefulness of teleconference were positive as students believed that the use of teleconference would make their studies more exciting (fun-filled) and their communication and interaction with their teachers and among them would be better improved. The authors also found differences in the perceptions of the male and female participants. While the male found the perceived usefulness of teleconference more important, their female counterparts found perceived ease of use of teleconference more important.

Marika (2013), in his study on e-readiness for video teleconferencing adoption and its perceived impact in Kenyan higher education, reveals that participants confirm that video teleconferencing technology has the benefit if saving time spent by students commuting to and from classes and money spent on acquisition of instructional materials for the conventional classroom settings. In Nigeria, Iroegbu and Etim (2017) investigated secondary school principals' use of teleconferencing and reported that the principals agreed that their administrative activities such as meetings, consultations were positively influenced by their use of teleconferencing. Iroegbu's and Etim's study affirmed the usability of teleconferencing for only administrative purposes. But, we are convinced that the school administrators can

also adopt the teleconferencing technology for teaching and learning purposes too. Ololube, Eke, Uzorka, Ekpenyong and Nte (2009) investigated the effectiveness of instructional technology in higher institutions of learning and the impact of its use on faculty teaching and students' learning achievement in selected universities in Niger Delta region of Nigeria. Their findings show that there are significant positive relationships between the impact of instructional technology, use of instructional technology and students' learning outcomes. It is further noted that almost all countries in Africa including Nigeria are confronted with the challenges of inadequacy of basic ICT infrastructures due to shortages of electricity supply as well as poor telecommunication facilities. These challenges make it difficult for higher education teachers to effectively instructional technologies for the attainment of educational goals (Ololube, Eke, Uzorka, Ekpenyong and Nte, 2009).

The review of the literature reveals the research efforts of a few authors focusing on the usability of telephone or audio teleconferencing for teaching and learning activities and in the training of primary and higher education teachers (Evans & Nation, 2013; Bhushna, 2006). Specifically, there is dearth of studies on usability of telephone conferencing in the training and preparation of pre-service Social Studies teachers in Nigeria. This gap in the literature was a motivation for the present study. The identified gap in the literature was actually the empirical contribution of this study regarding the usability of telephone conferencing as an instructional strategy for teaching and training pre-service Social Studies teachers at higher education level. Be that as it may, the reviewed studies investigated the use of telephone conference among the postgraduate students (2013), e-readiness for video teleconferencing adoption and the perceived impact (Marika, 2013) and secondary schools' principals' use of teleconferencing for the administrative purposes and not for teaching and learning purposes especially at the higher education level. This present study however investigated the pre-service Social Studies teachers' perception of the usability of the teleconferencing as an instructional mode.

Methodology
Research paradigm

Paradigm is a philosophical framework or a set of beliefs that guide the researcher's action (Kumar, 2014). The paradigm for this study was positivism. Positivism is a research paradigm in which phenomena are being investigated using a quantitative approach. This paradigm allows for the use of numerical representation of data by using graphs and other statistical tools. We believe that the participants' perception of the usability of telephone conferencing for pedagogical purposes would be thoroughly captured by using descriptive statistics.

Research design

According to Kumar (2014), a research design is 'a blueprint for action'. It is a plan designed for helping the researcher in the course of the conduct of research. The research design used in the conduct of this study was a descriptive survey. The researcher's choice was informed by the need to collect the data quantitatively.

Research participants

Sampling is the process through which a sample is extracted from a population (Alvi, 2016). A sample is therefore a subset of the entire target population. The sample size for this study was one hundred and sixty participants (n=160). The participants

were pre-service teachers in the second year of undergraduate study in Southwestern Nigerian universities. There were 60 males (37.5%) and 100 females (62.5%) selected using the stratified random sampling technique by ensuring that equal number of participants (40) was taken from each of the participating university. The ages of the participants ranged from 18 to 30 years. The participants were purposively selected based on their teaching subjects (in Social Studies) from various departments. Such that 20% were in Educational Management, 17.5% were in Teacher Education, Guidance and Counselling were 30%, Special Education were 27.5% and others (5%) were in adult Education. 25% of the participants were studying Geography Education, 22.5% were studying Economics Education, 7.5% were studying Political Science & Early Childhood Education (ECE), 5% were studying Economics & Political Science, 22.5% were studying Political Science Education, 5% were studying ECE & Economics, 5% were studying ECE & Geography and others (7.5%) were studying Economics & Geography. All these courses are collectively regarded as Social (Sciences) Studies in the field of Social Studies Education in Nigerian tertiary institutions.

Research procedure

The participants were grouped into 32 groups of five (5) participants. Each group had to be engaged in a telephone conferencing practical session for a discussion on the Social Studies topic "peace and security" which lasted for eight (8) weeks. The choice of the "peace and security" was informed by the fact that it is a general theme that features in all Social (Sciences) Studies curricular in Nigeria. The principal researcher (Badaru, KA) relied on the MTN® telephone conference services to facilitate the discussion and also had to bear the costs of putting each participant on the conference call. This practical session was carried out in three weeks. The facilitator made a phone call to each participant's GSM line one after the other and everyone got on the conference. Each participant was to do self-introduction and had to notify the facilitator their intention to contribute to the conference discussion before talking. One participant talked at a time while others listened and later got a chance to react when it came to their turn. At the end of each session, each group was asked to complete the research questionnaire to gauge their perception of the usability of the telephone conferencing as an instructional tool for lesson delivery.

Method of data collection and instrument

The data for this study were collected quantitatively by using a self-designed questionnaire. The questionnaire was tagged "Pre-Service Teachers' Perception of Usability of Telephone Conferencing Questionnaire (PTPUTELCQ)". The response scale ranged from "strongly agree (SA) to strongly disagree (SD). It has two sections: Section One was for demographic data of the participants and Section Two comprised of 15 items measuring participants' perceptions of the usability of the telephone conferencing and 3 items dealing with the hindrances encountered during the telephone conference calls.

Validity and reliability

The questionnaire was validated by two senior research experts in a federal university in Southwestern Nigeria and was then pre-administered on forty (40) students in a university (not sampled in the actual study) to measure its reliability and a coefficient value of 0.78 was obtained. Data collected for the study were

statistically analyzed using simple percentage, frequency distribution tables and the mean.

Ethical considerations

For ethical reasons, names of the participating universities and the participants are not disclosed. This was earlier agreed upon at the start of the study when permission was sought from the concerned authorities of the selected universities in the Southwestern Nigeria. The participants were made to understand the purpose of the study and their consent to voluntarily participate was subsequently sought and secured through the completion of the informed consent form provided by the researchers. It was also declared by the researchers to the respondents that their participation would in no way cause them any harm.

Findings

The data were analyzed using descriptive statistics. Results and discussion are presented as follows:

What are the pre-service social studies teachers' perceptions of the usability of telephone conferencing technology in teaching and learning process?

Table 1: Findings of pre-service social studies teachers' perceptions

S/N	Statement	SA 4	A 3	D 2	SD 1	Mean
1.	Use of telephone conferencing technology is a good innovation in teaching and learning.	100 (62.5%)	60 (37.5%)	0 0	0 0	3.63
2.	Telephone conferencing is useful as an instructional strategy for social studies teaching and learning.	64 (40.0%)	76 (47.5%)	20 (12.5%)	0 0	3.28
3.	It is found to be enhancing teaching and learning activities.	80 (50.0%)	68 (42.5%)	12 (7.5%)	0 0	3.43
4.	It promotes a great deal of interactivity among users.	68 (42.5%)	72 (45.0%)	08 (5.0%)	12 (7.5%)	3.23
5.	It is time saving to use telephone conferencing in teaching and learning.	24 (15.0%)	76 (47.5%)	40 (25.0%)	20 (12.5%)	2.65
6.	Using telephone conferencing may encourage absenteeism in a conventional classroom.	68 (42.5%)	40 (25.0%)	40 (25.0%)	12 (7.5%)	3.03
7.	It is found to promote cooperative learning among participants.	104 (65.0%)	52 (32.5%)	04 (2.5%)	0 0	3.63
8.	It allows students to be largely responsible for their own learning.	68 (42.5%)	84 (52.5)	08 (5.0%)	0 0	3.38
9.	It allows close monitoring on	48	44	56	12	2.80

	the part of instructor or facilitator.	(30.0%)	(27.5%)	(35.0%)	(7.5%)	
10.	It promotes and encourages self-expression in learners.	88 (55.0)	72 (45.0)	0 0	0 0	3.55
11.	It creates a great fun while promoting learning with ease.	96 (60.0%)	56 (35.0)	04 (2.5%)	04 (2.5%)	3.53
12.	Telephone conferencing can be effectively used to conduct classes while university is on strike.	123 (76.9%)	37 (23.1%)	0 0	0 0	3.77
13.	It can help in ensuring that course contents are adequately covered.	83 (51.9)	41 (25.6%)	31 (19.4%)	04 (2.5%)	3.26
14.	Students can organize tutorials among themselves without having to meet face-to-face using telephone conferencing technology.	124 (77.5)	36 (22.5%)	0 0	0 0	3.78
15.	It should be adopted to supplement conventional face-to-face contacts.	131 (81.9%)	29 (18.1%)	0 0	0 0	3.82

Table 1 shows the results of the general perceptions of pre-service Social Studies teachers regarding the usability of the telephone conferencing as a mode of instruction. The analysis shows that participants agreed that telephone conferencing is a good innovation in teaching and learning ($\overline{x}$ = 3.63); that it is a useful (usable) instructional strategy for Social Studies teaching and learning ($\overline{x}$ = 3.28); they also believe that it can enhance teaching and learning ($\overline{x}$ = 3.43) and promote interactivity among users ($\overline{x}$ = 3.23). They equally agreed that use of teleconferencing has the benefit of time saving ($\overline{x}$ = 2.65). These findings are supported by Disbrow (2008), Milioritsas and Georgiadi (2010) and Panagiotakopoulos *et al.* (2013).

Furthermore, the results show that participants agreed that use of telephone conferencing for teaching may encourage students to be absent from conventional classroom ($\overline{x}$ = 3.03). This finding is buttressed by the viewpoint of Getter (2008) who suggests that students can join classes from their convenient locations. Participants also agreed that telephone conferencing promotes cooperative learning ($\overline{x}$ = 3.63), allows students to be largely responsible for their own learning ($\overline{x}$ =3.38) and allows close monitoring on the part of instructor ($\overline{x}$ = 2.80). This is supported by Martin (2005) who claims that telephone conferencing creates collaborative learning conditions among users. Moreover, the participants agree that telephone conferencing creates great fun with ease of learning ($\overline{x}$ =3.53); it promotes and encourages self-expression in learners ($\overline{x}$ = 3.55).

Mavroidis *et al.* (2013) equally found the use of telephone conferencing exciting. Interestingly, participants agreed that telephone conferencing can be effectively used to conduct classes while university is on strike and thereby adequately cover course contents over time ($\overline{x}$ = 3.26). This is one of the benefits that universities stand to enjoy to overcome the incessant strike affecting academic calendar almost on a yearly basis in Nigeria. In addition, participants agreed that students can organize tutorials among themselves without having to meet face-to-face at a particular location ($\overline{x}$ = 3.78) and that it should be adopted to supplement conventional face-to-

face contacts ($\overline{x}$ =3.82). This is corroborated by Lane (2008) who avers that teleconferencing allows for tutorial meetings through the medium of telecommunications. On a final note, the results indicate that the respondents' general perceptions positively confirm that teleconferencing technology is usable for teaching and learning particularly in Social Studies. This is in consonance with the finding of Mavroidis, et al. (2013).

What are the hindrances to effective use of telephone conferencing technology in teaching and learning?

Table 2: Hindrances against effective Use of Telephone Conferencing Technology

S/N	Statement	SA 4	A 3	D 2	SD 1	Mean
16.	Telephone conferencing involves technical difficulties due to network problems from the service providers.	48 (30.0%)	64 (40.0%)	20 (12.5%)	28 (17.5%)	2.83
17.	Waiting to talk while participating in conference telephone call may be frustrating.	104 (65.0%)	52 (32.5%)	04 (2.5%)	0 0	3.63
18.	Huge costs of telephone services in Nigeria may hinder effective use of telephone conferencing call for teaching and learning.	118 (73.7%)	42 (26.3%)	0 0	0 0	3.74

Table 2 reveals that a majority of the respondents (70.0%) agreed that telephone conferencing technology involved technical difficulties ($\overline{x}$ = 2.83), they (97.5%) also agreed that waiting to talk while participating in a conference call might be frustrating to learners ($\overline{x}$ = 3.63) while all the respondents (100%) agreed that huge costs of telephone services in Nigeria might hinder effective use of telephone conferencing call for teaching and learning purposes ($\overline{x}$ = 3.74). It can therefore be concluded that effective use of telephone conferencing may be hindered by certain factors in Nigeria. Some of those hindrances include technical difficulties (failing, poor networks or lack of networks) arising from the telecommunication service providers, waiting to talk while participating in the conference call and huge costs of telephone services. Other difficulties could be caused by power failures and audio problems which may render cell phones useless or non-functional as batteries get exhausted and could not be recharged as and when needed. These findings were in consonance with the finding of Panagiotakopoulos et al (2013). The authors affirm that the use of teleconferencing for educational purposes is highly connected with technical difficulties which can affect its effectiveness in a number of ways. They also opine that such hindrances may have a negative impact on the educator's preparation for classroom teaching or lead to poor communications between participants; thereby affect the learning process. Although, the finding of huge costs of telecommunication services in Nigeria as one of the hindrances to effective use of

teleconferencing runs in contrary to the submission of Lane (2008) who believes that audio conferencing is a very cost effective method of conducting group meetings.

Discussion

The results of the study generally indicate that the pre-service teachers' perceptions of the usability of the telephone conferencing were positive. The implications of these findings imply that university teachers can use the telephone conferencing technology to conduct their classes in the same way they conduct the usual face-to-face lessons with their students. Also, the sampled pre-service social studies teachers would also be willing to use the telephone conferencing technology in the delivery of their classroom lesson. This is because the practical session to which they were exposed in the course of the study had given them the cognitive preparedness to accept and use the telephone conferencing technology. These implications are in consonance with the positions of the two theories TAM and Nielson's usability attributes as explained under the theoretical framework above.

Recommendations

For effective utilisation of telephone conferencing in teaching and learning process, it is recommended that authorities of higher education institutions should invest in installation of a teleconferencing platform in their premises to make costs of teleconferencing technology cheaper and more affordable and expose lecturers, through symposia and workshops, to this modern technology of telephone conferencing as an important pedagogical tool so as to aid the achievement of educational goals and objectives of teaching and learning of social studies in particular and attainment of goals of education in general. Also, teachers or facilitators should ensure teamwork and collaborative measures that would encourage friendly atmosphere and make room for an ambience for increased learner participation during the telephone conferencing call sessions.

More importantly, it is also recommended for a multi-disciplinary group involving educational technologists and authorities of higher learning to partner with telecommunications companies to help organise telephone conferencing sessions for teaching and learning purposes at cheaper costs and map out strategies for harnessing the potentialities of telecommunications services in the area of telephone conferencing. This study has projected the venture as a worthy exercise. The regulatory agency of communications in Nigeria should insist on improved service delivery by the operators in the telecommunication industry so as to ensure that telephone conferencing use is free of preventable technical problems. By implication of this study, more research efforts are still needed to look into the methods by which teleconferencing can be integrated into the teaching and learning of other disciplines. Such research efforts should focus on cost implications, benefits and potentialities of teleconferencing technology's use in such disciplines across different faculties.

Conclusion

The study found that telephone conferencing is a usable and viable pedagogical tool that can supplement the normal face-to-face sessions when necessary and that teaching and learning activities can actually be conducted over the telephone in an effective manner as can be done via face-to-face contacts. It is our belief that

lecturers and students will benefit from the potentials of teleconferencing when classes have to be conducted without both parties having to necessarily meet face-to-face; thereby saving a lot of time that could have wasted by students while travelling from their locations to lecture rooms on campus and institutions too would save a lot of money expended on physical learning materials when learners can be taught in different locations at the same time over telephone by their teachers.

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Teachers' perceptions regarding the role of practical work in teaching integrated science at junior secondary school level in Zambia

Roy Miyoba
Pemba Secondary School, Pemba, Zambia

Madalitso K. Banja
Educational Psychology, Sociology and Special Education
School of Education
University of Zambia

Abstract
This paper reports the findings of a study that explored teachers' perceptions regarding the role of practical work in teaching integrated science at junior secondary school level. The sample consisted of 32 teachers of integrated science. There were 26 males and 6 females teachers. A descriptive survey design was employed under a mixed method approach that placed greater focus on the qualitative strand. Purposeful sampling procedure was used to select teachers. Data collected from survey questionnaires were analysed using Microsoft Excel 2007 while the interview data were analysed using thematic analysis. The study found that teachers had positive perceptions regarding the role of practical work in teaching integrated science although their perceptions did not translate into actually conducting practical work during teaching. Teachers had indifferent attitudes towards conducting practical work. Teachers of integrated science experienced challenges such as overcrowding in classes, language barrier, inadequate professional development, insufficient instructional time to cover the syllabus content, and poor administrative support. The study recommended that standards officers and head teachers should monitor teachers and help improve teacher support by making necessary materials available for use during teaching as well as organising professional development meetings.

Keywords: Challenges. Integrated science. Supervision and monitoring. Teaching. Teachers' perceptions. Practical work.

Introduction
Education is one of a nation's important tools for achieving more progress and development in the changeable world. Owing to the rapid technological changes and the emerging issues related to learners' poor performance in core subjects such as science, education systems are currently undergoing transformation throughout the globe. They are shifting from a philosophy that focuses on theoretical transmission of information to a more constructivist paradigm of teaching and learning which believes in learning by doing. As a result, there have been a number of education reform projects throughout the world which aim at preparing learners to meet the current needs of producing a scientific community that is beneficial to society (Dagher & BouJaoude, 2011). Therefore, to promote a deep conceptual understanding and development of positive attitudes towards science, there have been great emphases on science education methodologies which promote hands-on learning and teaching. In line with this new thinking, education authorities in Zambia have made integrated science as one of the core subjects to be taught in Zambian

schools from Grades 1 to 9 as a standalone subject. Its prime goal is to help to develop processes of scientific thinking in learners (Ministry of Education, 1996).

Challenges of teaching practical work in integrated science

The teaching and learning of integrated science has faced a lot of challenges both at primary and secondary school levels in Zambian schools. These challenges hinder successful learning of practical work in integrated science in schools. Teachers indicated that teaching of integrated science was fraught with various challenges. Most schools do not have enough learning and teaching materials. A study by Haambokoma *et al.* (2002) established that materials and resources were insufficient and sometimes lacking in schools. This impacted heavily on the teaching and learning of practical work in Integrated Science in schools. In addition, the language of instruction has been a huge barrier. Teachers have had difficulties with the use of English language during lessons. Most learners in schools are not able to understand, read or write in English. A study conducted by Matafwali (2005) on reading ability in Grade Six concluded that 49.1 percent of the pupils could not read words at all and 57.5 percent children could not read any single sentence in English language. Other challenges included insufficient administrative support for teachers of science, few teachers of science resulting into high pupil-teacher ratio and lack of on-going professional development (Kelly, 1999; MoE, 1996). These challenges posed a barrier to learners who transitioned from junior secondary to senior secondary in understanding basic concepts of science at that level.

On a global scale other challenges in the teaching of science abound. Alexander (2000) noted that time allocated to teaching science is limited; hence, teachers are under pressure to cover learning outcomes. The content for teaching outlined in the syllabus is usually too much against too little time for lessons. This makes teachers spend much of their time preparing learners theoretically in order to pass final examinations and move to the next grade or level rather than preparing them to master skills. Furthermore, teachers do not have enough time for proper planning of practical work (Backus, 2005). This is because teachers have many other classes to attend to owing to a smaller number of teachers of science in schools. Lastly, some teachers of integrated science have low-level attitudes towards laboratory applications, negative perceptions and beliefs of practical work (Cheung, 2007; Roehrig & Luft, 2004). Beliefs impact their actions and play a critical role in paving restructuring of science education. These beliefs have a strong influence on what they do (Bryan, 2003).

To address some of these challenges, the Zambian government introduced a lot of programmes such as Action to improve English, Mathematics and Science (AIEMS); and distance and full time programmes in science education at Kwame Nkrumah Teachers' College, the Copperbelt Secondary Teachers' Training College, the National In-Service Teachers' College and at the University of Zambia for professional development in the late 1990s. These programmes aimed at equipping teachers with relevant scientific knowledge in both primary and secondary schools. The government also built laboratories in some schools and distributed science kits for most primary and some secondary schools.

Although such interventions were put in place, a study by Mudenda (2008) and an examination report by Examinations Council of Zambia (ECZ) (2014) showed that learners still had a lot of challenges during their practical examinations. It was indicated that most candidates, at both Grades 9 and 12 level did not have in-depth

understanding of the science concepts to the extent that they were failing to make interpretation of practical observations.

The key factor in the resolution to this problem is the classroom teacher. This is because even amid the best educational policies, frequent curriculum re-designing, and investing huge sums of money on education, the ultimate realisation of any set of aims for education depends on the teacher. The teacher is responsible for translating policy into action and principle into practice during interactions with learners.

Teachers' perceptions

Perceptions are one of the most important factors that need consideration when developing teachers' favourable attitudes towards teaching practical work in integrated science. Maharaj, Brijlall and Molebale (2007) argue that perceptions determine teachers' actions in classrooms. These actions may include the way teachers plan the work to teach and select the methods to use to teach the work planned. In a study conducted by Diene (1993) to understand teacher change, it was concluded that teachers' perceptions, beliefs and practices were embedded within and tied to broader contexts with personal, social and previous ideas about a particular aspect. Klazky (1984) defines a perception as a process by which individuals select, organise and interpret stimuli into meaningful and coherent pictures of the world around them. An individual's perceptions determine the way s/he behaves, reacts to stimuli, interprets and disseminates information.

Perceptions that individuals possess are as a result of sociological forces including the influence of ideologies, religion, human interests and group dynamics (Phillips, 2000). Beliefs involve "those general understandings related to learning that a teacher holds to be true" (Opfer, Pedder & Lavicza, 2010: 444). These sociological forces determine teachers' beliefs about teaching and therefore, teachers will attach a high priority to practice knowledge and skills that conform to their own belief (Opfer *et al.,* 2010).

Further, Ajzen (1985) argues that the connections among clusters of beliefs create an individual's values which guide one's life and ultimately determine one's behaviour. This means teachers also possess beliefs (values) regarding professional practice which impact and guide their actions as they teach in schools. Therefore, the way teachers modify and adapt teaching methodologies depends on their perceptions of practical work. In this regard, Ughamadu (2005) argues that success in science will always depend on the quality of teachers and their perceptions. It is therefore, essential to understand teachers' perceptions and beliefs about the role of practical work in teaching and learning of Integrated Science at junior secondary school level. A school might have good classrooms and all the necessary teaching materials, but if teachers' perceptions are not in tune with official policy, the teaching and learning process is negatively affected. Therefore, it is important to evaluate how teachers in schools interpret and organise Integrated Science practical work. It is against this background that this research sought to explore teachers' perceptions regarding the role of practical work in the teaching of Integrated Science at junior secondary school level in Pemba District of Southern Province of Zambia.

Importance of practical work in teaching integrated science

Stoffels (2005) defines practical work as all those teaching and learning situations which provide learners with opportunities to practice the process of investigation and involve hands-on or mind-on practical learning opportunities where learners practice and develop various process skills. During practical work, learners have to interact with materials in order to make their own sound judgement about what they are learning. Practical work makes learners get excited and yearn to learn more (Braud & Driver, 2002). As learners do practical work, much of their senses are involved, hence reducing boredom and making the learner eager to learn more and more. Practical work helps to illustrate concepts so that learners can "see" science concepts (Gott & Mashiter, 1991). When more than two senses are involved, retention of concepts lasts longer because new horizons of understanding or visualising things, ideas and concepts are opened. Learning by doing makes learners use more than one sense and because of that, learners do not easily forget concepts. This makes it easier for learners to link theoretical ideas with real phenomenon.

Millar (2008) adds that practical work helps learners with skills of how to find solutions to problems through investigations and analysis of situations. Therefore, practical work encourages step by step scientific investigations through which learners practice to create hypothesis, collect data, perform experiments, analyse results and make conclusions. In addition, practical work improves the analytical ability of learners and encourages practice of cooperative work (Dillon, 2008). Woodley (2009) further acknowledges that practical work in science supports skills development, experimental learning, independent learning, learning in different ways and the development of personal learning and thinking skills.

Problem statement

Integrated science education in Zambia aims at improving scientific and technological skills of learners through learning practical work. It is expected that at the end of junior secondary school, learners should be able to understand basic science concepts as they transition to senior secondary level. In this vein, the government embarked on training teachers of science and also distributed science kits to most schools throughout the country. However, the results indicate that most candidates still fail to exhibit the expected in-depth knowledge and practical skills required at the Junior Secondary School Leaving Examinations (ECZ, 2014). Research abounds that identifies this problem. However, there is no known research that has been done to determine teachers' perception regarding the role of practical work in teaching integrated science at junior secondary. This study sought to address this knowledge gap by answering the following research questions.

Research questions

Specifically this study sought to answer the following questions:

- What is the understanding of practical work in integrated science by teachers of integrated science at junior secondary school?

- What are teachers' perceptions regarding the role/importance of practical work in teaching integrated science at junior secondary school?
- What are the challenges of teaching practical work in integrated science at junior secondary school?

Methodology

The study employed a mixed methods approach with greater focus on the qualitative strand. Brynard and Henekom (1997) contend that qualitative methodologies allow the researcher to know people personally and to see them as they are, as well as to experience their daily struggles when confronted with real-life phenomena. In this case, it focused on an in-depth analysis of the teachers' perceptions of the role of practical work in teaching Integrated Science and used the descriptive survey as a research design.

The study sample comprised of 32 teachers of integrated science at junior secondary school from 18 different schools within Pemba district. There were 26 males and 6 female teachers involved in this study. This sampled shows a bias towards more males than females because there were only 8 females who taught integrated science in the district at that time. Two out of the eight were used in the pilot study. The schools sampled for study included basic and secondary schools. This study used purposive and convenient sampling procedures to select teachers and schools. Purposeful sampling procedures were used to select teachers because of two reasons. Firstly, these were the only ones who could provide the required information in line with research objectives. Secondly, it was necessary to purposively sample teachers of Integrated Science because of their scarcity in schools. This explains why there were only 6 females in the sample. There are few females teaching integrated Science in Zambian schools. In this case the 6 females represented all the females teaching integrated science in the sampled schools. Any other form of sampling would have seriously affected the sample size. In terms of schools, the sampled schools had received Science kits from the government through the Ministry of Education.

Data were collected using semi-structured questionnaires with both closed and open-ended questions that endeared themselves to quantitative and qualitative analysis, interview guides and checklists/observation sheets. The questionnaire was used to obtain teachers' perceptions of the role of practical work while the checklist was used to determine teachers' physical application of practical work from their portfolios (schemes of work, lesson plans and records of work). Interviews were conducted after teachers filled in questionnaires to triangulate information provided and allow teachers provide more information which could not be availed in the questionnaire. The data collected were analysed by coding and grouping the emerging themes which corresponded with research questions. To facilitate further analysis, some of the data were analysed using Microsoft Excel 2007 to obtain descriptive statistics which included frequencies and percentages.

Findings

Table 1 shows the demographic information of teachers who took part in the study.

Table 1: Demographic information of teachers

General Information		Frequency (N=32)	Percentage (%)
Gender	Male	26	81.2
	Female	6	18.8
Age	21 – 25	2	6.3
	26 – 30	4	12.5
	31 – 35	12	37.5
	36 – 40	5	15.6
	41 and above	9	28.1
Highest level of academic qualification	Secondary Diploma	27	84.4
	Bachelor's Degree	5	15.6
Experience of teaching Integrated Science at junior secondary school level	2 – 5	3	9.4
	6 – 10	18	56.2
	11 – 15	5	15.6
	16 – 20	4	12.5
	21 and above	2	6.3
School type and numbers of teachers involved	Basic schools (14)	25	78.1
	Secondary schools (4)	7	21.9

(Source: Fieldwork data, 2016)

Teachers' understanding of practical work in integrated science

This section presents findings on teachers' understanding of practical work in Integrated Science at junior secondary schools in Pemba district. All the teachers who were interviewed were able to explain the meaning of practical work correctly. One of the teachers stated that 'p*ractical work is an activity in which pupils handle apparatus on their own to find solutions to a given problems'.* Another teacher had the following to say 'p*ractical work is an activity in which pupils are involved in doing activities of testing and making conclusion of their own in a classroom'.* Generally, the results indicated that teachers were knowledgeable in their understanding of practical work in integrated science.

Importance of conducting practical work in integrated science

In addition to their understanding of practical work in integrated science, respondents were asked for their perceptions about the importance of conducting practical work in the teaching of integrated science. All teachers agreed that it was necessary to conduct practical work in integrated science at junior secondary level. Teachers indicated that practical work helped learners to translate theory into practice and also to retain what had been learnt. In supporting this view, one of the teachers indicated

that 'p*ractical work arouses interest in learning and makes learners to feel ownership of the learning processes'.*

The study further investigated the techniques of teaching practical work in integrated science. These are presented in table 2.

**Table 2: Techniques of teaching practical work in integrated science**

Techniques of teaching practical work	Frequency (N = 32)	Percentage (%)	Reasons for the choice of technique
Demonstration	23	71.9	It saves time, less involving, easy to control class, easy to prepare, cheap
Investigation	4	12.5	Learners develop investigative skills, learners learn by doing
Structured	2	6.2	Easy to prepare, easy to mark and to control learners, learners practice physically
Rotating or circus	3	9.4	Inadequate apparatus, each learner does the experiment, involves more senses.
Problem solving	0	0	-

(Source: Fieldwork data, 2016)

Table 2 shows that the majority of teachers (71.9%) preferred using demonstration to any other technique in the teaching of practical work because they found it to be less involving, cheaper and time-saving. Significantly, none of the teachers preferred to use problem solving. Problem solving needs a lot of time and sometimes more materials than the other techniques. From table 2, it is clear that the majority of teachers were aware of the different techniques of teaching practical work in Integrated Science.

Possibility of conducting practical work without a laboratory
Regarding the possibility of teaching integrated science in the absence of a laboratory, twenty-six (81.2percent) teachers agreed that it was possible to teach practical work in their schools without a laboratory, while six (18.8percent) indicated that it was not possible to conduct practical work without a laboratory. Figure 1 below shows the details.
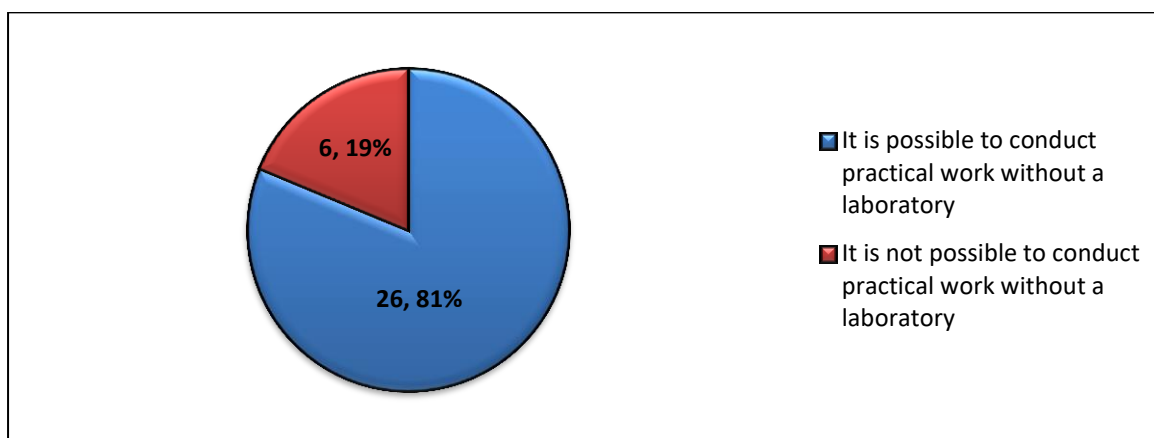
(Source: Fieldwork data, 2016)

Figure 1: Possibility of conducting practical work without a laboratory

Respondents were further asked about the importance of keeping records of practical work conducted in Integrated Science. Teachers acknowledged that it was important to keep records of practical work for learners. They understood that practical work helped teachers avoiding repetition of work previously taught in case of another teacher's absence. Hence, one of the teachers said '*keeping records of practical work helps to know where the other teacher ended in case of transfer or change of class'.* Another teacher supported the above viewpoint thus '*keeping records of practical work helps teachers to take note of challenges and help to make modifications of practical lesson in future'.* The general picture from responses indicated that the majority of teachers were aware of the importance of record keeping.

Challenges towards conducting practical work in integrated science in schools

Although teachers agreed that they conducted practical work in Integrated Science in their schools, most of the teachers indicated that did not have enough teaching materials such as science text books and apparatus in their schools. Most teachers indicated their schools were not able to purchase extra materials to cater for every pupil as reported by one of the teachers noted that '*our school is unable to purchase science apparatus and we have no capacity to store chemicals'.* Some teachers further indicated that were not receiving enough funds from the government and even when they did, the little they received was disbursed late. Besides that, most teachers also indicated that practical work in Integrated Science was paid least attention by their school administration compared to other activities in school, as indicted by one of the teachers said that '*our school would rather send pupils for sports than purchasing science equipment'.*

Teachers also complained of too much workload as there were few teachers of science. In line with that, one teacher stated that:

There is little time to prepare for practical work because of many classes to teach. As a result when we knock off we are too tired to start preparing adequately for the next lesson.

Another teacher reported that:

Most of the learners in our school do not understand English language and therefore, it is difficult to explain in local language as most of scientific terms are not in our local languages.

Teacher supervision in schools

Regarding supervision of teachers teaching integrated science, the results are presented in figure 2.
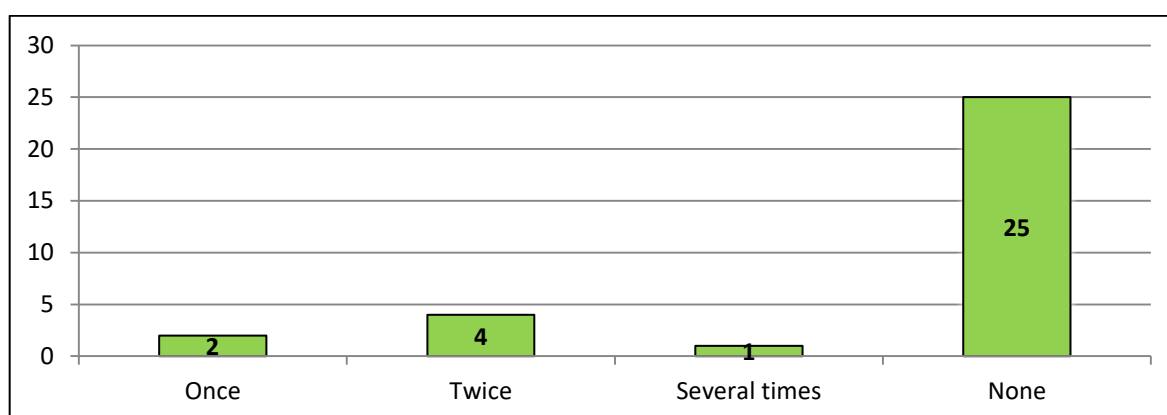
(Source: Fieldwork data, 2016)

Figure 2: Teacher supervision in schools

Figure 2 shows that 25 (78.1percent) of the teachers were not observed conducting practical work by their supervisors in the last three terms while 1 (3.1percent) was frequently observed conducting practical work to learners and yet supervision is one of the key factors that remind teachers of what they are supposed to do in their routine work at school.

Findings from teachers' portfolios

Teachers' portfolios (schemes of work, lesson plans and records of work) were collected and thoroughly checked for evidence of practical work. Table 3 presents this data.

Table 3: Evidence of practical work in teachers' portfolios

Teachers with evidence of practical work		
Teacher portfolio	Frequency (N= 32)	Percentage (%)
Schemes of work	4	12.5
Lesson plan	6	18.8
Records of work	6	18.8
Average percentage		16.7
Teachers without evidence of practical work		

Schemes	28	87.5
Lesson plan	26	81.2
Records of work	26	81.2
Average percentage		83.3

(Source: Fieldwork data, 2016)

Table 3 shows that on average, 16.7 percent of the teachers prepared and taught practical work in their schools, while 83.3 percent did not. Most of the teachers, (5 out of 6) who had prepared practical work in their portfolios, were from secondary schools as opposed basic schools. This indicates that more practical work was done in secondary schools than in basic schools.

Discussions

Teachers' perceptions on the role of practical work in teaching integrated science
The findings indicated that all teachers showed a satisfactory understanding of practical work in integrated science. Their explanations and descriptions of practical work were in line with Lunetta *et al.* (2007) who describe practical work as learning experiences in which learners interact with materials or with secondary source of data to observe and understand the natural world. A good understanding of the nature of practical work might help teachers to plan sound practical activities. Knowledge is very important in teaching because when it is applied correctly, it yields desired results. Positive perception of practical work can impact directly on the way the teacher conducts practical work. Therefore, teachers should have a clear understanding of what practical work entails and the purposes it serves.

The findings further show that teachers understood why practical work was taught in Integrated Science. Their responses are in agreement with explanations by Gott and Mashiter (1991); Braud and Driver (2002) and Inomiesa (2010) on the importance of practical work. These state that practical work makes learners get excited and yearn to learn more; helps to illustrate concepts so that learners can "see" science concepts; and that practical work helps learners with skills of how to find solutions to problems through investigations and analysis of situations. It must be realised that the more the learners carry out practical work, the more efficient they become in performing the practical work and the greater the retention of practical skills the learner gains. For this reason, it is very important that learners are involved in practical work frequently.

The findings also indicate that teachers were aware of and used different techniques of teaching practical work during Integrated Science lessons. These techniques of teaching practical work are in agreement with Kapenda *et al.* (2002) and Wellington (1998) who considered demonstration, investigation, structured, rotating or circus and problem solving as some of the common styles of teaching practical work in science. It is very important that during teaching and learning, a variety of styles of teaching practical work are employed so that learners are kept motivated. If the same style of practical work is used all the time, learners get bored and lose interest in doing practical work. However, it was observed that most teachers (71.9%) performed more of demonstration than any other style of teaching practical work. This also agrees with Pekmez, Johnson and Gott, (2005) who reported that demonstration was the most frequently used type of teaching practical

work by teachers. Demonstration does not involve learners physically manipulating materials. It is usually the teacher who conducts that activity. Teachers already have the knowledge and skill, but it is the learner who needs it most. Learners who manipulate tools by themselves understand concepts better and gain adequate skills than those who just observe others (Dirkes, 1991). Therefore, the majority of teachers denied learners chance to understand concepts and practical skills by not allowing them to manipulate apparatus by themselves.

Teachers reported that they preferred demonstration to other techniques of teaching practical work. They stated that they had inadequate apparatus and saved time through demonstrations in terms of preparation and class control. On the contrary, Stoffels (2005) argued that many teachers used demonstrations simply because of their failure to be resourceful since some practical work could be done with simple materials from the local environment. Teachers showed mixed perceptions regarding conducting practical without a laboratory. The results indicate that the majority of the teachers, 26 (81.2%), agreed that it was possible to conduct practical work in Integrated Science without a laboratory. Teachers were in line with Maboyi and Dekkers (2003) who suggested that practical work could be conducted anywhere provided there was enough space and materials to use. Teachers of science are supposed to be resourceful and innovative.

On the other hand, 6 teachers disagreed and stated that it was not possible to conduct practical work without the laboratory. These teachers agreed with Tsuma (1997) and Solomon (1994) who argued that a science laboratory is an indispensable facility in science education because it provides the best setting for teachers to assist learners in acquiring scientific knowledge and skills. Solomon (1994) further observes that science teaching must take place in the laboratory since it belongs there naturally as cooking belongs to the kitchen.

Although both arguments are true, the argument by Maboyi and Dekkers (2003) seems to make more sense. It is not all practical work that needs to be confined to laboratory conditions. Some practical work, such as measuring breathe rate can be done even on a football pitch. It must be realised that the presence or absence of a laboratory in the school does not overrule the importance of the role of practical work in teaching Integrated Science. Therefore, teachers should find what suits their condition best and ensure that practical work takes place during learning and teaching of integrated science.

Teachers also showed that they were aware of record keeping and its importance in teaching of practical work. Their responses agree with Macharia and Wario (1994) who outlines the following importance of record keeping: to assess what has been achieved in the past by the pupils; to show the present rate of progress that the pupils are making; to identify the areas of difficulty for individual pupils so that remedial teaching can be planned for them; to provide basis for guidance and counselling of pupils when they are planning their future education and to assist in the smooth transition of education from one school to another. Important records which teachers should have in their files include schemes of work, lesson plans, records of work and pupils progress records. It is important to ensure that exercises, quizzes, or tests that are given to pupils are also reflected in all these records. These may be used as terms of reference when assisting learners who are not performing by pointing out their weaknesses as well as those performing well to determine their future. All well-meaning teachers favour keeping records of work as it is the pillar of teaching and learning.

Data obtained from the questionnaires were matched with data from the teachers' portfolios obtained using checklists. This triangulation proved valuable in validating data. The findings revealed that most teachers did not have a record of practical work in their portfolios despite having satisfactory knowledge and understanding of record keeping. These findings agreed with Kibirige, Osodo and Mgiba (2014) in South Africa who concluded that teachers, despite being aware of the importance of practical work, did not often keep records of practical work. The findings further showed that teachers recorded other works which they taught apart from practical work in their portfolios. This was an indication that the majority of the teachers did not conduct practical work in their schools.

It can, therefore, be stated that teachers have unsatisfactory perception regarding application of practical work in schools. Perceptions are very important because they determine how the teacher behaves while conducting practical work. The way a teacher understands things has a strong bearing on how he or she is going to conduct any activity. However, this study has shown that teachers' positive perception of the role of practical work did not translate into positive behaviour regarding the same. Having satisfactory perceptions alone is not enough; such perceptions must be translated into practice.

Challenges of conducting practical work in integrated science
Teachers of integrated science indicated numerous challenges. They reported that they did not have enough learning and teaching materials in schools. This is in agreement with Haambokoma, Nkhata, Kostyuk, Chabalengula, Mbewe, Tabakamulamu and Ndhlovu (2002) who established that materials and resources were insufficient and sometimes lacking in schools. This impacted adversely on learners because they were unable to do practical work. The findings also indicated that overcrowding in classrooms was a major obstacle in conducting practical work in classrooms. This coupled with inadequate teaching and learning resources made it difficult for teachers to conduct practical work. These findings correspond with Manda (2012) who acknowledges that over-crowding of classrooms was one of the major obstacles to carry out classroom assessment in schools.

Teachers also indicated that the official language, English language used in schools was a challenge in the learning and teaching of integrated science. Teachers noted that most of their learners could not express themselves fluently, both in written and spoken English. This hindered learners from participating fully during discussions and failing to write findings and reports during practical work. This made it difficult for teachers to teach practical work in local language into which most of the science terms could not be translated easily and directly. In line with that, Chibesakunda (1983) acknowledges that when a learner of science is not a native speaker of English language, his learning through it demands very special additional difficulties of cognition and understanding. Language is key to learning of new concepts more especially if taught in first language.

The findings also indicated that teachers had inadequate professional development in schools. Most schools, especially basic schools, did not have enough financial resources to hold continuous professional development meetings. Such meetings hinge on adequate teaching aids of which many schools cannot manage to purchase. These were in agreement with Al Shammeri (2013) who argued that most teachers had inadequate professional development in schools. The findings further show that teachers did not have enough time to complete the

syllabus when they engaged learners in most of the practical work. This is in line with Haambokoma *et al.* (2002) who argued that overloaded syllabus does not give adequate time for teachers to engage pupils in practical work such as conducting experiments which require more time to give results.

Additionally, the findings indicate that teachers did not have enough time to prepare for practical work adequately because they had many other classes to which they attended. This was due to shortage of teachers of science in schools. This is in line with Johnson (2009) who contends that lack of sufficient planning and preparation time has long been a contextual mainstay of the teaching profession. Besides the above stated challenges that teachers experienced in conducting practical work in their schools, they also lacked close supervision from their superiors. It is not uncommon for teachers to relax when supervision is inconsistent or lacking so much that they tend to take every situation lightly and even forgetting their core duties. Therefore, teachers also need supervision to work hard no matter their level of experience and devotion. Supervision is necessary to ensure teachers perform to expected standards.

Apart from that, teachers seemed to have had indifferent attitudes. As Cheung (2007) argues, some teachers of science have low-level attitudes toward laboratory applications, negative perceptions and beliefs of practical work. Attitudes determine what each individual will see, hear, think and do. They are rooted in experience and do not become automatic routine conduct. Therefore, teachers may stick to what they think works rather than doing what works.

Conclusion

The research has concluded that there was a mismatch between teachers' perceptions towards the teaching of practical work and the extent to which they engaged learners in practical work. Teachers' failure to conduct practical work with pupils was largely attributable to their indifferent attitudes towards practical work. This was in spite of that fact that teachers are holding satisfactory perceptions regarding the role of practical work in teaching integrated science. These indifferent attitudes could have been caused by numerous factors including inadequate learning and teaching materials, overcrowding in classes, language barrier, inadequate professional development, insufficient instructional time to cover the syllabus content, and inadequate time for planning practical work; some teachers did not conduct practical work owing to lack of close monitoring and supervision by their supervisors.

Recommendations
Based on the findings of the study, the following recommendations were made:

i. School head teachers, heads of science departments and head of sections should intensify monitoring teachers in conducting practical work in integrated science at junior secondary level to ensure compliance to the practical aspects of the syllabus, thereby ensuring that appropriate teaching standards are maintained.
ii. Teachers should develop initiative to use materials in their environment to supplement materials in the laboratories.

iii. School administration should motivate their teachers by purchasing necessary materials such as modern equipment for conducing practical work in integrated science in their schools.

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Initialising sustainable development in teacher training curriculum through the lens of students' research projects

Sakaria M. Iipinge; Eveline O. Anyolo; & Olia Ghiassi Razavi
Faculty of Education
University of Namibia

Abstract

This study was conducted at a large public university in Namibia. The study investigated the current areas of focus of the fourth-year students' research projects, one of the curriculum requirements of the teacher education curriculum, and how these research projects might be re-directed towards issues of sustainability in the future. A qualitative approach following a case study design was employed. Data was collected by means of focus group discussions with eight final-year student-teachers who were engaged in research projects, in order to gain an understanding of the issues they were investigating. The findings of the study reveal that students focus their research on different areas, influenced mainly by their areas of specialisation. However, it was also apparent that other issues – of environmental, sustainability, agricultural and developmental import – are equally worth investigating. The study suggests that the research project module should allow for a diversity of educational issues to be investigated, but that environmental and sustainable issues should be at the forefront of students' research projects.

Introduction

It is widely accepted that the world is currently facing a multitude of environmental problems. These include, among others, global warming, pollution, waste disposal, ozone depletion and climate change (Nickerson, 2003). Such problems adversely affect the state of the environment, with significant implications for the well-being of humans and other species. Sustainable development is considered the best conceptual tool for addressing such issues, to safeguard the welfare of present and future generations (Hopkins & McKeown, 2002). The concept of sustainable development is based on values, principles and practices necessary to respond effectively to current and future challenges. It requires a rethinking towards education that becomes empowering and enabling using the sustainability practices (Disterheft, Caeiro, Azeiteiro & Filho, 2015). In this study, we investigated the current areas of focus of fourth-year students' research projects, one of the curriculum requirements of the Teacher Education Curriculum at a large public university in Namibia, and how these research projects can be re-directed to respond to issues of sustainable development.

Contextual background

All United Nations member-states are expected to frame their agendas and political policies within the overall goals of sustainable development over the next 15 years (United Nations [UN], 2016). As a signatory to the United Nations statutes, Namibia is obliged to heed this call. In Namibia, like anywhere else, teacher education is seen to be crucial to the realization of sustainable development, as it ultimately serves to place young people at the centre of development (Wals, 2013). This means that sustainability can only be achieved if the teacher education curriculum is able to produce teachers who are environmentally sensible and willing to inculcate the knowledge, skills and attitudes necessary for learners to engage with sustainable development issues. In order to realize this goal, the curriculum should include activities to encourage attitudes conducive to responsible behavior on the part of student teachers towards the green earth (Lahiri, 2011, cited in Barth, Michelson, & Sanusi, 2011). The curriculum for teacher training should therefore focus on developing scientific attitudes among prospective teachers, irrespective of stream of affiliation, along with opening up possibilities for research. This will encourage students to implement sustainability issues in formal, non-formal and informal education and lifelong learning from early childhood to old age, thus bringing public awareness towards sustainable development within the wider communities (UNESCO, 2014).

Institutions of higher learning and sustainable development

Universities are increasingly recognized as playing a crucial role in the context of sustainability by generating, transferring and communicating new knowledge as well as offering education and training (Fien, 2002). Universities bear the responsibility of contributing with their research to sustainable development agendas, as they are vested by society with the task of imparting the values and technical knowledge needed to ensure a high quality of life for future generations (McMichael, Butler & Folke, 2003; Fien, 2002). Furthermore, the UNESCO (2014) emphasized the integration of sustainable development issues in Higher Education Institutions which can enhance not only the teaching capacity on sustainability issues, but conduct and supervise solution oriented interdisciplinary research. Therefore, Universities should empower students by providing them with conceptual tools and methods to enable investigation into sustainable development-related issues arising within classroom practice, schools and communities.

According to Barth (2013) implementing sustainability in universities undergoes different levels of change and one of these could be through research on sustainability issues. Many universities consider research for sustainable development a vital response to the rapidly-evolving sustainability crisis (McMichael, Butler, & Folke, 2003). They believe that it is through research that students are able to improve situations and contribute to sustainable development. Tomkinson (2011), cited in Barth, Michelson and Sanusi (2011), suggests that collaborative, group-based approaches, notably Project-Based Learning, can be a crucial element in a curriculum designed for sustainable development and other areas of global societal responsibility. Universities should accept the challenge of promoting economic development, providing much-needed social services, offering technical assistance

to community-based organizations, targeting research that provides guidance for community problem solving, and creating opportunities for faculty, students, and community residents to learn from one another (McMichael, Butler, & Folke, 2003).

According to Fien (2002), some universities have already responded to this need by making sustainability central to the critical dimension of university research. For example, the University of Waterloo takes a student-centred approach by encouraging student action projects and research on campus and providing support for student-based sustainability initiatives. In this way, students develop a deeper understanding of the sustainability issues that they are investigating. Such activity facilitates sustainability and helps provide for the future within the campus as well as the community at large. Research as provision for the future must generate new knowledge, and this knowledge must be relevant to practice. Thus, in order to achieve sustainable development, there is a need for a paradigm shift toward sustainability in research. This means that research in education, too, should be directed to issues of sustainable development and their implications for practice in school settings. Student teachers can thus acquire an understanding of the complexities of environmental and developmental issues for sustainable living. Research, according to (Paul, 2006) encourages metacognition, or thinking about thinking, and when students understand how they learn, and how best to learn, they can enhance their own learning. Successfully developing a research plan, following it, and adapting to the challenges that research presents all require reflection on the part of the student about his or her own learning. The same author pointed out that community and campus-based research not only benefits the students but can also produce outcomes that influence leaders' decision-making (Paul, 2006).

The Bachelor of Education offered by the University of Watate (not its real name) is a comprehensive four-year programme with specializations in different fields of Pre- and Lower, Upper and Secondary Education. One of the important modules in the Teacher Education curriculum for the B.Ed. is the Educational Research. After completion of Educational Research module student teachers embark on the research project within their areas of specialization. Each specialization has specific criteria in relation to the topic selected, but a general undergraduate research methodology is followed. Mostly students are required to indicate their areas of interest or problems or questions, and then allowed to pursue their enquiry into the area of concern.

Due to limited research in areas of specialization in teacher training curriculum in Namibia, students have a narrow range of topics on which to do their research. Thus the purpose of this study was to investigate the current areas of focus for fourth-year students' research projects, and explore ways of re-directing these towards issues of sustainability in the future. The study seeks to establish a wider spectrum of interests inclusive of sustainability, and address questions of quality, since many topics have become repetitive, both for students and the lecturers concerned.

Statement of the problem

All undergraduate students at this selected public University, the University of Watate, take a compulsory research project module. In this module, students are required to identify a problem within their area of subject specialization. However,

students generally experience difficulty in identifying research problem areas and topics. They usually end up with a narrow range of familiar topics to do their research on and, as a result, tend to duplicate/repeat research topics year after year. Therefore, this paper intends to explore ways of broadening and re-directing students' research projects towards issues of sustainable development.

Research questions

Given the purpose of the study, we decided to seek answers to these three questions:

i. What are the areas of focus of undergraduate student teachers' research projects?
ii. What challenges do undergraduate student teachers face when selecting the focused topic areas?
iii. How can sustainable development issues be used to enhance the quality of students' research projects?

Methodology

Research design and approach
We adopted a qualitative approach in this study. Qualitative research enables the researcher to obtain a holistic picture of what goes on in a particular situation, in this case, with students' research projects. This qualitative study is constituted as a case study. Case study seeks to understand the whole individual or phenomenon in the totality of that individual's or phenomenon's environment (Ary, Jacobs, Razavieh & Sorensen, 2006). According to Burton, Brundrett and Jones (2000), a case study needs to concentrate on generating deep and detailed knowledge of a well-defined context or phenomenon. The case study enabled us to gain a holistic and meaningful perspective on the reality of the research project module as experienced by fourth-year student teachers (Yin, 2003).

Sampling procedure
The study was conducted at Watate public university. Watate has several campuses, and only one campus, Vazela (not its real name) was used in the study. We used purposive sampling to select our participants. This means, as Leedy and Ormrod (2005) put it, that participants are deliberately chosen because they are likely to be knowledgeable and informative about the phenomenon under investigation. In the case of this study, eight fourth-year students out of 300, who were doing research projects were selected from the four areas of specialization, namely, Maths and Sciences, Languages, Social Sciences, and Lower Primary. We identified eight students based on their subject knowledge and assertiveness and gender representatives. A sample of eight students participated in the study.

Data collection method and instruments
We used focus group discussions to collect data in this study. A focus group is a type of in-depth interview with a group whose members share certain characteristics determined by the requirements of the research (Freitas, Oliveira, Jenkins & Popjoy,

1998). The purpose to conduct group interview was to obtain a better understanding of the problem understudy interviewing purposefully selected group of students. Focus group can also create an atmosphere in which participants stimulate one another' ideas thus, increasing the quality of discussion. Through focus group discussions, we were able to probe the participants' thoughts, values, prejudices, perceptions, views, feelings and perspectives as a group. A schedule, with structured questions based on the three main research questions was prepared and used during the discussions. At the end of the discussions, we gave participants a chance to discuss any issue related to the study. The discussions were recorded, transcribed and analysed.

Data analysis
The data generated was qualitatively analysed through thematic analysis. Thematic analysis is the process of identifying patterns or themes within qualitative data (Maguire & Delahunt, 2017) through coding. Coding, according to Merriam (1998), is nothing more than assigning some sort of short-hand designation to various aspects of your data so that specific pieces of data are easily retrieved. After coding, we organized the data into different categories. These categories were grouped together and broader themes were developed. These broader themes were used to frame the presentation of the data.

Findings

The following three broader themes emerged: areas of research for students' projects, challenges faced by students in selecting research projects, and suggestions for enhancing the quality of students' research projects. These themes are presented in the next section.

Areas of focus for the undergraduate student teachers' projects

Students pointed out various areas of research based on their specializations. These include areas in Junior Primary such as writing, spelling, and reading difficulties. For Languages it was the question of improving English speaking skills and the implementation of the new English curriculum. In Social Sciences the focused of research projects is on the issue of teaching of map work without a Mathematics background. In Mathematics and Science, students were primarily interested in teachers' perceptions of the new Mathematics curriculum as well as the challenges faced by learners in Mathematics and Science. Students were mainly influenced by their areas of specialization as required by the learning outcomes, and their research supervisors were vigilant about restricting the focus of their research.

Challenges faced by students when selecting the research focused areas

Under this theme, the following categories emerged: lack of or outdated resources, lack of knowledge about the subject, doing research projects within the area of

specialization and an overview of students' opinions about changing the research projects' focus.

i. *Lack of or outdated resources*

Students indicated that most of the books in the library were either outdated or not available. They had to consult other campuses' libraries, e-learning journals, Google scholar, etc. One student said: "*there is a lack of resources and some of them are old, but we are supposed to use the recent research done, we need recent researches....*" Another student said: "*we do have the systems, I use e-resources, journals, books, I can actually get books online, I can get info even the recent one and also Google scholar which is more recent.*"

ii. *Doing research projects within the area of specialization*

The fact that students had to do the research project within their area of specialization was a source of great concern. Students felt that they were limited in possible areas of research, as they had to select topics that had already been researched by previous students in the same field. As a result, they become repetitive. One student confirmed this by saying: *"we are limited by our specialization...."*

iii. *Overview of students' opinions on changing the research projects 'focus*

Students gave their views on how they could or would have changed their research focus, if given a chance to do so. Most of the students claimed that they could have changed their area of focus in different directions for various reasons. They indicated that they could have done their research project on any educational issue and not necessarily in their area of specializations. They felt that it would have been useful if they had been allowed to select any educational topic within the classroom or school environment.

For example, one student remarked: "*there are a lot of issues, the purpose of education is to get good things that make learners to perform well, even with class management, late coming, materials, time management, all these things how do they affect the results of the learners...all these are researchable, we realize there are a lot of topics that we can get.*" Another student said: "*with me, I would choose Home Ecology, why because I did it at school, it is very practical, but learners do not practice nowadays. Not everyone can perform academically, but good with their hands, when they finish Grade 10, if they could they could built houses, make clothes because of these skills, there is no practical, let the learners show creativity....*" School drop-outs, parental involvement or lack of it in relation to homework, discipline, bullying, the impact of school feeding programs, and ICT integration were amongst the topics suggested by students as researchable and of interest to them. This is supported by the following quotations:

"*The other issue is discipline; maintaining discipline is the primary factor for performing in schools. Please if we could be given this chance to research on other issues. Discipline also affects the performances at schools.*"

> "*ICT integration there is one thing I realize this thing of integration of ICT is that we took too far that we don't want to even touch chalks…no notes, no copies, no more written notes only books, teachers don't give notes, just copy and read book page, there is no written notes only copies, thing to teach especially…give notes and explain more, there is nothing, this needs to be researched, waste of resources….*"

Enhancing the quality of the student research project through initiating sustainable development topics

Doing the research project on any educational issue

Students were asked to suggest how the quality of their research projects could be improved and what can be done at the campus level. Most of the students were of the opinion that they should be allowed to select any topic as long as it is within the context of education. They felt that there are many issues within education that can be researched, such as environmental, sustainability, agriculture and developmental issues, etc. Below is one of the students' quotes:

> "*We are moving into sustainable development and our economy whereby we want more resources…people in University that are invested with knowledge, all research are subject based, how about those environmental issues, something… we have enough resources, we are about 500 students doing research, we should develop our own country, topics that develop our country agriculture is my minor, economy, agricultural sector, as a subject based something that can develop our country I should be allowed to do in my minor.*"

Among other things that were suggested by students during the interviews that could enhance the research projects were: lecturers to have a list of topics that students can select from; or students to do research projects in groups while in different schools; and the adoption of a multi-disciplinary approach. They suggested, furthermore, that for research projects to be meaningful for them Educational Research Module should be a year course spread over two semesters. There should be periods allocated to both theory and practice. Research should be a year-long course spread over two semesters, so that by the end of second semester in year three they would have practiced the different components of doing research like selecting a topic, etc. One comment made by students was, for example:

> "*We should be given assignment to come up with research topic, conduct research, you are already exposed to what research is about, something that you only read for exam or if you do you never forget. If you have good theory lecturer, we understood it, but still … is not because of being lazy to think, we don't want to memorize, we want to understand, let us do the research, be practical, PBL (Project Based Learning) was good. Let it be long and let us do the research.*"

Discussion

Analysis of the data indicated that areas of specialisation were limiting when it comes to the selection of research project topics. Students were not allowed to do research projects outside their areas of specialisation. The researchers strongly feel that sustainable development issues which are more relevant to the students and schools should be introduced. This will generate a more practical and inquiry based research for students and will hold their interest. This will also encourage students and communities to be more cooperative and supportive since their actual problems will be addressed.

Regarding challenges faced by students in selecting an area of focus for their research project, a lack of appropriate resources was identified by many students. Although some resources were available they were not up to date and did not address the Namibian context. A few students made use of e-resources such as recent research journal articles, etc., but not all. Mouton (2001) and Shumba (2004) concur that students' capacity to conduct research is significantly constrained by challenges such as a lack of internet service, a lack of computers and a lack of research materials.

The study also revealed that students had little subject knowledge of their specializations, and this made it difficult for them to select their topics knowledgeably and with confidence. The present arrangement is that students have to select and submit their research topics to their supervisors, who are more knowledgeable in the field. These findings are in line with those of Bell (2000) and Sidhu (2000) who point out that an inadequate theoretical background in the area being researched is one of the constraints faced by students embarking on research. This confirms the fact that students and lecturers lack enough knowledge on sustainability issues which are part of their curriculum. This has also been stated as part of the United Nations' agenda for sustainability that Namibia is a signatory. Once our students select one of the sustainable issues at their respective schools, this will encourage them to read more and connect their subject area knowledge to this interdisciplinary issue. This is presently neglected because of the narrow focus of research projects on the areas of specializations.

Students also suggested topics such as bullying, ICT integration, environmental/sustainable etc. This indicated that students are certainly aware of the shortcomings in the school environment and education in general that need to be addressed, even though they may not acknowledge that these are in fact part of their formal fields of study. Students should surely have the latitude to do research in areas of their choice and interest, which could help foster a life-long passion for education. Universities, as pointed out above, have the responsibility to contribute in their research to sustainable development (McMichael, Butler, & Folke, 2003), vested as they are by society with the task of imparting the values and technical knowledge needed to ensure a high quality of life for future generations (Fien, 2002). The NDP5 framework declares that "the quality and relevance of university education has been a serious concern of both private and public sector employers. Post-graduate education continues to be underdeveloped and its contribution to research and innovation remains small" (National Planning Commission 5 (NDP5), 2017: 61). The desired outcomes for 2017-2022 envisioned by the NDP5 document for Higher

Education require that the research capacity at Higher Education Institutions should be strengthened: "Implement a national research development programme which encourages locally-relevant research and promotes entrepreneurship. Build laboratories, research libraries and networks to support research activities" (National Planning Commission.NDP5, 2017, p.62). Initiating sustainable developing issues into the research projects at the Higher Education may be a good starting point to address the many environmental and developmental challenges faced at local as well as national level.

There seemed to be consensus that the time frame for the research project module is too short and needs to be expanded, in order to ensure that the research is conducted not only theoretically but also practically. This, the students believed, would increase and enhance their understanding and enable them to carry out their research successfully. This could result in a commitment to lifelong learning and to do further research into such problems as may arise in future in their own classrooms, school environment and community at large. McMichael, Butler, and Folke (2003) stress that that it is through research those students are able to plan, implement and improve situations. Such improvements benefit not only the students but the campus and community as a whole (Paul, 2006).

Conclusion

The present study sought to explore the typical concerns of fourth-year education students' research projects, and how these might be re-directed to address issues associated with sustainability. Focus group discussions were used to collect data. The results confirmed that students chose their research topics within their area of curriculum specialization. Having to do research in these areas of specialization was among the challenges students experienced when selecting their research focus areas. Other challenges ranged from a lack of resources to a lack of knowledge about the subject. The students felt that it would have been more helpful if they had been allowed to investigate any issue within the context of education. They strongly believe that environmental, sustainability; agriculture and developmental issues are worth investigating. It can be concluded that since Namibia needs to direct the attention of its citizens to issues of sustainable development, the education research project can play a useful role in achieving sustainability. It is important to encourage teachers to delve into environmental and sustainability issues or problems within their own surroundings and find solutions. The University, being a centre of knowledge, is the ideal starting point and catalyst for this important venture into finding solutions to contemporary problems.

Recommendations

Based on the findings of the study we recommend:

  i. The educational research module should be offered as a year-long course with the second semester aiming to prepare students and supervisors for choosing a topic and formulating a proposal.

ii. Students should read more extensively in their areas of specialisation, so as to be cognizant of the recent research done in the field and the gaps to be investigated and researched.

iii. The research project module should allow for a diversity of educational issues to be investigated.

iv. Environmental and sustainability issues should be at the forefront of students' research projects.

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Promoting Nigerian students' civic skills using contextual and service learning strategies

Yinka O. Adediran
Educational Foundations and Instructional Technology
Tai Solarin University of Education
Ogun State, Nigeria.

Josiah O. Ajiboye
Department of Social Science Education
University of Ibadan

Abstract

This study determined the effects of contextual learning strategy (CLS) and service learning strategy (SLS) on civic skills of junior secondary school (JSS) students in Ijebuland, Nigeria. The moderating effects of gender and school location were also examined. The study adopted a pretest-posttest, control group, quasi-experimental design. Six JS1, three each were purposively selected from Ijebu-Ode and Ijebu North-East local government areas. Treatment lasted 12 weeks. Civic Skill Scale (KR=.76) and Instructional Guides for each of the strategies were the instruments used for the study. Data were analysed using analysis of covariance, and Scheffe Post-hoc test at 0.05 level of significance. Treatment had a significant main effect on students' civic skill ($F_{(2, 524)} = 3.48$; $p<0.05$; $\eta^2 = .01$). Contextual and service learning strategies enhanced civic skill of junior secondary school students in Ijebuland, Nigeria. Both strategies are recommended for use in the teaching of civic education to develop civic skills of students.

Keywords: Civic skills. Contextual learning strategy. Service learning strategy.

Introduction

To ensure continuation of participatory Nigerian democracy, Nigerian youths need to be exposed to some experiences that will help them see themselves as civically competent and engaged members of the society. Many believe that schools should foster the knowledge of values and skills young people need to become good democratic citizen. Torney-Purta (2002) states that schools achieve the best results in fostering civic engagement when they rigorously teach civic content and skills. The taproots of democracy and its plentiful benefits start with the people, of course, but more specifically with the educational experience the next generation of leaders receives in their schooling (Dwyer, 2004).

The development of any country is built on the citizens that are civically informed and full of different desiring civic skills. Civically informed population enjoys economic well-being of the society and the psychological well-being of its members (Coley and Sum, 2012). Despite the obvious importance of civic knowledge, many reports express concern about its level; in particular, adolescents' and young adults' knowledge of and engagement in the civic process are below desirable levels (Galston, 2001). The lack of knowledge by the citizens has been a concern to many. Robelen (2011) notes the habits of citizenship must be learned and this could be

achieved through the teaching and learning of civic education concepts. However, this has been neglected and the results are predictably dismal.

Civic skills

Civic skills do not exist in a vacuum; they are part of a larger set of ideas about what is believed to be necessary for citizens to be engaged in public life (Kirlin, 2003). Kirlin noted that, in addition to knowledge, some types of skills are required in order to effectively participate in public life. Civic skills are learned, beginning in adolescence and developed into adulthood (Kirlin, 2003). The logic of civic skills as an important factor in political participation has found its way into many disciplines, particularly political science, education and developmental psychology. In each of these disciplines, the idea of civic skill development is related to other requirements for developing citizens. Bechtel and Foundation (2013) see civic skills as intellectual and participatory civic skills. Intellectual skills encompass knowing how to identify, assess, interpret, describe, analyse and explain matters of concern in civic life. It involves the following: critical thinking; perspective-taking; understanding, interpreting, and critiquing various media; understanding, interpreting, and critiquing different points of view; expressing one's opinions; active listening; identifying public problems; and drawing connections between democratic concepts and principles and one's own life experience.

Civic participatory skills encompass knowing how to cope in groups and organisational settings, interface with elected officials and community representatives, communicate perspectives and arguments, and plan strategically for civic change. It includes the following: engaging in dialogue with those who hold different perspectives; active listening; communicating through public speaking, letter writing, petitioning, canvassing, lobbying, protesting; managing, organizing, participating in groups; building consensus and forging coalitions; community mapping; utilizing electoral processes; utilizing non-electoral means to voice opinion (protest, petitioning, surveying, letter writing and boycotting; planning and running meetings; utilising strategic networks for public ends; and organising and demonstrating.

Civic skills dimension was developed to give knowledge and skills needed to participate effectively in community; participation experience was designed to reinforce the awareness to have skills and superior achievement of the students and to develop the understanding about the importance of active participation among citizens. To participate actively, it requires knowledge about fundamental concepts, history, issues and actual events and facts related to substance and skills to apply the knowledge contextually and the tendency to take actions appropriate with the disposition of the citizens.

Adediran (2015) opines that the development of civic skill can be enhanced through the teaching of Civic Education. She states further that civic skill may not be developed unaided or without active stimulation. Civic Education is a subject through which the society prepares young people with their roles as citizens by providing them with the necessary knowledge and skills needed to participate effectively in the democratic process of a society (Adediran & Ajiboye, 2017). Ajiboye (2008) defines Civic Education as an explicit and continuing study of the basic concepts and values underlying democratic community and constitutional order. Civic Education has been an important aspect of education that helps citizens to be functional and active by using their rights and discharging their responsibilities with necessary knowledge

and skills (Adediran, 2015). Nicotera, Brewer and Desmarais (2013) note that students who are involved in civic engagement activities report increased notions of civic responsibility, academic development, critical thinking, and life skills. Without these basic skills for engagement, students cannot be expected to excel as community leaders and citizens. In fact, youth who did not have support for engagement from their home, school, or other activities were less likely to be engaged in civics and politics, while those who had opportunities to debate issues in class and participate in political groups in high school later reported sustained participation in civic and political matters (Andolina *et al.*, 2003).

Civic skills refer to citizens' ability to analyse, evaluate, take and defend positions on public issues, and to use their knowledge to participate in civic and political processes (e.g. to monitor government performance, or mobilise other citizens around particular issues). Azebamwan (2010) states that if citizens are to become genuinely involved in public life and affairs, a more explicit approach to the teaching of civic education is required, hence the need for the use of contextual and service learning strategies.

Contextual and service learning strategies
Contextual and Service Learning strategies are based on the constructivist's instructional theory. Formalisation of the theory of constructivism is generally attributed to Jean Piaget, who articulated mechanisms by which knowledge is internalised by learners. Constructivism is a theory of knowledge epistemology that argues that humans generate knowledge and meaning from an interaction between their experiences and their ideas (Hein, 1991). Constructivism is a theory describing how learning happens, emphasises that learners use their experiences to understand. The theory of constructivism suggests that learners construct knowledge out of their experiences; it maintains that learning is a process of constructing meaning from experience. Constructivism is often associated with pedagogic approaches that promote active learning, or learning by doing. The central idea in constructivism is that human learning is constructed. This view of learning is participatory and sharply contrasts with one in which learning is the passive transmission of information from one individual to another (Piaget, 1973).

Contextual and service learning strategies in the teaching of civic education concepts for the enhancement of civic skills in students are developed based on constructivism philosophy assuming that knowledge that brings about change in attitude and development of skills is as a result of human construction. Humans construct their knowledge through their interaction with objects, phenomenon, experience and environment. Knowledge is accepted to be true if knowledge could be useful in facing and solving the appropriate problem or phenomenon (Glasserfeld, 1996). Thus, the benefit of constructivism is that students learn more and enjoy learning when they are actively involved. Education works best when it concentrates on thinking, understanding and participation of the learners in the process of teaching and learning, rather than on rote memorization; these are what contextual and service learning emphasise.

Blanchard (2001), Bern and Erickson (2001) define contextual learning strategy as a teaching and learning strategy that helps teachers to relate the materials taught with the real world situation and encourages the students to make correlation between their existing knowledge and its application to their lives as members of families, society and the nation. Therefore, contextual learning enables the students

to relate the material content with their daily lives context to discover the meaning of concepts (Johnson, 2001).

Contextual learning is useful for child development because it provides learning experiences in a context in which children are interested and motivated. Centre on Education and Works (2013) sees contextual learning strategy as teaching that places a real world emphasis on teaching. In other words, relating what is being taught into the context of the real world, hopefully with the effect of engaging the students interactively, and thus eliminating the question of "Why do I need to learn this stuff?" The main goal of contextual learning is to create lifelong learners who use critical thinking skills to tackle problems. Sounders (1999) focused on five components that help in creating a meaningful Contextual Learning Strategy, which he called REACT, that is:

i.   Relating: Learning in life experience context;
ii.   Experiencing: Learning in searching and discovering context;
iii.   Applying: Learning when knowledge introduced in the usage context;
iv.   Cooperating: Learning through interpersonal communication and   sharing context; and,
v.   Transferring: learning the use of knowledge in a new situation or context.

Moreover, National Service Learning Clearing-house (NSLC) (2011) defines service-learning as a teaching and learning strategy that engages young people in solving problems within their schools and communities as part of their academic studies or other type of intentional learning activity. Service learning is a teaching and learning strategy that integrates meaningful community service with the instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities. In Human Right Education Associate (HREA) (2011), a manual on human rights and service learning, service learning is seen as a method of teaching whereby learners learn and develop through active participation in a service that is conducted in their communities. Communities can be the school environment of the students, or the society which the school is located.

Listed below according to Belisle and Sullivan (2007) are components that help in creating a meaningful service learning project. These include:

i.   **Engaged Participation –** The learners are engaged in the process of determining what the service will be.
ii.   **Collaboration –**This is a very important component of the partnership because the service provided should address a genuine need in the community.
iii.   **Integration –** This is creating learning objectives that are tied to a curriculum and learning standards, which will help measure learning.
iv.   **Preparation –** Here, the learners will be trained with and orientated on rules and regulations they will need to follow while on-site of the project.
v.   **Reflection –** After the project is finished, students are engaged in a reflection activity again because during the project a lot is going on, often too much to really assess all of the learning that is taking place.
vi.   **Evaluation –** After the implementation of the service, the teacher will re-visit the project, evaluating how the partnership worked, if expectations from all partners were met.
vii. **Celebration –** At this point the students will celebrate with their partner organizations and their teachers. Teacher will celebrate herself for being an engaging influential educator.

Service learning provides an ideal forum for fostering healthy attitudes among learners and engaging them in socially responsible actions. Service learning strategy enables learners to apply the academic skills and knowledge they learn in the classroom to real-world situations (Belisle and Sullivan, 2007).

Research problem

Though efforts have been made by the government to inculcate civic virtues and skills into the youths with the introduction of civic education as a compulsory subject in junior and senior secondary schools in Nigeria, there still exists a decline in expected civic engagements among the youths. This has been partly attributed to the use of teacher-centred instructional strategies in the teaching of civic education, the consequent lack of interest among the students and their inability to make connections between what they have learnt and how the knowledge could be used. Meanwhile, students need to understand civic education concepts as they relate to the larger society in which they live and will work. Improving students' civic skills especially in a country like Nigeria requires the use of students' centred strategies which foster the development of necessary civic skills. How teachers handle the teaching of civic education inspired the researchers to seek for strategies that would better enhance the learning of the subject, such that students will gain maximally from it and consequently, promote the development of civic skills in them. This study, therefore, investigated the effect of contextual and service learning strategies on the development of civic skills of junior secondary school students in Ijebuland, Nigeria. The study also examined the moderating effects of gender and school location on civic skills of the students.

Hypotheses

The following null hypotheses were tested in the study at $p < 0.05$ level of significance:-

H_{01}.   There is no significant main effect of treatment on students' civic skills
H_{02}.   There is no significant main effect of gender on students' civic skills
H_{03}.   There is no significant main effect of school location on students' skills

Methodology

The study adopted the pretest-posttest, control group, quasi- experimental design. The independent variable (learning strategy) was manipulated at three levels that is contextual learning strategy (Experimental 1), service learning strategy (Experimental 2) and conventional teaching method (control). The moderator variables are gender, at two levels: male and female; and school location, at two levels: urban and peri-urban; while the dependent variable is the students' civic skills.

Participants in the study were five hundred and thirty five (535) JS1 students from six public junior secondary schools selected from Ijebu-Ode local government (urban area) and Ijebu North- East local government (peri-urban) area in Ijebu land. Population density, availability of infrastructural facilities, availability of banks, availability of standard markets, availability roads, and level of information technology are the criteria considered for the selection of Ijebu-Ode as the urban area and Ijebu North East as the peri- urban area. Three schools were selected from each of the local government area. The schools selected were State Government owned and were co-educational schools, which allowed the inclusion of males and females students. The selected schools were also offering civic education; and the

concepts that were covered during the study were human rights, types of human rights, obligations of citizens, traffic rules and regulations and road accidents in Nigeria. All these are topics in the third term syllabus of JS1 civic education. Two intact classes were purposively selected and used in each of the schools that were selected for the study. Two of the schools were randomly assigned experimental group 1 (one from the urban and the other from the peri-urban). Two of the schools were randomly assigned experimental group 2 (one from the urban and the other from the peri-urban), while the remaining two of the schools were assigned control group (one from the urban and the other from the peri-urban).

Four instruments were used in generating the data for this study. Three of these were stimulus instruments while the remaining one was a response instruments. The stimulus instruments are the treatment implementation teaching guides; and they are Guide on Contextual Learning Strategy (GCLS), Guide on Service Learning Strategy (GSLS) and Guide on Conventional Teaching Method (GCTM). The guides were designed to look at the activities of both the research assistants/facilitators (the teachers) and students, such that it helped the teachers in conveying and learning the selected civic education concepts. GCLS was prepared in line with Sounders' model, (Sounders, 1999) which touched the five key elements of successful contextual learning: Relating, Experiencing, Application, Cooperation and Transferring: "REACT". GSLS was prepared using Kristine and Elisabeth's model (Kristine and Elizabeth, 2007), which touched the eight key elements of successful service learning projects: Engaged participation, Collaboration, Integration, Preparation, Action, Reflection, Evaluation and Celebration. The guides were used to sensitize and enlighten the teachers on what were expected of them at each period. GCMT was developed in line with common classroom teaching, which was a teacher-centred approach; it focused more on the teacher and his activities in the classroom, where the learners were only passive receivers of the teacher's information.

Response Instrument refers to the means through which data was collected from the participants for the study. Civic Skill Scale (CSS) was a response instrument used to collect data for the study. This questionnaire was designed to measure civic skills of the students. This response instrument was patterned along a 3-point Likert Scale of Always, Sometimes and Never. Section A comprised demographic data of the participants such as gender, class, school location and school name. Section B contained 20 items scale questions. In these items, positive attitude was graded on points ranging from 3, 2, 1 (for A, S and N), while the reverse was used for negative items.

The instrument was validated using face and content validity through peer and expert review. It was also administered to thirty (30) students, at Molusi College in Ijebu North local government area of Ijebuland to determine its reliability. The validation of the instrument was done using face and content validity through peer and expert review. To ensure the validity of the instrument, it was also administered to thirty (30) students of Molusi College in Ijebu North local government Area of Ijebu land to determine its reliability. The reliability co-efficient was determined using Cronbach Alpha = .76. This showed that the instrument was reliable.

The first and second weeks of the field work were used for the training of the research assistants, that is, the Civic Education teachers from the six junior secondary schools used for the study. The third week was for the administration of pre-test to the participants, who were the selected students from the six schools. The fourth to eleventh weeks (8 weeks) were for the treatment and follow-up, while the

twelfth week, which was the last week of the study was for the post-test administration. A total number of twelve weeks was used in all for the field work of the research.

Findings

Treatment and Students' Civic Skills

Ho₁: There is no significant main effect of treatment on students' skills in civic concepts

Summary of analysis of covariance of 3 x 2 x 2 factorial analysis on students' skills

Table 1: Dependent variable: Post CSS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2646.304	12	220.525	7.019	.000	.138
Intercept	13476.010	1	13476.010	428.911	.000	.450
Pretest CSS	520.007	1	520.007	16.551	.000	.031
TREATMENT	218.952	2	109.476	3.484	.031	.013
Sex	190.096	1	190.096	6.050	.014	.011
Location	124.212	1	124.212	3.953	.047	.007
TREATMT*Sex	161.804	2	80.902	2.575	.077	.010
TREATMT*Location	532.162	2	266.081	8.469	.000	.031
Sex*Location	2.764	1	2.764	.088	.767	.000
Treatmt*Sex*Location	183.841	2	91.921	2.926	.055	.011
Error	16463.610	524	31.419			
Total	1275052.00	537				
Corrected Total	19109.914	536				

a.R Squared=.138 (Adjusted R Squared=119)

Treatment has significant main effect on students' civic skills ($F_{(2, 524)}$ = 3.48; p<0.05; η^2 = .01), therefore, H_{01} is rejected.

Table 2: Estimated marginal means on civic skills across the groups

Variable	N	Mean	Std. Error
INTERCEPT			
Pre skills Score	537	45.28	-
Post skills score	537	48.25	.26
TREATMENT			
Experimental 1 (contextual)	163	47.35	.47
Experimental 2 (service)	178	49.10	.47
Control (conventional)	196	45.29	.40
GENDER			
Male	258	47.61	.37
Female	279	48.88	.36
SCHOOL LOCATION			
Urban area	334	47.34	.31
Peri-urban	203	48.76	.41

Those exposed to service learning had highest skills mean score (49.10); followed by those exposed to contextual (47.35) while those exposed to conventional

strategy had the lowest mean score (45.29). To further determine the actual sources of the significant difference observed in Table 2, Scheffe Analysis was employed as post-hoc measure and the result is presented in Table 3.

Table 3: Summary of Scheffe's Post Hoc Pair-wise comparison on skills

Groups	Contextual	Service	Conventional
Contextual		*	
Service	*		*
Conventional		*	

The significant main effect of treatment on skills is as a result of significant difference between:
  i. Experimental 2 and experimental 1
  ii. Experimental 2 and control

But the difference between experimental 1 and control is not significant.
    This implies that those exposed to service learning performed significantly better in civic skills acquisition than those exposed to contextual and those exposed to conventional strategy. But those exposed to contextual and conventional strategies are not significantly different in civic skills acquisition.

Effects of gender on students' civic skills
Ho$_2$: There is no significant main effect of gender on students' civic skills.

Effect of school location on students' civic skills
The summary of the ANCOVA in Table 1 shows that gender has a significant main effect on students' skills in civic concept ($F_{(1,524)}$ = 6.05; p<0.05; η^2 = .01). Therefore, Ho$_2$ is rejected. Table 2 shows that female students had the higher skills acquisition mean score (48.88) than their male counterparts (47.61). This means that female students had higher skill acquisition in civics more than their male counterparts through the use of service and contextual learning strategies for the teaching of civic education.

Ho$_3$: There is no significant main effect of school location on students' civic skills.

Table 1 above shows that school location has a significant main effect on students' civic skills ($F_{(1,524)}$ = 3.95; p<0.05; η^2 = .01). Therefore, Ho$_3$ is rejected.
The estimated Marginal Means in Table 3 shows the area (urban or peri- urban) that had effect on the students' skill in civics. Results in the table indicate that students from the peri- urban had mean score of 48.76, while students from the urban area had mean score of 47.34. This implies that students from peri-urban area had the higher skills acquisition of civic education concepts than those from urban areas.

Discussion
The result of the Analysis of Covariance (ANCOVA) in table 1 showed that service and contextual learning strategies had significant main effect on students' civic skills. This concurs with Nicotera, Brewer and Desmarais (2013), who note that students who are involved in civic engagement activities, report increased notions of civic

responsibility, academic development, critical thinking, and life skills. Probing further to determine the source of the observed significant difference in the ANCOVA table, the Scheffe Test in Table 3 showed that the significant main effect of treatments on skill was as a result of significant difference between experimental 2 (service learning) and experimental 1 (contextual learning). But the difference between experimental 1 and control is not significant, that is those exposed to contextual learning and conventional method of teaching are not significantly different in skills acquisition and demonstration.

Students exposed to service learning performed significantly better in civic skills acquisition and demonstration than those exposed to contextual and those exposed to conventional method of teaching. This finding is in agreement with the report of Human Right Education Associate (HREA) (2011), which states that service learning is a strategy of teaching that helps students learn and develop through active participation in a service that is conducted in their communities. The result is also in line with Stokamer (2013), who believes that enhancing civic competence needs the use of service learning, which must be thoroughly integrated into a course through the syllabus and community partnership.

The results might probably be due to the fact that activities involved in service learning strategy helped students to learn civic education concepts with a range of valuable practical skills including problem solving, organizing, integration, preparation, demonstration, reflection and evaluation. The highest civic skill score recorded in service learning strategy might be due to the fact that students were taken out of classrooms when necessary to have experiences and study in real life setting. Students were actively participated and contributed significantly irrespective of their gender, family background among others. Contextual learning was more effective than conventional method of teaching probably because in contextual learning strategy students were encouraged to make meaningful connections of civic concepts taught in the class and societal issues as they relate to civics, think critically and creatively, doing significant work, collaborating and apply learning to real world experience. This is in line with Kerr (1999) and Kolamasari (2009) who opined that contextual learning in civic education does not only develop civic knowledge, but also civic skills such as critical thinking skills, participatory skill, such as attitude and commitment that are important for the citizenship life through active and participative activities in direct experience. Also, Marx (2005) stated that with contextual learning strategy effective communication skills, critical thinking skills, courtesy and respect of differences are developed.

The findings revealed that gender had a significant difference on the acquisition of civic skill by the students. These findings are in agreement with the previous findings of Chukwaka (2005) and Falade (2007) who in their studies reported the effect of gender on students' learning outcomes. The study also revealed that female students performed higher than their male counterparts in civic skill, although the difference was not significant. The results might probably be as a result of girls not seeing themselves as inferior or weaker sex in taking and accepting responsibilities during teaching and learning process. They were ready to take up any task just like their male counterparts. In the experimental group 2 (service learning strategy) at the urban area, female students were more than male students in term of population and they were up to the task, performing each assignment and project with enthusiasm. It was also noticed that they did not want to be side-lined by the boys, just as if they were competing with the boys in task performance. They were ready to do more than

the boys. It was also gathered that female students were exposed to lectures on female, achievement of goals, not to be discriminated, right to equal education and right to participate in politics. It was also noted that girls were encouraged to listen to and watch several inspirational programmes on the radio and televisions. All these motivated and aroused the interest of the female students to studying hard and be dedicated to their academic work. The involvement of many women in politics and inclusion of many women as ministers stand as encouragement to the girls.

It was discovered in the study that treatment had significant influence on students' civic skills. Urban students had higher mean score in civic skill than their counterparts at the peri- urban area. The higher civic skill score recorded at the urban area might probably be because urban students were aware of politics, their rights and obligations through social media and mass media. In the urban area students are exposed to constant jingle and different programmes on radio, television and internet on natural rights, civil rights, legal rights and obligations. The report supports Ajiboye (2008) who found that education led to informed actions, and Gbadamosi (2012) who submitted that school location could predict students' achievement in environmental concepts. This shows that school location has significant influence on learning outcomes. The higher mean score in civic skills of students at the urban area could also be because the students at the urban area were exposed to improved environment. This also concurs with Gbadamosi (2012) who submitted that urban students' environment awareness resulted to the right actions (practices) on the environment unlike peri-urban students that rely more on their teachers for information on environmental issues and problems because they have little evidences in their immediate locality.

Conclusion

This study serves as part of efforts by educators to shift from teacher- centred instructional strategies to the more efficient, functional, practicable, result- oriented and learner- centred strategies that could provide opportunities for learners to be actively involved in the teaching- learning processes. The findings of the study showed that the use of the contextual and service learning strategies enhanced the development of students' civic skill. The two strategies offered ways to extend young people's attention beyond the classroom to the real world situation, and to engage them in the process of devising solutions to civic problems they will confront as they grow older in the society. Also, it was discovered that gender and school location were also determinants of students' civic skills. Hence, contextual and service learning strategies are very effective in for the teaching and learning of civic education concepts for the development of necessary civic skills.

Recommendations

Based on the findings of this study, the following recommendations are made:
  i.   The Civic Education Curriculum should be reviewed to incorporate the use of contextual and service learning as strategies for teaching and learning civic education concepts.
  ii.   Government should organize a form of training and re- training programmes at the national and local levels for both junior and secondary school civic education teachers on the effective use of contextual and

service learning strategies through organization of workshop, seminars and conferences

iii. Seminars, workshops, symposia and conferences should be organized for student- teachers in order to expose them to the adequate competences required in using the two active learning strategies (Contextual and Service Learning). This will help them to effectively apply these strategies in teaching of civic education when they eventually graduate from the teacher training institutions.

iv. Contextual and service learning are good for both urban and peri- urban areas, therefore teachers should use the strategies to connect school with the community.

v. Based on the strength of the strategies, there should be special provision for its inclusion in the school time table, particularly in the morning and should be designed as part of the school programme.

vi. Service learning committee should be put in place in our schools in order to help teachers engage service learning, prepare for it, monitor progress and provide support, before and during the execution of the selected project and help document the students' activities.

vii. School administrators should provide necessary funds to teachers and students that will be making use of the strategies, especially service learning strategy. There should be enough finance in order to execute projects that would be recommended.

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Violent valecdictory among senior secondary school students in Lagos State, Nigeria

Simeon Dosunmu & Samuel Odunaro
Educational Foundations and Counselling Psychology
Lagos State University, Lagos, Nigeria

Abstract

This study explored the sources and target of students' valedictory violence ideation in Lagos State schools from the perspectives of students, teachers, school administrators as well as the parents/community members. Data were generated with the use of Valedictory Violence Inventory (VVI) from participants that were drawn from the six existing educational Districts in Lagos State. Data were analysed through the use of Univariate ANOVA. Results show that when teacher is the target of valedictory violence, anger/retaliation and maintaining school tradition is considered to be the most important valedictory violence of the students and when students are the target of valedictory violence, anger/retaliation as well as antagonism/behaviour problems are considered to be the most important valedictory violence ideation of the students. Based on the findings, it was suggested that school authorities in the State should ensure that students are handled properly and cared for; schools are facilitated to make teaching and learning comfortable while social activities that would help the development of friendship and resolution of conflicts as well as counselling are provided.

Keywords: *Lagos State schools. Senior secondary school. Valedictory. Violence.*

Introduction

Meeting and parting are commonplace among human beings. Whereas 'meeting' often elicits joy, 'parting' has a tinge of emptiness within the individuals. At the end of a programme or course of study at school, the graduating students are often treated to valedictory parties or a get-together where students exchange farewell greetings either to their friends, classmates, housemates, teammates and the others. There have been reports that in some schools, such partings often turn sour with attending undesirable behaviour and violent acts such as getting drunk, making insidious remarks and fighting, among others (Limbos & Casteel, 2008; Bufacchi, & Gilson, 2016). While celebrating the end of their stay at school, some students get drunk, some tear up their school uniforms, others write insidious remarks on their school uniforms and at other times they get involved in street fighting or behave immodestly. This makes people to wonder what could have prompted such an unwarranted behaviour.

Violence or threat of violence is a universal phenomenon. Violence has been pursued in the defense of order by the privileged, in the name of justice by the oppressed, and in fear of displacement by the threatened. Numerous theorists have come to recognize violence and the threat of violence as a dimension of both national and international politics. Thus, Siegel and McCormick (2006) observe that:

> *"Violence has always been part of the political process protest activities of one form or another, efforts to dramatize grievances in a fashion that will attract attention and ultimately the destruction or threatened destruction of life and property appear as expression of political grievances even in stable, consensual societies... the ultima-ration of political action is force".*

Violence, by its very nature is disruptive; it causes destruction of some sort to physical wellbeing and health, to life and to property. It is usually an outcome of unwholesome feelings of anger, frustration, grieving, hatred and rage. The relationship between violence and development usually is in the negative. Violence manifests an absence of law and order or inadequate knowledge of or mistrust of legal systems of obtaining redress and justice. Whichever way, it shows that violence is a manifestation of some level of breakdown of law and order. Violence by its nature takes the form of violation of people's rights. These rights may reside in various dimensions of social life; hence, it may be in form of clashes between tribal, ethnic or even racial groups. Violence may be political in orientation, occurring within the sphere of governance and power sharing. It may be religious in nature, involving people's beliefs with regard to worship of others and emanating from divisions that may evoke violence as when women as a group suffer from their male counterparts as in wife battering, rape and so on. Child-related violence is another dimension that is prevalent in family relations, homes and also in schools and within child labour relationships.

Youth gang violence is usually seen as manifesting violent crown behaviour, which usually seems directionless and depicting 'mindless' destructive tendencies. These beliefs may however not be altogether true, as gangs also have goals and objectives. In all these, it is quite evident that societal progress is not served but is rather endangered by all forms of violent behaviour. The requirement for societal growth and improvement for the benefit of all is therefore, an environment of prevalence of law and order, actualization of human right, security of life and property, opportunities for self- improvement and economic growth. All these culminate in improvement in life expectancy. Valedictory-violence is noticeable among groups and within individual students in secondary schools. It often occurs at the end of the session, and among the out-going students and others. Valedictory-violence is taking a sub-culture dimension as the act is usually within a small group of final year students who believe they have taken their final examinations and are being sent out and so have no serious attachment to their school again.

The participants may want to use the forum as an avenue for revenge or to settle scores with opposing groups, teachers, administrators, colleagues, and/or classmates. They may also explore this as a means of retaliation for perceived injustice, cheating or wrongdoing meted out to the party or group involved. The participants - most especially the final year students- may also see it as fun and that they are eventually getting out of the system after the too long academic stress. Valedictory-violence that involves settlement of scores in most cases leads to destruction and damages of properties, injuring and maiming of the targeted victims.

Understandably, secondary school teachers complain of classroom overcrowding, insufficient facilities, poor students' quality and escalation of

malpractice tendencies among students. All these do not make for peaceful coexistence between students and teachers in school. It is therefore not surprising that students' beating and fighting of individual teachers is fast increasing in secondary schools.

Correlates of school violence

Violence is a major contending issue in schools nowadays (Limbos & Casteel, 2008). Many reasons have been advanced as being responsible for the occurrences. Some of these include the home environment, negative effect of social media, easy accessibility to weapons, depression and anxiety, child neglect and non-supportiveness by the teacher, poor upbringing among others (Ncoutsa & Shumba, 2013). Some of these are discussed below:

i.   The home environment plays a crucial part in changing a child's behaviour. Parents who abuse their children constantly subject them to immense mental pressure as they grow up to develop an arrogant nature. Parents should provide better attention, care and love for their children and also teach them certain manners at an early age. Good characteristics can be achieved by children through more motivating pieces of advice from parents.
ii. Rough acts between parents entangle the child in an awkward situation from where he or she can develop a violent attitude.
iii. Another major factor is the school itself as it is where the child spends a greater part of the day. A teacher administers punishment must carefully select his or her punishment types as severe punishments have major effects on children. Constant occurrence of punishments may drive a student to have permanent scars which may or may not heal totally. Students who harbor grievances or hatred may have outbursts which might have severe consequences.

Easy accessibility to weapons

Youth violence worldwide particularly in Nigeria has cast a dark shadow over the prospect for a peaceful, united, secure and prosperous society. In this era, weapons (such as knives, axes and other dangerous instruments) are easily available through illegal means. Omoegun and Alake (2007) assert that youths have access to these weapons through illegal sources and use them in schools to threaten or bully other children. They could even use these weapons to kill other people as well. This has also given rise to gang and cults in many schools and neighbourhoods, which increases the wave of school violence (Dartnall & Jewkes, 2013).

Theoretical Framework

All sociological theories, including theories of sexuality, are based on the fundamental assumption that human behaviour is socially learned. These theories do

not deny the existence of forces inherent in individuals. Sociological perspectives merely assert that the specific thoughts and behaviour exhibited by individuals is a product of social rather than biological forces.

Social exchange theory, also called the "communication theory of social exchange," is a psychological concept suggesting that humans make social decisions based on their own perceptions about the costs and benefits that could be gained by action or, conversely, by inaction. It proposes that social behaviour is the result of an exchange process in which the purpose of the exchange is to maximize benefit and to minimize costs (Wolfang, 2008). In this case, people weigh their potential benefits and risks of social relationships and when the risks outweigh the rewards, they will terminate or abandon the relationship. This idea 'emphasizes the anticipated return for such good deeds, also called reciprocity, which is expressed really well in the common phrase "I'll scratch your back if you'll scratch mine." The social exchange theory basically argues that people consciously and unconsciously evaluate every social situation in terms of what they will have to put in or give up, then relate this to the benefits they think they may get in return. The greater the potential benefit, the greater the personal investment an individual is likely to make in a relationship.

The theory lays emphasis on the importance of satisfaction, which is one of its main claims. This specifies that people make choices about social interactions based on their individual satisfaction within a given relationship. People typically have a high level of happiness if they perceive that they are receiving more than they are giving. If, on the other hand, people feel that they are giving more than they are getting, they may decide that the connection is not fulfilling their needs. This self-centered approach is probably the reason why the social exchange theory is considered by many psychologists to be highly individualistic, which means that it assumes that the individual assesses all human social interactions based on his or her personal gain. This supposition denies the existence of true altruism, and suggests that all decisions are made from a self- serving motivation. Critics often point to this particular aspect of the theory when trying to identify flaws in the logic or structure of the core.

Indeed, social exchange has application in the school system especially in the building and abandoning or changing relationships, which may be helpful in explaining why, at the point of farewell, the students, possibly, shun humanity and unselfishness, makes decisions from a self-serving motivation. Thus, they seem to have weighted their relationship with the schools and have resolved that the cost outweighed the benefits, and do not seem to cherish what they get out of the relationship and as such the fun, companionship and social support are not cherished. Rather, they choose to terminate the idea of building relationship with the school system. This calls for serious rethink about our school system for which government spends so much of her resources:- are we getting the desired results of training future leaders of our cherished society as anticipated? As the case presents, all the stakeholders are complicated in these; - the students, the teachers, the administration, and the larger society. There is the need for our society to pay more attention to our ailing schools by providing required facilities in the schools, motivate the teachers and make the schools to work.

Students' valedictory violence ideation deserves to be studied intensively. First, there is the need to determine the source and second to identify its targets. This is expected to help in advancing knowledge and determine the sociological theory to hinge it on towards providing solution to the problems associated with the practices.

Methodology

This study adopted a survey research design. A representative from the domain of interest was used to determine the opinion of the population investigated. The instrument used in generating data for this study was the Valedictory-Violence Ideation Inventory (VVI), which was a 35- item test designed to obtain information concerning students' motivation for valedictory violence in schools. The reliability co-efficient obtained on test-retest of the instrument yielded r = .77. In order to ensure ethical consideration, letters of permission to conduct the research in schools were obtained from the Ministry of Education to school Principals. Respondents were assured of their anonymity.

Invariably, the state was grouped into six zones, using the existing educational districts in the state as units from which six senior secondary schools were sampled. Final year secondary school students, parents, teachers and non- academic staff were participants for the study. Inferential statistical methods were employed to analyze the data obtained. Mean, percentages, standard deviation, measures of differences as well as correlations and Univariate ANOVA. These were substantiated with the use of tables and graphs as well as post hoc tests.

The population consisted of all Senior Secondary School students (SSSS) in the six (6) Districts in Lagos State. The study sampled thirty six (36) secondary schools. Participants for the study were selected randomly from among Senior Secondary School 2 and Senior Secondary School 3 students per secondary school (30 x 6 x 6 = 180 students), that was thirty (30) students from a school, one hundred and eighty (180) from an educational District. All these make up to one thousand and eighty (1,080) secondary school students. Proportionate number of male and female students was fielded in the sample. An average of twenty (20) teachers served as participants in each' of the sampled secondary schools (20 x 6 x 6 = 720), while five (5) non-academic staff from each sampled secondary school (5 x 6 x 6 = 180) shall be sampled as participants.

Ten (10) head of departments, two (2) vice-principals and one (1) principal of each of the sampled school represented the first group of administrators (10 + 2 + l x 6 = 78). Ten (10) high ranking officers at the state Ministry of Education (Directors or their subordinates) and three (3) senior officers from each of the educational districts in the state represent the second category of administrators, that is, those serving at the offices {10 + (3 x 6) = 28}. Members of the community made up of thirty (30) persons, who are residents in communities where each of the sampled secondary schools is located, (in order words 30 x6x6-1,080).In all, a total of three thousand, four hundred and fifty eight (3,458) participants was involved in the study.

Results

The main null hypothesis for the study had stated that: '*There is no significant difference in teachers, students, administrators and parents/community members' perception of Lagos State Secondary School students' farewell violence ideation'.*

The data that was collected from teacher, students, administrators, and parents/community members, herein classified as participants were sorted on the basis of four factors: the target of students' valedictory violence ideation, which included teachers, students, administrators, school properties and school neighbourhood was contrasted against the sources of valedictory violence ideation, which included anger/retaliation, antagonism/behavioural problems of the students, external influences/(peer and power) as well as school tradition/wish fulfillment. A 3 way 5 x 4 x 4 Univariate analysis of variance (Target x Sources of students' Valedictory Violence Ideation x participant) was employed. The result provided that no significant main effect for the target, as well as for the participants, $F_{(4, 320)}$ = 1.580, p> .05, and $F_{(3, 320)}$ = 1.327, p > .05, respectively. Significant difference was however observed between the means for sources of valedictory violence ideation, $F_{(3, 320)}$ = 7.172, p< .05, rj2= .063, 95% Cls [3.890, 4.344; 3.340, 3.794; 3.315, 3.635; 3.536, 3.814]. See Tables 1-4.

There is a small effect indicating that the factor accounts for less than 1 % of the total variability in the dependent variable scores. The result reveals that statistical power for this analysis is .98 for the detection of small effect sizes (see Table 1). The null hypothesis that was raised was substantiated as similar ratings were provided to each of the sources of valedictory violence ideation by participants who rated the source of students' valedictory violence ideation more to anger/retaliation (4.12), maintaining school tradition (3.68), antagonism/behavioural problem of the students (3.57) and least to external/peer influence or desire for power (3. 48). No significant interaction effect existed for target x sources, target x participants, sources x participants as well as for target x sources x participants, $F_{(12, 320)}$ = 1.327, p >.05, $F_{(12, 320)}$ = 1.499, p >.05, $F_{(9, 320)}$ = 1.188, p >.05, $F_{(36, 320)}$ = .441, p >.05. See Tables 1-4, and figures 2 and 3.

Table 1: Table of tests of between-subjects effect of the difference in teachers, students, administrators and parents/community members' perception of Lagos State Secondary School students' valedictory violence ideation

Dependent Variable:Measures of VVI

Source	Type III SS	df	MS	F	Sig.	η_p^2	NP	OP[b]
Corrected Model	75.777[a]	79	.959	1.202	.138	.229	94.968	.999
Intercept	4591.884	1	4591.884	5754.842	.000	.947	5754.842	1.000
Target	5.043	4	1.261	1.580	.179	.019	6.321	.486
Sources	17.168	3	5.723	7.172	.000	.063	21.516	.982
Participants	4.422	3	1.474	1.848	.138	.017	5.543	.478
Target * Sources	12.707	12	1.059	1.327	.201	.047	15.925	.739
Target * Participants	14.353	12	1.196	1.499	.123	.053	17.988	.802
Sources * Participants	8.528	9	.948	1.188	.302	.032	10.688	.585
Target * Sources * Participants	12.663	36	.352	.441	.998	.047	15.870	.461
Error	255.333	320	.798					
Total	5704.000	400						
Corrected Total	331.110	399						

a. R Squared = .229 (Adjusted R Squared = .038)
b. Computed using alpha = .05

Table 2: Summary Table of estimates of the mean, standard error and confidence interval of effects of teachers, students, administrators and parents/community members' perception of Lagos State Secondary School students' valedictory violence ideation

Dependent Variable:Measures of VVI

VVI TARGET	Mean	SError	95% Confidence Interval	
			Lower Bound	Upper Bound
Teachers	3.531	.109	3.316	3.746
Students	3.677	.109	3.462	3.892
Administration	3.781	.109	3.566	3.996
Sch. Property	3.656	.109	3.441	3.871
Sch Neighbourhood	3.896	.109	3.681	4.111

Table 3: Summary Table of estimates of the mean, standard error and confidence interval of participants' perception of Lagos State Secondary School students' valedictory violence ideation

Dependent Variable:Measures of VVI

Participants	Mean	SE	95% Confidence Interval	
			Lower Bound	Upper Bound
Teachers	3.558	.098	3.366	3.751
Students	3.729	.098	3.537	3.922
Administrators	3.669	.098	3.476	3.861
Parents/Community	3.877	.098	3.685	4.069

Table 4: Summary Table of estimates of the mean, standard error and confidence interval of participants' perception of sources of Lagos State Secondary School students' valedictory violence ideation

Dependent Variable:Measures of VVI

VVI SOURCES	Mean	SE	95% Confidence Interval Lower Bound	Upper Bound
Anger/Retaliation	4.117	.115	3.890	4.344
Antagonisn/Bhr Problems	3.567	.115	3.340	3.794
External/Peer/Power	3.475	.082	3.315	3.635
Sch Tradition/Wish Fulfillment	3.675	.071	3.536	3.814

The Table of means (Table 4) provided some valuable information namely:

When the

i.   Teacher is the target of valedictory violent ideation, anger/retaliation and maintaining school tradition is considered to be the most important valedictory violence ideation of the students (m = 3.75).

ii.   Student is the target of valedictory violence ideation, anger/retaliation as well as antagonism/behaviour problems is considered to be the most important valedictory violence ideation of the students (m = 3.83).

iii. Administration is the target of valedictory violence ideation, anger/retaliation and maintaining school tradition is considered to be the most important valedictory l violence ideation of the students (m = 4.08 and 4.0 respectively).

iv.   School property is the target of valedictory violence ideation, anger/retaliation is considered to be the most important valedictory violence ideation of the students (m = 4.25).

v.   School neighbourhood is the target of valedictory violence ideation, anger/retaliation is considered to be the most important valedictory l violence ideation of the students (m 4.67). See Table 5.

Table 5. Descriptive statistics table of means and standard deviation of participants' perception of sources and target of Lagos State Secondary School students' farewell violence ideation.

Dependent Variable:Measures of FVI   valedictory

FVI TARGET	FVI SOURCES	Participants	Mean	SD	N
Teachers VVI	Anger/Retaliati. VVI	Teachers	3.0000	1.00000	3
		Students	4.6667	.57735	3
		Administrators	3.3333	.57735	3
		Parents/Community	4.0000	.00000	3
		Total	**3.7500**	**.86603**	**12**
	Antagonisn/Bhr Problems	Teachers	3.3333	2.08167	3
		Students	3.0000	1.73205	3
		Administrators	3.6667	1.52753	3
		Parents/Community	3.6667	.57735	3
		Total	**3.4167**	**1.37895**	**12**
	External/Peer/Power	Teachers	2.8333	1.16905	6
		Students	3.1667	1.32916	6
		Administrators	3.5000	.83666	6
		Parents/Community	3.3333	1.03280	6
		Total	**3.2083**	**1.06237**	**24**

A post-hoc test that was performed, using Duncan Multiple Range Test, showed that two homogeneous groups existed among the means of sources for participants' sources of students' valedictory violence ideation: external influence/peer/power (3.48), antagonism/behaviour problems (2.57), school tradition/wish fulfilment (3.68) formed an homogeneous group, while anger/retaliation (4.12) formed a homogeneous group. The mean for anger and retaliation was significantly different from other means of sources of valedictory violence ideation. The ordering of the means was anger/retaliation > school tradition/wish fulfilment > antagonism/behaviour problems > antagonism/behaviour problems > external influence/peer/power (see Table 6 and Figures 1b, 2 and 3).

Table 6. Summary Table of the Duncan post hoc analysis of the sources of Lagos State Secondary School Student' Valedictory Violence

			Subset	
VVI SOURCES		N	1	2
Duncan[a,,b,,c] External/Peer/Power		120	3.4750	
Antagonisn/Bhr Problems		60	3.5667	
Sch Tradition/Wish Fulfillment		160	3.6750	
Anger/Retaliation		60		4.1167
Sig.			.174	1.000

Means for groups in homogeneous subsets are displayed.
Based on observed means.
The error term is Mean Square(Error) = .798.
a. Uses Harmonic Mean Sample Size = 83.478.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
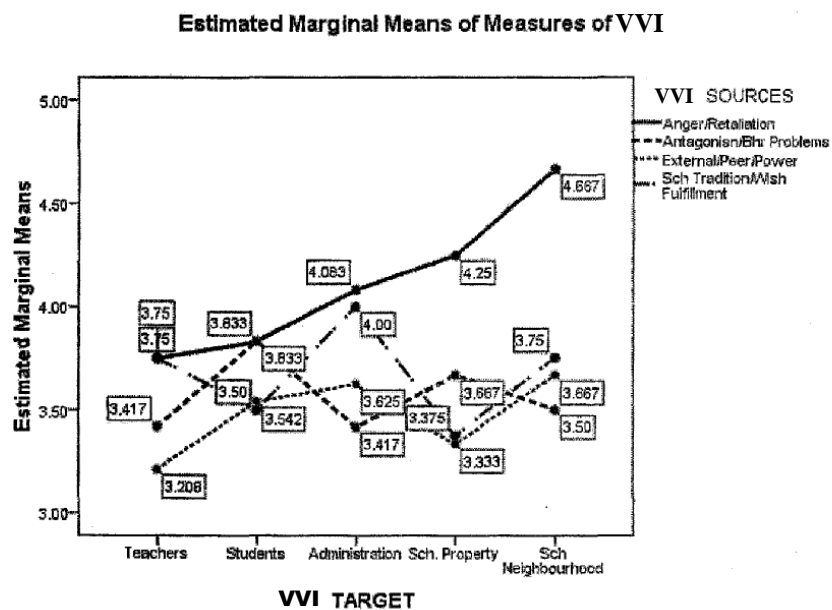*c. Alpha = .05.*
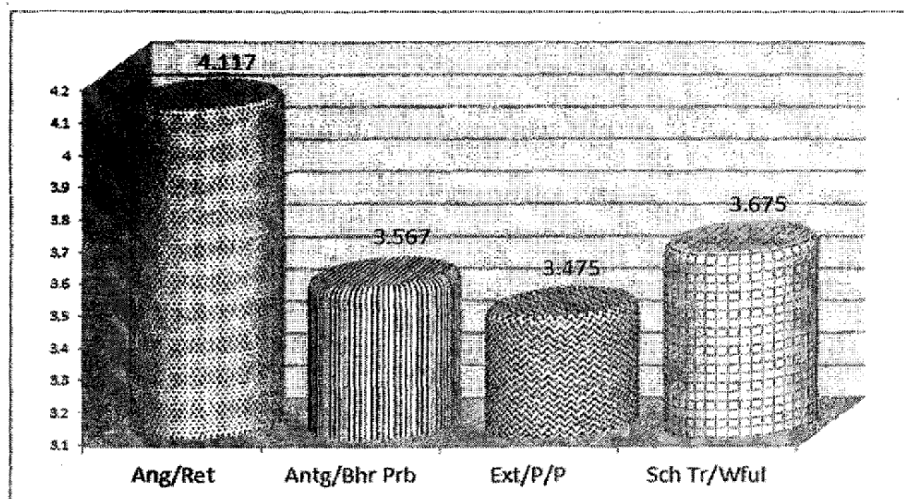
Fig. 1. Participants' perception of sources of students' farewell violence ideation of among Lagos State Secondary School. **Valedictory Violence Ideation of**
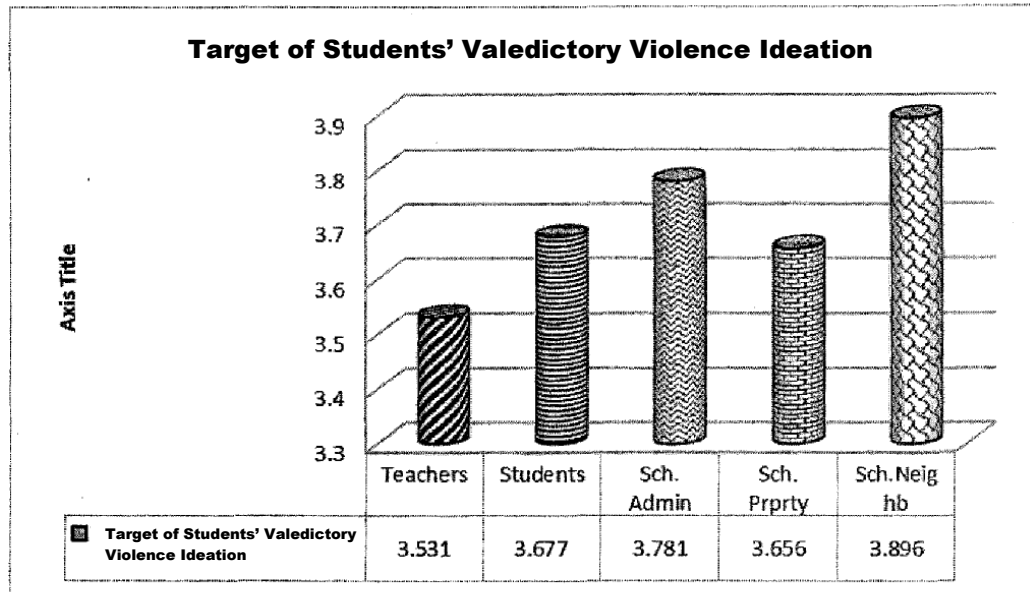
Figure1. b. Target of Students' Valedictory Violence Ideation

Fig 2: Means of Sources of Valedictory Violence Ideation of Lagos State Secondary School Students' to different targets for

In order to clarify the main null hypothesis, the responses of the different groups of participants were further analyzed separately. The results that were provided in respect of the hypothesis are hereby summarised:

i.   No significant main effect for the target, as well as for the participants, respectively.

ii.   Significant difference was however, observed between the means for causes of valedictory violence ideation,

iii. Similar ratings were provided to each of the sources of valedictory violence ideation by participants who rated the source of students' valedictory violence ideation more to Anger/Retaliation (4.12), maintaining School Tradition (3.68), Antagonism/Behavioural problem of the students (3.57) and least to External/Peer influence or desire for power (3. 48).

iv.   No significant interaction effect existed for target x sources, target x participants, sources x participants as well as for target x sources x participants.

In general, the following facts were obtained:

i.   When teacher is the target of valedictory violent ideation, anger/retaliation and maintaining school tradition is considered to be the most important valedictory violence ideation of the students (m = 315).

ii. When student is the target of valedictory violence ideation, anger/retaliation as well as antagonism/behaviour problems is considered to be the most important valedictory violence ideation of the students (m = 3.83).

iii. When administration is the target of valedictory violence ideation, anger, retaliation and maintaining school tradition is considered to be the most important valedictory violence ideation of the students (m = 4.08 and 4.0 respectively).

iv. When school property is the target of valedictory violence ideation, anger/retaliation is considered to be the most important valedictory violence ideation of the students (m = 4.25).

v.   When school neighbourhood is the target of valedictory violence ideation, anger/retaliation is considered to be the most important valedictory violence ideation of the students (m =4.67).

vi. Two homogeneous groups existed among the means of sources for participants' sources of students' valedictory violence ideation: external influence/peer/power (3.48), antagonism/behaviour problems (2.57), school tradition/wish fulfillment (3.68) formed an homogeneous group, while anger/retaliation (4.12) formed a homogeneous group. The mean for anger and retaliation was significantly different from other means of causes of valedictory violence ideation. Considering the order of importance of these sources, anger/retaliation was the most highly rated source, followed by school tradition/wish fulfillment, then antagonism/behaviour problems with external influence/peer/power.

Discussion

The hypothesis of this study stated that there is no significant difference in teachers, students, administrators and parents/community members' perception of Lagos State Secondary School students' farewell violence ideation. The results obtained in respect of this null hypothesis provided that no significant main effect existed for the target, as well as for the participants. And these were between teachers, students, administrators and parents/community members' perception of Lagos State Secondary School students' farewell violence ideation. However, significant

difference was however observed between the means for sources of farewell violence ideation.

This result presents in other words that the participants, teachers, students, administrators and parents/community members do share similar views as regards the targets of valedictory violence ideation, a situation that occurs all the time and thus makes it fairly predictable. However, the reason the school neighbourhood, followed by the school administration, then fellow students, followed by the school property and lastly the school teachers is commonly targeted students' valedictory violence ideation, and in no small measure, needs to be further examined, especially, as it has been established that anger/retaliation is the most salient reason for students' farewell violence that do occur. This brings some questions to mind, 'What does the society do to these students that warranted retaliation?' and 'what has the society done that warranted retaliation?' 'In what ways have fellow students incurred the wrath of their colleagues?' 'What resolve could be made by destroying school properties?' And 'what could have made teachers to be the target of attack of their students that they have spent six years tutoring?' Apart from these, that students' valedictory violence ideation is closely connected to school tradition/wish fulfillment, as the next important source suggests that it is a condition that may likely continue for a long time.

One of the theories that throw light on these actions is the social exchange theory which proposes that social behaviour is the result of an exchange process in which the purpose of the exchange is to maximize benefit and to minimize costs (Cherry, 2014). In this case people weigh their potential benefits and risks of social relationships and when the risks outweigh the rewards, people will terminate or abandon the relationship.

The undertones of this position revealed that when either the teacher, fellow students, the administration, school property or other members of the society is the target of valedictory violent ideation, anger/retaliation and maintaining school tradition is considered to be the most important farewell violence ideation of the students. Perhaps the student-teacher-administrator-society relationship is unwholesome. Indeed, most secondary schools in Lagos State are day schools. Even where there are boarding houses, only a few students are housed within the school premises. In the earlier days, all students are kept in the school which allows the teachers and the students to stay together as a family, becoming a unique people wherein students learn from their teachers, not only academics but also their ways of life. Perhaps, the day school system and the extremely large classroom with high student-teacher ratio have turned the school to unmanageable proportions whereby proper identity issues and mutual understanding has become compromised. Viewing this from another perspective however, perhaps, as (O'Neil, 2005) observes, despite being banned, educators remain the perpetrators of corporal punishment in schools which may make student victims seek to retaliate someday.

When student is the target of valedictory violence ideation, anger/ retaliation as well as antagonism/behaviour problems is considered to be the most important valedictory violence ideation of the students. Usually, the upcoming students may wish to pay back to seniors that are graduating, whom they have considered to have

cheated them in some ways, possibly haven been a prefect. This can be blamed on large population as well.

The issues raised here provided credence to the position of Jekayinfa (2008) who observed that school violence is escalating, and that educators are more likely to be spending much time focusing on solving problems associated with school violence instead of focusing on effective teaching and learning. This affirms the position that indiscipline results in school violence and makes the school environment non-conducive to learning and teaching. Indiscipline can be linked to chaos and loss of time, hence no effective teaching and learning can take place (Babarinsa, 2003).

In order to curb violence in schools, it is expected that school authorities in the State should ascertain that students are handled properly and cared for; schools are facilitated to make teaching and learning comfortable while social activities that would help the development of friendship and resolution of conflicts as well as counselling are provided. Security should be provided in schools while the school should be protected from external influences.

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Psychosocial predictors of sexual experimentation among adolescents with hearing impairment in Lagos State

Samuel O. Adeniyi
Department of Educational Foundations, University of Lagos, Nigeria

Olaotan O. Kuku
Federal College of Education (Technical), Akoka, Lagos State, Nigeria

Abstract

This study examined psychosocial predictors of sexual experimentation among adolescents with hearing impairment in Lagos State, Nigeria. The study employed descriptive survey research design. The samples consisted of 120 students with hearing impairment between ages 12 and 21. Instrument for this study was Adolescent Sexual Experimentation Inventory with sub-scales: Self-esteem, Peer relation, Parental style and Sexual initiation with reliability coefficient of 0.79, 0.69, 0.73 and 0.63 respectively. Rosenberg's self-esteem scale was adapted while other sub-scales were self-developed. Five hypotheses were tested and the results revealed that socio-economic factors, self-esteem and peer influence predicted sexual experimentation of the participants. However, parenting style did not relate to sexual experimentation. It was further revealed that all the independent variables did not jointly predict sexual experimentation of the participants though they all contributed relatively. It was recommended that the participant should be helped to develop high self-esteem. Also, good character should be emulated.

Keywords: Hearing impairment. Psychosocial. Sexual experimentation.

Introduction

The period of adolescence is one of the great periods of youth development with rapid significant change in physiological and interpersonal relationships. It is often considered as period of stress and adjustment problem with so many intra- and interpersonal challenges. Adeniyi and Olufemi-Adeniyi (2014) noted that the challenges at this period are sometimes traumatic in the sense that young adults are confronted with tasks of biological, psychological, social, emotional, sexual and physical maturity as well as societal induced pressure. These are universal phenomena and do not leave out adolescents with hearing impairment. For adolescents with hearing impairment to cope with this, Adeniyi and Olufemi-Adeniyi (2014) noted that the process is mostly dependent on personal control because of a lack of understanding from people around them including the parents. Most of the time, this may lead to personal and emotional conflicts that the youngster may want to resolve by engaging in inappropriate patterns of behaviours. Such behaviours manifest in the form of some potentially destructive behaviours such as smoking, drug abuse, sexual experimentation and a host of others.

Sexual experimentation can be seen as any act or action that motivate curiosity or intention to try out or have practical experience in sexual acts involving coitus sex or any form. This risk behavior is prevalent among adolescents because these developmental changes are more pronounced among adolescents with hearing

impairment because of neglect and lack of understanding of the process and how to disseminate information about risk of early sexual initiation (Adeniyi, 2012).

A study on sexual practice among secondary school students with hearing impairment in Ibadan, Southwestern Nigeria revealed that 33.3% deaf and 48.6% hearing participants between ages 14-16 had their sexual experience at these early years (Osowole, 2004). Generally, early sexual initiation and experimentation are common activities among adolescents because they are sexually active and may want to practice what they see in adults. This issue becomes more complicated and controversial because people believe that persons with disabilities are not sexually active and therefore need less awareness on sex education and dangers involved in early sexual practices (Adeniyi, 2012; Osowole & Oladepo, 2001).

Studies globally have linked a number of factors to early sexual experimentation among adolescents, which vary from community to community, region to region and races across the continents. A study on determinant of early sexual intercourse with samples of Malaysian teenagers revealed predictors like sexual abuse during childhood, attitude towards premarital sex, pornography, alcohol and drug abuse (Farid, Che'Rus, Dahlui & Al-sadat, 2013) age (Lalor, O'Regan & Quinlan, 2003; Pilgrim & Blum, 2012) feeling and reasons associated with sexual initiation (Pilgrim & Bloom, 2012) household socioeconomic status, family structure and parental occupation (Madkour, Farhat, Halpern, Godeau & Gabhainn, 2010; Jessor & Turbin, 2014) and perception of sexuality of people with disabilities by members of their communities (Osowole & Oladepo, 2001; Adeniyi, 2012). Unfortunately, there have been few research findings on early sexual initiation and predisposition factors among adolescents with hearing impairment in Nigeria, which could partly be linked to poor knowledge and societal perception of disabilities generally. With numbers of predicting factors across races, regions and communities, adolescents, especially adolescents with hearing impairment stand the risks of sexually transmitted diseases, HIV/AIDS and some other life threatening diseases that may come as a result of unprotected sexual adventures (Walcott, Meyers & Landu, 2008; Emily & Silverman, 2013).

Recent decades have come with unprecedented popularity of self-esteem as a construct that influences activities of man (Goodson, Buhi & Dunsmore, 2006). Health professionals and sexuality educators have hinged positive self-esteem as major protective factor for risk behavior. Research evidences have claimed that self-esteem has correlation with exhibition of certain behaviours (Jambor & Elliott, 2005). Studies have revealed that self-esteem has demonstrated level of impact on human cognition, emotion, motivation, competition, conformity, achievement, helping and coping behavior (Campbell & Lavallee, 1993), personal satisfaction and effective functioning, social relationship, academic achievement, alcohol, drug abuse disorders, suicide, depression and alienation (Haney & Durlak, 1998) and sexuality related factors, health risk, unwanted pregnancies and morbid on the part of the adolescents (Kirby, 2002).

Self-esteem plays an important role in risk taking behaviour among adolescents and also even among some other age grades. Studies have linked low self-esteem to risk sexual behaviour in which early sexual experimentation is a variable (Lejuez, Simmons, Aklin, Daughters & Dvir, 2004; Wild, Flisher, Bhana & Lombard, 2004). On the other hand, high self-esteem is positively related to less risky sexual behaviour

(Kalina, Geckova, Klein, Jarcuka, Orosova, Dijk & Reijneveld, 2011), however, there was variation on the impact of self-esteem on gender, while boys with high self-esteem was reported to have engaged in risky sexual behaviour, girls with low self-esteem were found to be prone to risky sexual activities (Spencer, Zimet, Aaslma & Orr, 2000). Evidently, reports linking self-esteem whether low or high still remain inconclusive (Buhi & Goodson, 2007).

In addition, early age at sexual initiation has also been associated with some environmental and social and economic consequences (Nnebue, Chimah, Duru, Ilika & Lawoyin, 2016). Socio-economic factors can be seen as the economic strength of the parents to cater for themselves and day to day activities of their children. Regarding socioeconomic status (SES) as predicting factors of early sexual initiation among adolescents, study conducted in two cities in Colombia with 110 teenagers from all socio-economic backgrounds showed that there are significant differences with pattern of sexuality, cohabitation and pregnancy between teenagers with varying socioeconomic status in the country. The study revealed a higher frequency of early sexual initiation and teenage pregnancy among low socioeconomic status women (Florez, 2005). This does not exclude adolescents with hearing impairment. Also, the National Demographic and Health Survey conducted a study among 49,562 women between 15 and 49 years old to determine their knowledge of health risk behaviour and HIV/AIDS, the result revealed lower knowledge among rural women with low socioeconomic status (Lopez *et al.*, 2014). Obviously, socioeconomic status may be an indicator or predictor of risky behaviours undertaken by both adolescents with and without hearing impairment. This is because living in poverty is one social factor that drastically increases adolescents' risk of early sexual activities and contraction of HIV/AIDS (Emily & Silverman, 2013).

Furthermore, family-related factors such as parenting style have been reported to have strong link with early sexual practice among adolescents (Jessor & Turbi, 2014). There is evidence of strong link between adult's supervision (parents) and sexual initiation. Studies conducted in different countries have found that more parental supervision on teenagers' free time or being enrolled in school is associated with less sexual relationship among adolescents (Rosenberg et al., 2015). Overall, quality of parents' concern, intimacy and communication has been realized as protective factors of adolescents from early risky such as early sexual initiation. However for adolescents with hearing impairment, reverse is often the case as most parents of these children lack knowledge of how to care for the needs of these youngsters, communication gap and social acceptance often limit what parents can do.

In general, one major element of socialization is peer relation. The first contact of a child to society is home after which the child is initiated in to more complex societal demands by friends and other people within the same age or adults in the environment. Relationship with friends (same age) have much impact on social skills, adjustment in life, perception of love, emotional relationship and socialization (Steinberg, 2010). These intra and inter personal variables cut across all adolescents regardless of geography, religion and other life attributes that may distinct someone from another such as disabilities. These variables have pronounced effects on adolescents' personalities because of the unique tendency of adolescents to develop a distinct way of life through identity formation and getting connected with social context around them (Virole, 2009). The period of adolescence is mostly turbulent

coupled with confusion and pressure from outside and within the adolescent as young adults. Studies have consistently reported the impact of peer interaction on children development and well-being (Yuhan, 2013; Rubin, Bowker, McDonald & Menzer, 2013). For instance, positive peer interactions and relationships in early childhood play crucial role in the quality of later life relationships, social adjustment and successful emotional regulation (McElwain & Volling, 2005), cognitive development and success in academic activities (Ladd & Coleman, 1997). The inability of an adolescent to develop positive peer interaction often lead to risky behaviour which most of the time confront adolescents with hearing impairment because of the inability to initiate and maintain peer relationship.

Worldwide, in the last thirty years, there was a significant increase in sexual experience of adolescents and young adults particularly females (Haruna & Ibrahim, 2014). In Africa, research indicated that most young people become sexually active at age of 12-13years and by age 15, nearly 56% of them would have been involved in regular unprotected premarital encounters leading to unwanted pregnancies and sexually transmitted infections. Previous quantitative researches have explored differences in age at first sexual intercourse (Shandra & Chrowdhury, 2012). However, less is known about the relationship between a young person's disability status and the context in which first intercourse occurred (Shandra & Chrowdhury, 2012). This study therefore investigated psychosocial factors associated with early sexual experimentation among adolescents with hearing impairment in Lagos State, Nigeria.

Hypotheses

The following hypotheses were tested in this study.
  i. Socio-economic status of parents does not have significant relationship with the sexual experimentation behavior among adolescent with hearing impairment.
  ii. Parenting styles do not significantly relate to sexual experimentation behaviour among adolescent with hearing impairment.
  iii. There is significant relationship between self-esteem and sexual experimentation among adolescents with hearing impairment.
  iv. Peer influence does not significantly relate to sexual experimentation among adolescents with hearing impairment.
  v. The relative contribution of age, socio-economics status, gender, self-esteem, parenting style and peer influence will not significantly predict sexual experimenting behaviour among adolescents with hearing impairment.

Methodology

This study employed descriptive survey research design in which quantitative data were collected in line with the variables under investigation. The population for the study included students with hearing impairment in two inclusive Secondary Schools in Lagos State in Nigeria. The samples for the study were one hundred and twenty (120) adolescents with hearing impairment purposively sampled from two inclusive secondary schools in Lagos State. Their ages range between 12 and 21. This serves as one of the criteria for selection. Other criteria were that they were all adolescents with hearing impairment, they were available during the period of this study and

indicated they were ready to participate in the study through the consent from filled by the participants.

The instruments for this study were Adolescent Sexual Experimentation Inventory comprising of self-esteem scale, peer relation scale, parenting style scale and Sexual initiation scale. Adolescents' sexual experimentation inventory has demographic information of age, gender, class and parents socio-economic status. Self-esteem scale was adapted form of Rosenberg's self-esteem scale (1965). Peer relation, parenting style, and sexual initiation scales were self-constructed. These scales were validated by experts in counseling psychology and test and measurement from Universities of Ibadan and Lagos. The instrument was pilot tested and reliabilities for the sub-scales were 0.79, 0.69, 0.73 and 0.63 respectively using Cronbach alpha. Each of the Sub-scales consisted 10 items constructed in four Likert scale ranging from SA, A, D, SD (strongly agree, agree, disagree, and strongly disagree) for self-esteem, peer relation, parenting style and sexual initiation scale (Always, Sometimes, Just once, Never). Examples of items on self-esteem are "I feel I am a person of worth, at least on an equal plane with others; I feel I have that I have a number of good qualities. For peer relation, I cherish being in the company of my friends than any other things; my friends always help in making most of my decisions. On parenting style, my parents do not allows me to do things the way I like it. For sexual initiation scale, I engage in romantic kissing with my opposite sex because I feel it is good for me. I allow my friend to touch my body whenever he/she feels.

To collect data, the researchers sought the permission of the Principals of the two schools used. After the permission had been granted, the researchers met with the students and explained the essence of the study to them with the help of their class teachers. Thereafter, consent forms were given to the students and those who responded positively were given the inventory. The researchers waited patiently for the respondents to attend to the inventory and difficulties were explained to them in detail. The responses were collected on completion. Data collected were coded and analysed using descriptive statistics, Pearson product moment correlation and multiple regressions.

Results

Hypothesis 1

Socio-economic status of parents does not have significant relationship with the sexual experimentation behaviour among adolescent with hearing impairment.

Table 1: Correlation between socio-economic status and sexual experimentation

Variable	N	Mean	Std. Dev.	Df	r-tab	r-cal	P	Remark
Sexual Experimentation	120	21.71	8.24					
Socio-Economic Status	120	1.83	0.73	118	0.195	419*	0.000	Sig

Figures presented in Table 1 shows that r-calculated value of 419, which resulted as the relationship between socio-economic status of parents and sexual experimentation behaviour among adolescent with hearing impairment. The calculated value is greater than the critical value of 0.195, at 118 degree of freedom at 0.05 level of significance. Thus, the null hypothesis was rejected and alternative hypothesis, which states that socio-economic status of parents has significant relationship with the sexual experimentation behaviour among adolescent with hearing impairment was accepted.

Hypothesis 2

Parenting styles do not significantly relate to sexual experimentation behaviour among adolescent with hearing impairment.

Table 2: Correlation between socio-economic status and sexual experimentation

Variable	N	Mean	Std. Dev.	df	r-tab	r-cal	P	Remark
Parenting Style	120	34.71	5.04	118	0.195	0.17	0.91	Not Sig.
Sexual Experimentation	120	21.71	8.24					

Figures in Table 2 shows that the r-calculated value of 0.174 resulted as the relationship between parenting styles and sexual experimentation behaviour among adolescent with hearing impairment. This value is less than the critical value of 0.195, at 118 degree of freedom at 0.05 level of significance. Hence, the null hypothesis was retained. It was concluded that parenting styles does not significantly relate to sexual experimentation behaviour among adolescent with hearing impairment.

Hypothesis 3

There is significant relationship between self-esteem and sexual experimentation among adolescents with hearing impaired.

Table 3: Relationship between self-esteem and sexual experimentation

Variable	N	Mean	Std. Dev.	df	r-tab	r-cal	P	Remark
Self-esteem	120	36.37	5.08	118	0.195	0.132	0.67	Not Sig.
Sexual Experimentation	120	21.71	8.24					

Figures from Table 3 shows that the R calculated value of 0.132 resulted as a relationship between self-esteem and sexual experimental behaviour among adolescents with hearing impairment. The r-calculated value of 0.132 is less than the critical value of 0.195 given a 118 degree of freedom at 0.05 level of significance. This led to the acceptance of the null hypothesis which states that there is significant relationship between self-esteem and sexual experimentation among adolescents with hearing impaired.

Hypothesis 4

Peer influence do not significantly relate to sexual experimentation among adolescents with hearing impaired.

Table 4: Relationship between Peer Influence and Sexual Experimentation

Variable	N	Mean	Std. Dev.	df	r-tab	R	P	Remark
Peer Influence	120	35	5.61					
Sexual Experimentation	120	21.71	8.24	118	0.195	0.285*	0.5	Sig.

The result in Table 4 reveals that r-calculated value of 0.285 resulted as the relationship between peer influence and sexual experimentation. Thus, the r-calculated value is statistically significant since it is greater than the critical r-value of 0.195, given 118 degree of freedom at 0.05 level of significance. Thus, the null hypothesis was rejected. This implies that peer influence significantly relate to sexual experimentation among adolescents with hearing impaired.

Hypothesis 5

The relative contribution of age, socio-economics status, gender, self-esteem, parenting style and peer influence will not significantly predict sexual experimenting behaviour among adolescents with hearing impaired.

Table 5: Summary of Regression of Dependent and Independent Variables

Model	R	R Square	Adjusted R Square
1	.804[a]	0.647	0.612

a. Predictors: (Constant), Age, Socio-Economic Status, Gender
Peer Influence, Self-esteem, Parental Style

Observation from Table 5 shows that R-value of 80.4 per cent resulted as a measure of the prediction of the dependent variable. The coefficient of determination (that is R^2) value of 64.7 per cent resulted as the proportion of variance in the dependent variable that can be explained by the independent variables.

Table 6: Analysis of Variance (ANOVA) of Regression Model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2982.492	6	497.082	18.899	.000[b]
	Residual	1630.725	113	26.302		
	Total	4613.217	119			

a. Dependent Variable: Sexual Experimentation

b. Predictors: (Constant), Age, Socio-Economic Status, Gender Peer Influence, Self-esteem, Parental Style

(F cal = 18.899; F critical (6, 113) = 2.18; $p < 0.05$)

It can be observed that a F-ratio of 18.899 resulted as the overall regression model. Since the F-value of 18.899 is greater than the critical value of 2.18, given 6 and 113 degrees of freedom at 0.05 level of significance, the null hypothesis was rejected. This shows that the relative contribution of age, socio-economics status, gender,

self-esteem, parenting style and peer influence will significantly predict sexual experimenting behaviour among adolescents with hearing impaired.

Table 7: Coefficients of Variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	20.104	6.684		3.008	0.004
	Age	3.59	1.003	0.307	3.576	0.001
	Gender	2.407	1.337	0.143	1.8	0.770
1	Socio-Economic Status	4	1.092	0.339	3.662	0.001
	Parenting Style	-1.064	0.195	-0.552	-5.455	0.000
	Self-esteem	-0.286	0.147	-0.158	-2.603	0.011
	Peer Influence	0.89	0.18	0.535	4.948	0.000

a. Dependent Variable: Sexual Experimentation

Figures from Table 7 shows how much the sexual experimentation behaviour among adolescents with hearing impairment varies with age, socio-economics status, gender, self-esteem, parenting style and peer influence. The data from the table shows that for each change to sexual experimental behaviour among adolescents with hearing impairment, there is an increase of 0.307, 0.143, 0.339 and 0.535 in Age, Gender, Socio-Economic Status and Peer Influence respectively. However, Parenting Style and Self-Esteem accounted for 0.552 and 0.158 decrease respectively in sexual experimental behaviour among adolescents with hearing impairment. Aside Gender that has an insignificant positive relationship with sexual experimental behaviour among adolescents with hearing impairment, Age, Socio-Economic Status and Peer Influence showed a significant positive relationship. Conversely, Parenting Style and Self-Esteem showed a significant negative relationship with sexual experimental behaviour among adolescents with hearing impairment.

Discussion

The result of hypothesis 1 revealed that socioeconomic status of parents has significant relationship with sexual experimentation behaviour among adolescents with hearing impairment. This finding is line with the outcome of study conducted by Florez (2005) who reported the influence of socio-economic status as contributing factor to early sexual initiation and teenage pregnancy. The finding is suggestive of the fact that economic status of the parents may affect their financial involvement thereby driving their children with hearing impairment to risky sexual behaviour such as early sexual activities in order to seek or get financial assistance from affluent authoritative adults and their peer who may be willing to offer financial aid in exchange for sexual satisfaction. This result complimented the finding of Lopez et al. (2014) on survey conducted among 49,562 women between 15 and 49 years old to determine their knowledge of health risk behaviour and HIV/AIDS, it was reported that the participants who demonstrated low knowledge of the above risk health conditions were from poor economic background which partly might have affected their level of education and information seeking behaviours.

The result of hypothesis 2 revealed that there is no significant relationship between parenting style and sexual experimentation behaviour among adolescents with hearing impairment. The result of this study demonstrated degree of variance from previous studies as it was most reported that parenting style has strong link with risky health behaviour among adolescents (Jessor & Turb, 2014). The study is not in agreement with studies by Rosenberg *et al*. (2015) who reported the positive impact of parental supervision on adolescents' modest living and knowledge of risky sexual engagement at early age especially at adolescence. The result of hypothesis 3 reveled that there is relationship between self-esteem and sexual experimentation among adolescents with hearing impairment. The finding of this study affirmed the uniqueness of self-esteem as a powerful construct that determine life achievement. A study by Kirby (2002) reported impact of high and low self-esteem on human cognition, competition, achievement coping behaviour and sexual related factors. The finding also corroborated some studies that reported that both high and low self-esteem could lead to risk sexual behaviours (Wild *et al*., 2004; Kalina *et al*., 2011), with variation between boys and girls (Spencer *et al*., 2000).

The result of hypothesis 4 revealed that peer influence significantly relates to sexual experimentation among adolescents with hearing impairment. The outcome of this finding further established the efficacy of peer influence on adolescents' level of assertiveness and self- deterministic principle during this age. The study lend credence to the positions of Steinberg (2010) who believed that relationship with friends at such tender age has much impact on social skills, life adjustment, emotional independence and socialization. By implication, constant fellowship with peers may influence some decisions that may positively or negatively affect someone's life. Therefore, peer relation and interaction in early childhood play crucial role in the quality of life and social adjustment later in life (McElwain & Volling, 2005).

The result of hypothesis 5 revealed that all the independent variables did not jointly predict sexual experimentation of adolescents with hearing impairment. However, the relative contribution of each independent variable indicated the strength and how those variables could influence behavioural disposition and decision to engage in some pattern of behaviours as revealed in this study. Nevertheless, the relative contributions of the independent variables corroborated the significance of socioeconomic status of parents on early sexual initiation as revealed by studies carried out by (Florez, 2005; Lopez et al., 2014), peer relation and its influence on quality of life and risk behaviours as reported by (McElwain & Volling, 2005), Age and its effects on early sexual initiation as revealed by the findings of the studies carried out by (Sandra & Chrowdhury, 2012), gender implication on early risky sexual practice as reported by (Haruna & Ibrahim, 2014), parenting style and its influence on engaging in risky sexual practice as found in the studies of (Rosenberg et al., 2015) and the link between self-esteem and sexual experimentation among adolescents as reported in the studies by (Wild *et al*., 2004; Lejuez et al., 2004; Kalina et al., 2011).

Conclusion

This study investigated the influence of psycho-social factors on sexual experimentation among adolescents with hearing impairment in Lagos State. The outcome of the study revealed relationship between socio-economic status, self-

esteem, peer, relation and sexual experimentation among adolescents with hearing impairment. However, parenting style was found not to significantly relate with sexual experimentation among adolescents with hearing impairment. The study further revealed that the independent variables under study did not jointly contributed to sexual experimentation among the participants, nevertheless, the relative contributions of the independent variables revealed the degrees of influence of psycho-social constructs on sexual experimentation among adolescents with hearing impairment.

Recommendations

In view of the findings of this study, it is recommended that students with hearing impairment should be helped to develop high self-esteem. They should also be encouraged to emulate good behaviour from their peers. Parents are also encouraged to constantly communicate good virtue to their wards with hearing impairment and not to over protect them during their formative age. Good characters should be rewarded by teachers, parents, caregivers and government.

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