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Causes of Low Enrollment of Physics as a Subject of Study by Secondary School Students in Nigeria: A Descriptive Survey

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Abstract

Physics is a basic requirement for obtaining admission into higher institutions in the pure and applied sciences, engineering and medicine. It is also the most basic requirement for the attainment of technological self-reliance by any people. But the enrollment of the subject by students in Nigerian secondary schools has been very low over the years. In this work the causes of low enrollment of students in physics in Nigerian secondary schools were investigated. Twelve schools were selected from four states in south-eastern Nigeria, by stratified random sampling. Student-respondents were selected from the chosen schools by stage sampling while teacher-respondents included all available and willing science teachers in the schools. The instruments of data collection were questionnaires for the students and science teachers, interviews with some of the principals and other senior staff of the schools, and data from the State Education Boards. Four research questions were formulated, on which the structure of the instruments of research were based. The questionnaires were randomly distributed to the respondents and re-collected after their responses. Then the responses were extracted, collated, analyzed and used to answer the research questions. It was discovered that the major causes of low physics enrollment in schools were: students' notion that physics was difficult to understand; their subject combinations and envisaged career choices which exclude physics; inadequate exposure and motivation; student's negative affective attitude towards mathematics and physics; insufficient physics teachers; and insufficient teaching materials and ill-equipped physics laboratories. A number of recommendations to stem the low physics enrollment syndrome were proffered.

Keywords: Causes, Low Enrollment, Physics, Secondary School, Students, Descriptive Survey.

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BACKGROUND TO THE STUDY

Physics has been one of the basic sciences offered at secondary school level in Nigeria since the grammar school era. Students have nearly always had the option to choose the subject or not. And fortunately enough, the prospects offered by some knowledge of physics have always remained broad. For example, no candidate can be offered admission in any institution of higher learning to study engineering, medicine, pure and applied sciences, environmental studies or science and technical education without at least a credit pass in physics. The annual JAMB Brochure (1996) attests to this fact. Also, job advertisements on the pages of newspapers and elsewhere show that companies, hospitals, maintenance outfits, oil and gas industries, etc. employ artisans, attendants and technicians who have at least a pass in physics. Even on grounds of direct personal benefit, a basic knowledge of physics enables one to rectify minor faults in home appliances, personal computers (pc's), private cars, etc.

On a broader scale, the level of development of any nation is hinged on the extent of its acquisition and utilization of technological innovations, which in turn cannot be attained without a working knowledge of physics. In line with this fact, the McGraw-Hill Encyclopedia of Science and Technology (1977) states under the aim of physics that every area of physics is characterized not so much by its subject-matter content as by the precision and depth of understanding which it seeks. The aim of physics is the construction of a unified theoretical scheme in mathematical terms whose structure and behaviour duplicates that of the whole natural world in the most comprehensive manner possible. Where other sciences are content to describe and relate phenomena in terms of restricted concepts peculiar to their own disciplines, physics always seeks to understand the same phenomena as a special manifestation of the underlying uniform structure of nature as a whole.

Thus physics is a unifying factor for all disciplines in life, being beneficial to the learner, his catchment environment (or discipline) and the world (or knowledge) at large. But surprisingly, students' enrollment of this vital subject which largely defines the development status of any nation has been on the decline in Nigerian secondary schools over the years. Several feelers point to that fact, as exemplified for the case of the University of Nigeria Secondary School, Enugu Campus: out of 126 students who sat the 1995 SSCE, 82 offered physics, but in 1996, only 65 out of 130 students offered the subject. In some schools, there were even no candidates for the subject for some years. At tertiary level some institutions enroll only a scanty number of students in their physics departments, because the few students who offered physics at senior secondary certificate (SSC) level, thereafter opt for medicine, engineering and other seemingly prestigious and lucrative fields of study. The problem is one of the reasons why it is difficult to have university graduate teachers of physics, chemistry and mathematics is because the good students of these subjects invariably go in for engineering and medicine. In fact, one of the most depressing problems colleges of education in Nigeria face is the perennial loss of good students in the sciences to the universities after one session, not to study education but invariably medicine, engineering architecture or pharmacy (Ukeje, 1986). This is not peculiar to Nigeria, according to Wenning (2002), Samela (2010) and Taale (2011) in their submissions agree that the situation as a universal one, creeping up to university level.

This state of affair is unacceptable because in complementary sciences like biology and chemistry, enrollments are comparably higher. For example, the data from the University of Nigeria Secondary School, Enugu Campus, showed that all the 126 students who took the SSCE in 1995 and all the 130 students who took the same examination in 1996 in the school offered biology. The question which then arises is 'What is the reason behind this unhealthy disparity?' At junior secondary school (JSS) level, integrated science which is the prerequisite subject for all the senior secondary school (SSS) science subjects is offered by all students compulsorily. And a look at the curriculum of integrated science from JS1 to JS3 reveals that all the component science branches – physics, chemistry, biology, agricultural science and earth science – are given comparably equal attention and basic introductory presentations. One then wonders why on entering the SSS, majority of the students tend to opt more for the other science subjects than physics. Notably also, mathematics which is complementary to the study and prerequisite to the understanding of physics is compulsory for all students both at JSS and SSS levels. Something therefore seems to be fundamental to the low enrollment of students in physics.

In terms of choice satisfaction there is no doubt that everyone enjoys the outcome of the study and knowledge of physics. People who offer physics as one of their subjects are always happy they did, more so as even their contemporaries in the other branches of knowledge usually esteem them highly, and more so if they are females. Physics experiments and results are appreciated by all and sundry. Percentage failure in SSCE in physics is usually the least when compared with the other science subjects (WAEC, 2014). More so, future prospects for physicists are even wider than for the other subjects. These facts make one wonder all the more why less people offer physics in their choice of subjects. Talking in terms of facilities, physics is not the worst off, compared with the other sciences. Once a school has been accredited to offer physics, the school usually establishes and equips laboratories that serve both as lecture rooms and as demonstration and experiment bases. Although some of these laboratories may be ill-equipped, one must also agree that for most schools, physics is usually given preference among the other subjects in terms of attention and facilities. These developments should therefore be points of attraction for most students to opt for physics; but alas, the contrary is observed.

The effect of this abandonment of physics is more than expressible because it triggers a chain of consequences on our national outlook as a whole. It stalls our technological advancement, leads to inadequate number of physics teachers for the present and future generations, leads to a proliferation of the arts subjects and excessive demand for admission and jobs in those areas, while such demands in the area of physics remains low and sometimes totally lacking. The repercussion of the neglect remains prominent, as people who avoided physics often, later in life, operate or supervise the use of gadgets that require basic knowledge of physics. Such people eventually get frustrated or muddle up things, and this in turn leads to inefficiency, low output, or even disaster. Thus the low enrollment of students in physics is an ill-wind that blows nobody any good. The root causes of the problem are investigated in this study, so that proper solutions can be proffered for its remedy.

Statement of the Problem

Nigeria is a vast country, having a considerably large number of secondary schools which evolved from a single mission school by 1859, to a presently estimated figure (by 2014) of around 10,000. Observation showed that these schools evolved at various rates with time, majorly out of necessity to absorb the relatively teeming number of candidates yearning for post-primary education at those times. However in recent times (say in the last ten to fifteen years), the school proprietorship trend appears to be borne out of desire to show affluence, create class distinction for the pupils, invest accumulated wealth, fulfill parochial, ethical or moral standard, or meet admission and consistent academic calendar gaps. As expected, the total enrolments in the schools have also appreciated over time. Complete records are not readily available, but the advancement in number of secondary schools, and the trend in enrolment for recent years are shown in Table 1 (Adesina, 1977; Ndaji in Ukeje *et al.*, 1986; Ukeje: 1991; FGN, 2009; US Embassy, 2012).

Table 1: Evolution of secondary schools and students enrollments in Nigerian schools system

Year	No. of schools	Students enrolment	Year	No. of schools	Students enrolment
1859	1	-	1970	1227	-
1909	2	-	1975	1654	-
1955	161	-	1980	4236	-
1956	275	-	1985	6231	807,755
1957	297	-	2004	-	6,297,402
1958	303	-	2005	-	6,398,343
1959	305	-	2006	-	6,536,038
1960	311	168,309	2010	-	9,213,011
1965	-	252,586	2014	≈ 10,000	≈ 11,000,000

The final examinations (Senior School Certificate Examination, SSCE) of the secondary schools are presently conducted in Nigeria mainly by the West African Examinations Council (WAEC) and the National Examinations Council (NECO). WAEC started it all as early as during the colonial era, and covers all the

English-speaking West African countries. The SSCE has therefore also evolved with time, and some of the relatively recent participation figures are shown in Table 2 (WAEC: 2014). More complete records show that not only is the percentage of students offering physics low for over 80% of the schools in Nigeria, but in addition, for over 50% of the schools, the enrolment figures continue to fluctuate and diminish on the average. This trend is seen as dangerous for the future of a developing country like ours; and if nothing is done now to find out the root causes of the situation with the aim of countering them, it might even degenerate to a point whereby we might have no physics teachers at all, or enough people going into advanced courses requiring physics as prerequisite.

Table 2. WAEC SSCE Enrollment from 1996 to 2014

Year	Number participating	Year	Number participating	Year	Number participating	Year	Number participating
1996	519,667	2001	1,040,104	2006	1,181,515	2011	1,540,250
1997	622,433	2002	925,289	2007	1,257,330	2012	1,627,224
1998	640,626	2003	939,507	2008	1,369,142	2013	1,689,188
1999	761,060	2004	844,540	2009	1,373,009	2014	1,692,435
2000	643,378	2005	1,080,162	2010	1,351,557	2015	-

Purpose of the Study

The purpose of this study is to:

- bring to lime-light the fact that such a vital subject as physics is an ‘endangered species’ in our secondary school system;
- investigate the immediate and remote causes of the detestable trend; and
- prescribe possible solutions to arrest the ugly situation of low enrollments in physics.

Significance of the Study

This study has both explicit and multiplier expositions for students, teachers, school administrators, parents and education planners. The study will hopefully:

- help students to develop awareness for physics and avoid a repulsive approach to it in relation to other subjects;
- point out what physics teachers can do to broaden the awareness of students in physics and make the subject attractive to them;
- highlight the role of the principal and other relevant school leaders in the task of making the students to like and opt for physics;
- make parents realize their roles to encourage their children, show interest in their competences and help them in choosing their careers properly;
- sensitize the zonal boards, ministries of education and education planners about the anomaly, for them to act appropriately to remedy it; and
- enhance the chances for rapid technological advancement of Nigeria, after the problem has been properly addressed.

Research Questions (RQs)

Research questions which arose with respect to the research topic are as follows:

- What are the factors responsible for students' low enrollments in secondary school physics?
- Do secondary school students avoid physics as a result of fear, uncertainty, hindrances or otherwise?
- What special points do biology and other science subjects have that attract students to them more than physics?
- Are there things which physics teachers, parents, school authorities and other concerned agencies could do to manage or solve the problem?

METHOD

Research Design

This is a descriptive survey research design in which the factors responsible for low enrolment of students in SSCE physics in Nigeria were explored. The research design is quite modest, and was used to effectively investigate and explain why the undesirable situation of physics abandonment exists in the Nigerian schools system. According to Nkpa (1997):

Descriptive studies make no attempt to manipulate variables. Their concern is to either describe and interpret existing relationships, attitudes, practices, processes and trends, or compare variables.

Thus all that one was required to do under this design was to collate respondents' opinions, add data from the school authorities and education boards, analyze them, and then identify and publish the observed causes of low enrollment of physics in Nigerian schools. The data were extracted from the research instruments, standardized and used to reach the conclusions. Some other relevant data were obtained from the Statistics Divisions of the State Secondary Education Boards (SEBs), the principals or other top officials of the secondary schools in the selected schools for research, science teachers in such schools and their SS 2 students.

Population of the Study

The target population was four states of Abia, Anambra, Enugu and Imo States in the South East zone of the Nigeria. A local government area (LGA) was randomly chosen from each state, and three schools were chosen from each LGA (i.e. each state) by stratified random sampling. Thus a total of twelve schools were selected. The total number of students in the selected schools was eleven thousand, seven hundred and eighteen (11,718), and the total number of science teachers in them was one hundred and thirty two (132) (See Table 3). These formed the study population.

Samples and Sampling Techniques

The study samples were selected from the twelve schools chosen as described above. The schools in the selected LGA (state) were stratified into boys' schools, girls' schools and mixed schools. Ratios were calculated for the strata and cluster sampling method used to randomly select schools according to the ratio worked out for each stratum. Thereafter, a single school was picked from each stratum. Cohen and Manion (1987) explained these sampling processes thus:

... Stratified sampling involves dividing the population into homogeneous groups, each group containing subjects with similar characteristics.... By cluster sampling we can randomly select a specified number of schools and test all the children in those selected schools.

Randomization was ensured by numbering each stratum, writing down similar numbers in pieces of paper, folding and then picking after some shuffling. The number picked was then folded back and replaced before another sample was similarly selected. After that, the sample school was picked. This method is in fact stage sampling, which Cohen and Manion (1987) defined thus:

... Stage sampling is an extension of cluster sampling. It involves selecting samples in stages, that is, taking samples from samples.

The twelve schools selected were coded as represented in Table 3 with their sample populations.

Table 3. Selected Schools for Survey and their Sample Populations.

State	School	Type of School	SSS Students	Science Teachers
Abia (A)	A1	Boys	846	9
	A2	Girls	1398	14
	A3	Mixed	512	8
Anambra (B)	B1	Boys	150	4
	B2	Girls	647	8
	B3	Mixed	974	17
Enugu (C)	C1	Boys	1612	7
	C2	Girls	1042	12
	C3	Mixed	1360	13
Imo (D)	D1	Boys	586	11
	D2	Girls	1693	17
	D3	Mixed	898	12

Further stratification was done for students in each school on a 50-50 basis to randomly select an average of ten science students and ten non-science students for the survey. The science students were those offering all the basic sciences, while the non-science students offered biology as their only science subject. All students selected were SS 2 students because they were considered to be a kind of average of the SS 1, SS 2 and SS 3 classes. Two other important reasons for using only SS 2 students for the survey were that the SS 3 students were writing their SSCE during the period of the survey, while SS 1 students were considered not to be mature enough to supply cogent responses to the required information. Still further stratifications were done in mixed schools to sample equal number of boys and girls vis-à-vis the stratification on science-non-science students basis. Such extended stratifications as deemed necessary conform to the opinion of Lewis (1973) that 'bias might be avoided by stratified sampling'.

Instruments for Data Collection

The main instruments of data collection for the survey were questionnaires. Two different questionnaires were produced, one for senior secondary school students (SQ) and the other for science teachers (TQ). In either questionnaire, information directly and indirectly leading to answers to the research questions (RQs) were sought for. Though quite exhaustive, the questionnaires were framed in such a way that an enthusiastic respondent would need ten to fifteen minutes to complete either. Both questionnaires are reproduced in the appendices. On the whole, one thousand questionnaires were produced, nine hundred for students and one hundred for science teachers. Information demanded from each questionnaire differed almost entirely from the other, but were aimed at the same goal. Additional data were obtained by oral interviews with the school principals, vice principals, deans of studies and heads of science departments, depending on where one was directed to. Such data included SSS populations, enrollment for each science subject, and science staff strength.

The list of schools, types, staff strengths and students enrolments in the selected LGAs were obtained from the Statistics Division of the State Secondary Education Boards, or the heads of visited schools.

Administration of the Instruments

Questionnaires were distributed to students as stratified, without preconditions until the number of questionnaires for the particular stratum was exhausted. In the case of science teachers they were all given questionnaires for responses as long as they were present and willing to respond. The reason for this is that science teachers were relatively few in number. To ensure high percentage of response and minimum wastage, the questionnaires were either collected on the spot or entrusted to willing teachers who gathered the students, got them fill the questionnaires and collected them back for return to the researcher. In any case, the students were fully briefed on how to fill the document and given room to seek clarification on any item.

Validity and Reliability of the Instruments

Validity: Validity of the instruments of research was adopted on the basis of face value (face validity) by experts in the field of educational research, measurements and evaluation.

Reliability: According to Nkpa (1997), the degree of random error is inversely proportional to the degree of reliability. Reliability was ensured in the present research by using the test-retest method. This was carried out in two of the sampled schools and certified okay.

Methods of Data Analyses

Analyses of procured data were mainly based on the computation of the extent (proportion) of response to each test item within item members in the questionnaires. All two and most three-member items were converted to percentage by the usual formula:

$$X\% = \frac{n}{N} \times 100 \quad (1)$$

where: X is the percentage score of the option;
n is the number choosing that option;
N is the total number responding to that item.

All other (mostly five-member) items were analyzed by finding their standard deviation, SD, according to the formula:

$$SD = \sqrt{\frac{\sum(f-F)^2}{N}} \quad (2)$$

where: \sum = summation sign;
f = a sub-item score (or frequency);
F = average score of the sub-item;
N = number of sub-items.

The SDs were then standardized by converting them to Z-scores according to the formula:

$$Z = \frac{f-F}{SD} \quad (3)$$

To enhance comparison with other scores and facilitate decision making, the standard (Z-) scores were upgraded to (standard) T-scores according to the formula (see Lewis: 1973):

$$T = 10Z + 50 \quad (4)$$

This allowed for a uniform mean of 50 and a uniform standard deviation of 10 for all the test items, thereby making comparison among both intra-group and inter-group items easy.

Percentage or T-score of each sub-item was subsequently tested for acceptance or rejection under the 5% (0.05) level of significance. While the limit for percentage scores was given by the same value (i.e. 5%), that for the T-scores was given by:

$$\begin{aligned} \sum T \times 0.05 &= N \times T \times 0.05 \\ &= 5 \times 50 \times 0.05 \\ &= 12.5 \end{aligned} \quad (5)$$

The scores above the required limits were then used to answer the research questions (RQs).

Analyses

Procured data from both questionnaire species were taken up and analyzed according to their relationship with the research questions (RQs). Items from the SSS questionnaire were designated as ‘SQ’ while those from science teachers questionnaire were designated as ‘TQ’. Out of the 900 questionnaires served to students, 400 went to male students while 500 went to female students. The questionnaire items, however, were not analyzed by gender strata. Valid returns were 392 from males and 490 from females, giving a total of 882 valid returns, or,

$$\frac{882}{900} \times 100 = 98\%. \quad (6)$$

The wastage (arising from the twelve non-returns and invalids) was therefore $100 - 98 = 2\%$. Ninety six questionnaires were served to teachers and they were all returned and correctly filled. Thus the validity and returns in this case was 100%.

One can now re-familiarize oneself with the research questions (RQs) 1 to 4 earlier itemized, as the items are now analyzed under them. For any item or sub-item analyzed, the condition for acceptance (\surd) or rejection (x) as a contributory factor to the research problem was its value under the 0.05 level of significance. For T-scores, this is:

$$\begin{aligned} \geq 12.5 &\dots\dots\dots \text{acceptance;} & (7) \\ < 12.5 &\dots\dots\dots \text{rejection.} \end{aligned}$$

Percentage scores were considered as they were, so that for such an item value we have

$$\begin{aligned} \geq 5\% &\dots\dots\dots \text{acceptance;} & (8) \\ < 5\% &\dots\dots\dots \text{rejection.} \end{aligned}$$

RESULTS

Research Question 1 (RQ 1)

Answers to RQ 1 were obtainable from questionnaire items SQ 5(b), 6, 7(a), 8, 11, 12 and TQ 6. For SQ 5(b), 706 students or 80% preferred biology to physics by making biology either their first or second choice in the list. Reasons for such a choice (including for those who preferred physics – 19%) were analyzed under SQ 6 in Table 4. The factors that influenced the students' choice of subjects, apart from parental factors, were analyzed under SQ 7(a) in the table. For item SQ 8, a total of 662 or 75% of the respondents indicated that biology lessons were both interesting and easy to understand; 132 respondents or 15% indicated that physics lessons were both interesting and easy to understand, while another 176 or 20% were of the opinion that physics lessons were interesting but difficult to understand. Thus a total of 311 students or 35% indicated that they liked physics lessons, though with varied cognitive perceptions.

Table 4. Analyses of Items SQ 6, 7(c), 12 and TQ 6 for RQ 1

Test Item	Frequency (f)	Z – Score	T – Score	Accepted/Rejected
SQ 6(i)	325	0.402	54.02	√
(ii)	616	1.784	67.84	√
(iii)	130	-0.523	44.77	√
(iv)	66	-0.827	41.73	√
(v)	64	-0.836	41.64	√
Mean (M)	240.20	0	50.00	
SD	210.69	1.00	10.00	
SQ 7(c)(i)	247	0.890	58.90	√
(ii)	72	-1.061	39.39	√
(iii)	250	0.923	59.23	√
(iv)	45	-1.362	36.38	√
(v)	222	0.611	56.11	√
Mean (M)	167.20	0	50.00	
SD	89.69	1.00	10.00	
SQ 12(i)	346	0.521	55.21	√
(ii)	8	-1.825	31.75	√
(iii)	439	1.166	61.66	√
(iv)	298	0.187	51.87	√
(v)	264	-0.049	49.51	√
Mean (M)	271.00	0	50.00	
SD	144.08	1.00	10.00	
TQ 6(i)	65	1.929	69.29	√
(ii)	33	-0.075	49.25	√
(iii)	20	-0.889	41.11	√
(iv)	28	-0.388	46.12	√
(v)	25	-0.576	44.24	√
Mean (M)	34.20	0	50.00	
SD	15.97	1.00	10.00	

In the case of SQ 11, over 616 respondents or 70% were of the opinion that physics textbooks were expensive and difficult to understand. The other views about physics textbooks were less the 0.05 level of significance. Item SQ 12 seems to be the most directly related item to RQ 1. Its analysis is also shown in Table 4. Item TQ 6 was almost concordant with SQ 6. Its analysis is also in Table 4. In SQ 12 the major responses of the respondents to 12 (v) were lack of (good) teachers, poor laboratory facilities and difficulty in understanding the subject (physics). Some of them also asserted that they were not being taught well enough.

Research Question 2 (RQ 2)

Answers to this RQ were provided by questionnaire items SQ 8, 12, TQ 6(v), 8. All the items were analyzed under RQ 1 above, except item TQ 8. Sub-item TQ 6(v) which had a T-score of 42.24 related further opinions of teachers on the student's affection to the sciences. According to 24 (or 25%) of them, many students avoid physics and chemistry and cling more to biology and agricultural science because they have a fearful attitude towards mathematics and calculation. To some extent, this opinion agrees with that of students under SQ 12(v). Analyses of affirmative responses for the three parts of item TQ 8, which was on examination performance, is presented in Table 5. It should be noted that TQ 8(iii) which was for higher failure rate in physics is lowest.

Table 5. Analysis of TQ 8 for RQ 2.

Test Item	Frequency (f)	Z – Score	T – Score	% ‘Yes’ Response
TQ 8(i)	37	0.568	55.68	40
(ii)	40	0.837	58.37	43
(iii)	15	-1.405	35.95	16
Mean (M)	30.67	0	50.00	
SD	11.15	1.00	10.00	

Research Question 3 (RQ 3)

Questionnaire items SQ 6, 8, 10, TQ 6, 8, 12 provided answers to this RQ. All of them except SQ 10 and TQ 12 had been analyzed under RQ 1 and RQ 2. Of particular note under this RQ are the following sub-items with indicated T-scores or percentages:

- SQ 6(i) relating to rate of comprehension (T-54.02);
- SQ 6(iii) relating to synthesis/evaluation (T-44.77);
- SQ 8 on affection and cognition - 75% all-positive for biology;
- 15% all-positive for physics;
- TQ 6(i) also on subject comprehension (T-69.29);
- TQ 6(v) on further observation of teachers (T-44.24);
- TQ 8(iii) as analyzes in Table 5 (16%).

For item SQ 10(a), 344 of the respondents or 39% were physics students. Their reasons for doing physics, SQ 10(b), are analyzed in Table 6. The analysis shows that the most prominent single factor that influenced those who chose physics was their future career. Although it was not investigated, it is likely that such a reason (future career) was also cogent for those who chose chemistry and biology, but who are greater in number. For TQ 12, 530 respondents or 60% were of the view that biology was adequately staffed, while 176 respondents or 20% were of the view that physics was adequately staffed. On the reverse side (inadequate staffing), there were 247 or 28% for biology and 485 or 55% for physics. Statistics on staff strength from school authorities, however, showed an average teacher-student ratio of about 1:255 for both biology and physics. This was probably because, although all the schools visited had more biology teachers than physics teachers (to an average ratio of 5:1), each of the schools equally had more biology students than physics students (to about a similar ratio, especially schools situated in rural and sub-urban settings).

Table 6. Analyses of SQ 10(b) for RQ 3.

Test Item	Frequency (f)	Z – Score	T – Score	Accepted/Rejected
SQ 10(b)(i)	43	-0.582	44.18	√
(ii)	118	1.458	64.58	√
(iii)	99	0.941	59.41	√
(iv)	32	-0.881	41.19	√
(v)	30	-0.936	40.64	√
Mean (M)	64.40	0	50.00	
SD	36.77	1.00	10.00	

Research Question 4 (RQ 4)

The most number of items in the questionnaires seem to fall under this RQ. Items that hold possible answers to the RQ include SQ 6(iv) (T-41.96), 7(a), (b), 9, TQ 6(ii) (T-42.37), 7, 9, 10, 11, 12. For SQ 7(a), 341 respondents or 39% indicated that their parents had some influence on their choice of subjects. Over 75% of such students were physics students. 529 respondents or 60% indicated that their parents had no influence over their choice of subjects. In SQ 7(b), those influenced by their parents in choosing their subjects responded as analyzed in Table 7.

Table 7. Analyses of SQ 7(b), TQ 9(b) and TQ 11 for RQ 4.

Test Item	Frequency (f)	Z – Score	T – Score	Accepted/Rejected
SQ 7(b)(i)	140	1.696	66.96	√
(ii)	88	0.110	51.10	√
(iii)	91	0.201	52.01	√
(iv)	46	-1.171	38.29	√
(v)	57	-0.836	41.64	√
Mean (M)	84.40	0	50.00	
SD	32.78	1.00	10.00	
TQ 9(b)(i)	75	1.376	63.76	√
(ii)	50	0.314	53.14	√
(iii)	22	-0.875	41.25	√
(iv)	56	0.569	55.69	√
(v)	10	-1.385	36.15	√
Mean (M)	42.60	0	50.00	
SD	23.54	1.00	10.00	
TQ 11(i)	5	-1.203	37.97	√
(ii)	62	0.691	56.91	√
(iii)	65	0.791	57.91	√
(iv)	70	0.957	59.57	√
(v)	4	-1.237	37.63	√
Mean (M)	41.20	0	50.00	
SD	30.08	1.00	10.00	

For item TQ 9(a), 94 or 98% of the responding teachers claimed that they encouraged their students to offer physics. Analyses of how such encouragements were made, TQ 9(b), is also presented in Table 7. Analyses of item TQ 11 on the teachers' welfare are also in the table.

For item TQ 7, 65 respondents or 68% stated that the biology laboratories in their schools were adequately equipped, 67 or 70% felt that their physics laboratories were adequately equipped. Items SQ 9 and TQ 10 are closely related to each other and were analyzed as in Table 8.

Table 8. Analyses of SQ 9 (Biology and Physics only) and TQ 10 for RQ 4

Item	Once per Week	Once in a While	None at all
SQ 9 Biology	461 (52%)	282 (32%)	139 (16%)
SQ 9 Physics	80 (60%)	39 (29%)	15 (11%)
TQ 10	62 (65%)	29 (30%)	5 (5%)

It can be seen that while the middle of the table (Once in a while) almost tallied (in percentage), the claims of the two different sets of respondents (students and teachers) differ more from each other at the two extremes of the table. Item 12 was analyzed under RQ 3.

Other Findings

A few other items on the questionnaires attracted noteworthy responses. These are as follows:

SQ 3: Majority (85%) of students interviewed were day-students, just as most of the schools in the school system (80%) were day-schools, with only 20% having boarding facilities. This situation, however, had no visible effect on the response patterns of the day-students and the relatively few boarding students interviewed.

SQ 4: Only 25 students (3%) of those interviewed indicated that he/she would like to read either physics or education for further studies. It was either medicine, engineering or computer science for science students, or accountancy, law, etc. for non-science students.

SQ 5: All the schools offer all the basic sciences – biology, agricultural science, chemistry, and physics. Students' enrollments (and preference) for the subjects were decreasing in that order, with the average ratio of 4:3:1:1, the preference for chemistry being just slightly more than that for physics.

TQ 3: 14 of the science teachers (15%) interviewed were physics teachers, and all had at least first degrees). 3 (21%) out of the 14 majored in areas other than physics (mathematics and engineering). 88 (92%) of the science teachers had degrees, while 8 (8%) had the National Certificate in Education (NCE). Only 60% of the teachers, however, had teaching qualifications.

DISCUSSION OF FINDINGS

This discussion must start by underlining one fact: the survey has substantiated that there is indeed low physics enrolment in all the schools in south-east Nigeria, to the average of less than 40%. From contemporary feelers, this precarious situation is actually prevalent in all schools nationwide. Consequently, the results emanating from the analyses adequately provide answers to the research questions, and forebear solutions to the research problem. The conversion of the raw scores or frequency data to Z- and T- scores standardized all the results, thereby providing a valid statistical basis for accepting or rejecting any of the items under the 0.05 level of significance. The analytical process also made it easy to make a quick comparison or judgment based on a standardized average (T-50 or 50%)

For RQ 1, significant answers obtained under the 5% level of significance gave an in-depth answer to the question of the causes of low enrollment in physics. The most significant answers (>50% or T > 50) were provided by items as follows:

- SQ 6(i), 8, 11, TQ 6(i) (T-54.02, >80%, 70%, T-69.29 respectively) – the students' low rate of understanding physics as compared to other subjects.
- SQ 6(ii), 12(i) (T-67.84, 55.21 respectively) – because of their envisaged career choices and subject combinations.
- SQ 7(c)(i), 12(iii) (T-58.90, 61.66 respectively) – lack of adequate exposure and motivation in physics.
- SQ 8 (>80%) – poor affective attitude of the students for physics.
- SQ 7(c)(iii), 12(iv) (T-55.91, 51.87 resp.) – performance in physics examinations.

The greatest factors causing low enrollment of physics by students seem to be their poor affective attitude (>80%) and inadequate awareness cum motivation (T-58.90, T-61.66) to the subject. These outcomes in general agree with the findings of Adamu (1992) and the opinion of such authors as Okonkwo *et al* (1989), French (1990), Hornig in Briscoe *et al* (1979), the UNESCO (1962) conference, and Taale (2011). The other responses, though significant at the 0.05 level, are considered to be less significant at T-50 or 50% (i.e. on the average) level.

RQ 2 sought to highlight the reasons that directly centre on the students attitudes and environments. The outcome hinges around these items:

- SQ 8 (>80%) – many students think that physics is difficult.
- SQ 12(i) (T-55.21) – due to the above reason most of the students adopt subject combinations which exclude physics.
- TQ 8(ii) (T-58.37/43%) – physics is at par with other science subjects in SSCE performance, which should make the students to give it equal consideration in choice.

The last outcome above is at variance with authentic SSCE results, however, which show that physics results have usually been better than other science subjects (WAEC: 2014). But again, the other results tend to agree with the research findings of Adamu (1992) and to a lesser extent on the opinion of French (1990). Further answers to the RQ are found under the other RQs, viz.:

- lack of motivation (SQ 12(iii), TQ 9);
- high cost and difficulty of physics textbooks (SQ 11);
- peer influence and exposure (SQ 7(c)); and
- parental attitudes (SQ 7(a), (b)).

Motivation visibly plays a pivotal role in attracting subject preference, and this is perhaps the reason behind the observation of Ukeje *et al* (1986). Lack of motivation and awareness substantially contributes to the ‘brain-drain’ in physics.

RQ 3 sought for causes arising from the vintage points of the other subjects, particularly biology, or the disadvantage points of physics. The items furnishing such responses are highlighted as follows for items scoring more than 50% or having T>50.

- SQ 6(i), 8, TQ 6(i) (T-54.02, >80%, T-69.29 respectively) – most students find their biology lessons easy to understand.
- SQ 6(ii), 10(b)(ii) (T-67.84, 64.58 respectively) – most students have subject combinations which include biology but exclude physics.
- TQ 12 (60%) – there is higher proportion of biology teachers in all schools. They possibly serve as role models to the students, thereby making most of them to be attracted to biology.

Here again, the findings of Adamu (1992) are confirmed; plus the opinion of French (1990) and Hornig in Briscoe *et al* (1979). Some other test items no doubt contributed answers to this RQ, but these were either better considered under some other RQs, or were deemed less significant (at 0.5 level) than the ones represented.

The discussion on answers to RQ 4 is most elaborate, as the RQ embraced a wide spectrum of subjects. Highlights of answers to the RQ are as follows.

- SQ 6(iv), TQ 9(a) (T-41.73, 98%) – most students did not feel that they were encouraged adequately enough by their teachers to offer (or like) physics, despite the teachers’ claims to the contrary.
- SQ 7(a), (b)(i), (ii), 10(b)(i) (39%, T-66.96, 51.10, 44.18 respectively) – a minority number of the overall respondents indicated that their parents did influence their choice of subjects either directly

or indirectly through a guardian. Most of these students (75%) were physics students, meaning that the rest were influenced against choosing physics.

- SQ 10(b)(i) (T-44.18) – most students who chose physics did so mainly because of their proposed careers, other factors notwithstanding.
- TQ 11(ii), (iii), (iv), 12 (T-56.91, 57.91, 59.57, 60% respectively) – responses indicated that physics teachers are poorly remunerated and grossly overworked, while basic teaching materials are generally lacking.

Enlightened parents are duty-bound to orientate their wards towards the importance of physics. For the physics teachers, they may be working hard enough but the affective domain of learning needs to be seriously exploited by them in their pedagogues. The observations of Okonkwo *et al.* (1989) relating to poor facilities, inadequate and unskilled manpower should be looked into. Poor remuneration and ‘brain-drain’ respectively highlighted by Norris (1979) and Schweitzer *et al.* (1972) are also serious factors.

Summary

The findings of this descriptive survey have shown that there is indeed low enrollment of secondary school students in physics, and that the situation is mostly caused by the students’:

- assumption of physics as being difficult to understand;
- envisaged career picks and subject combinations which inadvertently reject physics;
- lack of adequate exposure and motivation towards physics;
- negative affective attitude (bias) of most students for physics;
- fear of mathematics and all subjects deeply rooted in it;
- lack of interest in physics and physics education at tertiary level (due to poor income of physics teachers), leading to inadequate physics teachers in schools;
- lack of enlightenment on physics as a subject and poor endearment of students to physics by parents, teachers and authorities;
- ill-equipped physics laboratories and inadequate teaching materials in most schools.

Contrary to anticipation and with regards to some literature review, gender considerations did not contribute significantly to the topic at stake. Gender factor however, was not given prominence in this research. Since females make up not less than 50% of entire students populace, it should be ordinarily expected that they should equally make up not less than 50% of all physics classes. But that is far from reality, as physics is generally known to be a male-dominated discipline. Such authors as French (1990), Adamu (1992) and Ivie *et al* (2002), among many others, had discussed low participation of women in physics as a critical issue in the development of the discipline; but perhaps the gender aspect of the malaise is better handled as a full discourse of its own. On the other hand, the non-significance of gender influence here supports another observation of Adamu (1992), that enhanced learning environment grants equal motivation to both sexes for science. What this implies is that the same factors that cause prospective male students to do physics, or not to do it, also affect female students similarly.

Educational Implication of Findings

Although the problem of low enrollment in physics has been with us for as long a time as our school system, only a superficial attempt, if any, had been made to articulate its causes from such a scientific research and analyses as in this work. It is therefore hoped that the effort made in reaching at these findings will not be in vain. Students who come across this research document will hopefully be awakened to clearly define their educational aims and objectives, recognize the juicy prospects before them should they opt for physics, identify the possible obstacles on their way to pursuing the physics goal, and then brace up and adjust appropriately to

tackle them headlong. Their primary task is to liberalize their tabula rasa towards physics and mathematics. Parents and guardians on their parts must realize that whatever germane courses their wards undertake essentially demand both their advice and encouragement. Noteworthy here is the additional comments of a few of the physics students, that their parents used to discuss (or even teach them) physics and some of their other strategic subjects, and/or hire some hands to help them comprehend and assimilate the topics better. The author of this work is one of the few determined students in his days (even with meager ‘pocket-money’ from the parents), who had to hire external hand to teach them physics when their school had no physics teacher. With the acknowledged strategic importance of physics in virtually every facet of human discipline, students themselves and parents in particular should start early in life to awaken their consciousness to physics and physics phenomena, which of course inevitably surround the whole of human life and development.

The findings reveal to the physics teacher his areas of weakness, and also point to the fact that if nothing tangible is done, his discipline might be at the brink of extinction from the school diary. The onus is on him to constantly review his pedagogic technique. Although he is already overworked, he still has an onerous responsibility of encouraging as many students as possible to develop interest in physics, and continue with it even beyond secondary school level.

School authorities are not exonerated from the issue at stake. For one, they must note that if the findings highlighted here persist in their schools instead of diminishing the status quo, the result would be the ‘natural death’ of physics in their schools, and the continued over-production of school leavers in the arts disciplines. The after-effect is that the chances for such disciplines in tertiary institutions will continue to be highly competitive, and manpower in those areas continuously over-produced. Such a situation cannot put our nation any step ahead in a world like ours, pervaded by rapid technological transformation. Principals should therefore use every wit and resources at their disposal to redress the precarious situation in their schools.

Local and state education authorities as well as the Federal Ministry of Education are the sectors that must take particular note of the findings of this research. This will help them greatly in planning for the sustenance of technological education in our school system. Ignoring the situation or leaving it as it is implies that what one may call ‘technological decay’ is on board. If more students are not encouraged to read physics up to university level, there cannot be physics teachers for the morrow; if there are no physics teachers there cannot be prospective students even for medicine and engineering; and the boomerang continues. In particular, existing and prospective physics teachers will continue to desert the profession for ‘greener pastures’ until those in the profession are properly remunerated. Similarly, no meaningful teaching and learning of physics can ever take place without adequate teaching materials and laboratory facilities, as well as laboratory assistants who are conversant with the use of available facilities. And while these issues (findings) persist, there will continue to be high failure rate in physics, or at best the production of ‘white-wash’ physics graduates from our schools. Perhaps the most persona-social effect of the absence of physics (or scientific) culture, and the over-production of graduates in the arts and humanities, will be the collapse of scientific reasoning (Renner & Stafford: 1972). The consequence would be an overall populace with citizens of low level IQs.

Recommendations

From the foregoing, the following recommendations are hereby proffered.

1. Students should start early in life to develop interest in physics as a subject. This will make the subject easy for them when they now choose it as one of their subjects at school. Moreover, they should realize that the extra effort they may put in order to understand and pass physics is a credit to both themselves and the nation. To make such efforts concrete, students should develop more interest in their mathematics lessons and make every effort to know it and also pass it well. Then they would have a comparative advantage over their mates and be happy with their subject choices then and after.
2. Parents should arrange extra lessons for their children in the sciences, particularly in such areas as mathematics and physics which they find somewhat difficult. Where they can afford it, parents should also provide some gadgets and instruments like computers, science films, science novels, and simple

apparatus which will help to broaden the view, awareness and knowledge of the children in the core sciences and mathematics. Verbal encouragement and guidance, even in the absence of everything else, will also help tremendously to put the children in the right track regarding their careers. If disposed enough, the parents should from time to time teach the children by themselves, or at least discuss their problems in their subjects with them.

3. The teachers on their part should cease to stick to strictly orthodox ways of teaching as it concerns the sciences, particularly physics and mathematics. Less formal approaches should be adopted in order to first and foremost impart a positive attitude and friendly posture on their pupils in relation to themselves and their subjects. Sacrifice is also required, as physics teachers could make out extra time for additional teaching, problem solving or laboratory demonstrations, so that the students would be 'at home' with their course. The usual 'master-servant' and 'pontius pilate' posture of science teachers in their official relationship with their students worsens the students' regard to the course.
4. School principals and heads of science departments, though operating on tight budget, could still do a lot to tilt the interest of their students towards physics. They could liaise with the teachers to improvise some unaffordable apparatus, or borrow from sister schools. Commendation of teachers' efforts and fruitful dialogs on their problems will also help in bringing out the best out of the teachers. Principals should not hesitate to nominate and sponsor their physics staff for training and re-training, and for participation in science workshops, exhibitions, book-fairs and excursions. Benefits and emoluments accruing to the teachers should not be delayed or withheld for any reason. If these steps are taken, the morale of the teachers would be high enough to bring out the best out of them and attract others to the profession.
5. The educational authorities have the greatest role to play in remedying the ugly situation. To start with, they should mount up campaigns on the media, schools and communities to enlighten people on the importance of the sciences, particularly physics, and urge them to encourage their wards to do them for obvious benefits they hold, not only for them but for society in general. The science laboratories should be adequately equipped and training programmes scheduled for the science teachers and laboratory technicians, so that effective use would be made of provided equipment. Well-informed science supervisors should also be sent to schools from time to time to assess the progress of work in the sciences and hold fruitful discussions with both the school authorities and the science teachers themselves. Annual budgets at all levels of governance should make specific and adequate provisions for science enlightenment and expansion of scientific culture in our schools, and the funds disbursed timely and accordingly. Science teachers' allowances should be raised across the board, and the general conditions of service of physics teachers in particular enhanced so that those in service would remain, and more students would be encouraged to take up the profession as they leave school.

Delimitation of the Study

The present study did not include the effect of poor planning and supervision on the causes of low enrollment in physics by prospective students. It also did not delve into the reasons why prospective school leavers would not undertake to study physics or education. Although gender factor in low physics enrollment in schools was highlighted, it was not thrashed in full.

Limitations

The researcher was partially handicapped in his study by limited fund and wide geographical spread of the study area. This resulted in the study being limited to a single local government area (LGA) in each of the states studied, and limiting the states to four out of five, in the studied geo-political zone (South-Eastern Nigeria). The sampling however, was deemed representative enough for objective assessment of the topic and generalization nationwide.

CONCLUDING REMARKS

Researches of this nature are very helpful to both the educational communities and the society in general. It is therefore suggested that school and university authorities, as well as governments at all levels, take part in funding such research. Respondents for oral or questionnaire interviews should oblige without hesitation, and needed data from which ever sector should readily be made available to the researcher to ease his 'bottlenecks'. On a last note, governments, at both state and federal levels, are urged to study this document and take appropriate actions to ameliorate the ugly situation.

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APPENDIX A

QUESTIONNAIRE FOR SS STUDENTS ON THE CAUSES OF LOW ENROLLMENT OF STUDENTS IN SSCE PHYSICS IN NIGERIA

This questionnaire is for a research to find out the causes of low enrolment in physics among students. Kindly complete the questionnaire by ticking (✓) or filling in the gaps as appropriate.

PART A

1. Name (Optional)
2. (a) Age: years. Sex: Male / Female Class: SS 1 / SS 2 / SS 3
3. (a) School:
- (b) Does the school have boarding facility? Yes / No.
- (c) If 'Yes', are you a border? Yes / No.
4. (a) Do you hope to enter higher institution after your SSS? Yes / No.
- (b) If 'Yes', to do what course? (Tick one)
 - (i) Medicine / Engineering / Biomedics / Architecture.
 - (ii) Physics / Pure or Applied Science / Education.
 - (iii) Accountancy / Banking / Insurance / Business Administration.
 - (iv) Arts / Humanities / Journalism / Political Science.
 - (v) Any other course not listed:.....

PART B

5. (a) Which of the following science subjects does your school offer?
Agricultural Science / Biology / Chemistry / Physics. (Tick all that apply)
- (b) Which of them do you offer? (Please write them down in order of preference)
 - (i) (ii) (iii) (iv)
6. What are the most likely reasons for your number (i) and (ii) choices in 5(b) above?
 - (i) I find them easiest to understand.
 - (ii) I require them for my future career.
 - (iii) I score high marks in them.
 - (iv) My teachers encouraged me to do them.
 - (v) Any other reason: (Tick all that apply to you)
7. (a) Did your parents in any way influence your choice of subjects? Yes / No.
- (b) If 'Yes', in what ways? (Tick all that apply to you)
 - (i) They urged me to do them (for my future career).
 - (ii) They made me to develop interest in many of the subjects.
 - (iii) They directed me to some people who guided me.
 - (iv) They asked some people to choose subjects for me.
 - (v) Any other way:
- (c) What else influenced your choice of subjects? (Tick all that apply to you)
 - (i) Internet, videos, television and radio programmes.
 - (ii) My closest friends also do / did them.
 - (iii) Past students I know did well in them.
 - (iv) Nothing but to have enough subjects to register.
 - (v) Any other influence:

8. Indicate in the table below how you find the lessons in the listed science subjects. (Tick)

	Interesting and easily understood	Interesting but difficult to understand	Uninteresting but easily understood	Uninteresting and difficult to understand
Agric. Science				
Biology				

Chemistry				
Physics				

9. Indicate in the table below how often you have practicals or demonstrations in the subjects you offer . (Tick)

	At least once a week	Once in a long time	None at all
Agric. Science			
Biology			
Chemistry			
Physics			

10. (a) Do you offer physics? Yes / No

(b) If 'Yes' why? (Tick all that apply to you)

- (i) My parent's wish.
- (ii) It is needed for my future career.
- (iii) It is quite easy to learn.
- (iv) I just like the subject.
- (v) Any other reason:

11. What would you say about physics textbooks? (Tick in the table below as appropriate to you)

	All	Some	None
Physics textbooks are few in number.			
Physics textbooks are difficult to understand.			
Physics textbooks are expensive.			
Physics textbooks do not contain SSCE topics.			
Any other opinion:			

12. Suggest two reasons why some students do not offer physics in the secondary school. (Tick the ones you suggest)

- (i) Because of their career choices.
- (ii) Gender (sex)-related considerations.
- (iii) Lack of motivation or encouragement.
- (iv) Because of high failure rate in physics.
- (v) Any other reason:

THANK YOU; GOD BLESS YOU.

APPENDIX B

QUESTIONNAIRE FOR SCIENCE TEACHERS ON THE CAUSES OF LOW ENROLLMENT OF STUDENTS IN SSCE PHYSICS IN NIGERIA

This questionnaire is for a research to find out the causes of low enrolment in physics among secondary school students. Your cooperation is highly solicited in completing it. tick (√) or fill in the gaps as appropriate.

PART A

1. Name (Optional)
2. (a) School:
- (b) Location of school: Urban / Semi-urban / Rural.
- (c) Is it a co-educational institution? Yes / No.
3. (a) Qualification(s):
- (b) Course(s) studied:
- (c) Teaching experience: years.
4. (a) Teaching subject(s):
- (b) Class(es) taught: (Tick all that apply to you) SS 1 / SS 2 / SS 3.

PART B

5. (a) Which of the following science subjects does your school offer?
Agricultural Science / Biology / Chemistry / Physics. (Tick all that apply)
- (b) Kindly list them in order of students enrolment (estimate) starting with the highest.
(i) (ii) (iii) (iv)
6. Adduce possible reasons for the trend in 5(b) above? (Tick all that apply)
- (i) Rate of comprehension of the subjects by the students.
- (ii) Because of their subject combinations.
- (iii) Parental influence.
- (iv) Effect of proper/improper career guidance and counseling.
- (v) Any other possible reason:
7. What would you say is the state of your school laboratories? (Tick in the table below)

	Adequately equipped	Fairly equipped	Poorly equipped	Cannot assess	No lab. for the subject
Agric. Science					
Biology					
Chemistry					
Physics					

PART C

8. Assess the performance of your past students in SSCE with respect to the above listed science subjects. On the average, would you say that performance in physics is:
 - (i) better than performance in the other sciences? Yes / No;
 - (ii) the same as performance in the other sciences? Yes / No;
 - (iii) poorer than performance in the other sciences? Yes / No.

9. (a) When in a position to do so, and in your capacity as a science teacher, do you encourage your students to offer physics? Yes / No.
- (b) If 'Yes', how? (Tick all that apply to you)
 - (i) By enlightenment on subject combinations and future prospects.
 - (ii) Encouraging personal rapport between myself and the students.
 - (iii) Motivation with gifts / high marks / prizes / relevant video films / excursions.

- (iv) By giving extra (free) lessons on my subject / physics.
 - (v) Any other way:
10. How often do you organize practicals / demonstrations on your subject? (Tick one)
- (i) At least once per week.
 - (ii) Once in a long time.
 - (iii) Almost none at all.
11. What would you consider to be two greatest handicaps of physics teachers in your school? (Tick two)
- (i) Lack of proper qualification.
 - (ii) Poor remuneration / incentives.
 - (iii) Inadequate teaching materials.
 - (iv) Too much work load.
 - (v) Any other:
12. How do you assess the manpower situation in your school as regards to the science subjects? (Tick in the table below)

	More than enough	Just adequate	Inadequate	Grossly inadequate
Agric. Science				
Biology				
Chemistry				
Physics				

THANK YOU; GOD BLESS YOU.



Democratic Citizenship Education in Botswana: Challenges & Prospects

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Abstract

This article reports findings of a case study which investigated the responsiveness of Social Studies teacher training curriculum towards democratic citizenship education (DCE) with two colleges of education in Botswana. Individual and group interviews were used to collect data from Social Studies student-teachers. Findings show that the teaching of DCE at colleges of education has not been successful. Firstly, the curriculum does not have adequate content on DCE. Secondly, college lecturers believe in active methods of teaching but hung to a traditional approach in their classes. Thirdly, colleges have challenges that hamper the effective transmission of DCE. However, efforts made by colleges to train effective teachers are recognised. The study raises a central argument that teachers need support in their effort to transmit DCE by receiving effective training in the subject. In the light of the findings important recommendations are made to the policy makers, curriculum planners and Social Studies lecturers.

Keywords: Active methods of teaching, Democratic Citizenship Education, Curriculum development, Social Studies Education, Teacher training.

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INTRODUCTION

Teachers play a pivotal role for any nation to achieve quality education; hence they need to be properly trained in their subject fields. If teachers are not well prepared then their products are expected to be of low quality in turn. Specifically, if Social Studies teachers are poorly trained their learners will be poorly prepared in turn and this is likely to manifest itself in the way they exhibit citizenship knowledge, attitudes and skills in the society. It therefore becomes imperative for student-teachers in Botswana to gain high quality knowledge, skills and attitudes in Social Studies content and methods of instructional delivery during their training. Deeper training in DCE will enable them to demonstrate relevant and functional democratic skills and knowledge needed to achieve the value statements of Botswana as enshrined in the various education policy documents and the *Vision 2016* while in the field (Noddings, 2005).

The main purpose of this study was to examine the responsiveness of Social Studies teacher training curriculum towards DCE in Botswana. Fundamental to this study is the fact that Botswana is a democratic country that attempts to promote and cultivate democratic citizenry among its young people through school curriculum. To realize this task, subjects such as Social Studies are used to transmit citizenship ideals to young citizens. This study, investigated the quality of Social Studies teacher training curriculum towards DCE. The study probed the nature of DCE as encapsulated in the teacher training curriculum and further examined the level of comprehension of DCE ideals by student-teachers and whether they could articulate how they should be enacted. The study also explored challenges faced by colleges of education in their effort to transmit DCE.

It follows that the intended ideals of DCE can effectively be discharged by professionally equipped teachers who have been baptized into deeper democratic theories. Vonk (1993) describes the professional development of a teacher as one including a trilogy of personal, knowledge and environmental dimensions. The personal dimension involves self-concept by the teacher and ideas of good practice. The environmental sphere entails teacher interaction with his or her working situations while the knowledge dimension involves pedagogical content knowledge, classroom knowledge and managerial skills.

It is in view of the above position that this study explores whether colleges of education equip student-teachers with relevant strategies to enable them to teach DCE ideals effectively at primary school level in Botswana. Studies based on qualitative and quantitative research paradigms have indicated the prevalence of teacher-centred methods of teaching and learning in Botswana schools. The 1977 National Commission on Education, which produced the report, Education for *Kagisano*, expressed a concern over the tendency by teachers to overstress traditional methods of teaching and learning. The Commission's report claimed that the curriculum gives excessive emphasis to abstract learning and memorisation and neglect practical studies and acquisition and application of skills (Botswana Government, 1977). This study thus has the potential to positively contribute to Botswana as a nation in a number of ways: to inform policy formulation and curriculum development appropriately in the next curriculum review and to cause a shift in Social Studies teaching of citizenship concepts by replacing the current academically-oriented teaching themes, knowledge and values that fail to provide the most relevant knowledge, values and skills for life after school in Botswana.

LITERATURE REVIEW

Citizenship Education and its Imperatives on a Global Perspective

The concept, citizenship education arose in Greece during the Archaic Age (776-479 BC) and has been a persistent human social necessity. It later thrived in the following classical age during which time it was the subject of some distinguished thinking (Heater, 2004). As time went on, re-invention and modification on citizenship discernment was driven 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 idea of popular sovereignty which undertakes that the existence of power by any individual or group of individuals is genuine only if sanctioned by the populace. The economic explanation was due to the fact that in the early stages only the economically advantaged classes held the status in the society. The military explanation on the other hand assumed that citizens were those who bore arms in defense of their city. Citizenship therefore emerged when all these factors matched with the political abolition and monarchical power.

Based on the above argument that the emergence of citizenship was propelled by the need for participation and loyalty on the side of citizens, citizenship is applicable in today's society to re-enforce the essential principles of the nation. Simply put, citizenship can be used as an approach to emphasize fundamental ideals valued by a country. For instance, Botswana centers all its initiatives on the five values of democracy, unity, self-reliance, development and *botho* (a well-rounded person). To pursue these ideals, school curriculum could house elements on these principles and spread them to young citizens. Cecchim (2003) agrees that CE equips men and women to play an energetic part in public life and to shape in an accountable way their own destiny and that of the society. CE is undergirded by theories such as the liberal, republican and communitarian.

One of the initial explanations of systematic liberal theory, John Locke (1690), regarded individuals

as gifted with and animated by rationale, characterized as the ‘voice of God’ (Isin & Turner, 2002). The principles of the liberal theory embrace primacy of individual liberty, an expansive protection of freedom of inquiry, speech and worship and presumption in favor of privacy, markets and other forms of private ordering. The republican theory on the other hand gives importance to duty and responsibility. The republican model aims to develop citizens to own and exhibit goodness so as to fit with ease in their society socially and politically. In the African context, Adiyenka and Major (2006) postulate that, most educational systems in traditional Africa aimed at adapting children to their physical, social and spiritual environment.

Subsequent is the communitarian theory which sees citizenship as a matter of rights and stalwartly accentuates that being a citizen comprises belonging to a historically developed community. It therefore infers that citizens of a particular community identify to their nation and participate copiously in the affairs of the nation. Basse (1999) concurs that traditional education in Africa was more of a cultural action aimed at the construction of attitudes and habits considered necessary for participating in societal activities.

The above theories are deemed relevant for the purpose of CE in this study for the reason that they all emphasize freedom of citizens in their country. This study therefore believes that participative, responsible and duty obliged and free citizens in a democratic set-up can be fully realised through a purposely designed educational package and that the starting point is with effective teacher training. The assumption is that if teachers are well equipped with DCE ideals they can extend it better to their learners.

Citizenship Education in Botswana

At independence in September 1966, Botswana had a fragile democracy with an education system that was inherited from the British who had colonised Botswana from 1885 to 1966. The inherited education system had several features not applicable to Botswana. As such after independence immediate efforts were undertaken through various education policies for the building of a strong nation envisaged by the then government. These policies include: *Education for Kagisano* (social harmony), the *Revised National Policy on Education and Vision 2016*. These are policies that have influenced CE in the context of teacher training as they are intimately linked to the values of the nation and in this case, the teaching of Social Studies for DCE.

CE has gone through three major stages in Botswana. These are, CE during traditional period, CE during the colonial era and CE after independence. The third phase which came to fore after independence is more important to mention here. This phase is known as Social Studies as CE. With the coming of independence, the Government of Botswana developed a new set of obligations and loyalties. Simply put, citizenship training that emphasised cultures of other nations was considered irrelevant. The result was the development of a new CE taught through subjects such as Social Studies. The Department of Curriculum Development and Evaluation (1990) indicates that the new formal education in citizenship focused on Botswana and included experiences of traditional Tswana family, ethnic groups, and the nation at large.

The new view to CE inevitably influenced teacher training curriculum so as to align it to new demands. As a matter of fact teacher training on Social Studies was introduced at colleges of education and the University of Botswana. Tonota College of Education (1993) states that Social Studies is a program of learning which uses the knowledge of individual and societal development for the function of offering students with the background necessary for solving socially significant problems in a challenging and ever demanding society. This means Social Studies basis its content on knowledge and understanding of man’s interaction with his social and physical environment. In this endeavor, Social Studies passes on two dimensions of, how man influences and is influenced by his or her physical and social environment. Thus the key objective of the subject is to prepare thoughtful and active citizens who can function profitably in global communities.

While efforts have been made to integrate CE ideals into teacher training through subjects such as Social Studies, it is not yet clear whether the country’s goal of producing active citizenry is been realized. Thus, the need for teacher preparation to fully equip teachers with the methods, techniques and strategies that will enable them to fully achieve this subject mandate needs no overemphasis. I hence contend that for effective transmission of CE, there is need for colleges of education to use more appropriate ways to the transmission of CE. It was for this reason this study investigated the responsiveness of teacher training curriculum towards DCE in Botswana.

METHODOLOGICAL ORIENTATION

This study targeted three primary teacher training colleges, which are the only colleges that Botswana has. These are Tlokweng College of Education, Francistown College of Education and Serowe College of Education. Final year Social Studies in-service student-teachers and pre-service student-teachers studying at these colleges were the target population. These colleges had a total of 150 third year Social Studies students at the time of investigation – Serowe College of Education had 89 students, Francistown College of Education had 48 students and Tlokweng College of Education had 13 students. The pre-service student-teachers held a General Certificate in Secondary Education whereas the in-service student-teachers held a Primary Teachers Certificate (PTC).

This study used probability sampling approach to select two of the existing three colleges. Serowe and Francistown Colleges were sampled. Probability sampling was preferred because it allowed each unit in the sample identified to have an equal chance of being selected. Then we employed convenience sampling to select student-teachers. Twelve (12) volunteering pre-service students from Serowe College were selected for individual interviews, and 12 in-service students from Francistown College of Education for group interview. Relevant ethical protocol was observed throughout – permission to conduct the study was sought from the Permanent Secretary as standard procedure and from the colleges, consent was sought from the participants after they were assured confidentiality, anonymity and liberty to pull out from the study at any point.

Unstructured open-ended questions were used for group interviews with in-service students, and semi-structured questions for individual interviews with pre-service students. The choice for unstructured interviews was informed by the fact that interactive discussions we envisaged with the participants. On the other hand, semi-structured interviews were considered because they would allow probing beyond the answers given by participants to prepared questions (Opdenakker, 2006).

Data was gathered at the beginning of 2012 after appointments were made with the participants. The participants were interviewed during their free time on college campuses in order not to disrupt their time and class attendance. In the process of data gathering, transcription was being made whilst we still remembered, in addition to the recorded data, what participants said. This approach to data gathering also helped with member checking and a possibility to gather more data if there was that need from member checking. Member checking and the piloting of the interview schedules ensured the trustworthiness of the data. Data analysis followed stages of transcription, intensive reading to familiarise with data before coding for patterns and themes, category formation and triangulating between colleges and types of interviews.

FINDINGS

I present the findings per case first, followed by inclusive discussion of the findings.

Case study 1: Findings from individual interviews

It emerged from findings that respondents viewed DCE in diverse ways. As a result, the concepts citizenship and DCE seemed problematic as respondents viewed them differently.

When asked what the concept citizenship means, one student said, *“It means being a responsible person, loyal and willing to participate in the development of the country”*. Another student-teacher opined that citizenship refers to *“skills, knowledge and attitudes a citizen possess”*. With probing we were interested to know what skills, knowledge and attitudes a citizen is expected to have from this response, but the student did not expound.

Responses also differed to the question as to what it meant to be citizens of Botswana. One respondent said: *“Proud citizen looking at the fact that Botswana is a democratic and peaceful country”*, while another respondent mentioned: *“It means I should be responsible for my country, to do some activities like tree planting and be involved in those activities that affect my country such as attending meetings called by authorities and taking part in all elections”*. An interesting definition of DCE was noted from a respondent who defined it as the art of inculcating values, attitudes and beliefs of a particular society to

students or young people. Another respondent said, *“It is an education that helps to instil knowledge that is necessary to help the country develop citizens with good attitudes and skill”*.

On the question of adequacy of curriculum towards DCE students gave different observations. One respondent stated, *“No. I would have loved each concept of DCE taught separately, e.g. civic education, governance, human rights, civil rights and responsibilities because the integrated approach does not give enough treatment of the ideals of CE”*. Another indicated, *“Social Studies curriculum does not have enough content that appeals to DCE, the introduction of CE at year 1 of training is fine but there after CE aspects are infused into other topics and do not come out clearly. Because of this arrangement students fail to get the wider parameters of CE”*. When asked what was missing from the Social Studies curriculum relative to DCE, this respondent opined: *“Practical activity is missing because citizenship is about knowing and execution of knowledge. Deeper education on democracy and voting processes are also missing”*. One respondent was relatively satisfied that the Social Studies syllabus covered what was expected, except that he questioned the manner in which it was being taught, *“The Social Studies syllabus in my view alone has enough content. The only weakness is the way it is taught. That is, the methods, approaches and strategies used to teach DCE topics do not appeal to CE”*. According to the respondent lecturers overemphasized active and interactive methods for Social Studies and CE but fail to teach according to those methods.

When asked to indicate the teaching methods and strategies commonly used in their classes that are suitable for the development of good citizenship, one respondent said, *“Inquiry, because it reinforces the values of democratic citizenship and hence can be used to inquire on the challenges faced by the country at large”*. Majority of respondents indicated that peer teaching seemed suitable. They indicated that lecturers usually gave them topics in groups to research and present and that was in line with the demands of CE because trainees were exposed to enquiry on various issues. The discovery method was also mentioned by participants.

Case study 2: Findings From Group Interviews

In-service student-teachers had varying perspectives on what citizenship and being a citizen of Botswana meant. One student said, *“It refers to the rights of a person and their livelihood”*. Another student opined that citizenship meant ownership of one’s country and how that ownership is maintained through contributing to the affairs of society. To him citizenship meant that a citizen is someone who feels owning his or her country and who should exhibit that in all his or her interactions. One student emphasised the benefits she expected to get from her country. She claimed that citizenship was about rights and benefiting from one’s country’s development. She further argued that citizenship was not only about someone being expected to perform certain responsibilities but also about benefits.

A good number of students equated citizenship to Botswana to participating in activities and events such as tree planting, attending meetings called by authorities. Though this response is true, it sounded shallow to us because it represented a rather simplistic view of responsibilities that have to do with citizenship. Tantamount to this shallow view was another response by majority of students who stated that being a citizen of Botswana means belonging to Botswana. Nevertheless, other students viewed belonging to Botswana implying the characteristics of patriotism, loyalty, responsibility, abiding by law and participation.

Regarding the adequacy of Social Studies curriculum towards DCE two students seemed to be satisfied with the pedagogical knowledge that they had acquired, *“It is adequate because we learn different skills that we can use to produce active learners when in field”* and *“It is adequate because now we are able to use different teaching techniques better than before and this will help us to produce fully functional learners”*. Students also felt that they had gained research and inquiry skills in the subject. They thus indicated that the skills on research and inquiry acquired would help them to pass DCE concepts more confidently to their students.

Overall, students at this college designated that the curriculum was adequate to facilitate qualities of good citizenship in students. However, their good feeling about the curriculum was confined to teaching methods and research as opposed to content. As a result, their responses already tapped into the next question about teaching methods.

Specifically on teaching methods and strategies, one student said *“I prefer peer-teaching because it encourage cooperation among student-teachers. The approach gives students a chance to share ideas in*

knowledge generation and these are ideals of DCE". Thus, it appeared from the discussions that lecturers encouraged the virtue of cooperation, participation in class activity and group work.

Students were asked to indicate the best way of preparing student-teachers for good citizenship. One student's response went as follows, "*As Social Studies student-teachers we need active engagement in national activities to familiarise ourselves with what is on the ground. For instance, students should be given as part of their training a chance to interrogate and cross-examine government programmes.*" Another student mentioned that there was need to do it in a practical way to enable learners to exercise what they learned and in the process develop competencies and be effective in whatever they did.

On challenges of transmitting DCE, the findings of this study showed that the transmission of DCE at College 2 was faced with numerous challenges. These included among others, time constraints, inadequate educational resources and dictatorial college governance. One student said:

Lecturers of Social Studies at this college lack democracy. The only thing they are good at is talking about democracy. When you listen to them talking about democracy you will like it. They also lack openness and this hinders effective learning of DCE since as we learn we wonder whether democracy is about students only.

This emotional statement was followed by another thus: "*Lecturers here do not consult students, rather they just instruct them even on issues that directly affect academic or welfare of students. For this reason student here often wonders what democracy in Botswana refers to*".

The lack of active methods of teaching also took time on the discussion table. Student-teachers argued that lecturers believe so much on interactive methods of teaching but fail to use the methods themselves in their teaching. One participant said:

Lecturers encourage the use of interactive methods yet lecturers do not use them nor do they demonstrate on those methods, in short we are taught theory with nor practice and I believe this norm in this college limits students-teachers' exposure to diverse methods of teaching.

Another student supported this view by expounding that there is no outdoor teaching where students could visit organisations or places of interest to augment classroom intersection and that this practice separates theory from practice. The student argued that colleges need to create opportunities for themselves to explore avenues of making learning of CE more practical.

DISCUSSION

Citizenship Education as Encapsulated in Social Studies Curriculum

Findings reveal that college Social Studies curriculum is wanting in terms of DCE. Participants indicated that college curriculum is inadequate towards DCE due to several deficiencies and non-specificities in the curriculum. It emerged that the teaching of rights, responsibilities and values such as tolerance are not detailed. This scenario creates a vacuum in the curriculum and is against the republican theory which gives emphasis to duty and responsibility. As a matter of fact, if these are missing in the curriculum the goals of educating for effective citizenry will not be met.

Howbeit, some students, especially those at Francistown College of Education indicated that syllabus pronunciation is rich as CE is a major theme of Social Studies. Their views emphasised pedagogical content knowledge as being the one that was satisfactory. The subject content knowledge was not engaged in their responses. This makes one to wonder if what is outlined in the syllabus really manifests itself in the schooling system and beyond. It is also not clear whether colleges have been successful in the production of effective and patriotic teaching force. For instance, college curriculum seems to fail to some degree to emphasise the elements of nation building which are crucial to Botswana's condition. Botswana is a multicultural society with over 26 ethnic groups and nationals from other countries that have been naturalised. In such a cultural setup there is a need for educational programmes on DCE to include all groupings.

The Concept of Democratic Citizenship Education

Findings reveal that students view CE differently. These diverse views are even displayed by students from the same institution. Similarly, findings confirm literature that the concepts citizenship and CE do not have definite definitions. Findings show that conceptualisation of concepts is influenced by social, political and economic environments and to some extent by educational standards. According to findings some of the common definitions of citizenship included *'belonging to a group or country'* and *'a responsible and active participant in national activities'*. CE on the other hand is viewed in terms of being taught about the responsibility of a citizen and how a citizen should behave.

The results further show that citizenship is viewed in terms of belonging to a group or a country. This way of seeing citizenship makes the citizens of Botswana to deem their membership to Botswana in terms of belonging to Botswana and it ends there. Simply put, such conceptualisation is restrictive in terms of one's outlook and inevitably influences their contribution towards communal and national agendas. It was worrying to notice the overemphasis on just belonging to Botswana in the responses. It shows that people basically perceive citizenship in terms of identification to their country. We thus argue that citizenship without participation is incomplete and such conception of citizenship is narrow and minimal. Findings thus confirm the republican theory which derives from theories of Aristotle (384-322 BC) that gives emphasis to duty and responsibility in citizenship.

Some students, however, showed deeper understanding of the concept citizenship. Responses such as this attest to this claim, *"To be a citizen of Botswana carries with it not only the entitlement but the contributions towards the socio-economic and political development of the entire citizenry. It should recognise autonomous legal status of all individuals regardless of gender or socio-economic background. In Addition, a citizen is said to be someone who is ready to sacrifice for the welfare of his or her country"*.

Some of the citizen attributes raised by students include patriotism, loyalty, responsibility and abiding by the law. Participation is highlighted as a key element which involves dedication to one's country without differences instigated by geography and cultural traditions. Participation is deemed crucial in citizenship as it contains thirst to serve one's country. It therefore means that being a citizen of Botswana carries full and active participation in different spheres ranging from political, social and economic. Additionally, citizens should be loyal, accountable and uphold the laws of their country.

Pedagogical Issues and Social Studies Classrooms

The state of teacher training curriculum for CE at college level is not a totally desired one. Student-teachers were uneasy about the use of traditional methods by their lecturers. The failure by lecturers to be exemplary with the use of active methods of teaching has far reaching consequences, as that will most probably be reflected in their products' practice.

Findings of this study show that DCE marries well with active methods promoted by constructivism. These findings and the literature point to the fact that child-centered methods which put students at the center of the learning process are compatible with DCE. Findings thus clearly show that without such methods the teaching of DCE becomes an illusion as they turn to lack evidence and prove. CE Foundations (2012) maintains that in whatever form CE curriculum must have an active element that emphasizes learning by doing, must be interactive by utilizing discussion and debate and be relevant by focusing on real-life issues facing the society. It thus follow the need for colleges to create space for themselves in which to offer DCE in a less expensive but active way. DCE deserves outdoor and active teaching approaches which colleges could fully adopt. Botswana has a lot of natural and man-made features which could be taken advantage of, like social and cultural groupings, government departments, parastatals and non-governmental organizations, which could be visited to provide the needed data in a practical form.

Barriers to Effective Transmission of DCE

A number of challenges hampering the smooth transmission of DCE emerged from findings. Students indicated their passion for the democratisation of Social Studies classrooms and the entire college life. They

however lamented that their desires were not realised because of certain blockages. These ranged from college leadership that was deemed undemocratic to time constraints to inadequate educational resources.

It emerged from findings that student voices were left out of the decision-making process. This set up is an antithesis to the tenets of the liberal theory which points out that the purpose of citizenship is to emphasize on freedom of individual citizens to enable them to fully take part in the affairs of their nation. Colleges have Student Representative Councils who are elected annually to address various issues affecting students in the college. The results show that while this is a good initiative, evidence on the field seemed to tell the opposite. Among others, power sharing, consultation and decision-making were a challenge. This practice is against the idea of CE. We conclude that there is a need to challenge the status-quo where college principals and Social Studies Heads of Departments and lecturers act as supreme autocratic-beings with unlimited authority to make decisions without the voices of the students. Colleges are thus reminded that it is by participating with democratic educators and students, parents and community that the true meaning of democratic education can be forged (Jotia, 2010). They marginalise the voices of the students and generate an uneven atmosphere for the growth of democracy in these institutions.

CONCLUSION

I end this study by arguing that colleges of education are not doing enough in producing well equipped teachers on DCE. This argument is based on findings which showed that college Social Studies curriculum does not have adequate content on DCE. Participants unanimously indicated that Social Studies curriculum for college has a lot of deficits in terms of subject matter capable of producing the teacher of Social Studies the Botswana government needs to further the citizenship agenda. The other platform of argument is that teaching methods used in college classrooms are an antithesis to DCE. Lecturers favor active methods suitable for DCE but lamentably fail to use them in their lessons. As a matter of fact, student-teachers do not have a feel of active methods suitable for CE. We also argue that if college leadership and Social Studies departments do not change their management styles with a view to accommodate the voices of the students in college life, transmission of DCE will be an illusion.

The study reveals that there is work to be done in Botswana in ascertaining that colleges and schools are spheres for democratic possibilities that produce informed learners who can be of service to their families, community and the nation at large. To realize this, colleges need to accord a voice to students and give their opinions suitable weight in an endeavor to develop them as democratic citizens. I thus challenge colleges to take a paradigmatic shift in understanding the need of listening to students. There is also need for policy makers in the form of training officers to update curriculum developers and colleges, in particular lecturers of Social Studies, about what type of Social Studies teacher they should produce. There is a need to establish standing subject panels for college curriculum with inclusive representation of expertise from various related fields. Colleges should review their study materials to align them to the ideals of DCE.

Limitations of study

First, as is often a case with qualitative research, some participants were reluctant to take part because of thinking that the study covered a political component. The wording “DCE’ made them think the study was politically oriented. This made them sceptical to participate in the study. We had to follow them up and re-explain the onus of the study with an effort to convince them to participate.

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Investigating the Practice of Alternative Assessment in English Classrooms: The Case of Selected Grade Nine English Teachers Assessment Practices

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Abstract

The study investigated the implementation of alternative assessment in the teaching of English in some selected secondary schools in Hawassa Zuria, SNNPR. Qualitative research design was followed. The study explored whether the participant English teachers understood the principles of alternative assessment and incorporated it in their English classrooms. It also intended to identify the dominant assessment types the teachers use on regular basis. To address the objectives, document analysis and key informant interviews were used. Data from the participant teachers' assessment package and key informant interview were analyzed qualitatively. Participants of the study were grade nine English teachers of three secondary schools in Hawassa Zuria. They were selected based on availability sampling. Both the document analysis and key informant interview data were analyzed thematically, discussed thoroughly and then interpreted. The outcome of the study informed that English language teachers do not give equal value to processes and products of their classroom teaching during assessment. Moreover, the study showed that participant English teachers did not give room for alternative assessment which gives a broad spectrum of assessment possibilities to address the different learning styles of their students.

Keywords: alternative assessment, implementation, traditional assessment, assessment type, principle.

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INTRODUCTION

The study focused on alternative assessment in the teaching of English as a Foreign Language in selected secondary schools in Hawassa Zuria district, SNNPR. The objectives explore whether the participant English teachers understood the principles of alternative assessment and incorporated it in their English classrooms. It also intended to identify the dominant assessment types the teachers use on regular basis.

A great deal of development has been in the field of foreign language instruction and assessment over the last several decades. This has been the direct result of the global spread of English over the last 50 years. Hasman (2000, p. 2) points out that world-wide over 1.4 billion people live in a country where English has official status, and out of five of the world's population speaks English with some level of proficiency. It is not surprising therefore, that new approaches to language instruction have been adapted. Whereas the focus on language instruction was previously on the elements of language, grammar, vocabulary and pronunciation, the focus needed to shift to the teaching of communicative skills that could be used in authentic language setting. (Bachman, 1999, p. 27).

Traditional forms of language testing were unsuitable for measuring the performance of communicative skills. The usual tests such as multiple-choice, true or false, or fill-in the blank, assess the students' ability to recognize the correct answer rather than produce it (Popham 2003, pp. 81-82). It seems clear that as instruction methods changed in order to incorporate new principles, assessment strategies needed to be adjusted accordingly.

Cohen (1990, p. 47) views traditional assessment strategies as being inadequate as a measurement for the depth and scope of education that a student receives. He offers several complaints to explain his dissatisfaction with traditional assessment namely:

- Traditional assessment focuses upon products of learning, but rarely upon process of learning.
- Traditional strategies assess limited aspects of academic learning.
- Traditional assessment strategies provide some information about certain types of learning progress in some subject areas, but largely neglect crucial areas such as, divergent and creative thinking, as well as critical thinking and problem solving.
- Traditional assessment strategies can cause irreparable lifetime damage to individual students, especially to their self-images by providing negative feedback.
- Many (if not most) important educational outcomes cannot be measured, weighed, or counted, and in fact, assessment represents probably at best ten percent of the total impact of learning on students.

Torrance (1995, p. 1) faults traditional assessment with failing to stimulate students and stimulate their creativity. He champions a more practical, realistic and challenging approach to assessment than in the past. Alternative assessment, on the other hand, refers to strategies that are utilized to ask students to exhibit what they can do. According to Hamayan (1995, p. 213), "Alternative assessment refers to procedures and techniques which can be used within the context of instruction and can be easily incorporated into the daily activities of school or classroom". From this we can deduce that it is possible to include alternative assessment into daily lessons. Alternative assessment focuses not only on the outcome but also on the process of teaching learning. Similarly, Huerta- Macias, (1995, p. 9) stipulated the fact that alternative assessment is "the situation in which students are evaluated on what they integrate and produce rather than on what they will reproduce or recall".

Regular assessment occurs daily in a classroom, where teachers listen to and observe their students continuously. They are able to sense with relative accuracy, which students seem to understand and which students appear confused. Assessment is a valuable tool for students and in teachers for many reasons. Firstly, teachers need to assess their students in order to monitor their progress. Teachers want to know that their students are paying attention and that they are on task. In addition to this, it is important for teachers to ascertain that their students have mastered material that has previously been taught before they advance to more comprehensive and complex subjects. Secondly, assessment is an effective diagnostic instrument for

identifying individual students who need help, but are either too uncomfortable or embarrassed to seek assistance. This implies that not only the lack of the mastery of objectives is identified, but difficulties in the process of mastery are also identified in the process. Thirdly, in addition to determining whether the learner passes or fails, assessment also has influence on possible admission to university study or certification.

Statement of the problem

The researchers observe from their long years of teaching that teachers usually implement the traditional assessment techniques. Even in the university that the researchers are currently teaching, though the modular curriculum encourages alternative assessment techniques (the continuous assessment), instructors prefer the traditional assessment because of its simplicity. So, a need exist to investigate English teachers understanding and implementation of alternative assessment in English classrooms. The key research problem can therefore be formulated as follows:

How do EFL teachers incorporate alternative assessment techniques into their assessment practices? The following questions facilitate the demarcation of the problem.

- Which assessment activities and methods do English teachers employ?
- Do teachers understand the principles of alternative assessment?
- What is/are the teachers' attitude towards alternative assessment?

Significance of the study

The study is significant to participant teachers and students. Teachers will get insight on how to assess their students' performance and on how to relate assessments and classroom teaching. Students, in like manner, will get awareness on the importance of alternative assessment and will consider it as an important part of learning. Furthermore, teachers and students in other schools can benefit from the result of the study. They may apply the practice of alternative assessment in their English classrooms.

School administrations and different segments of the MoE will also benefit from the result of the study and prepare a platform for schools to incorporate alternative assessment in their curriculum.

Following are some reasons for incorporating alternative assessment in the foreign language classroom:

- To capture complex outcomes. Alternative assessment goes beyond the assessment of knowledge and facts to the more complex goals of assessing and developing life-long skills of creative thinking, problem solving, summarizing, synthesizing, and reflecting. With authentic assessment, products and processes are equally valued.
- To address realistic tasks. With authentic and performance-based assessments, students are involved in tasks, performances, demonstrations, and interviews reflecting everyday situations within realistic and meaningful contexts.
- To include good instructional tools. Assessment and instruction interact on a continuous basis. Assessment can be used to adapt instruction and to provide feedback for monitoring students' learning. Alternative assessment focuses on the students' strengths, therefore enabling the teacher to get a more accurate view of students' achievement, of what they can do, and of what they are trying to do.
- To communicate what we value. Assessment and instruction need to be aligned. If we value oral proficiency but only assess through written tests, students infer that only the written language matters.
- To meet the students' different learning styles. Alternative assessment offers a broad spectrum of assessment possibilities to address the different learning styles. Some students might choose to demonstrate understanding by writing about something while others might prefer to perform, to display visually, or to create a timeline.
- To collaborate and interact with students. (ERIC Digest, 1999)

Objectives of the study

The study explored teachers' understanding of alternative assessment and found out how they incorporated it in their English classrooms. Specifically, the objectives of the study are to:

- find out how well EFL teachers in selected secondary schools understand the principles of alternative assessment;
- identify the types of assessment currently being implemented;
- investigate the reason/s teachers claim for using or not using alternative assessment.

MATERIALS AND METHODS

Description of the Study Area

This research was conducted in secondary schools in Hawassa Zuria. These include Leku, and Wondo Basha secondary schools. These schools are situated in Hawassa Zuria, SNNPR. Since they are not in a big city, the situations in these schools were not well researched. So, this study investigated the schools' English language teachers' assessment practices.

Study Subjects

The population of this study included all grade nine English language teachers teaching in the selected schools.

Study design (Study type, Sample size & Sampling procedure)

This study was an investigation of the extent to which English language teachers implement alternative assessment method in their classrooms. For this reason, qualitative research design was employed. All grade nine English teachers of the sample schools were used as participants using availability sampling. But only six out of eight English teachers were participated. The remaining two teachers were not in their schools due to personal reasons during data collection.

Study Methodology

The researcher chosen a qualitative research design that comprised of document analysis and key informant interview. Since the aim of the study was to investigate how English language teachers understand and implement alternative assessment, it seemed appropriate to adapt a research design that would investigate the participants' own perspective on the subject (Popay, Rogers & Williams, 1998, p. 346). Document analysis is also valuable in an empirical study of this kind because it provides an understanding in context. The evidence in a document analysis presents a clear and tangible record of the subject being investigated (Grady, 1998, p. 24). The document analysis in this study was collected, analyzed and evaluated the assessment packages of grade nine English language teachers. This type of investigation can provide significant data that can be beneficial in order to identify the assessment that is used by the teachers.

Data Management and Analysis

Data analysis involves more than providing an explanation of the data that is collected. Qualitative data needs to be organized, so that related information can be selected and separated from information that is not directly connected to the study (Wiersma, 1995, p. 216). In order to produce the most effective results the researcher

should have the necessary skills in order to be able to condense, reorganize and collate related information from the data collected in the study.

The field notes of each interview session was hand- written and transcribed immediately after each interview. Measures were taken to ensure that all the data collected during the interview was reviewed and transcribed. The transcripts of the discussion went through careful analysis and interpretation.

In addition, all key informant interviews were audio-taped (with the consent of the participants). The tapes were listened to several times in order to transcribe them accurately. The transcripts were reread several times so that important information was not be excluded.

Data was organized into smaller units based on ideas, themes, categories and subcategories in order to shade light on the findings of the study.

DATA ANALYSIS AND INTERPRETATIONS

In this section, data generated from analysis of the assessment package of grade nine English language teachers and key informant interview are presented.

The procedures for conducting key informant interview and text analysis are presented as follows:

Procedures for Conducting Key Informant Interview

The key informant interview for school 1 took place on 23rd April 2015 , the interview for school 2 took place after one week on 30th April 2015, and the interview for school 3 took place on 5th May 2015. Six grade nine English teachers were interviewed (two teachers from each school) altogether. The interview were audio recorded with the consent of the interviewee.

Procedures for Conducting Document Analysis

Document analysis was carried out of the assessment packages of six English teachers teaching in those three schools. To do the analysis, the researchers prepared two sets of checklists. One set of the checklist contain the criteria to determine whether alternative measures were incorporated in the teachers assessment packages and the other set determines the percentage distribution of the teachers' semester assessment packages against different tasks.

The ultimate goal of the document analysis was to show whether teachers incorporate alternative assessment into their classroom teaching and to find out the assessment method frequently used in the participant teachers' classroom.

Document Analysis and Discussions

The teachers understudy conducted four to five assessments but the researchers focused on four assessments uniformly. The following analysis will give us the composition of each of the assessment packages of the participant teachers.

Table 1: Analysis of Teacher's Assessment Packages

S/N	Items	T1	T2	T3	T4	T5	T6
1	Traditional questions such as multiple choice, matching, true and false, fill in the gap, essays & paragraphs	++++	+++++	+++++	+++++	+++++	+++++
2	Memorization or rote learning of isolated bits of information are required & encouraged	++++	++++	+++++	++++	+++++	+++++
3	Students are assessed on oral activity	++	+	+	+	+	+
4	Students are actively engaged in assessment	+	+	+	+	+	+
5	Opportunities for self assessment are provided	+	+	+	+	+	+
6	Opportunities for peer assessment are provided	+	+	+	+	+	+
7	Assessment encourages varied medium for assessment such as journals, projects, diaries, student logs, etc	+	+	+	+	+	+
8	Formative assessment encourages the improvement of work in progress.	+	+	+	+	+	+
9	Assessment exercises are based on the goals of instruction & class material.	++	++	++	++	++	++

Key: Evidence of the criterion in one semester (five lessons weekly over 4 months- approx. 80 lessons).

+ Minimal or no evidence in assessment package

++ Evident in 30% of the lessons

+++ Evident in 50% of the lessons

++++ Evident in 75% of the lessons

+++++ Evident in every lesson.

As can be observed from Table 1, traditional questions such as multiple choice, matching, true and false, fill in the gap were more evident in the participant teachers' assessment packages. Except T1 and T5 in which the assessment criterion used 75% of traditional questions, the remaining three teachers' assessment package depended on traditional tests for 100%.

Similarly, majority of the participant teachers used fragmented bits of information(not contextualized information) as contents of their assessment packages. These were grammar and vocabulary questions in which students were expected to respond by remembering the grammar rules and the vocabulary items they learned. Therefore, Table 1 clearly depicted that memorization or rote learning of isolated bits of information were required & encouraged in the assessment packages of the respondent teachers.

The third item in Table 1 was whether or not students were assessed in oral activities. Only 30% of the assessment package of T1's included assessment of oral activities. Assessment of oral activities was not evident in the remaining five teachers assessment packages. This shows that assessment of the students oral activity was not given a room in the majority of the participant English teachers' assessment package.

Item number four of Table 1 was whether the students participated in the assessment process. The data clearly showed that all the students in the participant teachers' classroom did not participate in the assessment process. Similarly, the data made it clear that participant teachers did not create opportunities for their students to participate either in self-assessment or in peer assessment activities

The data in Table 1 also depicted that the teachers' assessment did not encourage varied medium for assessment such as journals, projects, diaries, student logs, etc. Only the traditional assessment formats were

evident . Because of this, it is not possible to say "Formative assessment encourages the improvement of work in progress".

The last item (i.e. item number 9) of Table 1 was about whether assessment exercises were based on the goals of instruction & class materials. Therefore, it was evident from the data that about 30% of the continuous assessment tried to assess the objectives of the instruction and class material. As it was mentioned earlier, majority of the teachers' teaching and assessment was grammar and vocabulary based though the textbook included all the macro and micro language skills. So, it was assumed by the researchers that the grammar and the vocabulary (and some reading comprehension) assessment questions constitute 30 % of the instruction and class materials.

Table 2: Analysis of The Semester Grade Assessment Package

Semester Grade (100%)	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6
Reading Comprehension	10%	15%	15%	15%	10%	10%
Writing	10%	10%	5%	5%	5%	10%
Other project works (assignments)	10%	10%	10%	10%	10%	10%
Oral Presentation	-	-	-	5%	5%	5%
Listening	-	-	-	-	-	-
Class works & Home works	10%	10%	10%	10%	10%	10%
Grammar	60%	55%	50%	50%	60%	55%
Others	-	-	*5%	*5%	-	-

Table 2 provides the analysis of the participant teachers one semester assessment package. The data was collected at the beginning of the second semester of 2014/2015 academic year. So, it indicates the first semester result of the 2014/2015 academic year. Accordingly, the teachers told to the researchers that formative assessment accounts for 70% of the semester total where as summative assessment accounts for 30% (i.e. this is the norm in all the three schools).

As can be seen clearly from the table, the maximum weight that reading skills (reading comprehension) hold in the participant teachers' semester assessment package was 15% (i.e. three teachers) and the minimum weight hold by reading skills was 10% (which was given by three teachers). What was fascinating about this issue was that all the percentages given for the reading skills were allotted during the final semester (summative) examination. Reading skills was not found in the participant teachers; continuous assessment package.

When we look at the semester weight given for writing skills assessment, we can found out that the maximum weight given to this skills was 10%, and the minimum weight accounted for 5%. Writing skill was not assed during the semester final (summative exam). It was assessed only during formative (continuous) assessment.

All participant teachers allotted 10% for assignments. The assignments were grammar and vocabulary assignments which the students were made to work in their learning groups (i.e. in groups of five). Only three teachers were found having the record of the students' oral presentation and the presentation was marked out of 5%. Listening was the most neglected skill. None of the six participant teachers included it in their assessment package.

Marks given for class and home works uniformly accounted for 10% in the teachers' assessment package. When we look at the attention given to assessing the students grammar ability, we can see an overwhelming percentage. It hold 50% or more of the overall semester point.

From this we can conclude that for the participant teachers, assessment is testing the students grammar knowledge. This can also inform us about their language teaching philosophy which probably say, 'teaching a foreign language is mainly teaching its structure'.

Analysis and Discussion of Key Informant Interview

The key informant interview provided an insight into the participant English language teachers' beliefs about assessment. The report of this information has been presented as follows:

How Decisions on the Specific Types of Assessment Activities to be Used in a Classroom are Made

Participant teachers' response on this issue was almost similar. Among the six informants, four said they made decisions based on its suitability for correction. One informant said, "I am teaching around eighty students in a class. So, I prefer multiple choice, matching items, and true or false questions as they are easy for preparation and correction". These teachers mentioned large class size as a factor for choosing objective type questions as their assessment tool. The remaining two informant teachers, on the other hand, said in addition to objective type of tests, they sometimes give marks for the students participation. One of these two teachers, for instance, mentioned, "I usually take record of students who actively participate during class and give them marks for their participation".

In addition to class size, participant teachers mentioned their decision of assessment type is influenced by the type of language skills they are going to assess. One key informant said, "I prefer multiple choice and matching items when assessing grammar and reading comprehension. But I cannot use these if I want to test the students' writing skills". Similarly, another key informant teacher mentioned that she usually prefer giving writing as an assignments to her students. The other issue they raised as a factor that influence their decision on their choice of assessment type is time. All participants mentioned that they prefer objective item tests because they are not time consuming.

Therefore, it is possible to conclude that teachers decide their assessment types based on its convenience for management. They prefer objective types of tests since they are easy to administer, easy to correct, and not time consuming. The objective type of tests reveal many traces of traditional assessment. So, from the responses of the key informants, it is possible to conclude that informant English teachers preferred to follow the traditional ways of assessment.

The Extent to which Participant English Language Teachers Still Use Traditional Assessment Methods and Test Items.

All the six key informants stipulated that they use traditional test items, like multiple choice, matching items, true-false questions, etc. more often. One informant said, "I usually use the traditional paper and pencil tests. But sometimes, I use writing assignments as an assessment tool". Reasons they give for their reliance on the traditional assessment is that it is best for average and particularly weaker students, and it is the format that the students are familiar with. Furthermore, teachers mentioned that since the national examination uses the same format as the traditional tests, students prefer it over other types of tests.

Dependence on traditional tests was confirmed in the assessment packages of the participant English teachers. This was evident in the tests, home works, and assignments as these were given in the form of multiple choice, matching, true or false, and fill in the gap.

To conclude, participant teachers mainly relied on traditional test types. This is unfortunate since traditional tests have many disadvantages for both teachers and students. It does not help the learners cognitive development. Furthermore it fails to address the preference of all students as traditional assessment misunderstood the connection between learning and assessment.

The Extent to which Assessment Practices Make Provision for the Assessment of all the Language Skills

Majority of the informants (i.e four) said that they mainly assess grammar skills as students are interested to learn grammar and to test their grammar ability. Two respondents on the other hand, said though they mainly test grammar, they also test their students reading comprehension and vocabulary skills during the mid semester and semester final examinations. Informant teachers also mentioned that they sometimes test their students writing skills by giving home taken writing practices.

The informant teachers stipulated the fact that listening and speaking skills are the most neglected skills. Majority of the respondents (five out of six) said they couldn't test these two skills due to large class size. Only one respondent said she sometimes test the students speaking ability. She said, "Although it is time taking, I sometimes test the students speaking skills. But one test usually takes more than a week".

It is evident from the interview that informant teachers failed to assess all the language skills. So, we can conclude that assessment practices of these teachers failed to make provisions of the assessment of all the language skills. Teachers mentioned class size as the major factor that inhibit them not to assess all the language skills.

The participant teachers assessment package confirmed that teachers did not assess all the language skills equally. It was evident from text analysis of their assessment package that listening skills was completely forgotten, speaking skills was also given minor attention by some teachers and completely forgotten by others. The weight given for writing skills was also 10% of the total semester mark. The skills that were given maximum attention (like grammar for instance) was also assessed using the traditional assessment format.

Therefore, it is possible to conclude that participant teachers did not give equal attention to the macro as well as micro language skills during assessment. Furthermore, teachers were highly dependent on the traditional assessment format.

The Classroom Opportunities Students have to be Assessed by Engaging in Social Interactions in Authentic Settings & Situations.

Majority of the informant teachers said they give opportunities to assess their students in authentic situations. Some (two teachers) said they sometime ask their students to listen to news from a television and report their own version to the classroom. One teacher said, she sometimes ask her students to read news papers and magazine and present their report to the class. But when they were asked on the access of newspapers and magazines, they said that it is difficult to get newspapers and magazines as the school do not buy these things. So, the claim the teachers made on the issue of using newspapers and magazines seems unrealistic.

This shows that the teachers give no opportunities for social interactions which means students engagement in social interactions in authentic setting was absent from the teachers assessment. This in turn indicates that the teachers have problem in understanding assessment. A major element of assessment in a foreign language is encouraging students to engage in social interactions in the target language. Similarly, the assessment packages confirmed that teachers give no room for assessing their students in social interactions in authentic setting and situations.

The Assessment Methods and Activities that are Used on Regular Basis

No teacher confirmed that they use alternative assessment. All teachers said that they used traditional assessment (multiple choice, matching, true-false...) as it mirrored the type of examination their students face during national examination. One teacher, for instance, said "I use traditional paper and pencil tests due to many reasons. My students like to be tested in such a way because their national examination uses the same format. furthermore, these test types are easy to be administered".

The teachers' assessment packages clearly showed that teachers used the customary assessment techniques like multiple choice, matching, true or false, and gap filling more often than the authentic assessment.

From this we can conclude that traditional assessment is dominant in the classrooms of the teachers under study due to different reasons. These reasons include its similarity with the national exam, and its convenience for the teacher and weaker students.

The Extent to which Students are Involved in Classroom Assessment

All teachers confessed that they did not involve their students in the assessment. One teacher said, "Why do I involve them since the assessment is meant for them?" The other teacher said, "I am not sure on how I can involve my students in the classroom assessment". Still another teacher said, "I don't think it is necessary to involve learners in the assessment for exam is a secret".

When they were asked whether or not they use peer assessment in their classrooms, majority of the teachers (i.e. five) said that they sometime made their students exchange their exercise books and check for each other's work. One teacher, on the other hand said, "he do not use peer assessment as it leads learners to argument".

The assessment package also depicted that teachers did not involve their students in assessment except in some limited situations in which they made the students exchange their exercise books and correct each other's exercise book.

Therefore, it was clear from both the interview and the assessment package analysis that the participant English teachers did not involve their students in the assessment Process. Even when they involve learners in peer assessment, they did not take it seriously as an important assessment activity.

The Extent to which Assessment Activities Encourage the Improvement Work in Progress

Some teachers' replied that they sometime ask students to submit show the process of writing a paragraph and then write the paragraph. This means, students were expected to include their outline, drafts, etc. when they submit their assignment on paragraph writing. But, the teachers confessed that they couldn't give timely feedback on the students assignment due to the large number of students they teach in one class.

From the teachers' assessment package, it was evident that most of the assessments did not encourage the improvement of work on progress.

From this, we can conclude that although assessments should encourage the improvement of work in progress, the type of and frequency of continuous assessment used by the informant teachers were insufficient. They were not frequent and they were traditional type. The only evidence of formative assessment was the writing assignment in which students were asked to submit their assessment including all the processes they went through though they were not given appropriate and timely feedback from their teachers.

The Extent to which Teachers' Give Feedback on Students' Assessment

Majority of the respondents confessed that they did not let their students know the result of their assessment (feedback) timely. Two teachers mentioned time constraint as a reason for not giving timely feedback. The other three teachers took the class size as a reason. Only one teacher said, "I usually provide feedback within a day or two of the assessment".

This shows that participant (English teachers) were reluctant to give timely feed back to their students. This in turn indicates that the teachers are not aware of the importance of timely feedback for students' learning.

The Main Reasons why the Teachers are Reluctant to use Alternative Assessment

The key informant interview indicated that participant teachers were reluctant to use alternative assessment activities in their classrooms. Many teachers mentioned time shortage and large class size as reasons that made

them reluctant to try out alternative assessment activities in their teaching. One teacher, for example, said, "alternative assessment took much time and inconvenient for grading where as traditional assessment produced results quickly and easily".

Furthermore, three teachers mentioned that they could not use alternative assessment as their students are not interested in. They are not interested in alternative assessment activities because its format is different from that of the national examination. The remaining two teachers said that alternative assessment is not inclusive as weaker students do not benefit from it.

The result of the analysis of the assessment package supported the result of the key informant interview. The assessment modalities in the packages were mainly customary ones. Therefore, the key informant interview and the analysis of the assessment packages clearly indicated that teachers are resistant to use alternative assessment. Class time, class size, and national examination format are among the major reasons that made the teachers reluctant to use alternative assessment activities in their classrooms. Moreover, the teachers have problems understanding alternative assessment, as a result they are resistant to implement it.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

In this chapter, the researchers summarize the study, highlight the major conclusions from the study and suggest recommendations.

As stated in chapter one, the general objective of the study was to explore teachers' understanding of alternative assessment and find out how they incorporate it in their English classrooms. The specific objectives that constitute the general objective include, to find out how well EFL teachers in selected secondary schools understand the principles of alternative assessment; to identify the types of assessment currently being implemented, and to probe the reason/s teachers claim for using or not using alternative assessment in their classrooms.

Instruments used to address these objectives include assessment package analysis (document analysis) and key informant in depth interview. The findings of the study provide insight on whether or not participant teachers implement alternative assessment and to identify the type of assessment that the teachers understudy depend on in assessing their students' language ability.

Summary of the Study

The researchers set out to investigate teachers' understanding of alternative assessment and find out whether they incorporate it in their English classrooms and why.

In chapter 1 the background of the study was discussed. Discussion included description of the research setting, investigation of the background of the problem, justification of the problem and formulation of the research objectives.

The second chapter was on materials and methods. In this section, description of the study area, the research design, the research methodology, the participants of the study, and data management and analysis techniques were discussed.

The purpose of the third chapter was to review the related literature. Accordingly, literatures related to the issue of assessment in general and authentic assessment in particular were reviewed.

Chapter four included the results of the empirical study. It incorporated the analysis of the assessment packages of the participant teachers and the analysis of the key informant interview. The analysis of the assessment packages and the in depth key informant interview indicated essential information on the participant English teachers assessment beliefs, and practices. The result has important implication on the practices of assessment in language classrooms in the study area. The result may be generalized to secondary schools with similar situations across Ethiopia.

The result of the data collected through interview and document analysis from six grade nine English teachers revealed that alternative assessment was not integrated in the assessment packages of the participant English teachers.

Major Findings of the Study

The major findings of the study were given as follows:

- Participant English teachers do not have a clear understanding of alternative assessment. They equate alternative assessment with testing. They have misconceptions about assessment in general and alternative assessment in particular. As a result they failed to understand the importance assessment to learning. Most importantly, they lack awareness on the concept of alternative assessment and failed to understand alternative assessment as an important means of promoting and encouraging language learning
- The type of assessment mainly used by the teachers were customary ones. these include multiple choice, matching, and true or false. Among the macro and micro language skills, the most assessed was grammar. It accounts for more than 50 % of the total assessment package.
- Participant English teachers were reluctant to include alternative assessment in their assessment package due to different reasons. They said alternative assessment activities are time consuming and difficult to be implemented in large classrooms. They also mentioned the national examination format forced them to use the customary assessment techniques than the alternative assessment They added that students are not interested to take part in alternative assessment as its format is completely different from the national examination format. Accordingly, it was evident from the analysis of the teachers assessment packages that grammar testing was given high importance compared to other major skills. This clearly shows the attitude participant teachers hold towards alternative assessment.
- Almost all participant teachers failed to include students in the assessment process. They did not understand the importance of formative assessment in encouraging the improvement of work in progress. As a result they did not assess the process of learning. They only focused on the product. Furthermore, they failed to give timely feedback for their students. This in turn, hampered the contribution of assessment to teaching.

Recommendations

Based on the findings, the following recommendations were drawn:

- Training on the importance and practical implementation of alternative assessment should be given to teachers.
- There need be a change on the teachers' attitude towards alternative assessment. The teachers' attitude towards assessment appears to be significant obstacle to the implementation of alternative assessment.
- Teachers should get support in form of supervision, etc. They expressed their confusion regarding assessment.
- Schools and/or departments should include alternative assessment activities in the assessment packages of their teachers and follow-up its implementation.

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