

**ANALYSIS OF THE QUALIFICATIONS OF SECONDARY SCHOOL SCIENCE
TEACHERS IN BARKI LADI OF PLATEAU STATE.**

FOM J. ISA

**Integrated Science Department, Federal College of Education Pankshin
isafom 91@gmail.com**

Abstract

This paper discusses about the qualifications of science teachers in Barki Ladi of Plateau state vis-a-vis the demands of the National Policy on Education. It focuses mainly on NCE science teachers in schools in B/Ladi of Plateau State. All the schools in the area were visited and data collected about the qualifications of the science teachers in the schools. Simple percentage was used to analyze the data. The analysis showed that 60.61% of the science teachers in the schools were NCE holders. It was also discovered that some schools use teaching practice students and IT science teachers in the teaching of students. The paper made some recommendations which include improving new programme aimed at preparing the students to teach at the senior secondary school level.

Introduction

The Progress of any nation depends on the level of her professional teachers, technological development and literacy of the citizens. The knowledge of science and technology cannot take place in a vacuum. Necessary conditions must be in place for the much needed development to be achieved. The most important condition is the educational system, The importance of education to any nation cannot be overemphasized. In fact, Nigeria values education as a tool for achieving her national aims and objectives (FGN,2004).

Nigeria has made several efforts to see to the development of science and technology in our secondary schools. For instance, some secondary schools are pure science schools. There are universities of technology; even federal colleges of education (technical) established with the aim of teaching mainly science and technological subjects. In the area of curriculum, there have been curriculum changes to meet with the global trend in science and technology. In the fore front of these curriculum changes are the science teachers association of Nigeria (STAN), comparative study and adaptation centre(CESAC) the Nigeria education research council (NEREC), the Nigeria education research and development council (NERDC) and National examination boards such as the West African Examination Council (WAEC) and National Examination Council (NECO). These examination bodies are involved because they review and incorporate changes in the curriculum of the secondary school examination syllabus. New curriculum projects were developed for the senior secondary schools in chemistry, physics and biology by CESAC. In the same way, integrated science textbooks, work books and teachers' guide were produced by STAN (Ajewole, 2005), all to facilitate effective teaching and learning of science. To encourage the study of science and technology at the tertiary institutions, the National Policy on education stated that the admission into higher institutions should be 60/40 in favour of science and technology. This target has never been met as many of the students seeking for admission apply for non-science courses (Afolabi, 2017)

In spite of these efforts, Nigerians are not scientifically enough to compete effectively with other nations Adedeji (2017) observed that students achievement scores often fall below international standards; implying that their knowledge and understanding of science do not meet the standard for competence in the global economic market. Results of students in external

and internal examinations in science also show poor performance (Afolabi 2017, Jimo, 2002, & Chukwu 2010).

The persistent poor performance has been attributed to lack of manpower/qualified science teachers, lack of equipment for practicals (Akpan, 1985) and offering science for lofty careers (Akpan, 2004). The questions to ask are: Who are preparing students for the senior secondary school certificate examinations? What is their qualification and how was their professional training like? Is the government policy that only degree holders will teach at the senior secondary school level being implemented? If the teachers are not adequately trained with higher qualifications, how then would they effectively teach science to the students for them to perform well at external examinations?

Ajewole (2005), cries out for manpower development in science and technology education that can lift up the nation scientifically and technologically. He observed that if the trend of poor performances in science continues, it will be difficult to get quality science teachers in the future since the science students today will become the leaders of science teachers, science educators and technologists tomorrow.

Science teachers are prepared in the universities and colleges of education in the country. The national policy on education stipulates that the minimum qualification for teachers in Nigeria is Nigeria Certificate in Education (NCE). Students are offered admission into colleges of education to obtain the NCE certificate at the end of their training which qualifies them to teach at the primary and junior secondary school levels.

The mode of admission of students into the NCE programme had being to write the Joint

Admission and Matriculation Examination for polytechnics and colleges of education or by writing the Pre-NCE examination usually organized by the respective institutions. Recently however, all students seeking admission into any tertiary institution write one single examination i.e. the Unified Tertiary Institutions Matriculation Examination (UTME). The minimum requirement for admission into colleges of education was five passes with at least three credits at one sitting or four credits at two sittings whereas the university candidates were expected to make five credits before they can be offered admission. With the UTME, all students seeking admission into any tertiary institution in the country are expected to have five

credits including English and Mathematics. However, the cut off point for university is 180 whereas that of polytechnic is 160. This gives the impression that it is the academically weak students that are trained in the colleges of education for teaching. ungle subjects such as biology, chemistry, physics and computer are offered in the colleges of education. The products of these programmes find themselves teaching at the secondary school level when employed to teach in schools. One wonders whether they would be able to teach effectively; especially preparing the students to write external examinations. Is the government policy of having only degree holders teaching at the senior secondary school being mplemented? The professional training of teachers to a large extent affects the performance of students in all subjects. A problem is therefore automatically created in the school system if some of the teachers teaching in the schools were not psychologically and professionally prepared to teach at the levels they find themselves. It is against this background that the researchers set out to survey the qualification of science teachers in the secondary schools in B/Ladi of Plateau State. The study also aimed at determining whether NCE holders are teaching science in the senior secondary schools in B/Ladi. B/Ladi is one of the urban areas in Plateau State of Nigeria with social amenities and highly populated. It is the belief of these researchers that the finding of this research will give an insight into what is happening in other areas of the state. The findings will also help them to make useful suggestions that would address the issue of scarcity of science teachers in the state.

The following questions were raised to guide the study:

1. What is the qualification of science teachers teaching science in Barki/Ladi?
2. Are there NCE science teachers in the senior secondary schools in Barki/Ladi?
3. What is the percentage of NCE science teachers teaching science in secondary schools in
in
Barki/Ladi?
4. Are there science teachers with only NCE certificate teaching science in the government secondary schools in Barki/Ladi.

Methods

Barki-Ladi has nine secondary schools each with not less than 500 students, They have both junior and senior secondary sections. Out of these, all the school are owned by government. Each of the schools was visited to collect data on the number and qualifications of the science teachers. The interest of the study was only one teachers of chemistry, physics and biology in each school.

Results

Table 1: Number of Science Teachers and their Qualifications in the Various Schools.

S/N	Names of sec. sch	Biology			Chemistry			physics		
		NCE	Bsc. Ed	NCE, BSc. Ed	NCE	BSc. Ed	NCE, BSc. Ed	NCE	BSc. Edu	NCE, BSc. Ed
1	G.S.S B/Ladi	1	-	-	1	-	-	-	1	-
2	G.S.S Heipang	2	1	-	-	-	1	-	-	1
3	Gwakim Fan	1	-	-	1	-	-	-	-	-
4	Fan Loh	1	2	-	1	-	-	-	-	1
5	Sho	1	-	1	1	-	-	1	-	-
6	Tusung Fan	1	2	1	-	-	1	-	-	1
7	Bakin kogi Foron	2	-	-	1	-	-	1	-	-
8	Kapwis Foron	-	-	-	1	-	-	-	-	-
9	Ropp	1	-	-	1	-	-	1	-	-
	TOTAL	10	5	2	7	-	2	3	1	3

Table 2. Percentage of Teachers with Various Qualifications

N=33

Qualification	No	Percentage
NCE	20	60.61
B.SC. Ed	6	18.18
NCE & B.Sc.Ed	7	21.21

Table 1 shows the distribution of the teachers in the various schools. Table 2 shows the percentage of the teachers with their various qualifications. The table shows that 60.61% of the teachers are NCE holders. 21.21% of the degree holders got NCE first before proceeding for their degree. On the basis of this findings, questions 1, 2 and 3 are answered. Science teachers in B/Ladi possess either BSc.Ed or NCE certificate. There are NCE holders teaching science at the senior secondary school levels in B/Ladi and the percentage of E holders is 60.61 implying that a greater number of the teachers are NCE holders. This contravenes the National Policy which stipulates that NCE holders will only teach in the primary and junior secondary schools.

Discussion

The implication of this finding is that some of the students who write WAEC and NECO examinations are prepared to do so mainly by NCE holders. One may be tempted to look down on these findings because of the area of coverage. It is important to note that B/Ladi is one of the big urban areas of Plateau State of Nigeria. If this result is what is obtained, in the secondary schools especially government owned schools in B/Ladi one cannot but pity schools in the rural areas.

A high percentage of those teaching in the science in the senior secondary schools are NCE holders. Some schools do not even have teachers in some of the science subjects. This is contrary to the aspirations of the nation. Taking cognizance of the realities on ground therefore the NCE programme should be enriched to improve the quality and quantity of science teachers since it is difficult to have sufficient science teachers with higher qualification to teach in our

schools. Ajewole (2005) advocated for a major campaign to recruit, train and retain science teachers with strong background in science. This can be achieved in the colleges of education with proper orientation.

The students in colleges of education are trained bearing in mind that they are to teach at the primary and junior secondary school levels. The students have this orientation and are therefore not mentally and psychologically prepared for the challenges they face on graduation and subsequent employment. It is time that the National Commission for Colleges of Education should have a rethink about the programme and hence enrich it for better performance. The science curriculum should be enriched in such a way that the students would be adequately prepared to teach up to senior secondary school level. This will make the students to appreciate their training and also be psychologically prepared for the job

In enriching the programme, the teaching practice exercise needs attention too and effective reorganization. During teaching practice exercise, it will be good to allow the students to teach at the higher classes with proper supervision. Even topics chosen by the students microteaching should not be simple senior secondary one (SS1) topics only, the students should be encouraged to take topics meant for higher classes. This will make the students to acquire more knowledge and to develop confidence.

The students admitted to run the programme should also be considered. Chukwu and Chukwu (2008) see the admission policy as one of the problems of teacher education. Allowing students with higher entry qualifications and high scores in UTME to go to the university and those with lesser performance in colleges of education creates the impression that only the academically weak students are meant to be trained as NCE teachers. This brings about negative psychological feelings in the students and also prevents some good students from applying for the programme. These problems should be seriously looked into by curriculum developers because for any country to develop and advance in science and technology, there is need for well trained and motivated science teachers.

Conclusion

Holders of NCE certificate are expected to teach in the primary and junior secondary schools but in practice, they are also teaching at the senior secondary school level even though they

were not adequately prepared for the job. This shows that the National Policy on Education being implemented. As no country can rise above level of her teachers, it means that the nation still has a lot to do so as to improve the quality of science teaching going on in the schools.

Recommendations

Based on the findings, the following recommendations were made:

1. There should be new NCE Programme aimed at enriching the existing one to effectively prepare the students to teach also at the senior secondary school level.
2. The Policy should be reviewed to allow NCE holders to teach at both junior and senior secondary school levels since it is difficult to get a good number of higher qualified science teachers.
3. The government and school proprietors should always make frantic efforts to ensure that schools are adequately staffed with science teachers

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