

April 17-18, 2023



Mersin, Türkiye

# 3. INTERNATIONAL MEDITERRANEAN CONGRESS

## FULL TEXTS BOOK

Edited by

Prof. Dr. Imran ASLAN  
Assoc. Prof. Dr. Nesrin ÖĞÜT

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**INFLUENCE OF TEACHERS' QUALIFICATION ON CURRICULUM IMPLEMENTATION  
AMONG SECONDARY SCHOOL BIOLOGY TEACHERS IN NIGER SOUTH  
SENATORIAL ZONE OF NIGER STATE, NIGERIA**

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**ABSTRACT**

The study investigated the influence of teachers' qualification on curriculum implementation among secondary school biology teachers in Niger South Senatorial Zone of Niger State. Survey research design was employed for the study. A total of 301 biology teachers in Niger South senatorial zone made up the sample size of the study. Researchers' designed questionnaire which was validated by experts in the field of biology, pedagogy as well as in curriculum planning and development was used for data collection. Pilot test was conducted and reliability coefficient of 0.81 was obtained. A research questions which was answered using mean and standard deviation guided study. The study revealed that teachers' qualification has a significant influence on curriculum implementation. Recommendations were made that Government should provide training and retraining facilities to the teachers to enable them update their teaching qualification or obtaining high teaching qualifications. Also, teachers should be encouraged to go for further study through self-sponsorship where necessary.

**Key Words:** Curriculum, Implementation, Influence, Qualification and Senatorial

**Introduction**

The education system in Nigeria is controlled and coordinated based on the National Policy on Education. National Policy on Education is a policy document which addresses the issues of imbalance

in the provision of education in different parts of the country and specifically the issue of teacher qualification and professional competencies required for the implementation of the policy requirements. Effective implementation of the policy is therefore necessary for provision of sound education in general and sound knowledge of science and technology in particular. This is because, importance of the knowledge of science and technology cannot be over-emphasized. For instance, knowledge of science is useful in food processing industries, drug manufacturing companies, building and construction companies, medical and agricultural sectors, transportation sector, education, finance and many others areas of human life. Knowledge of science also enables us to describe, define, investigate and understand the world in which we live and how it works. Implicitly, by increasing our understanding of the world we are able to identify and comfortably protect ourselves from some endangered species of animals, from effects of earthquakes or volcanic eruptions, create new chemicals, define causes of climate change, improve the health or quality of life for people. Knowledge of technology helps man effectively and efficiently tap and maximally utilize natural resources for his satisfaction. In industrial sector, new materials are being discovered every day that helps technology create a great impact on man in terms of human satisfaction (Lawal, 2011).

From the above few examples, one can see that knowledge of science and technology plays a pivotal role in human life. This cannot not be attained without effective teaching and learning, emphasizing on the need for quality education. Quality education depends on the quality of the teachers saddled with the responsibility of implementing the curriculum of their respective subject of instruction. This implies that teachers must be professionally qualified to be able to effectively offer a quality instructional delivery which is one objectives of the National Policy on Education (FGN, 2014). Teachers must be qualified to teach at our schools because teachers are the agents that transmits knowledge to the students, evaluate the learning outcome of the students and also help the students overcome misconceptions and learning difficulties faced during learning (Bennet, 2005). Qualification of teachers therefore has a significant influence on the national development. It is on this basis that Lawal (2011), refers to teachers as people who influence the learner by what they say, what they do and how they do it. The reason is because teachers have direct contact with the students in the classroom. It is therefore, necessary to intermittently look into teachers' pay attention to teachers' qualification order to improve teachers' instructional strategy that would lead to effective teaching and adequate curriculum implementation by teachers as well as meaningful learning among students in our secondary schools.

Unfortunately, most teachers teaching at our secondary school level of education are not qualified teachers as some of them are out-of-field teachers. This is one of the major factors responsible for poor curriculum implementation hence, resulting to students' poor performance at the final Senior School Certificate Examination (SSCE). Such teachers need to possess prerequisite teaching qualification so as to be able to properly implement their respective curriculum as well as imparting knowledge to student (Shopelu *et al.*, 2021).

It is also reported by the chief examiner on Senior School Certificate Examination (SSCE) conducted by National Examination Council (NECO, 2021) that, poor implementation of curriculum by most biology teachers at Senior Secondary School level is due to lack of qualified teachers to effectively handle the biology curriculum. On the other hand, lack of qualified teachers for employment by Ministry of Education to teach at secondary school level has forced the available ones to be used as out-of-field teachers in most schools. By extension, out-of-field teachers always adopts poor instructional strategy which is one of the major factors contributing to poor curriculum implementation and poor performance of students especially in biology (Aliyu *et al.*, 2018a). This result into poor curriculum implementation and poor students' performance, hence the need for teachers to have the prerequisite teaching qualification.

In addition, most teachers while implementing curriculum adopts the use traditional chalk and talk or conventional teaching strategy which is not relevant to the topic he or she is teaching. This teaching strategy is mainly a classroom-based strategy consisting of lectures and direct instructions from teachers to students (Koroka *et al.*, 2018). The strategy is teacher-centered where students are only listeners and

hence, learn little from the lecture. The teachers mostly talk to the students instead of encouraging them to interact, ask questions, or make them comprehend the lesson thoroughly especially in too large classes (Ahmed, 2013). This strategy promotes rote learning, where students depend on memorization without having a proper comprehension of the topic they are taught (Ayeni, 2010). Teachers therefore do not prepare adequately for teaching as most of them are not professionally trained resulting to poor teaching and learning or poor curriculum implementation.

However, to be able to address this ugly trend in relation to curriculum implementation, teachers' teaching qualification must be taken seriously. It is the responsibility of Government, Non-Governmental Organizations as well as all the stakeholders in education sector to pay more attention to the training and retraining of the teachers. In addition, effective quality control mechanisms must be on board to monitor teachers' teaching qualification. One of the ways by which this can be achieved is by continuously exposing teachers to various teachers' training programs. Government at both Federal and State levels must be proactive in providing teachers with facilities that would enable them undergo periodic but continuous, workshops, seminars, conferences and refresher courses in order to keep them updated in their various subject content mastery and pedagogical skills. In addition, Teachers should continually be trained in subject content mastery, updated in their pedagogical skills and classroom management strategies. Teachers training and retraining should be able to train the teachers to acquire both content knowledge and pedagogical knowledge and skills necessary for effective teaching resulting to effective curriculum implementation as stated by Niger State Ministry of Education (NGMOE, 2016).

One of the ways by which unprofessional teachers can be professionally equipped for meaningful curriculum implementation is through training and retraining programs like In-service training services. An in-service training service ensures that teachers are kept up to date and adequately empowered to offer quality instructional delivery and better curriculum implementation. This is because pre-service training received before employment might not perfectly prepare them for effective teaching. Therefore, many teachers sought the opportunity of in-service training services as a means of further training. This will help in controlling teachers' teaching qualification, improving teachers' instructional strategies, proper curriculum implementation and students' better performance Koroka *et al.*, (2018). This therefore calls for the need to conduct this research study on the influence of teacher's teaching qualification on curriculum implementation especially on biology teachers.

Review of empirical studies reveals that, Aliyu *et al.*, (2018a), conducted a research study on the influence of teachers' teaching qualification on curriculum implementation among Basic Science and Technology teachers receive in Bida Educational Zone which reveals that, teachers with prerequisite teaching certificate Nigerian Certificate in Education (NCE) in addition to higher degree implements curriculum better in Bida Educational Zone of Niger State. Also, Olalere *et al.*, (2019), reported that, as a result of lack of both intrinsic and extrinsic motivation of teachers by government at all levels of our education system, teachers' training institutions have not been able to provide quality training to potential teachers during training. Also school management has failed to provide teachers especially the science teachers with periodic opportunities for further training which has an adverse effects curriculum implementation.

### **Objective of the Study**

The aim of this study is to determine the influence of teachers' teaching qualification on curriculum implementation among secondary school biology teachers in Niger South Senatorial Zone of Niger State. The specific objective to be achieved is to determine:

The influence of teachers' teaching qualification on the implementation of biology curriculum in Niger South Senatorial zone of Niger State.

## Research Question

Based on the above objective of the study, the following research question was raised and answered using mean and standard deviation:

what is the influence of teachers' teaching qualification on the implementation of biology curriculum in Niger South Senatorial zone of Niger State?

## Methodology

The research design employed for this study is survey research design. Specifically, descriptive survey research design was used. The population of this study comprised of all the 301 (146 Male) and (155 Female) biology teachers in Niger South Senatorial Zone of Niger State. All the biology teachers in all the senior secondary schools in Niger South Senatorial Zone of Niger State were used for the study. The research instrument used for data collection during this research study was a questionnaire designed by the researchers for the purpose of this study. The questionnaire is known as the Biology Teachers' Teaching Qualification Questionnaire (BIOTEQ). The questionnaire is a 5-Likert point scale with various options as: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (DA) and Strongly Disagree (SDA). The weighing are: Strongly Agree (SA) = 5, Agree (A) = 4, Undecided (UD) =3, Disagree (DA) =2 and Strongly Disagree (SD) =1. For decision rule, an arithmetic Mean ( $\bar{x}$ ) was computed ( $5 + 4 + 3 + 2 + 1 = 15/5 = 3.00$ ). The questionnaire (BIOTEQ) was validated by experts in the field of biology, pedagogy as well as in curriculum planning and development. Observations, suggestions and recommendations of the experts were use to produce the final copy of the questionnaire (research instrument) used for this study. Also, the instrument was pilot tested and reliability coefficient of 0.81 was obtained indicating that the instrument is reliable and therefore, was used for the study.

The researchers visited all the nineteen schools used for the study to seek permission from the school authorities to use their schools for the study. The researchers after been granted permission gave orientation to the teachers about the research study. All the biology teachers in all the schools in the zone were used for the study. The data collected using Biology Teachers' Teaching Qualification Questionnaire (BIOTEQ) was analyzed using Mean and Standard Deviation.

## Result and Discussion

**Research Question:** what is the influence of teachers' teaching qualification on the implementation of biology curriculum in Niger South Senatorial zone of Niger State?

To answer this research question, mean and standard deviation was used as presented in Table 1.

**Table 1: Mean and Standard Deviation on Influence of Teachers' Qualification on Implementation of Biology Curriculum among secondary school biology teachers in Niger South senatorial zone of Niger State.**

S/N	Items	N	Mean (X)	S.D	Decision
1.	It was difficult for me to teach some topics in biology effectively when my highest teaching qualification was NCE as such, I could not fully implement biology curriculum	301	4.51	1.01	Agree
2.	My biology content knowledge is better with B.Sc. Ed as my highest teaching qualification as such, implementation of biology curriculum is much easier	301	4.52	1.02	Agree
3.	Both my pedagogical knowledge of teaching biology is better with B.Sc. Ed in biology in addition to NCE as my teaching qualifications therefore, biology curriculum implementation is much easier	301	3.66	0.16	Agree
4.	My classroom management and evaluation skills are better with B.Sc. Ed in biology in addition to NCE as my teaching qualifications therefore, biology curriculum implementation is much easier	301	3.58	0.08	Agree
5.	My ability to maintain a good teacher – student relationship is better after with B.Sc. Ed in biology in addition to NCE as my teaching qualifications therefore, biology curriculum implementation is much easier	301	3.97		Agree
	<b>Grand Mean Total</b>		<b>4.05</b>	<b>0.55</b>	<b>Agree</b>

Table 1 shows the mean and standard deviation of the influence of teachers' qualification on implementation of biology curriculum among secondary school biology teachers in Niger South senatorial zone of Niger State. The result reveals that, the lowest mean is 3.58 (with Standard Deviation of 0.08) which is higher than the decision mean of 3.00. Also, the grand mean total is 4.05 with standard deviation of 0.55 which is also higher than the decision mean of 3.00. This result indicates that teachers' qualification has a significant influence on the implementation of biology curriculum by biology teachers.

### Finding of the Study

Analysis of the Research question reveals that, biology teachers' qualification has a significant influence on the implementation of biology curriculum by biology teachers in Niger south senatorial zone of Niger state. this influences the way and manner by which these teachers implement biology curriculum.

### Discussion of the Finding

Finding of research question on influence of teachers' teaching qualification on the implementation of biology curriculum by secondary school biology teachers reveals that teachers' teaching qualification of biology teachers in Niger south senatorial zone of Niger state significantly influences the way and manner by which they implement biology curriculum in the zone. This finding is in agreement with the finding of Umar (2011) who reported that lack of enough qualified science teachers to be employed by



Ministry of Education to teach at secondary school level has forced the available ones to adopt poor instructional strategies which is one of the major factors contributing to poor performance of science students. It is also observed by the chief examiners' report on Senior School Certificate Examination (SSCE) conducted by National Examination Council (NECO, 2010) that, poor teaching of biology by biology teachers at senior secondary school level is due to lack of qualified teachers to handle some difficult and abstract biology concepts and topics.

This finding is not in agreement with finding of Aliyu *et al* (2018a) who reported that, there is no any formal type of Continuous Professional Career Development Receive by science teachers teaching at secondary schools to update their teaching qualification to enable them effectively implement science curriculum. The finding is also not in agreement with the finding of Aliyu *et al* (2018b) who in another study reported that, government and school management have not been adequately providing teachers with training and retraining opportunities to enable them teach effectively and efficiently.

### **Recommendations**

Based on the finding of the study, the following recommendations are made:

1. Only the qualified teachers should be employed to teach at secondary school level and by extension, every level of Nigeria education sector
2. Teachers' teaching experience should be one of the prerequisites for allocating teachers to teach a given subject or class at every level of Nigeria education sector
3. Biology as well as all teachers at every level of Nigeria education sector should be subjected to periodic training and retraining program to enable them update their knowledge about their teaching subjects

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