

EVALUATION OF TEACHERS' COMPETENCY IN THE IMPLEMENTATION OF MATHEMATICS CURRICULUM AMONG SENIOR ARABIC AND ISLAMIC SECONDARY SCHOOLS IN KANO METROPOLIS

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Abstract

This study assessed the implementation of Mathematics curriculum in Senior Arabic and Islamic Secondary Schools in Kano Metropolis. Two objectives and research questions were formulated to guide the study. The study was descriptive survey design. The population of the study was 88 with 28 principals and 60 Mathematics teachers from 28 senior Arabic and Islamic secondary schools. A simple random sampling technique was used to select 20 principals and 42 Mathematics teachers which made the sample size of 62. A modified 4 point Likert scale questionnaire was used for data collection. There were two types of the instruments, one for principals and the other one for teachers. The instruments were validated by the experts. The data was analyzed using descriptive statistics of mean, standard deviation, frequency count and percentage. The findings revealed that majority of teachers were competent in handling the implementation of Mathematics curriculum of NBAIS and the community also is committed towards the successful implementation of Mathematics curriculum. But there were inadequate human and material resources for the successful implementation of Mathematics curriculum in senior Arabic and Islamic secondary schools in Kano metropolis. Based on the findings, the study recommended among others that workshops and seminars should be organized periodically in order to improve teachers' competency for the successful implementation of the curriculum in senior Arabic and Islamic secondary schools in Kano metropolis.

Key Words: Competency, mathematics curriculum, Teachers, senior Arabic.

Introduction

The programme of Islamic based education in Nigeria has been a long process in the history of the country as well as the history of Nigerian education. It has a different angle of perspectives. It can be looked from the direction of Qur'anic schools only, madrasah schooling system, Islamiyya schools and so on and so forth. In the informal system of Islamic education, the certificate is not given much consideration, no examination as well as time of graduation (Faisal, 2017). This is because Muslims are urged to learn from cradle to grave. After some years, the system was integrated into secular system of education. The first method of introducing the secular subjects into Arabic and Islamic institutions was used in Katsina College in the year 1930; it broadened its curricula by introducing Science, English, Arithmetic and so forth. The method also led to the conversion of the then Northern Provinces Law Schools which was meant for the training of Qadis (judges) to the School of Arabic Studies in 1947. Sheikh (2017), in the School, English and Arithmetic were taught in addition to other Arabic studies. The opportunity created by this method paved way for the students of Islamic education

to pursue their education up to university level in London, Cairo, Khartoum and Libya. Curricula of NBAIS contains all the subjects that are taught in conventional secondary schools with only difference in Arabic studies, Islamic studies and Qur'anic studies and general mathematics where these four subjects considered as compulsory for both Junior and senior Arabic and Islamic secondary levels, unlike in conventional secondary schools where Islamic studies considered as elective for senior classes. The medium of instruction is Arabic, English and three major Nigerian languages (Hausa, Igbo and Yoruba). Arabic language, Islamic studies and Qur'anic studies are taught in Arabic language. English, Computer studies, Social studies, Government, Agric, Home Management (For Female students), Health Education, Biology, Chemistry, and Physics etc, are taught in English. While native languages of the students are taught in their own languages.

According to Oladosu (2015), Mathematics as a subject is one of the general and compulsory courses taught at various level of learning including senior Arabic and Islamic secondary schools in Nigeria. Despite this relevance of the subject, the students at senior Arabic and Islamic secondary schools are left behind for a number of reasons. This may probably be as a result of difficulties of the content or incompetency of some teachers. This research intends to assess the implementation of Mathematics curriculum that is being implemented by National Board for Arabic and Islamic Studies (NBAIS). The researcher realized that some teachers are not competent enough to handle the implementation of Mathematics curriculum of NBAIS some are viewing the curriculum content as not enough to meet its objectives. Oloyede (2016) opined that the first method of introducing the secular subjects into Arabic and Islamic institutions was used in Katsina College in 1930 when it broadened its curriculum by introducing science and other conventional subjects. The success recorded by this method led to the establishment of organized schools of Arabic studies or colleges of Arabic and Islamic studies in Nigeria where some secular subjects were taught in addition to Arabic studies. The achievement also, led to the establishment of similar one in Sokoto in 1963, while in the 1980s, the Kwara state government followed suit by establishing four of such schools in the state. As successful as this method was, it was being suspected by some scholars as a quick means westernization of Muslims education. This could be so in view of the nature of students admitted into the school. Ever before this development, it was said that some of the candidates admitted into the school were so versed in Islamic theology that had authored books on various aspects of education in Arabic text, while some are deep in Islamic jurisprudence that they had studied such advanced Arabic text books as the Mukhtasar Al-Khalil and Tuhfat Al-Ahkam among others (Sidi, 2015).

There are therefore, two distinct routes to acquiring higher education in Arabic and Islamic studies in Nigeria. One private, deep and largely unrecognized by the government for public service and without exposure to the official language of communication-English, the other is through conventional schools or special Arabic school. And the products though fluent in English, are largely superficial in their knowledge of Arabic and Islamic studies. The bridge programs (Madrasah approach etc) in Arabic and Islamic education in Nigeria, rose to bridge dichotomy between products of private and public schools in the area of Arabic and Islamic

studies education. Since the private schools were exclusively devoted to all segments of traditional Arabic and Islamic studies through the medium of Arabic and mother tongue, the products were largely experts in the field but could not be employed in public service or organized private sector not only because their certificates were unrecognized but also because they could not, due to language differences, operate effectively as teachers and public service officers (Lawal, 2016).

Due to that, a number of them who attended universities in Arab countries and returned to Nigeria were largely unemployed due to lack of proficiency in English. Though there was dearth of Arabic and Islamic teachers in conventional schools, the language barrier prevented the engagement of competent Arabic/Islamic experts who were available in almost every region of the country. Aden (2020) stated that this situation necessitated the bridge program which include;

- (i) Madrasah approach: Enrolment of products of conventional secondary and teachers colleges into specialized colleges of Arabic and Islamic studies, such as those of Kano (SAS and Aliyah Shahuci), Katsina (ATC Katsina) and Agege (Markaz). This method produced competent and able scholars of Arabic and Islamic studies who formed majority of those who introduced Arabic and Islamic studies into Nigerian Universities or held high judicial positions in the country.
- (ii) GCE/WASC for Arabists: Enrolment of products of conventional schools and those of Arabic schools who through private efforts acquire entry qualifications into English speaking universities within and outside Nigeria, into the degree programs in Arabic and Islamic studies.
- (iii) Enthusiasts of Arabic and Islamic studies: Admission into Arabic and Islamic studies program, willing candidates who needed no prior exposure to the course.
- (iv) Certificate/Diploma courses in Arabic and Islamic studies: The introduction of Arabic and Islamic studies in the nation's university education system marked a landmark development in the two disciplines. The Abdullahi Bayero College previously called Ahmadu Bello College became the faculty of Arabic and Islamic studies of the Ahmadu Bello University (ABC-ABU). The Diploma program admitted products of Arabic schools into a three year Diploma program in Hausa, Arabic and Islamic studies. The students were exposed to extensive training in English, History and the trio of Arabic, Islamic studies and Hausa. At the end of three year program, students were equipped up to advance level in the five subjects and are qualified to be admitted into a three year degree in Arabic and Islamic studies. In 1961, the University of Ibadan established the Department of Arabic and Islamic studies with the aim of meeting the growing need and desire of Nigerian students to study Arabic language and Islam as a religion.

Oloyede (2016) added that, the University of Ibadan introduced an intensive course leading to the university's certificate in Arabic in 1963/64 session. Two years later, the program was expanded to include Islamic studies. The others include Diploma of Usmanu Danfodio

University, Sokoto (UDUS), University of Ilorin as well as affiliation method and so on and so forth.

Without a doubt, the most important person in the curriculum implementation process is the teacher. With their knowledge, experience and competencies, teachers are central to any curriculum improvement effort. Regardless of which philosophical belief the education system is based on, there is no denying that teachers influence students' learning. Better teachers foster better learning. Okoli (2015) said that teachers are the most knowledgeable about the practice of teaching and are responsible for introducing the curriculum in the classroom. The key to getting teachers committed to an innovation is to enhance their knowledge of the programme. This means teachers need to be trained and workshops have to be organized for professional development. Unfortunately, in any curriculum implementation process not all teachers will have the benefit of such exposure. There are just too many teachers and insufficient funds to go round. The most common approach is to have one-day workshops given by experts with the lecture method being the dominant pedagogical strategy. Among the many extrinsic factors identified that may impede curriculum change are adequacy of resources, time, school ethos and professional support. The intrinsic factors are; professional knowledge, professional adequacy and professional interest and motivation.

Hence, professional development of teachers is an important factor contributing to the success of curriculum implementation. Some view teachers as technicians and as such do not include curriculum development in their teacher education programmes. Certainly an adequate teacher education programme should include curriculum development (both the theory and the work of curriculum development) if teaching is to be a profession and if educational opportunities for learners are really to be improved. Bara'u (2020) mentioned some topics to be addressed in designing professional development opportunities for teachers who are implementing a new programme.

a. Philosophy of the programme: It is important for teachers to understand both the philosophy behind the programme as well as how the new programme may impact students, parents, administrators and other stakeholders.

b. Content: Teachers may find the contents of new curriculum unfamiliar, which they have not taught in a while, or is familiar but presented in an unfamiliar way. For example, using problem-solving approach rather than a topical approach

c. Pedagogy: Teachers need opportunities to become familiar with the new program's pedagogical approach. They may need to work on particular teaching skills emphasized in the new programme, such as teaching of values, or perhaps to become familiar with a tool such as the internet.

d. Components of the program: Teachers will need opportunities to learn about the components of the new programme early in the implementation phase. For example, the new programme might place greater emphasis on school-based assessment while teachers are more accustomed to national or centralized assessment.

Objectives of the Study

The objectives of this study are to:

1. To assess the contents of Mathematics curriculum among senior Arabic and Islamic secondary schools in Kano metropolis.
2. To examine the competency of teachers in the implementation of Mathematics curriculum among senior Arabic and Islamic Secondary schools in Kano metropolis.

Research Questions

The following questions were raised to guide the study:

1. What are the contents of Mathematics curriculum of senior Arabic and Islamic secondary schools in Kano metropolis?
2. What is the level of teachers' competency in the implementation of Mathematics curriculum in senior Arabic and Islamic secondary schools in Kano metropolis?

Methodology

The study adopted the descriptive survey design to evaluate the implementation of Mathematics curriculum in senior Arabic and Islamic secondary schools in Kano metropolis. A descriptive survey design was utilized because it is appropriate in the collection of original data about selected problems. Consequently, this study targeted all principals and Mathematics teachers of senior Arabic and Islamic secondary schools in Kano Metropolis, which comprises three educational zones: Dala, Kano Municipal and Nassarawa. There are a total number of 28 Principals of senior Arabic and Islamic Secondary schools, 60 mathematics teachers which made up the population of the study as eighty-eight (88). The sampling was drawn from the targeted population, this means all principals and Mathematics teachers of senior Arabic and Islamic secondary schools in Kano metropolis zones were included. According to research advisor (2006), sixty two (62) was considered for this study as the sample size.

Therefore, the instruments for data collection were presented to the experts from the Department of Education, Bayero University, Kano, for face and content validity in order to ascertain the relevance of the items in relation to the objectives of the study as well as the appropriateness of the language used in the instruments. In order to answer the research questions, descriptive statistics that is, Mean, standard deviation, frequency count and percentage were employed in the analysis. The statistical package for social science known as SPSS version 20 was used to facilitate data analysis so as to infer meanings out of the collected data from the retrieved questionnaires administered to principals and Mathematics teachers.

Results

Research Question one: What are the contents of Mathematics curriculum of senior Arabic and Islamic secondary schools in Kano metropolis?

Table 1: Contents of Mathematics curriculum of NBAIS according to teachers' perception

Mathematics	Frequency	Percent	Mean	S.D
Simple	29	69.0%	1.3095	.46790
Complex	13	31.0%	1.3095	
Total	42	100.0	1.3095	.46790

Table 1 shows the contents of Mathematics curriculum of NBAIS as perceived by the teachers. The results show that the contents of the curriculum are simple to implement. The

content of mathematics curriculum is simple with high of 29 out 42 and 69.0% as against complex content with 13 out of 42 and 31.0%. This means that the result is positive.

Research Question Two: What is the level of teachers’ competency in the implementation of Mathematics curriculum in senior Arabic and Islamic secondary schools in Kano metropolis?

Table 2: Level of teachers’ competency in handling the implementation of Mathematics curriculum of NBAIS according to principals’ perception

Mathematics	Frequency	Percent	Mean	S.D
Competent	11	55.0%	1.4500	.51042
Incompetent	9	45.0%	1.4500	
Total	20	100.0	1.4500	.51042

Table 2 shows the level of competency of Mathematics teachers of senior Arabic and Islamic secondary schools in handling the implementation of Mathematics curriculum of NBAIS in Kano metropolis. The competency of mathematics teachers was 11 out 20 with 55.0% as against incompetency with 9 out of 20 and 45.0%. This implied that majority of Mathematics teachers in senior Arabic and Islamic secondary schools in Kano metropolis possessed a minimum teaching qualification (NCE) and also used variety techniques in teaching Mathematics.

Discussion of Findings

The discussions on the findings are done in relation to the results of the research questions answered. Research question one sought to find out the contents of Mathematics curriculum of NBAIS. The outcome of research question one showed that most of Mathematics teachers of NBAIS curriculum are on the opinion that the contents of the curriculum were simple to meet the stated objectives of the curriculum. The finding differs with the research of Adan (2013) which shows that, the dual curricula in Islamic integrated schools is seen as too heavy, since there is no room for compromise on the part of MOE national curriculum which examined by the Kenya National Examination Council.

Research question two sought to find out the competency Mathematics teachers of NBAIS curriculum. The outcome of this research question two showed that senior Arabic and Islamic secondary schools’ teachers in Kano metropolis are competent in handling the implementation of Mathematics curriculum, this because majority of the teachers are trained and possessed a minimum qualification of teaching (NCE) and also are using variety of techniques in handling the implementation. This outcome is in line with that of Sidi (2015), who discovered that there is a close relation between teachers’ qualification and the determining of their achievements in teaching. But it differs with that of sheikh (2017) where the researcher discovered that the competency of Chemistry teachers in four aspects measured are at moderate level.

Conclusion

Based on the findings of this study, the following conclusions can be drawn:

Most teachers are on the opinion that contents of Mathematics curriculum of NBAIS are simple and can serve to meet its objectives among senior Arabic & Islamic secondary schools

graduates in Kano metropolis. It is evident that most teachers are competent in handling the implementation of Mathematics curriculum of NBAIS as perceived by the principals of senior Arabic and Islamic secondary schools in Kano metropolis.

Recommendation

Based on the findings of the study, the following recommendation was made:

1. There is need for the Kano state senior secondary schools management board (KSSSMB) to create the necessary awareness over Mathematics teachers of senior Arabic and Islamic secondary schools on how to deal with new curriculum when it comes to the issue of implementation. This should be done through in-service training, workshop, seminars etc, to make the teachers more competent and knowledgeable for the successful implementation of the curriculum.

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