STATUS OF HUMAN RESOURCES: IMPLICATIONS FOR THE IMPLEMENTATION OF UPPER BASIC OF THE UNIVERSAL BASIC EDUCATION (UBE) PROGRAMME IN BAYELSA STATE OF NIGERIA

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Abstract. This study investigates the status of human resources in Bayelsa State of Nigeria and its implications for the implementation of upper basic of the Universal Basic Education (UBE) programme. A total of 181 teachers were involved in the study. The results of the study show that there are qualified human resources for the implementation of upper basic of the UBE programme in Bayelsa State of Nigeria but they are inadequate in all the three basic subjects (English Language, Mathematics and Integrated Science). Also, there is no significant difference in the availability and adequacy of human resources in the three subjects. It is recommended that adequate human resources should be provided by the government for effective teaching and implementation of the UBE programme.

Keywords: human resources, Universal Basic Education (UBE), implementation

Introduction

Education is so basic to nation-building that nations all over the world strive to make it available not only to the few that can afford it but to all citizens.[1] Nigeria has sought national development by using education to attain desired national objectives. Hence, according to Sanni & Ogonor,[2] the Federal Government of Nigeria evolved the Universal Primary Education (UPE) in 1976 and the Universal Basic Education (UBE) scheme in May, 1999. The non-realization of the objectives of the Universal Primary Education Scheme with the world wide emphasis on basic education necessitated the evolution of the proposed Universal Basic Education Scheme[2].

The non realization of the objectives of UPE was due to a lot of factors. According to Nduka[3] some of the primary objectives of the revised 1981 National Policy on Education are more likely to be achieved at the junior secondary level than the end of the six year primary school level. Hence, the collapse of the 1976 UPE scheme was an evidence of the deficiency of the programme. Nduka went further to say that the new thinking was therefore a compulsory basic education programme including the junior secondary education segment.

The failure of the UPE was not only a result of the revision of the 1977 National Policy on Education. According to Obanya[4] a lot of other factors hindered the achievement of the objectives of the UPE scheme; among which are teachers' recruitment, education, retraining and motivation, data collection and analysis, infrastructural facilities, textbooks and instructional materials and funding. However, Obanya further mentioned that the Federal Government, in order to make vigorous efforts to counter the factors which hindered the achievement of the goals of the UPE scheme, introduced the UBE scheme. The UBE scheme in achieving this purpose would modify the behaviour of the individual in order to cope and adapt to the demand of his/her environment (Ehigie & Amayo, 1999).

The new UBE consists of three basic levels: the first level (lower basic) is the first three years in primary school; the second level (middle basic) is the 4th – 6th years in primary school and the third level (upper basic) is the 7th – 9th years in primary school. The junior secondary school is now called the Upper Basic.[5)]

The wealth and vitality of a nation rest ultimately upon the development of their people and upon the effective commitment of human energies and talents. Without human resources teaching and learning will not take place effectively, especially in Science, Technology and Mathematics (STM), where the teachers must always be around to guide and direct students in the learning process.[6)] The teacher holds the key to meaningful education which is vital to nation building; consequently any nation desirous of transformation into a great country must be committed to making teachers available to meet the requirement of the school system (Sotonwa, 2003).

If the language, generally accepted by the people for official and unofficial purposes is well harnessed, the nation in which it is used definitely must experience development (Ekah, 2004). Hence, English Language is made compulsory at primary, secondary and first year in the university as a General Study course. However, English Language has not received the serious attention in Nigeria despite its crucial importance for the country and, therefore, the subject is not properly taught in our schools. Affirming this Eyoh (2004) stated it is no secret that graduates and non-graduates in subjects other than English teach English language at our primary and secondary school stages of education where the foundation for effective performance in the language is supposed to be laid.

Science plays a major role in all human activities ranging from everyday living in order to cope and adapt to the demands of the environment. Ige & Arowolo (2003) opined that science will continue to play an increasingly

important role in every individual's life whether the individual may have chosen science profession or not, hence the government through its science education programme focuses on achieving the goal of "science for all" (Nworgu, 2005). According to Nworgu (2005) the government has demonstrated commitment to the inculcation of scientific literacy among all Nigerians not only for those pursuing scientific careers or profession through making science compulsory (a core subject) to our primary and junior secondary schools. However, the problem of not having enough manpower would always exist because of the tradition of lack of adequate motivation and provisions to study science and technology in our educational system (Ajewole, 2005).

Integrated Science was introduced into Nigerian secondary schools as a panacea for all the problems bedeviling science especially at the junior secondary school level (Emeka & Odetoyinbo, 2003). The teaching of the subject requires the provision of adequate and appropriate materials to be handled by specialists in the subject. Ige & Arowolo (2003) stated that lack of adequate materials for practical activities and specialist teachers of Integrated Science were factors that hindered the acquisition of science process skills by students in the junior secondary schools. Supporting this view, Abba & Ubandoma,[7] citing Bajah, stated that lack of well-trained personnel was identified as a key factor constraining the effective implementation of Integrated Science curriculum. Among the major reasons identified was the inefficiency of human resources capacity, hence the need for capacity building, including education and training and information management.

Mathematics is seen as a precious and an indispensable tool used by scientists, thus, it should be seen as central in the teaching of science (Arigbabu & Oludipe, 2004). Hence, the subject is made compulsory for all students in junior secondary school. The teaching of Mathematics effectively is being hindered by a lot of factors. According to Obodo (2004), the factors among others include attitude of students, lack of Mathematics teachers, poor

students' background in Mathematics and lack of Mathematics laboratory. The lack of Mathematics teachers has always been one of the major factors responsible for the effective teaching of Mathematics. Hence, it has been showed that the shortage of qualified Mathematics teachers exerts considerable influence on students' learning outcome in Mathematics (Obodo, 2004). This according to Obodo is as a result of non-professionals teaching the subject who lack necessary elementary principles and practice of education knowledge.

The UBE programme is similar to the UPE programme and needs to derive its lesson from the failure of UPE programme. Madugu (2000) stated that the UPE programme failed as a result of inadequate supply of trained teachers, improper compilation of and unreliable statistical data thereby resulting into wrong projection, financial shortage, poor publicity, and lack of involvement of those concerned. Idehen & Izevbigie[8] posited that the implementation stage of any educational programme contends with practical obstacles which make it impossible for the actualization of intended goals and objectives. They further stated that problems such as shortage of teachers, absence of suitable textbooks, absence of necessary equipment, insufficient funds, poor organizational abilities, effective management and supervision may adversely affect the successful implementation of the UBE programme.

The role played by teachers in any educational system is enormous. They are responsible for the translation and implementation of educational policies and curriculum and all-round achievement of the child. This is why the National Policy on Education stated that no education can rise above the quality of its teachers. The implementation of the upper basic of the UBE therefore lies with the teachers. Therefore, their qualification should be examined in order to check their abilities to implement the programme successfully.

Purpose of the study

The purpose of this study is to determine the status of English Language, Mathematics and Integrated Science teachers in the upper basic of the UBE programme. The study is designed to achieve the following objectives: (1) to determine the availability of qualified human resources in the teaching of English Language, Mathematics and Integrated Science; (2) to determine the adequacy of available qualified human resources in the teaching of English Language, Mathematics and Integrated Science.

Research hypotheses

H_o1:   There is no significant difference between the availability of qualified number of human resources for the teaching of English Language, Mathematics and Integrated Science and those not qualified.

H_o2:   There is no significant difference in the adequacy of available human resources for the teaching of English Language, Mathematics and Integrated Science.

Research method

The survey design was used for this study. The population of the study consisted of all the 427 upper basic schools teachers of English Language, Mathematics and Integrated Science in Bayelsa State of Nigeria. The stratified sampling technique was used in obtaining 41% of the upper basic schools from each of the 12 educational zones in Bayelsa State of Nigeria. A total of 60 upper basic schools were randomly selected from the 148 upper basic schools. A total of 181 teachers were involved in the study of which 69 were English Language teachers, 75 were Mathematics teachers and 37 were Integrated Science teachers.

Teachers were classified into two, namely qualified and non-qualified teachers. Qualified teachers possess the Nigerian Certificate of Education

(NCE), or Bachelor of Art Education (BAEd)/Bachelor of Science Education (BScEd), or Bachelor of Art (BA)/ Bachelor of Science (BSc) plus Post Graduate Diploma in Education (PGDE) in English Language, Mathematics and Integrated Science. Non-qualified teachers are those without teaching qualifications and those with teaching qualifications but are teaching subjects that are not in their area of specialization.

A structured questionnaire for teachers tagged Availability and Adequacy of Human Resources for Teaching English Language, Mathematics and Integrated Science (AAHRTEMI) was used for the study. It consisted of two sections: Section one contained demographic data such as name of school, experience, qualification and area of specialization. Section two contained the subjects and the column for adequate and not adequate, where the teacher is expected to tick whether in his school and area of specialization teachers are adequate or not.

The instrument was validated by three specialists, one from each of the subject areas. The instrument was trial-tested using 45 teachers (15 teachers from each of the subject areas) who were not part of the main study but had the same qualities as those used in the main study. A test-retest approach using Pearson Product Moment Correlation (PPMC) was used to establish the reliability. The reliability coefficient of the instrument was 0.81.

The questionnaire was administered by the researcher to the respondents and the completed copies of the questionnaire were used to generate data for the study. Data analysis involved the use of frequency count, percentage and Chi-square.

Results and discussion

Are the available human resources qualified and adequate for the teaching of English Language?

Table 1. Frequency distribution and percentage of availability and adequacy of English Language teachers

	Qualification	Number of teachers (English)	Q	NQ	A	NA
1	NCE (English)	38	38/55%		10/15%	28/41%
2	NCE (teaching English)	21		21/30%	2/3%	19/28%
3	BAEd/BEd English	5	5/7%		2/3%	3/4%
4	BAEd/BEd (other areas)	3				3/4%
5	BA/HND	2		2/3%	½%	1/2%
	Total	69	43/62%	26/38%	15/22%	54/78%

Q=qualified; NQ=not-qualified; A-adequate; NA=not-adequate
NCE=Nigerian Certificate of Education
BA=Bachelor of Art
BAEd=Bachelor of Art Education
BEd=Bachelor of Education
HND=Higher National Diploma

Table 1 shows the frequency and percentage of qualified and adequate English Language teachers. The table shows that 55% of English Language teachers are NCE teachers that read English Language; 30% are NCE teachers that did not read English Language but teach English Language; 7% are BAEd./BEd teachers that read English Language, 4% are BAEd./BEd teachers that did not specialize in English Language but are teaching English Language and 3% are BA/HND teachers without teaching qualification. The Table 1 shows also the responses of teachers having indicated the adequacy and inadequacy of English Language teachers in their schools. 15% of NCE teachers that read English Language indicated adequate while 41% indicated not adequate; 3% of NCE teachers that did not read English Language but are teaching English Language indicated adequate while 28% indicated not adequate; 3% of English Language teachers that have BAEd./BEd indicated adequate while 4% indicated not adequate; Non-English Language teachers that have BAEd./BEd indicated not adequate while none indicated adequate and 2% of BA/HND teachers indicated adequate while 2% indicated not adequate.

The Table 1 thus indicates that 62% of the English Language teachers are qualified while 37.68% of the English Language teachers are not qualified. Also, 21.74% of the respondent indicated the available English Language teachers are adequate while 78.26% indicated that the number of available English Language teachers is inadequate. This implies that there is shortage of qualified English Language teachers for the implementation of the Universal Basic Education (UBE) Programme in Bayelsa State of Nigeria. This is in line with Omoh[9] who found the alarming deficiency in teacher – student ratio as a result of teachers' supply not meeting teachers' demand in Federal Capital Territory (FCT), Abuja resulting in expected corresponding large class size existence.

Are the available human resources qualified and adequate for the teaching of Mathematics?

Table 2 shows the frequency and percentage of qualified and adequate Mathematics teachers. The table shows that Mathematics teachers consisted of NCE that read Mathematics are 53%; NCE that did not read Mathematics - 17%; BScEd./BEd that read Mathematics - 15%; BSc (Mathematics) with PGDE 7% and BSc/HND 8%. The Table also shows the responses of teachers having indicated the adequacy and inadequacy of Mathematics teachers in their schools. 11% of the teachers that read NCE Mathematics indicated adequate while 43% indicated not adequate; 4% of NCE teachers that did not read Mathematics indicated adequate while 13% indicated not adequate; 3% of BScEd/BEd Mathematics teachers indicated adequate while 12% indicated not adequate; 1% of BSc Mathematics teachers with PGDE indicated adequate and 5% indicated not adequate and finally 3% of BSc/HND holders indicated adequate while 5% indicated not adequate.

Table 2. Frequency distribution and percentage of availability and adequacy of Mathematics teachers

	Qualification	Number of teachers (English)	Q	NQ	A	NA
1	NCE (Mathematics)	40	40/53%		8/11%	32/43%
2	NCE (non Math)	13		13/17%	¾%	10/13%
3	BAEd/BEd Math	11	11/15%		2/3%	9/12%
4	BSc with PGDE	5	5/7			3/4%
5	BSc/HND	6		6/8%	2/3%	4/5%
	Total	75	56/75%	19/25%	16/21%	59/79%

Q=qualified; NQ=not-qualified; A-adequate; NA=not-adequate
NCE=Nigerian Certificate of Education
BAEd=Bachelor of Art Education
BEd=Bachelor of Education
HND=Higher National Diploma
PGDE=Post Graduate Diploma in Education

The Table thus indicated that 75% of Mathematics teachers are qualified while 25% are not qualified. Also, 21% of the respondents indicated that the available Mathematics teachers are adequate while 79% indicated that the number of available Mathematics teachers is inadequate. This implies that there is shortage of qualified Mathematics teachers for the implementation of the UBE Programme in Bayelsa State of Nigeria. The 79% of teachers that indicated shortage of teachers is in line with Obodo (2004) who reported that the shortage of qualified Mathematics teachers exerts considerable influence on students' learning outcomes in Mathematics.

Are the available human resources qualified and adequate for the teaching of Integrated Science?

Table 3. Frequency distribution and percentage of availability and adequacy of Integrated Science teachers

	Qualification	Number of teachers (English)	Q	NQ	A	NA
1	NCE (Science)	21	21/57%		8/22%	13/35%
2	NCE (non Science)	12		12/32%	5/14%	7/19%
3	BScEd/BEd Science	-	-	-	-	-
4	BScEd/BEd non Science	3	-	3/8%	-	3/8%
5	BSc/HND	1	-	1/3%	-	1/3%
	Total	37	21/57%	16/43%	13/35%	24/65%

Q=qualified; NQ=not-qualified; A-adequate; NA=not-adequate
NCE=Nigerian Certificate of Education
BA=Bachelor of Art
BAEd=Bachelor of Art Education
BEd=Bachelor of Education
HND=Higher National Diploma
PGDE=Post Graduate Diploma in Education

Table 3 shows the frequency and percentage of qualified and adequate Integrated Science teachers. The table shows that Integrated Science teachers consisted of 57% of NCE teachers that read Integrated Science; 32% of NCE teachers that read other sciences; 8% of BScEd/BEd that read other sciences and 3% of BSc/HND teachers in terms of their qualifications. The Table also shows the responses of teachers having indicated the adequacy and inadequacy of Integrated Science teachers in their schools. 22% of NCE teachers that read Integrated Science indicated adequate while 35% indicated not adequate; 14% of NCE teachers that read other sciences indicated adequate while 19% indicated not adequate; 8% of holders of BScEd/BEd in other sciences indicated not adequate while none indicated adequate and 3% of holders of BSc/HND indicated not adequate while none indicated adequate.

The Table thus indicated that 57% of the Integrated Science teachers are qualified while 43% of the Integrated Science teachers are not qualified. Also, 35% of the respondents indicated that the available Integrated Science

teachers are adequate while 65% indicated that the numbers of available Integrated Science teachers are inadequate. This implies that there is shortage of qualified Integrated Science teachers for the implementation of the UBE programme in Bayelsa State of Nigeria.This agrees with Ajewole (2005) that serious shortfalls have always existed in the number of professionally qualified science and technical teachers needed in the nation's schools and colleges.

Hypothesis one

There is no significant difference between the availability of qualified number of human resources for the teaching of English Language, Mathematics and Integrated Science and those not qualified.

Table 4. Chi-square analysis of the availability of human resources

Qualification	ENG	MATH	SCI	total	Df	Chi/cal	Chi/cr	Decision at p<.05
Qualified	43/46%	56/50%	21/25%	120	2	4.36	5.99	NS
Not qualified	26/33%	19/25%	16/13%	61				
total	69	75	37	181				

ENG=English Language
MATH=Mathematics
SCI= Integrated Science
NS=Not Significant at p<.05 alpha level

As shown in Table 4, the calculated Chi-square value of 4.36 is less than the critical Chi-square value of 5.99. Thus, the null hypothesis stating a non significant difference between the availability of qualified number of human resources for the teaching of English Language, Mathematics and Integrated Science and those not qualified was retained. This implies that the number of qualified teachers available to teach in the upper basic is not significantly higher than those not qualified. This is in line with Eyoh (2004) who stated that it is no secret that graduates and non-graduates in subjects other than English Language teach English Language at our primary and sec-

ondary school stages of education. It is also in line with Abba & Ubandoma[7] who stated that untrained personnel was identified as a key factor constraining the effective implementation of Integrated Science curriculum.

Hypothesis two

There is no significant difference in the adequacy of available human resources for the teaching of English Language, Mathematics and Integrated Science.

Table 5. Chi square analysis of the adequacy of human resources available

Qualification	ENG	MATH	SCI	total	Df	Chi/cal	Chi/cr	Decision at p<.05
Qualified	15/17%	16/18%	13/9%	44	2	2.97	5.99	NS
Not qualified	54/52%	58/57%	24/28%	137				
total	69	75	37	181				

ENG=English Language
MATH=Mathematics
SCI= Integrated Science
NS=Not Significant at p<.05 alpha level

As shown in Table 5, the calculated Chi-square value of 2.97 is less than the critical Chi-square-value of 5.99. Thus, the null hypothesis stating a non significant difference in the adequacy of available human resources for the teaching of English Language, Mathematics and Integrated Science was retained. This implies that there exists an insignificant difference in the adequacy of available human resources for the teaching of English Language, Mathematics and Integrated Science.

Conclusion

From the findings of the study, there is a clear indication that there are more qualified human resources when compared to the non-qualified human resources but are inadequate in all the three subjects. Also, there exists no sig-

nificant difference in the availability and adequacy of human resources for the teaching in the three subjects.

Recommendations

1. Adequate human resources for all the three subjects (English Language, Mathematics and Integrated Science) should be recruited by government.

2. BSc/HND teachers without teaching qualifications should be encouraged to go for in-service training in order to make them qualified to teach the subjects.

3. The teaching profession should be made attractive to invite others to the profession and retain the existing teachers in the classroom by giving special allowances to professional teachers.

4. Seminars, conferences and workshops should be organized for school principals and teachers in secondary schools on the need for maximum usage of the available human resources.

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