

Problems Encountered by Pre-Service Chemistry Teachers on Teaching Practice in Anambra State Colleges of Education

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ABSTRACT

Due to an out-cry of poor performance of pre-service teachers in Anambra State, Nigeria, the research investigated on the problems encountered by pre-service teachers in Anambra State Colleges of education during their teaching practice exercise. Three research questions guided the study and three hypotheses were tested at 0.05 alpha level. A descriptive survey design was adopted in which a sample of 285 students in the state colleges of education was used. Data were collected using questionnaire which was validated and reliability index found to be 0.88, using Cronbach alpha. Mean and z-test were used for data analysis. The findings revealed that students encounter problems in teaching practice exercise which were related to student teachers themselves, students' own institutions and students' partner or practicing schools and no significant difference was revealed in the experiences of these problems encountered among the students of Anambra State Colleges of Education. The study recommended among others that Student teachers should be adequately exposed to microteaching or practicum before going into the field to teach.

Keywords: Chemistry, pre-service, microteaching, practicum.

INTRODUCTION

Teaching is a diverse and complex activity. As a child progresses from childhood through adolescence into adulthood, teaching is taking place by his parents, peers, media and other adults. It is an activity performed by an individual (who is a teacher) whose intention is to bring about a change in behaviour. [1] defines teaching as the various activities undertaken by a more experienced and more knowledgeable person to guide and influence others. He also opined that it is an interactive process, primarily involving classroom talk, which takes place between teacher and pupil and occurs within certain definable activities. [2] define teaching as the conscious and deliberate effort by a matured or experienced person to impart information, knowledge and skills to an immature or less experienced person with the intention of the later learning.

Teaching is an exciting and rewarding activity that is very demanding in that it requires the practitioners a clear understanding of what should be done to bring about the most desirable change in the learners, hence, highly proficient skills are necessary to carry out this task. [3] opined that teachers need to be properly trained and educated for this responsibility. To provide professional education for teachers, colleges of education and faculties of education in universities have been established to undertake the process of training teachers. Teacher education is a programme that involves the upbringing of individuals through training in order to acquire knowledge, skills and values and transmit such to others. According to [4] it is a training packaged with content areas and pedagogical skills to prepare trainees to meet the

requirement of the profession. Teacher education programmes exist as Nigeria Certificate in Education (NCE) and Bachelor Degree in Education (B.Ed.) in colleges of education and universities respectively in Nigeria. All the training institutions are imparting theory as well as practical knowledge and skills in teaching. Towards the end of this training, teaching practice is carried out for practical application of the theoretical understanding of different teaching methods.

Teaching practice occupy a key position in teacher education programme. It is an important pre-qualification requirement that affords the teachers in-training the opportunity to put into practice what they have learnt in theory. It is like the practical demonstration in the laboratory. Anekwe sees teaching practice as the practical training and a range of experience to which students are exposed to when they work in classrooms. Teaching practice exercise therefore, gives the student-teachers the opportunity to develop skills in teaching the different subject area of which they have specialized.

Recently, researches have shown that there is a decline in the quality of teaching practice being offered in Nigeria institutions of higher learning [5]; [6]; [7]. This has given a lot of concern among the educators especially on how to provide practical experience for teacher trainees to improve their teaching skills, since there is need for effective teacher education and a reflective teaching practice as part of the process. Hence, this study identified some problems encountered by chemistry teacher-trainees during their teaching practice exercise.

However, the researcher classified these problems based on; students partner school-related problems, students' own school or institution-related problems and student-teachers-related problems. Student-teacher-related problem are the problems contributed by the students

themselves. Students own school or institution-related problems are the problems contributed by students-own schools while partner-school problems are the problems contributed by the practicing schools.

Three questions guided the study and they include:

1. Is there any difference in the mean response of chemistry student teachers of Federal College of Education (Technical), Umunze and Nwafor Orizu College of Education, Nsugbe on student-teachers-related problems which they encounter during their teaching practice?
2. Is there any difference in the mean response of chemistry student teachers of Federal College of Education (Technical), Umunze and Nwafor Orizu College of Education, Nsugbe on students' own school/institution-related problems which they encounter during their teaching practice?
3. Is there any difference in the mean response of the chemistry student-teachers of Federal College of Education (Technical), Umunze and Nwafor Orizu College of Education, Nsugbe on partner schools-related problems which they encounter during their teaching practice?

While three null hypotheses were tested at 0.05 alpha levels.

1. There is no significant difference in the mean response of chemistry student-teachers of the two schools on student-related problems encountered during teaching practice.
2. There is no significant difference in the mean response of chemistry student-teachers of the two schools on students own schools/institution-related problems encountered during teaching practice.
3. There is no significant difference in the mean response of chemistry student-teachers of the two schools on partner-schools related problems encountered during teaching practice.

MATERIALS AND METHOD

The research adopted a descriptive survey design in which the opinion of the subjects were sought. This design was

considered appropriate for the study because according to [8] "descriptive survey involves those studies which aim

at collecting data on and describing in a systematic manner the characteristics, features or facts about a given population”.

There was no sample randomization as the population size was considered adequate; hence all the final year chemistry students in 2015/2016 academic session of degree and NCE programmes in the two Colleges of Education were used because they have undergone teaching practice at the end of their third year level. A total of two hundred and eighty-five chemistry education students in 2015/2016 academic session in the two colleges of education were used (128 final NCE and degree students from Nwafor Orizu College of Education Nsugbe and 157 final

years NCE and degree students from FCEG Umunze).

The instrument for data collection was a structured questionnaire which contain 20 items response based on 4 point scale type of Strongly Agree(SA), = 4, Agree(A) = 3, Disagree(D) =2, and Strongly Disagree(SD) = 1. The instrument has two sections: A and B. Section A dealt on personal data of the respondents while section B consists of student-teachers-related problems, students-own school/institution-related problems and partner-school-related problems. The instrument was validated and tested for reliability using Cronbach alpha. Its reliability index gave 0.88. The research questions were answered using mean, standard deviation while the hypotheses were tested at 0.05 alpha levels, using z-test.

RESULTS

Table 1: Responses on Student-Related Problems Encountered According to Schools.

S/N	Items	Umunze (N = 157)		Nsugbe (N = 128)	
		Mean	SD	Mean	SD
1	Non-challant attitude of student-teachers during practicum.	3.24	1.80	3.20	1.79
2	Student-teachers are not interested in the exercise because they are not being paid.	2.89	1.70	2.83	1.68
3	Student-teachers do not use various methods of teaching during the exercise.	3.00	1.10	2.87	1.05
4	Student-teachers do not prepare notes of lesson,	2.71	1.05	2.82	1.07
5	Student-teachers do not use instructional materials while teaching.	3.40	1.87	3.36	1.83

Table 2: Responses on Students School/Institution Related Problems Encountered according to Schools.

S/N	Items	Umunze (N = 157)		Nsugbe (N = 128)	
		Mean	SD	Mean	SD
6	Students are not adequately exposed to micro-teaching exercise before the real field practice.	3.50	1.87	2.50	1.70
7	The practicum exercise of few months in a semester is rather too short.	3.52	1.88	2.92	1.71
8	Student-teachers do not have opportunity to interact with the supervisors before and after the exercise.	3.56	1.89	3.06	1.75
9	Students-teachers are not well trained in lesson note preparation.	2.89	1.06	2.78	1.01
10	Student-teachers are not effectively supervised by their supervisors during the exercise.	2.98	1.73	3.74	1.93
11	Student-teachers do not have the opportunity to with their partner schools interact before the real teaching practice starts.	3.73	0.49	3.58	1.89

Table 3: Responses on Partner School Related Problems Encountered According to Schools.

S/N	Items	Umunze (N = 157)		Nsugbe (N = 128)	
		Mean	SD	Mean	SD
12	Lack of teaching aids in the partner-schools	3.40	0.49	3.45	0.86
13	Lack of incentives by the partner-schools.	2.98	0.68	2.71	0.81
14	The period allocated in school time-table for chemistry is not enough.	3.63	1.81	3.65	1.61
15	No availability of accommodation for teaching practice teachers in the partner-schools.	3.35	1.82	3.29	1.79
16	Inadequate infrastructural facilities.	2.98	1.71	2.75	1.68
17	Permanent teachers do not have good relationship with the teaching practice teachers.	3.11	1.76	3.36	1.83
18	Students are given subjects outside their areas of specialization.	3.36	1.83	3.33	1.65
19	Students in partner-schools show uncooperative attitude towards student teachers.	3.09	1.76	2.89	1.70
20	There are always increase workloads on student-teachers.	3.29	1.79	3.36	1.81

Table 4: Testing of Null Hypothesis 1

Schools	Number	Mean	SD	df	z-cal	z-crit p(<0.05)
Umunze	157	3.04	1.50	283	0.08	1.960
Nsugbe	128	3.02	1.48			

Table 5: Testing of Null hypothesis 2

Schools	Number	Mean	SD	df	z-cal	z-crit p(<0.05)
Umunze	157	3.36	2.09	283	0.74	1.960
Nsugbe	128	3.16	1.67			

Table 6: Testing of Null hypothesis 3

Schools	Number	Mean	SD	df	z-cal	z-crit p(<0.05)
Umunze	157	3.24	1.52	283	0.50	1.960
Nsugbe	128	3.20	1.46			

DISCUSSION

The findings from the results revealed that students encountered all the problems listed during their teaching practice exercise. These findings are in line with the findings of [9]; [7]; [8], that there is a decline in the quality of teaching practice in Nigeria institutions of higher learning. This decline could be as a result of these problems encountered during this exercise.

The findings also revealed that there is no significant difference in all these problems encountered by the students of Federal College of Education (T), Umunze and Nwafor Orizu College of Education Nsugbe. This implies that the problems are equally common among them. The findings also revealed that student

teachers are not given opportunity to interact with their supervisors and partner schools before the real exercise. These findings are in line with those of [4] who remarked that some supervisors do not even have time to sit down to discuss their observations and comments with the student-teachers. The brief discussions with them are often done in a jiffy because these supervisors are always in a hurry to move to the next school. Nakpodia also revealed that most supervisors do ask the students to come and submit their lesson plan without classroom interaction which is the essential part of the exercise especially the student-teachers that are in far away schools with bad roads.

CONCLUSION

The findings from the present study identified a lot of problems encountered by student-teachers in Colleges of Education in Anambra State, Nigeria. One may rightly conclude that poor

performance of students in those Colleges in teaching practice was as a result of these problems they encounter during the exercise. By implication students-teacher education graduate cannot effectively

write a comprehensive lesson plan and make good use of teaching methods in the classroom. Thus, efforts should be made towards redressing and arresting this

dismay situation through effective and proper training of science teachers and provision of materials and non material teaching resources in schools.

RECOMMENDATION

Based on the findings from this study, the following recommendations were made:

1. School authority of the student-teachers should make sure that these students are adequately exposed to micro-teaching practices before going to the field.
2. The students-teachers should be given enough opportunity to interact with their supervisors after the exercise and also to interact with the practicing schools before going into the field as this will make them to be familiar with their field environment.
3. The practicing/partner schools should help to provide enough

infrastructures especially on teaching aids.

4. The teacher in partner schools should help to be friendly with students-teachers to maintain good relationship.
5. The student-teachers themselves should develop a positive attitude towards the micro-teaching exercise.
6. Finally the partner schools among others should make available accommodation for the student-teachers as some of them come from far places.

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