

**THE DETERMINATION OF THE APPROPRIATENESS OF  
ESSAY TYPE QUESTIONS IN ASSESSMENT OF  
STUDENTS' PERFORMANCE IN "THEORY AND  
PRACTICE OF COMMUNICATION" IN KADUNA  
POLYTECHNIC**

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**BEING A PAPER PRESENTED AT THE 34<sup>TH</sup> ANNUAL  
CONFERENCE OF THE INTERNATIONAL ASSOCIATION  
FOR EDUCATIONAL ASSESSMENT (IAEA)**

**AT**

**CAMBRIDGE, UK.**

**SEPTEMBER 7<sup>TH</sup> - 12<sup>TH</sup> , 2008**

## **ABSTRACT**

Polytechnic Education, an arm of tertiary education in Nigeria, is critical to the nation's technological advancement. Chief among the structures put in place by the National Board for Technical Education (NBTE), the federal government's supervisory agency for Technical Education is the institution of the "Use of English" for all disciplines in the Polytechnics. The NBTE has formulated the syllabi for the teaching/learning of the "Use of English" for all levels of Polytechnic education. Topics range from grammar to other aspects. Students are assessed during and at the end of every semester. For instance, in Communication" as a topic, students are always assessed using essay type questions only. This paper therefore examines how appropriate this practice is through the use of a questionnaire and three sets of test on objective and essay type questions administered on a group of students. Responses were analyzed using mean scores, standard deviation, variance and constituency index were employed to ascertain the measure of dispersion. Findings support a combination of both essay and objectives type questions in students' assessment in order to make them read extensively and intensively to acquire in depth knowledge.

## **INTRODUCTION**

Polytechnic education is an arm of tertiary level education in Nigeria. It is critical to the nation's technological advancement. The federal government's supervisory agency for Technical Education is the National Board for Technical Education (NBTE). This agency instituted the "Use of English" course for all disciplines in the Polytechnics. Syllabi for teaching/ learning of the "Use of English" for all levels of Polytechnic education are drawn up by the NBTE. Topics taught range from grammar to essay writing, letter writing, logic, report writing, communication theory. etcetera. The Higher National Diploma Programmes being run in Kaduna Polytechnic are broken down into two academic sessions of Higher National Diploma (HND) I and II. The "Use of English" first semester course for HND II is titled GNS 401: "Communication in English".

The performance objectives for the course are that on its completion students should be able to define communication, explain the communication theory, analyze in detail the communication process and explain the different methods of communication. The assessment of students in the course is carried out during and at the end of the semester. The aims of designing school assessment according to Schofield (1972) and Ozigi and Canham (1978) are not to assess what a student can remember, but what he has learnt and to help the teacher appraise his methodology. Essay and objective tests are the methods often used in assessment. Experiments, according to Schofield, have shown that essay and objective tests in English do not measure the same things. Before designing any examination therefore, the teacher has to identify his aims/objectives (Ozigi et al, 1978 and Reiner, Bothel, Sudweeks and Wood, 2002). This determines the type of test questions to use. The verbs in the performance objectives which Moss and Holder (1998) as cited by Reiner et al (2002) call the directive verbs describe the abilities to be assessed.

### **Statement Of The Problem**

GNS 401: "Communication in English" for HND II has over the years been always assessed using only the essay type question to derive both continuous assessment and examination scores. The examination is a three hour paper and the students are expected to answer four essay questions. This means a student is expected to spend 45 minutes on each question, that is, within each 45 minutes, he has to think, plan, organize and write an essay. In scoring the essay, four aspects are considered namely: the content, organization, expression and mechanical accuracy.

In line with the stated objectives of the course, this paper examines the appropriateness of this practice.

## **Purpose Of The Study**

The purpose of this study is:-

- (i) to determine the appropriateness of using only the essay type question in the assessment of students in GNS 401: “Communication in English”.
- (ii) to find out what the student’s perception/opinion on the use of only the essay type question in the assessment of GNS 401: “Communication in English”.
- (iii) to suggest ways of improving the assessment of GNS 401: “Communication in English”.
- (iv) to provide a pilot study for more elaborate studies on the other topics of “ Use of English”.

## **Research Questions**

The following questions guided this research:

- (i) How appropriate is the use of only the essay type questions in the assessment of students’ performance in GNS 401: “Communication in English”?
- (ii) What is the students’ perception/opinion on the use of essay or objective tests in the assessment of GNS 401: “Communication in English”?

## **Scope and Limitation**

This study is limited to the theory, process and methods of communication which is an aspect of English Language teaching/learning at the HND II level of Polytechnic education. It is an important aspect of the syllabus because all the other aspects are tied to students’ ability to communicate effectively. HND II students were used as the subjects for the study because they were at the terminal level of the programme run in Kaduna Polytechnic. The study was limited to the College of Environmental Studies and to HND II Environmental Science and HND II Topographic Science classes because these are the classes taught by the researchers as servicing lecturers. This made it easier to administer the instruments.

## **Population and Sample**

The population of this study were the 39 HND II students from the two departments of Environmental Science and Topographic Science of the 2007/2008 academic Session who all offered the GNS 401: “Communication in English” course as a basic requirement for their certification. The entire students not being too many, were included in the sample. Hence the sample was 100% representative of the population

## **Instrumentation**

Two types of instrument were engaged. The first was a questionnaire constructed by the researchers to analyse students' opinion on the use of essay and objective type questions. It had twelve (12) likert scale type questions. Secondly, three sets of essay question tests and two sets of objective question tests were constructed and administered on the subjects.

## **Validity of Instruments**

The questionnaire was constructed to cover the research questions and was subjected to the criticism of experts in Educational Measurement, Research Methods and Statistics from the University of Benin and the Departments of Technical Education and Mathematics and Statistics, Kaduna Polytechnic. The questions used in the Essay question tests were obtained from the examination office of the Department of Languages, Kaduna Polytechnic. They were questions which had already been externally moderated by experts. The objective questions were constructed using the suggestions of Mckenna and Bull (1999) and subjected to the criticism of the experts mentioned above.

## **Administration of Instruments**

The researchers personally administered the questionnaire on the two classes. For the essay question and objective question tests, the subjects were randomly grouped into three herein referred to as A, B, and C and each 13 in number. They were taught the theory, process and methods of communication for three weeks in a 2 hour lecture session each week. The three tests were written over a period of three weeks. First test for Groups A and B was Objective questions and Essay question for group C. Second test for Groups A and C was Essay question and for Group B. Objective questions. Third test for all the groups was essay question.

## **Method Of Data Analysis**

To analyse the data obtained from the questionnaire, the Mean, Standard Deviation (SD) Variance and Consistency Index (C1) were engaged in order to specify the extent of clustering of the observations around the mean. To obtain a C1 each variance was subtracted from 1 and the closer the value was to 1, the higher the agreement while the further the value was from 1 or the closer it was to 0, the lower the agreement. In the case of the data obtained from the objective and essay type tests the mean and SD were employed to analyse the test scores of the respondents.

## **Data Presentation And Analysis**

**Table 1.1: Mean and Standard Deviation of Students' Perception of the use of Essay and Objective questions.**

	<b>Statement</b>	<b>Mean</b>	<b>SD</b>
1	Essay questions make me to read extensively	3.46	0.73
2	When objective questions are to be used, I only look out for fine details in my study	2.59	0.86
3	With objective questions I can always pass my examinations	2.47	1.01
4	When both essay and objective questions are to be used I work harder	3.60	0.59
5	With objective questions I read only topics I believe are important	2.13	0.81
6	Fairness in marking by teachers is guaranteed with essay questions	2.84	1.00
7	With objective questions all students are equally treated by teachers	3.70	0.57
8	When objectives questions are to be used I read extensively	3.42	0.72
9	Objective questions are usually very easy	2.11	0.83
10	When objective questions are used it is easy to pass examinations	2.66	0.91
11	Objective questions should not be used in Polytechnic examinations	2.19	1.01
12	Only essay questions should be used in Polytechnic examinations.	2.29	0.96

The results obtained from Table 1:1 above show that students agreed with statements 1, 4, 7, 8, which have mean scores of 3.46, 3.60 3.70 and 3.42 respectively. Statements 2, 3, 5, 6, 9, 10, 11 and 12 have mean scores of 2.59, 2.47, 2.13, 2.84, 2.11, 2.66, 2.19 and 2.29 respectively which show that students were undecided. SD for statements 1, 4, 7, and 8 are 0.73 0.59, 0.57 and 0.72 which shows that the measure of dispersion is not as high as in statements 2, 3, 5,6,9,10,11 and 12 which are 0.86, 1.01, 0.81, 1.00, 0.83, 0.91, 1.01 and 0.96. The most representative statements are thus 4 (SD, 0.59) and 7 (S.D, 0.57).

**Table 1.2 Consistency Indices of Students' Perception of Use of Essay and Objective questions.**

	<b>Statement</b>	<b>Variance</b>	<b>CI</b>
1	Essay questions make me to read extensively	0.007	0.993
2	When objective questions are to be used, I only look out for fine details in my study	0.252	0.748
3	With objective questions I can always pass my examinations	0.250	0.75
4	When both essay and objective questions are to be used I work harder	0.005	0.995
5	With objective questions I read only topics I believe are important	0.186	0.814
6	Fairness in marking by teachers is guaranteed with essay questions	0.222	0.778
7	With objective questions all students are equally treated by teachers	0.005	0.995
8	When objective questions are to be used I read extensively	0.007	0.993
9	Objective questions are usually very easy	0.210	0.79
10	When objective questions are used it is easy to pass examinations	0.256	0.744
11	Objective questions should not be used in Polytechnic examinations	0.229	0.771
12	Only essay questions should be used in Polytechnic examinations.	0.239	0.761

The results presented in the above table show that statements 1, 4, 7 and 8 have CI of 0.993, 0.995, 0.995 and 0.993. These show that students strongly agreed that both essay and objective tests make them work harder because they read extensively for both. Respondents were also very certain of equal treatment by lecturers when objective questions are used to test them. Statements 3, 6, 9, 11 and 12 have CI's of 0.75, 0.778 0.79, 0.771, and 0.761. These showed students were not very certain they could always pass objective question tests, fairness in marking is guaranteed in essay question test, objective question tests are very

essay, only objective questions should not be used nor only essay questions in Polytechnic examinations. It is interesting to note that because mean scores do not sometimes effectively indicate the measure of central tendency statements 2 and 10 which in Table 1:1 above showed students were undecided became the statements they least agreed with because they have CI's of 0.748 and 0.744 which showed students were least certain that objective question tests are easy to pass and that they look out for only fine details when objective tests are used. Statement 5 which has the next highest CI of 0.814 shows that in objective question tests students concentrate on topics they believe are important. This means in objective question tests students do not only read extensively but as well intensively. It is also important to note that while respondents were very certain of equal treatment by lecturers, in objective question tests (statement 7: CI, 0.995), they were not so certain about this in the essay question tests (statement 6: CI, 0.778)

**Table 2: Raw Scores, Mean and Standard Deviation of Essay and Objective Tests of Respondents.**

Type of Test	Raw Scores	Mean	S.D.
	<b>Group A</b>		
Test 1 Objective	14,15,14,11,13,13,14 12,14,15,15,14, 12	13.5	1.58
Test 2 Essay	6, 7,9,6,6,7,6 6,6,6,6,8,6	6.5	1.17
Test 3 Essay	6,8,8,8,7,7,3 9,6,7,6,7,8	6.9	1.55
	<b>Group B</b>		
Test I Objective	12,13,12,11,13,12,12 14,12,12,14,12,13	12.5	0.50
Test 2 Objective	12,13,14,13,12,13,14 15,14,13,14,14,13	13.4	0.54
Test 3 Essay	8,8,6,6,7,5,6 7,8,7,7,6,7	6.8	0.62
	<b>Group C</b>		
Test I Essay	5,8,7,7,6,6,7 3,8,7,7,7,8	6.6	1.31
Test 2 Essay	6,7,7,6,8,7,7, 9 8,8,6,6,4	6.8	1.46
Test 3 Essay	6,8,6,6,6,7,8,8 7,7,8,7,7	7	0.79

Table 2 reveals that the highest raw score for essay question tests was 9 out of 15 while for objective question tests, it was 15. Lowest essay score was 3 while for objective question tests, 11 which is higher than the highest essay question test score. Standard deviation of Group B Test 1 (objective) Test 2 (objective) Test 3 (essay) and Group C Test 3 (essay) have the least variation of 0.50, 0.54, 0.62 and 0.79. They were thus the most representative. On

the basis of this, it could be seen that generally, students performed better in the objective question tests than in the essay question test.

### **Findings**

- (1) Students read extensively and intensively when both essay and objective questions are used to test them.
- (2) Students believe teachers are less subjective in marking objective questions than essay questions.
- (3) Using only the essay question to assess students; in GNS 401: “Communication in English” is not appropriate.
- (4) A combination of the essay and objective questions in assessment of students will better assist the teacher in the assessment of what students have learnt and in the realization of the objectives of the GNS 401: “Communication in English” course.

### **Discussion**

The findings obtained show that there will be more advantage in using both essay and objective question types in assessment of students in GNS 401: “Communication in English”. This practice will encourage both intensive and extensive reading which according to Olaofe (1991) are fundamental not only in higher education but in real occupations. Moreover, objective questions in English assess what students have learnt (content) while essay questions assess the application of what has been learnt (Schofield, 1972). Respondents were not very certain whether objective questions should not be used or whether only essay question type should be used (see Tables 1:1 and 1:2). The reasons for this uncertainty are obvious. In essay question, a student cannot score 0 because of the four aspects that are assessed whereas it is possible to score 0 in an objective test because answers are more specific. In addition the essay type question is more time consuming to answer than the objective question type. Also, the best condition for essay writing is not present in an examination hall. In addition, teachers are less subjective in scoring the objective type questions. This uncertainty led to the use of the three sets of tests conducted and Table 2 shows that student’s scores were consistently higher in the objective questions tests than in the essay question ones. Hence to continue the practice of assessment of students using the essay tests only because it is the method that lecturers are used to (or the tradition) is not favourable to the students.

## **Conclusion and Recommendation**

The main concern of this research is the determination of the appropriateness of the use of only the essay question type in the assessment of the students in GNS 401: “Communication in English” the findings obtained have clearly shown that it is not appropriate because of some of the inherent disadvantages of the essay question type. Therefore, based on these findings and in order to minimize the dominance of either the essay or objective question type this paper is of the view that both the essay and objective question types be used in the assessment of students in the GNS 401: Communication in English” topic of the “Use of English” course of Kaduna Polytechnic.

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