Group Essay Writing: Facilitating Team Learning Using ICT for Life Long Education

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ABSTRACT

Many tertiary level students do not use the Internet to develop as critical readers, writers and thinkers. The study set out to assess the impact of group essay writing method using ICT on the writing skills of B.Sc. year II science education students of the Technical Teacher Training Programme (TTTP) of Yaba College of Technology, Yaba, Lagos. The population was made up of 260 B.Sc. II TTTP students. The study sample comprised all 40 B.Sc. II Science Education students. The design of the study is quasi-experimental which involved the use of two group pre-test, post-test design in an intact class for data sourcing. Three research questions and two hypotheses guided the study. Data were collected using three essay writing achievement tests in GS 207-Humanities 1, after exposing the sample to some topics on Humanities in the Internet. Data were analyzed using Means, Standard Deviation and Analysis of Covariance (ANCOVA). The findings showed that the group with ICT used data conferencing to edit and modify their write up simultaneously and compared their results whereas the group without ICT used the traditional method of writing individual essays. The ICT group also performed significantly better than the non ICT group in writing, reading and thinking tasks. Based on the findings the following recommendations were made among others that schools should empower youths with IT skills and integrate ICT into mainstream education and training through teacher training and retraining. ICT should therefore be made compulsory in the school curriculum from primary through secondary to tertiary levels for lifelong learning in Nigeria.

BACKGROUND TO THE STUDY

Group method of teaching and learning is synonymous with collaborative learning, peer teaching, cooperative learning, team teaching and learning among other names. Group work in an English language classroom is a formal learning group established to complete an assigned task like writing an

essay. Several researchers (Akumabor, 2005; Ikonta, 1996; Aronson 1996; Hicks, 1991 and Thorne, 2004) have found group work to be useful pedagogically for individualizing instruction, improving the quality of student talk, promoting human relations, and increasing students' motivation. Group essay writing could be used to facilitate team learning through the use of Information and Communication Technology (ICT).

Recently, there has been a lot of criticisms about the quality of writing skills exhibited by the products of the Nigerian educational system. Their writings are characterized by poor knowledge of tenses and sequences of tenses, weakness in concord, winding constructions due to illogical thinking and direct translation from the mother tongue.

One of the widely discussed issues in contemporary times in education is the role of technology in teaching and learning. Researchers in education agree that Information and Communication Technology (ICT) is a powerful tool for improving people's knowledge, skills and competencies thereby making them more literate. Many students and teachers in Nigeria today are not literate in computer and ICT. According to Barrett (2003) computer illiteracy is today's new illiteracy. This has led to schools, colleges, and universities now making computers and Internet facilities necessary resources for producing students who are technologically proficient and who can think critically and creatively for a life-long learning.

It is highly beneficial to teach students with ICT. UNESCO (2004) confirmed that ICT enables students to demonstrate understanding of the opportunities and implications of the uses for learning and teaching in the curriculum context; to plan, implement and manage learning and teaching in an open and flexible learning environment. This is because the ability to access and effectively use information is necessary for development.

The world is rapidly changing and for this reason, there is an increase in automation, democratization and global market competition. In order to cope with this rapidly changing world, students and teachers must learn and use the new technologies especially for teaching and learning English Language.

English language in Nigeria is taught and learnt from primary school through secondary to the tertiary level. It is the language of instruction. Writing which is one of the basic language learning skills is a productive skill. It is also called the literacy skill because it enables people to organize their thoughts clearly, logically and critically. In addition, writing skills are the basic tools of higher education because students take lecture notes, write tests, conduct researches and write reports.

In Nigeria, despite various researches that have been carried out to improve the teaching of writing skills (Awodele, 2003; Akumabor, 2001; Akorie, 1998 and Ikonta 1996) students still write poorly.

This is corroborated by the Chief Examiner's Report of the West African Examination Council's (WAEC) Chief Examiner's Report on School Certificate English language (SSCE) November/December 2002 as follows:

"Most of the candidates cannot write acceptable English sentences. The problem is not only grammatical but also semantics. Many a time, one barely

understands what the candidates write. This is a general lack of sensibility to idioms of English resulting in several un-English collocations"

WAEC Chief Examiner's Reports on English Language have consistently lamented the woeful performance.... Indeed the evidence of illiteracy is increasing by geometrical progression every year and this is causing our examiners genuine concern. (WAEC Chief Examiner's Report, 2004).

In expository writing, many students simply list without developing the ideas. This usually leads to 'spaghetti' like single sentences which discuss different ideas in the same paragraph. In addition, many single sentence paragraphs are very common.

The Science Education students in TTTP also exhibited this poor quality referred to above in their essays on GS 207 Humanities I course. This has led to the researchers finding more effective and collaborative method of improving the teaching and learning of expository writing through ICT using the Internet facilities in Yaba. College of Technology.

Humanities

The Humanities is a Renaissance word which was used to refer to the rediscovery of lost glories of Rome and Greece through philosophy, History and Literature. However, in contemporary times, humanities relates to that which is human, the very essence of humanness. It flourished historically in Europe from the 13th to the 15th centuries through the rediscovery of the writings of the classical Greeks and Romans.

Humanism teaches that all human beings have dignity and worth and therefore should command the respect of their fellow beings. The humanists' study of man formed the intellectual core of the cultural reawakening called the Renaissance. Nowadays, according to Abimbola (1991), the term Humanities serves as the collective reference to all branches of learning concerned with human thoughts, feelings, relations, man's mind, as distinguished from the sciences which deal with man's physical existence and his surroundings. The Arts disciplines are concerned with exploring the capabilities of the human spontaneous, fanciful imagination and expressivity as manifested in oral, aural, written or visual mediums like literature, music, fine arts, language, history, religious studies, philosophy and law.

Some of the objectives of the National Policy on Education (FME, 2004) are to produce citizens who will think rationally, respect the worth and dignity of the individual and acquire competencies necessary for self-reliance. For these reasons, the curriculum for science students makes it compulsory that they offer either Humanities GS 207 in the first semester and Humanities GS 208 in the second semester or they take the Social Science courses while in B.Sc. 2. In like manner the Arts students are expected to register and take courses in General Science in order that they may all be exposed to a rounded education.

In the words of Eruvbetine (2001) Humanities (as formal and informal disciplines) is devoted to identifying, exploring, creating and projecting the true essence of human civilization. Consequently, Humanities courses would

enable science students to think rationally, respect the worth and dignity of the individual and acquire competencies necessary for self-reliance thereby imbibing life-long education.

Life - long Education

The issue of lifelong learning has been discussed at several conferences globally. This is as a result of technological advancement, rapid evolution of society and the dynamic changes and innovations in science and technology. (Dias, 1999). ICT is called the new technologies which allow learning to take place without restricting the learner to time or space. The Internet should be accessible to all learners all through life in order to open the door to lifelong education for all.

Life long learning implies "the concept of learning to learn and it is seen as a solution to most of the problems introduced by the learning revolution of the information age" (Akudolu, 2004, p. 60)

When our schools implement the ICT curriculum, students would become computer literate. Race (1989) in support of students using ICT to learn said that students would learn and relearn all through their careers because technological advances would continuously make past learning obsolete. This according to him would mean that teachers would spend more time and resources helping students to develop their learning skills.

In this new information era, computer literacy is an important and critical skill that students and teachers need to acquire through the use of the web for life-long learning

Use of the Web Assisted Study

Internet is the most important technological innovation of today, which can easily be integrated into every aspect of human endeavor.

In recent times, improvements in technology have enhanced the possibilities of teaching and learning. There are free services provided by many companies over the Internet such as free hosting, domain names, digital library, applications, e-learning, books, email services, mailing lists, chatting and photo data base. Nigerian institutions of higher learning should develop Internet-based Learning Media (IBLM) which has become a trend in many educational organizations globally. However, the high cost of Internet connection, non availability of e-learning software, the erratic nature of electricity in Nigeria, and the high level of computer illiteracy among some academics have contributed to inefficiency of IBLM education in Nigeria. The question therefore is: what will be the impact of Internet research on the expository writing achievement of male/female science students in the Internet Group and the Non Internet group?

Purpose of the study

The upsurge in students population in tertiary level of education in Nigeria calls for a more effective and interactive method of teaching and learning.

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Evidence abound in literature that small group interaction improves communication between and among students. Specifically, the objectives of this study are:
• To assess the impact of internet research on the expository writing achievement of male/female science education students.
• To determine how students in Internet group and non Internet group will perform in writing achievement test.
• To find out if students within the internet group would differ in their expository writing achievement test.
• To identify the impact of group work on the interaction of the students.

Research Questions

In order to guide the study, the following research questions were formulated:
1. What is the impact of Internet research on the expository writing achievement of male/female science students?
2. How will students in the Internet group and those in the non Internet group perform in expository writing achievement test?
3. Will students within the Internet group differ in their expository writing achievement test?
4. How will group work affect the interaction of all the students?

Hypotheses

The following hypotheses were postulated for the study and tested at the 0.05 level of significance.
1. The mean scores in expository writing achievement of students in Internet group will not differ significantly from those of their counterparts in the non Internet group.
2. Male and female students in the Internet group and non Internet group will not differ significantly in their achievement in expository writing.

Method

The design of the study is the pretest-posttest experimental and control group in two intact classes. The study set out to assess the impact of group essay writing method using ICT on the writing skills of year two B.Sc science education students.

Population of the Study

The population of the study consisted of all B.Sc 2 TTTP students for the 2006/2007 academic session in the Technical Teacher Training Programme (TTTP)of Yaba College of Technology in affiliation with the University of Nigeria, Nsukka. Specifically, the population was made up of 286 B.Sc. year 2 students for the session.

Sample and Sampling Technique

The 40 science students who opted for Humanities are those in Biology Education, Integrated Science Education, Home Economics Education, Mathematics Education and Computer Science Education. They formed the sample for the study. However, the 40 students were randomly assigned into two groups of 20/20 each through the use of the table of random numbers. The Internet group was further grouped into 4, five (5) students per group. The non Internet group was also put into 4 groups made up of 5 students.

Instrument for Data Collection

The data for this study were collected using 5 essay topics selected by the group members from Humanities 1 GS 207 essay topics listed below.
•   General concept of Humanities including Greek influences on the development of classical humanities.
•   History of development of Humanities up to the 20th century
•   Humanities and development
•   The disciplines of the humanities :   African Humanities
•   Aspects of culture and civilization
•   A humanistic definition of culture
•   Language and culture.
The five essay topics were written by the subjectsthus:1 at the pre-study level (pretest),3during treatment and1 at the post study level (post-test).

Treatment Package

A Pre Expository Writing Achievement Test (PREWAT) was given to both the control and experimental groups. Teaching took place within eight weeks. While the Internet group did literature search from the library and were taught with model essay topics downloaded from the Internet, the control group were taught with the traditional method of lectures and they also did literature search from the library. The Internet group had laptops and access to the Internet in their class whereas the non Internet groups were taught to do library search. The Internet group was also encouraged to do surfing, web search and teleconferencing with members of their group and the use of e-mail to send drafts of their essays to the researchers for correction and feedback. All through the 8 weeks, the Internet group and non Internet group studied the eight topics on Humanities 1, wrote 5 expository essays - one for pre-test, three during treatment and the one for post-treatment. The researchers at the end of 8 weeks administered a Post Expository Writing Achievement Test (PEWAT) on Humanities topics in groups of 5s in both experimental and control. There were 4 groups of 5 members each in the experimental and 4 groups of 5 members in the control group.

Method of Data Analysis

The mean scores of the students in pre-test and post-test were compiled and the standard deviation and Analysis of Covariance ANCOVA were used to analyze the data.

Results

The results obtained are presented in Tables 1 and 2 below relative to the hypotheses.

Hypothesis 1

The mean scores in expository writing achievement of male/female students in Internet group will not differ significantly from those of their counterparts in the non Internet group.

Table 1: Mean Scores and Standard Deviations of Subjects in Post Treatment Scores on Expository Writing (Treatment X Gender levels).

Experimental Groups	X	SD	N	Gender Level	X	SD	N
Treatment	8.17	2.29	20	Male	5.69	2.77	26
Control	4.13	1.59	20	Female	6.48	2.86	31
Total	6.12	2.82	40	Total	6.12	2.82	57

Hypothesis 2

Male and female students in the Internet group and non Internet group do not differ significantly in their achievement in expository writing.

Table 2: Analysis of Covariance (ANCOVA) of students' Post Treatment Achievement Scores on Expository Writing (Treatment X Gender levels**)**

Sources of variation	Sum of squares	DF	Mean Square	F	Significance
Covariate Pre-achievement scores)	65.936	1	65.936	277.947	
Main effects	254.409	2 ,	127.205	53.915	*00
Treatment	247.932	1	247.932	105.085	.00*
Gender	2.627	1	2.627	1.113	.29
2-way Interaction	3.109	1	3.109	1.318	.25
Treatment X Gender	3.109	1	3.109	1.318	.25
Explained	323.454	4	80.863	34.274	
Residual	122.686	35	2.359		
Total	446.140	39	7.967.		

*Significant at .05 levels

Result presented in Table 1 indicates that the Internet group exposed to instruction in the importance of Internet to expository writing and who practised writing using ICT had a posttest achievement mean score of 8.17 and standard deviation of 2.29, while those in the non Internet group had a posttest achievement mean score of 4.13 and standard deviation of 1.59. The results suggest that ICT resources enable students to think logically and write creatively thereby achieving success in expository writing skills with positive effect on reading skills.

The difference in achievement is significant as indicated in the result in Table 2 which shows that treatment as main effect is significant on the Internet group more than the non Internet group. This is shown by the observed F value of 105.085, which is significant at 0.00 level, and therefore significant at 0.05 level. The null hypothesis of no significant effect of instruction in ICT on students' achievement in expository writing skills is hereby rejected. This means that students who are exposed to ICT facilities and research through the Internet would improve significantly in writing skills and thereby learn to learn for life long learning.

DISCUSSION AND CONCLUSION

The results of this study have revealed that the use of ICT for teaching expository writing led to significant difference in the expository writing achievement between the Internet group and the Non Internet group. This agrees with the findings of earlier researchers (Thorne, 2004) who concluded that group learning or cooperative learning plays a significant impact on the ability of learners to collaborate and take responsibility for their learning. The difference in the mean scores of the two groups is as a result of the treatment received by the subjects in the Internet group. This is because the Internet provides users with thousands of online data information which the subjects used to improve their thinking strategy and to evaluate information. Essays written by members of the Internet group were more objectively discussed than those of the subjects in the non Internet group. Gender did not make a significant difference between the mean scores of the students in the Internet group and their counterparts in the non Internet group.

RECOMMENDATION

The study has shown that when students work in groups using ICT, it enhances their interaction and leads to academic excellence. From the findings the researchers made the following recommendations:

1.. That ICT which is currently part of the school 'curriculum from primary to tertiary level should be well implemented both practically and theoretically to enable students become computer literate

2.   Government at the three tiers; federal, state and local government in Nigeria

should popularize the use of ICT in schools at all levels by setting up resource centres in schools.

The Lagos State government has taken a bold initiative by creating the enabling environment for integrating computers in teaching through its 40 resource centers.'

3.   Teachers should be trained and re-trained in the use of ICT in teaching and learning for quality assurance.

4.   Teachers should use small group strategy for teaching in order to make students take responsibility for their learning.

5.   Peer teaching should be encouraged through group work in order to promote a climate of cooperation especially in large language classes for life long learning.

6.   The Federal Government of Nigeria should as a matter of urgency improve on the power supply sector to enable schools with computers and Internet facilities embark on full utilization of ICT for teaching in schools in Nigeria as its done in Botswana, South African and other countries.

7.   Teachers should practice group essay writing in English language classrooms in order to give students lots of practice in writing skills.

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