

**A COMPARATIVE ANALYSIS OF THE MANAGEMENT OF SANDWICH  
BACHELOR OF EDUCATION DEGREE PROGRAM IN TWO PUBLIC  
UNIVERSITIES IN NIGERIA**

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**ABSTRACT:** *The emerging global trend of acquiring teaching competence through the sandwich training program has become a viable option for solving the problem of teacher quality and quantity. The sandwich program has helped to enhance access for those seeking admissions into universities and the large number of students admitted for each contact period and the intensive nature of the program requires effective management. It is against this background that this study compared the management of sandwich programs at the University of Abuja (UniAbuja) and the University of Nigeria Nsukka (UNN). A descriptive survey design was employed for the study. The population consisted of 560 and 676 final year students of UniAbuja and UNN respectively. Purposive and simple random sampling techniques were used to select a sample of 100 students from each university thereby making a total of 200 students. A four-point likert-scale questionnaire was used to collect the data which were analyzed with mean scores while a t-test was used for the hypotheses testing. Results of this study show that there was significant difference in the learning environment and information sources in both universities with UNN fairing better than UniAbuja. The study inter alia suggests greater improvement in UniAbuja learning environment.*

**KEYWORDS:** Sandwich Program, Management Of Sandwich Program, Teacher Preparation, Learning Environment, Information Sources.

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## **INTRODUCTION**

Teacher education in Nigeria has gone through various stages of organization and development involving one innovation or another. The aim was to produce high quality manpower for the Nigerian education system. One remarkable outcome of such innovations was the introduction of sandwich education program in tertiary institutions. The sandwich program offer courses that have been accredited for the Faculty of Education and its objectives are in line with the main objectives of the Faculty of Education. As an innovation in teacher education program, it is organized and ran during school long vacations to avail those who are working the opportunity to participate as well as to afford serving teachers the opportunity of improving themselves academically and professionally.

Around the world, the demand for re-training and continuing education is soaring among workers of all ages (The Economist, 2014). For instance, it is reported that distance learners and sandwich students are dominating the increasing enrollment of non-traditional students in the University of Ghana Legon (Kwadzo 2014). This global phenomenon is applicable to Nigeria where many teachers are seeking re-training or are upgrading their skills. The reasons for the increasing demand for the sandwich program range from, the high competition for admission into the regular school system, financial problem, family problems, to uncertainty of losing job by serving teachers after study leave etc.

In addition, despite the policies in place to create and enhance access into public and private traditional universities and other degree awarding institutions by the government in Nigeria, the limited carrying capacities of these institutions still leave many prospective students un-admitted into these institutions. Some other reasons include inadequate facilities to accommodate increased enrollment, dearth of academic staff, and the exorbitant fees charged by some private universities (Obasi, et al 2014). Consequently, the sandwich program becomes the viable option for many of those who seek to further their education in higher institutions. The rise in the demand for sandwich education and the unique characteristics of this population (adults) has some managerial implications for Institutes of Education of Universities that administer this program. The emphasis on quality education depends on the teachers who are the pivot on which the education wheels revolve. More importantly, knowing that the quality of a nation's education system cannot rise above its teachers, it is imperative that the issue of teacher preparation both at regular and sandwich programs are managed very properly.

This paper is therefore aimed at comparing the management of sandwich program of two Nigerian universities viz-a-viz the provision of a conducive learning environment, and ensuring utilization of adequate information sources. To do this, the paper is divided into five sections. The first section is the introduction and rationale for the study. The second section reviews literature on quality of teachers and the sandwich program. Section three presents the methodological procedure, while section four presents the results. Section five presents the discussion and finally section six gives the policy implications.

## LITERATURE

### *Quality of Teachers and the Sandwich Programme*

In the contemporary Nigerian society, government has been trying to address the challenge of producing qualified teachers to teach at various levels of educational system in sufficient numbers. As a result of the declining standard of our education system, the Federal Government prescribed the Nigerian Certificate in Education (NCE) as the minimum qualification for teaching in the primary and secondary schools (FGN 2004). One of the problems of the declining quality of education could be attributed largely to the fact that serving teachers are not very much abreast with the changes in instructional techniques and curriculum innovations. This fact was reiterated by Okey (2012) when he observed that teachers are the curriculum implementers and guide to the learners and therefore should be abreast of new teaching pedagogies with innovations in instructional strategies and other research based developments in teaching and learning.

It is the quest for producing quality teachers that the sandwich programmes were designed to (i) produce teachers at graduate and post-graduate levels to teach their chosen subjects effectively in secondary schools, teacher training colleges and tertiary institutions; (ii) infuse creativity into teaching, research and learning; (iii) utilize their specialize training to give leadership in critical assessment and the development of self-discipline; and (iv) inculcate in students the spirit of enquiry, creativity, and the ability to think critically in the society (EKSU 2014). To achieve these goals, the effective management of the Institutes of Education in universities to a large extent remains a fundamental issue for the realization a nation's educational objective. This was exactly what Afe (1992) meant when he observed that the realization of the educational objectives depends on the quality and quantity of the available teaching manpower. This he said can be influenced by the availability of adequate training and re-training programs for those about to teach and those already teaching respectively. He argued that the efficiency of teacher training should be the main determining factor in the success or failure of education to meet the country's needs.

More worrisome with regards to the quality of education in our country, is the fact that students have consistently performed poorly in external examinations such as the West African School Certificate (WASC) and the National Examination Council (NECO). Ameh (2014) noted that only 31.8% of the total number of students who wrote the 2014 WASC examination obtained credits in five subjects and above, including English language and Mathematics as against 38.81% and 36.57% in 2012 and 2013 respectively. Poor and inadequate quality of teachers in the system may be attributed to one of the causes of this abysmal poor academic performance of students. As one of the policy instruments for enhancing teacher quality, and given its intensive nature, there is therefore need for effective management of sandwich programs. It should be recognized that the student population who benefit from this sandwich program are predominantly adults compared with student population in the regular university system. This therefore requires a different managerial approach. This is why Nzeneri (1996) posited that learning environment is one of the most essential elements in adult teaching and learning. Nzeneri (1996) further argued that the physical learning environment for adult learners must be different from the formalistic classroom arrangement for teaching children which is characterized by rows of small seats or chairs in front of an authoritarian teacher.

In the era of information communication technology (ICT), most university libraries are gradually being digitalized. This no doubt would create challenges for some adult learners who are not ICT compliant. However, the adult learners who are re-entering the school to update their knowledge need to be abreast with the current information sources available in tertiary institutions. The teaching and learning process for the sandwich programs need to encourage the use of many information sources given the intensive nature of the program. According to Shaheeda et al (2007) in DoE (2001), ICT can do and play a number of roles in education and one of them is developing the kind of graduates and citizens required in an information society.

## METHODOLOGY

This study was carried out using a descriptive survey design. The study areas comprised of the University of Abuja (UniAbuja) and University of Nigeria Nsukka (UNN) which were selected along the geographical divide of the country from among the federal universities running the

sandwich program. The population of the study was made up of 560 final year students of the UniAbuja and 676 final year students of UNN. The choice of the final year students was because they are in a better position to assess the management of the program having spent five years in the various institutions. Purposive and simple random sampling techniques were employed in selecting 100 students from each university thereby making a total of 200 students. A four- point likert-scale structured questionnaire was subsequently administered to the 200 respondents.

Among others, the questionnaire covered two key issues examined in this study. These issues are adequacy of learning environment; and adequacy of available information sources for effective academic program. Analysis of data involved both descriptive and inferential statistical tools. Means were used to analyze the fundamental research questions, while t-test was used for testing the hypotheses of the study. The analysis of data was organized within the framework of the key research questions. The questions are (a) how adequate is the learning environment provided at the University of Abuja and UNN for the organization of sandwich programs? and (b) how adequate are the available information sources for sandwich students for effective academic program at UniAbuja and UNN? Two hypotheses for this study were derived from these research questions. A decision rule was made for the research questions. A cut-off point of 2.50 was established as the mean result for the research questions. Any mean from 2.50 and above was regarded as positive result while mean scores below 2.50 were regarded as negative.

## RESULTS

This section presents the results from the analysis of the research questions and hypotheses of the study. Table 1: Descriptive analysis of the adequacy of the learning environment provided at *UniAbuja and UNN for sandwich students*

S/N	Statement	Universities	Response Categories				Mean	S.D	Decision
			VA	A	IA	VIA			
1.	The lecturers treat the students respectfully as adult	UniAbuja	31	42	18	9	2.95	0.093	Adequate
		UNN	51	27	13	9	3.20	0.098	Adequate
2.	The classrooms are spacious for effective learning	UniAbuja	2	14	25	59	.59	0.080	Inadequate
		UNN	18	24	42	16	2.40	0.097	Inadequate
3.	The seats are comfortable	UniAbuja	2	7	33	58	1.53	0.072	Inadequate
		UNN	16	30	36	18	2.44	0.096	Inadequate
4.	The classrooms are well illuminated	UniAbuja	9	14	39	38	1.94	0.094	Inadequate
		UNN	9	24	43	24	2.18	0.090	Inadequate
5.	The chalkboards are clear and writing of the lecturers are visible	UniAbuja	10	38	29	23	2.35	0.095	Inadequate
		UNN	5	28	37	30	2.08	0.088	Inadequate
6.	There are good toilet facilities and urinals	UniAbuja	1	2	23	74	1.30	0.056	Inadequate
		UNN	3	4	26	67	1.43	0.071	Inadequate
7.	The communication media are adequate	UniAbuja	10	17	29	44	1.93	0.104	Inadequate
		UNN	9	21	30	40	1.99	0.099	Inadequate
	Grand mean	UniAbuja	1.94						Inadequate
		UNN	2.25						Inadequate

Source: Field Survey, 2014

Table one presents the adequacy of the learning environment provided at UniAbuja and UNN for the organization of Sandwich program. From the table, the University of Abuja and UNN sandwich students had 1.94 and 2.25 grand means respectively. These mean scores are less than the cut-off point of 2.50. Following the decision rule adopted earlier, this indicates that the students at both universities are of the opinion that the learning environment provided for academic activities for sandwich students are inadequate.

**Table 2: Descriptive analysis of the adequacy and use of available information sources for sandwich students**

S/N	Statement	Universities	Response Categories				Mean	S.D	Decision
			VA	A	IA	VIA			
1.	Internet sources available at the institution of Education	UniAbuja	5	12	14	69	1.53	0.089	Inadequate
		UNN	31	34	17	18	2.78	0.10	Adequate
2.	The University Library available for use by the sandwich students	UniAbuja	23	31	20	26	2.51	0.11	Adequate
		UNN	56	33	9	2	3.43	0.074	Adequate
3.	The University Bookshop has textbooks purchase and use by the students	UniAbuja	22	30	34	14	2.60	0.098	Adequate
		UNN	62	25	9	4	3.45	0.082	Adequate
4.	Lecturers have textbooks for use by the students	UniAbuja	23	27	34	16	2.57	0.10	Adequate
		UNN	24	41	22	13	2.76	0.097	Adequate
5.	There are mimeographs (handouts) provided for students' use	UniAbuja	32	40	18	10	2.94	0.095	Adequate
		UNN	24	33	28	15	2.66	0.10	Adequate
	Grand mean	UniAbuja	2.43						Inadequate
		UNN	3.02						Adequate

**Source: Field Survey, 2014**

Table two presents the adequacy of the information sources for use by the students of sandwich program at UniAbuja and UNN. According to the table, UniAbuja students had a grand mean of 2.43 while UNN had a grand mean of 3.02. Following the decision rule adopted, UniAbuja has inadequate information sources for sandwich students since the mean score is less than the cut-off point of 2.50 while UNN has adequate information sources available for sandwich students.

**H<sub>0</sub>: There is no significant difference in the mean rating of students at UniAbuja and UNN regarding the adequacy of learning environment for organizing sandwich program.**

To test this hypothesis, the mean rating of UniAbuja and UNN sandwich students as regards the adequacy of learning environment in the organization of sandwich program was subjected to a t – test for two independent samples and the results are as presented in table 3 below;

**Table 3: t-test result of respondents on adequacy of learning environment for organizing sandwich program**

Variables	N	Mean	S.Deviation	t <sub>calculated</sub>	t <sub>critical</sub>	D.F	p-value
UniAbuja	100	1.9408	0.453	4.215	1.96	198	0.000
UNN	100	2.2519	0.597				

Reject H<sub>0</sub> if t<sub>cal</sub> > t<sub>critical</sub> OR if p-value < 0.05

The t-test table above shows that there is a significant difference in the opinion of Uniabuja and UNN students regarding the adequacy of learning environment for organizing sandwich program. This is because the  $t_{cal}$  value of 4.215 is greater than the critical t-value of 1.96 and the p – value of 0.000 was less than the level of significance of 0.05 level at (198) degree of freedom. The null hypothesis is therefore rejected and the conclusion reached is that there is a significant difference in the mean rating of students at UniAbuja and UNN regarding the adequacy of learning environment for organizing sandwich program.

**H<sub>0</sub>: There is no significant difference in the mean rating of students at UniAbuja and UNN regarding the adequacy of available information sources for students academic program.**

To test this hypothesis, the mean rating of UniAbuja and UNN sandwich students regarding the adequacy of available information sources was subjected to a t – test for two independent samples and the results are presented in table 4 below;

**Table 4: t-test result of UniAbuja and UNN students regarding the adequacy and use of available information sources for students academic program.**

Variables	N	Mean	S.Deviation	$t_{calculated}$	$t_{critical}$	D.F	p-value
UniAbuja	100	2.431	0.66386	6.83	1.96	198	0.000
UNN	100	3.016	0.54360				

Reject H<sub>0</sub> if  $t_{cal} > t_{critical}$  or if p-value < 0.05

The result in table 4 above shows that there is a significant difference in the opinion of UniAbuja and UNN students regarding the adequacy of information sources for sandwich students. This is because the  $t_{cal}$  calculated value of 6.83 is greater than the  $t_{critical}$  value of 1.96 and the p – value of 0.000 was less than the level of significance of 0.05, at the 198 degree of freedom. The null hypothesis is therefore rejected. Since the null hypothesis is rejected, the conclusion reached is that; there is a significant difference in the mean rating of students at UniAbuja and UNN regarding the adequacy and use of available information sources for organizing sandwich program.

## DISCUSSION

The result first research question addressing the adequacy of the learning environment provided at the University of Abuja and University of Nigeria for organizing sandwich program revealed that the students in the two Universities are carrying out their studies in an inadequate learning environment given the grand means of 1.94 and 2.25 respectively. This no doubt would impact negatively on the academic performance of the students. Even though the learning environment in both universities is inadequate, there is a significant difference in the mean rating of students at UNN and UniAbuja. The mean score of UNN students is much higher than that of UniAbuja.

From the observation of one of the authors of this article who has worked in both universities, UNN has a relatively better learning environment than UniAbuja. In UNN for instance, the sandwich students enjoy the facilities of the university environment (i.e. hostels and classrooms)



while their counterparts at UniAbuja are off-campus students and also hold their lectures in the nearby primary school buildings which are less conducive. The importance of learning environment is widely accepted in the field of education both at the primary, secondary and tertiary levels. More importantly, the unique nature of the sandwich students who are predominantly adult learners with peculiar characteristics require a more conducive learning environment.

In providing learning environment for sandwich students, the psychosocial and physical environment must be taken into consideration. According to Nzeneri (1996), the role of the physical, social psychological and organizational environment are of immense relevance in adult education process. Adult educators are so much concerned about the quality of adult learning environment for effective learning. Nzeneri (1996) argued that for teaching and learning to be effective, the environment is expected to have physical facilities, appropriate social working conditions (ie conducive interpersonal relations), informal setting and conducive organizational setting for effective participation of the learners.

However, it is surprising that some of these learners have their lectures outside the regular university environment (in some primary school setting with limited classroom space) due to irregular academic calendar that has made it difficult for many universities to be on vacation during the long vacations. For instance, a study carried out by McLaughlin (n.d), found out that there is a correlation between the physical and sensory elements of the adult classroom environment and motivation to learn. Most students also reported that the physical classroom environment influenced their academic performance (McLaughlin n.d). Given the large number of students admitted into this programs in both institutions, both students and lecturers could be affected by the temperature and illumination of the room, sitting arrangements and even limit the teachers to few teaching methods. This no doubt would impact on teaching and learning.

The result of research question two regarding the adequacy of available information sources for students indicates that information sources at UNN is adequate with a mean score of 3.02 while that of UniAbuja is inadequate with a mean score of 2.43. However, there is a significant difference in the mean rating of both universities regarding available information sources for students. The intensiveness of the sandwich program demands more available information sources to complement the lecture received. The result of UNN is encouraging because it appears students have and make use of other information sources unlike those at UniAbuja because of their use of campus facilities. This confirms Kwadzo (2014) finding that about 74% of sandwich diploma students in the University of Ghana used campus library and internet facilities even though they did not receive any library orientation or user education. This finding applies more to the students of UNN than UniAbuja.

However as Heery (1996) observed, the short and intensive nature of the sandwich program filled with lectures and tutorials virtually leaves no time for the sandwich students to use the libraries. This problem is more compounded when sandwich students live and run their lectures outside the university environment. Again, a study by Boadi and Letsolo (2004) investigating the information needs and seeking behavior of distance learners revealed that students' sources of information were their colleagues, personal collections and family members rather than on-campus library resources because access to them were not easy.

## POLICY IMPLICATION

One of the implications of this study is that managers of sandwich programs in tertiary institutions should see the students as adult learners. This will go a long way in improving the management approach utilized in training and re-training quality teachers for Nigeria education system. The authorities of the UniAbuja should endeavor to maintain a stable academic calendar to help improve on the learning environment of her sandwich students. This will create opportunity for students to reside on campus and utilize facilities like their counterparts in UNN. This is because a good learning environment will enhance effective teaching and learning. Orientation of new students into the sandwich programs should be taken seriously. This will help in providing relevant information and ameliorate most of the challenges faced by these students in adapting to academic environment.

## CONCLUSION

This study examined the management of the sandwich programs of both the UniAbuja and UNN drawing out some comparable lessons. The study revealed that the learning environment in both institutions is inadequate with the UNN having a relatively better learning condition. One major factor for this is that sandwich students in UNN enjoy the facilities of their institution both in the hall of residence and in lecture halls, while their counterparts in UniAbuja are off-campus students and also hold their lectures in the primary and secondary schools within the vicinity of their university.

With respect to availability and utilization of information sources, the study revealed that there is a significant difference in the mean rating of students at UniAbuja and UNN regarding the adequacy of available information sources for organizing sandwich program. The UNN students reported adequacy and better use of information sources than their UniAbuja counterparts. Again, the fact of residing on campus and making use of facilities and resources explains the difference in opinions of students from the two universities. Ignorance on the availability of these information sources might equally worsen the situations in universities where students did not receive proper orientation on admission.

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