INNOVATIVE PEDAGOGIES: UNPACKING THE AWARENESS LEVEL AND EXTENT OF UTILISATION AMONG ACADEMIC STAFF OF UNIVERSITIES IN SOUTH-EASTERN NIGERIA

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Abstract: *Innovative teaching pedagogies are useful tools for effective teaching and learning which can positively enhance students' learning experiences. The application of innovative pedagogies in teaching has, therefore, yielded positive results in many countries especially in the Global North. However, little is known about the awareness and application of these innovative pedagogies in countries in the Global South such as Nigeria. This research addressed this problem using a mixed method research approach comprising five focus group interviews and survey data from 460 respondents across four federal universities in south-eastern Nigeria. Findings in this research revealed that there is a significant low level of awareness and poor utilisation of innovative teaching methods. Inadequate facilities and equipment, inappropriate skills and classroom structure are some of the basic factors that limit the utilisation of innovative teaching methods by academics in these universities.*

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Keywords:*University Teachers; Innovative teaching pedagogies; Awareness and Utilisation;*

1. Introduction

Innovative pedagogy is one way of enhancing teaching and learning performance and primarily entails the use of suitable innovative teaching techniques (Khairnar 2015).Given the importance of education in social change and transformation, innovative teaching methods are imperative in higher education institutions (HEIs) as they improve the value of educational system (Nicolaides 2012) and help balance the quality of graduates and the expected level of standard in industries (Thomson 2015). Students are thus empowered to tackle global challenges that need 21stcentury skills (Kivunja, 2014) as the purpose of education is not only to train students to become literate but also to encourage deeper knowledge and self-confidence, critical thinking enhanced through engaged questioning, and focused listening (Sachou, 2013; Bowman, 2018). As these cannot be achieved by the usual traditional method which primarily focuses on lecture-based teaching, there is a need for the application of innovative teaching methods in the classroom (Holmes, Wieman & Bonn, 2015). There are however encumbrances (for instance, cost) in adopting such techniques, especially in developing countries. This research thus investigates the awareness level and extent of utilisation of these teaching methods in Nigerian universities.

2. Review of Related Literature

The critical issue in this paper is the extent of utilisation and the level of awareness of innovative teaching methods. Research has shown how teachers in secondary school and higher education institutions utilise innovative teaching methods (Udeani & Okafor 2012; Khurshid &Zahur 2013). In Nigerian secondary schools, studies (e.g. Oyelekan, Igbokwe & Olorundare 2017) have found a significant low level of utilisation of innovative teaching strategies among teachers. This implies that teachers are still very comfortable with using the

traditional lecture method which might not encourage meaningful learning. In private institutions, however, there is considerably more reliance on innovative teaching strategies which in turn have significant positive impacts on the performance of students (Naz & Murad 2017). Among student teachers, there is a low utilisation of innovations and techniques of educational technology as they mostly rely on the traditional lecture method in lesson deliveries (Ibrahim 2017). Studies conducted in Nigerian universities show that team teaching and questioning is the innovative strategy mostly used by university lecturers (Adebayo & Kolawole 2016). Lecturers that use this method in lesson delivery do not, however, place students in charge of their own learning (Adebayo &Kolawole 2016). Innovative teaching methods can be applied only when teachers are aware of such techniques and when resources are available (Naz & Murad, 2017). Teachers also need to be willing to adopt these strategies when the resources are available. Achor, Samba & Ogbeba (2010) study show that there are cases in which the level of teacher awareness of innovative teaching strategies are significantly high, and yet only a few of such strategies are effectively utilised while teaching. Thus, using the following research questions and hypotheses, this study investigates the level of awareness and extent of utilisation of innovative teaching methods by the academic staff of federal universities in south-eastern Nigeria.

2.1 Research Questions

What is the level of awareness among academic staff of federal universities in southeast Nigeria regarding innovative teaching methods?

To what extent does utilisation of innovative teaching strategies by experienced academic staff of federal universities in south-eastern Nigeria differ from that of the inexperienced academic staff?

To what extent do the academic staff of federal universities in south-eastern Nigeria utilise innovative teaching methods?

2.2 Research Hypotheses

HO1: There is no significant difference in the level of utilisation of innovative teaching strategies between experienced and inexperienced academic staff of Federal Universities in southeast Nigeria.

Method

The study adopted a mixed method design (Creswell, 2014) as both quantitative and qualitative approaches were used to address the objectives of the study. The sampling technique employed in data collection was purposive, relying on academics from the rank of assistant lecturers to full professors from four Federal Universities in south-eastern Nigeria. Data for the quantitative aspect of the study were drawn from 460 questionnaires administered to these academics. The core survey items formed two 3-point Likert type scale which had three sections, A, B and C. Option scales of Very Aware (VA=3), Aware (A=2) and Not Aware (NA=1) and that of Frequently Used (FU=3), Seldom Used (SU=2) and Not Used (NU=1) were provided for levels of awareness and utilisation respectively. For this study, the level of utilisation of the strategies are rated as follows: Frequently used: 2.5- 3.0, Seldom used: 1.1- 2.4, Not used 1.0 while the level of awareness is rated as; Not Aware: 1.0–1.9, Aware: 2.0–2.5, Very Aware: 2.6-3.0

Qualitative data were based on four focus groups, one in each university with an average of four members. The instrument was validated by two lecturers in the Department of Science Education and Department of Agric Economics of two different universities. Reliability of the questionnaire was determined using Cronbach Alpha with a coefficient reliability index of 0.90 and 0.91 respectively for the two sections of the instrument. Descriptive statistics, frequency count and percentage were used to analyse the research

questions while Independent T-test was used to test the Null Hypothesis. Thematic analysis was used to analyse qualitative data.

Results

The data obtained with respect to each of the research questions and hypotheses are presented and explained as follows:

Tables

Research Question 1: What is the Level of Awareness among academic staff of Federal Universities in south-eastern Nigeria regarding innovative teaching methods.

Table1. Mean of University lecturers awareness regarding innovative teaching methods.

Innovative Strategies	N	Minimum	Maximum	Mean
No 1 Flipped learning	460	1.00	3.00	1.67±0.72
No 2 Problem Based Learning	460	1.00	3.00	2.05±0.67
No 3 Jigsaw Cooperative learning,	460	1.00	3.00	1.44±0.67
No 4 Think-PAIR-Share	460	1.00	3.00	1.48±0.60
No 5 Team Teaching	460	1.00	5.00	2.39±0.67
No 6 Kahoot	460	1.00	3.00	1.18±0.47
No 7 Post-it-pile-it	460	1.00	3.00	1.27±0.51
No 8 In Class Work Sheet	460	1.00	3.00	2.12±0.72
No 9 Blogging	460	1.00	3.00	1.83±0.63
No 10 Mind-Maps	460	1.00	3.00	1.40±0.62
Grand Mean				1.68
Valid N (listwise)	460			

Table 1 presents statistics on Level of awareness among University lecturers regarding innovative teaching methods. Result revealed the mean response of the university lecturers in south-eastern Universities regarding their familiarity with the 10 selected innovative teaching strategies as1.68. Their level of awareness showed that they were not familiar with the selected innovative teaching strategies.

Research Question 2: To what extent does utilization of innovative teaching strategies by experienced academic staff of Federal Universities in the South-eastern region of Nigeria differ from the inexperienced academic staff?

The corresponding hypothesis to this research question is hypothesis 1.

HO1: There is no significant difference in the level of utilisation of the innovative teaching strategies between experienced academic staff of Federal Universities in the South-eastern region of Nigeria and inexperienced ones.

Table 2: T-test table for significance on Level of Utilization of the Innovative Teaching Strategies Based on Experience

Innovative Strategies	Status	N	Mean	SD	Df	F	t	Sig	HO1	Decision
Flipped Learning	Inexperienced	340	1.92	0.76	1378	0.067	-2.449	0.796	Not. Sig	Accept
	Experienced	120	2.04	0.78	620.035		-2.429			

PBL	Inexperienced	340	2.36	0.68	918	0.049	-.202	0.825	Not. Sig	Accept
	Experienced	120	2.38	0.67	422.687		-.203			
Jigsaw	Inexperienced	340	2.33	0.63	1378	5.636	.739	0.018	Sig	Reject
	Experienced	120	2.30	0.69	585.395		.709			
Think-Pair-Share	Inexperienced	340	2.46	0.69	458	0.003	-.106	0.958	Not. Sig	Accept
	Experienced	120	2.47	0.70	208.463		-.106			
Team Teaching	Inexperienced	340	2.59	0.64	458	1.091	-.586	0.297	Not. Sig	Accept
	Experienced	120	2.63	0.61	218.195		-.600			
Kahoot	Inexperienced	340	2.43	0.74	458	2.648	-.706	0.104	Not. Sig	Accept
	Experienced	120	2.48	0.67	226.170		-.736			
Post-it-Pile-it	Inexperienced	340	1.63	0.72	458	0.172	-.925	0.679	Not. Sig	Accept
	Experienced	120	1.70	0.72	209.203		-.926			
InClass Work Sheet	Inexperienced	320	1.92	0.81	458	2.368	.203	0.125	Not. Sig	Accept
	Experienced	120	1.90	0.85	199.224		.197			
Blogging	Inexperienced	320	1.52	0.76	458	1.714	-.334	0.191	Not. Sig	Accept
	Experienced	120	1.55	0.69	226.623		-.349			
Mind Maps	Inexperienced	320	1.56	0.68	458	1.714	-1.655	0.004	Sig	Reject
	Experienced	120	1.68	0.79	184.806	8.499	-1.541			

Table 2 presents statistics on the extent to which utilisation of innovative teaching strategies by experienced academic staff of federal universities in south-eastern Nigeria differs from the inexperienced academic staff. Result revealed that the extent of utilising innovative teaching strategies by both experienced and inexperienced academic staff of the universities did not differ to a large degree. This is so given that both groups did not use one strategy at all, while they sparingly used seven strategies and frequently used one strategy. Result revealed no significant difference in the mean response of the experienced academic staff of Federal Universities in south-eastern Nigeria and that of the inexperienced academic staff. By implication, the extent of utilisation was not affected by the staff years of experience. The hypothetical statement was rejected only on two methods where the sig values were below 0.05. The rest were accepted implying no significant difference.

Research Question 3: To what extent does academic staff of federal universities in south-eastern Nigeria utilize innovative teaching methods? Interpretation of Table 3 is based on the percentage of teachers that used the strategies as well as the level of utilization as represented by the mean utilization values.

Table 3 Frequency Counts, Percentages and Mean of University Lecturers Level of Utilisation of the Innovative Teaching Strategies

	Strategies	Frequently Used (Frequency)	Freq. Used %	Seldom Used (Frequency)	Seldom Used %	Not Used (Frequency)	Not Used %	Mean Utilization
1	Flipped Learning	147	27.0	189	41.0	124	32	1.95
2	PBL	221	48.0	187	40.7	52	11.30	2.37
3	Jigsaw	195	42.3	219	47.0	46	10.7	2.32
4	Think-Pair-Share	266	57.8	140	30.4	54	11.7	2.46
5	Team Teaching	314	68.3	110	23.9	36	7.8	2.60
6	Kahoot	266	57.8	132	28.7	62	13.5	2.44
7	Post-it-Pile-it	66	14.3	166	36.1	228	49.6	1.65
8	In Class Work Sheet	136	29.6	148	32.2	176	38.3	1.91
9	Blogging	70	15.2	104	22.6	286	62.2	1.53
10	Mind Maps	60	13.0	152	33.0	248	53.9	1.59

The table shows that most of the academic staff frequently used only team teaching as an innovative teaching method with the highest percentage of 68.3% and a mean utilisation value of 2.60. The level of utilization of the strategies are rated on the earlier described scale which is frequently used: 2.5- 3.0, Seldom used: 1.1- 2.4, Not used 1.0. Going by this, the mean utilisation value of all other innovative strategies fall within 1.1 and 2.4 indicating a seldom use or non-use of those methods. Thus, there is a low utilisation of the innovative strategies since it was only one method that secured 2.60 of mean utilisation value.

The qualitative findings revealed that beyond quantitative findings of low awareness and usage, there are other factors that limit lecturers from using innovative teaching pedagogies when teaching. This is evidenced in the three themes that emerged during the thematic analysis of the focused group data. These themes are inadequate facilities and equipment, inappropriate skills and classroom structure.

Inadequate Facilities and equipment

"In my university….the management is doing well but we still have some lapses in the area of facilities that are needed for teaching. For instance, in the course am teaching currently…we call it laboratory techniques in physics. This course is supposed to be taught in science education laboratory where we have resources for teaching available…where we have a particular type of board for that topic. Some of these things are not available"

This also reflects in one participant's comment:

Of course, there are lots of things that hinder me from utilising innovative teaching pedagogies when teaching. One of it borders on the fact that some of the facilities and equipment that I need to use most times are not available. For instance, in some cases, there is need for a projector to enable me to project my lecture slides and show the students some videos but there is no light [electricity] and even projector….so I won't kill myself because there is a limit to which I can improvise.

From the foregoing, inadequate facilities are one of the major factors that affect the utilisation of innovative teaching pedagogies in schools when lecturers teach their students. It is obvious that when facilities are not available, lecturers will not be able to use the adequate methods that are required to enhance the understanding of lessons.

Inappropriate skill: This has been identified as one of the basic things that affect the utilisation of innovative teaching pedagogies. This reflects in one of the interviewee's statement as follows

Despite what my colleague has said on facilities and equipment, I think another thing that affects utilisation of innovative teaching pedagogies when teaching is inappropriate skills….one thing is to be a teacher and another thing is to have the required skills to execute your responsibilities as a teacher. In most cases, some of the facilities will be available but some teachers will not know how to operate them thus limiting the utilisation

The above statement signifies that another significant factor that affects the utilisation of innovative teaching pedagogies in schools among teachers is inadequate skills. Teachers require high level of technical skills to be able to use some of the facilities that suit the innovative methods they need to drive home the contents of their lesson

Classroom structure

"In fact, in most cases….the classroom structure makes it quite difficult to apply some innovative teaching pedagogies….you see the class with long benches that you cannot give them group in-class assignment"

In a similar statement, one of the interviewees noted as follows

"I think the application of innovative teaching pedagogies needs to be encouraged from the construction stage of the school building. In Nigeria, some lecture rooms are constructed in such a way that it will even make the lecture itself difficult……let alone applying innovative teaching pedagogies. The teacher will be striving to finish on time due to the nature of the class".

Discussion

The main aim of this research was to investigate the level of awareness of the innovative teaching methods and the extent of utilisation of the methods among academic staff particularly in federal universities in south-eastern Nigeria. Statistical analysis of the quantitative data revealed that the teaching staff of the sampled universities demonstrated a low level of awareness of innovative techniques. This contradicts Gbadamosi's (2013) study which, though at the secondary school level but on same innovative teaching methods, found a high awareness level of those selected innovative teaching methods among respondents.

Low utilisation of the innovative strategies was also revealed by the current study. The low awareness found in the current study significantly contributed to such a low level of utilisation of the methods. Academic staff members of universities in south-eastern Nigeria have not explored to its best, the different innovative teaching methods which are able to improve teaching and learning. Only one teaching method (Team Teaching) was utilised by 68.3% of the population while other methods were sparingly utilised in classroom situations. This is similar to findingsby Adebayo &Kolawole (2016) who showed that Team Teaching is the most used innovative teaching method among university teachers in Nigeria, findings by

Ibrahim (2017) who reported a low utilisation of innovations and techniques of educational technology among student teachers, and findings by Oyelekan, Igbokwe&Olorundare (2017) who found a significant low level of utilisation of innovative teaching strategies among teachers in Nigeria.

The study agrees with Naz& Murad (2017) position that innovative teaching is only possible when teachers are aware of available resources. Lack of awareness is tantamount to lack of utilisation. As the focus group discussions show, the reasons for under-utilisation of innovative methods are centred around lack of awareness especially the lack of knowledge on how to implement innovative techniques in classrooms. Another finding of this research shows that the level of utilisation of innovative teaching methods did not differ between experienced teaching staff and inexperienced teaching staff. In other words, professors and senior lecturers used innovative teaching methods at the same level as their less experienced colleagues. The qualitative aspect of this study shows that though awareness and utilisation level of innovative pedagogies are low, there are significant factors that limit the utilisation of these methods among lecturers. Some of the identified factors are inadequate facilities and equipment, lack of appropriate skills among lecturers and the structure of classrooms in most universities. This implies that even if some lecturers can and are willing to utilise some innovative teaching pedagogies, inadequate facilities and equipment in most universities would make it impossible for them to apply the methods whilst teaching.

There are certain limitations to the current study. Firstly, using only four federal universities in south-eastern Nigeria excludes other institution in the region especially private and state universities. This notwithstanding, the findings can reasonably be extrapolated to cover other institutions in the region since most lecturers in federal universities serve as either adjunct, sabbatical or contract lecturers in most state and private universities. Secondly, some teaching staff were reluctant about taking part in the study. Despite these limitations, there are valuable outcomes that advance our understanding of the awareness, extent of utilisation, and factors limiting the use of innovative teaching methods in Nigerian universities.

Recommendations

Based on the findings of this research, it is recommended that universities provide adequate facilities and equipment and organise training for lecturers on the efficient utilisation of innovative pedagogies. University management should make adequate provision for well-structured classrooms that will enhance the application of active learning pedagogies when teaching.

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