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LECTURERS' INFLUENCE ON ACCEPTANCE OF ONLINE ASSESSMENT IN FEDERAL UNIVERSITIES IN NORTH EAST OF NIGERIA

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Abstract

The study investigated lecturers' influence on acceptance of online assessment in federal universities in North Eastern Nigeria. The design for the study was descriptive survey. The study had two research questions and two hypotheses. The target population of the study consisted of 3,486 lecturers of four Federal University conducting assessment online in North Eastern Nigeria. Three hundred and thirty-two (332) lecturers responded to the questionnaire. Two experts from science education Abubakar Tafawa Balewa University Bauchi validated the questionnaire. The reliability of the instrument using Cronbach alpha was found to be 0.88. The collected responses were analysed using the descriptive and inferential

statistic. It was found that among the factors influencing lecturers' acceptance of online assessment were Superior Influence and Peer Influence. A significant difference in lecturers' Superior Influence and Peer Influence toward online assessment was found among the universities with technology based federal universities having higher perception than conventional federal universities. The study finally recommended that the federal universities' management should assist the lecturers to fully integrate and utilize technology specifically online assessment.

Keywords: Assessment, Information Communication Technology, Online assessment, Peer Influence, Superior Influence.

Introduction

Assessment is an indispensable machineries and pillar in the process and execution of educational curriculum. Assessment is continuing process that includes planning,

discussion, consensus structure, reflection, measuring, exploring, and enlightening based on the data gathered about a learning objective. This comprises a series of activities including testing, presentations,

project ratings and observations. Assessment in education commensurate on management of instruction, judging on student competence, engaging learners to level of education programs, guiding and counseling, decide on students' education opportunities, certifying competence and so on. Assessment in education is a mean for the genuine improvement of actions; instructional purposes; supporting conversations; professional development; encouraging self-directed learning; policy development and planning.

According to Tosuncuoglu (2018), assessment often applies to detect teaching-learning outcomes alongside the anticipated objectives context intend to accomplish. Assessment used to record on the classroom activities that deserve credit lawfully. Wise and Smith (2016) posited that assessment interprets students' performance capable to influence them concentrate much more in their education. Therefore, assessment data facilitates movement between different institutions, territories or countries as well; valid and reliable assessment data in education inform decision-makers on planning to monitor uncontended issues. Information communication technology provides learning setting that pays attention to knowledge, skills, attitudes, and beliefs that learners bring with them to the learning procedure (Ratheeswari, 2018); allows

students to explore more thoroughly. Information communication technology makes learning easier within a very short time (Amalnik, Moayyedi, & Mirzaei, 2015). Information communication technology provides experiences where individual interact directly with learning material, not just passive but actively in the teaching-learning process, as a result Information communication technology rising the quality of teaching and learning (Salekhova, Nurgaliev, Zaripova & Khakimullina, 2013). Information communication technology enhances learning opportunities for learners to develop their creativity, problem-solving abilities, informational reasoning skills, communication skills, and other higher-order thinking skills (Bhaurao, 2015). Yushau (2005) stated that the contributions of Information communication technology in education are inestimable and surpassed that of traditional teaching methods. Therefore, among Information communication technology platforms incorporated into education is online assessment.

Online assessment is solely electronic form of activities that have been usually used in the individual classroom to assess performance or achievement and give response, such as quizzes, examinations and many more. Numerous activities relevant in online assessment embrace pre-testing and post-testing, diagnostic analysis, student

tracking, for the support and delivery of trustworthy assessment, online assessment improve the ability to learn in online settings (Weleschuk, Dyjur, & Kelly 2019). Online assessment is the use technology for administration, collection, and marking of the assessment and the communication of the results easier and faster. It saves lecturers' time and energies and no need marking the hardcopy responses. Online assessment speed up the storing of students' responses and scores (Koneru, 2017).

Studies have revealed that there are factors that influenced people to accept and consequently utilize new technology. These include peer influence toward technology and superior influence toward technology (Davis, 1989; Kundu, 2021; Alruwais, Wills & Wald 2018). Peer influence refers to strong effect on a person certain behaviour toward the acceptance of online assessment impact on acceptance of technology (Ajzen & Fishbein, 1980). Peer influence emanates from friends and colleagues' opinion and support (Al-Rahim, Alzahrani, Yahaya, Alalwan & Kamin, 2020), act as an influencing device in which working colleagues help each other in admitting meaningful strategies when utilising online assessment. Peer influence in form of guidance on the important role of technology encourage fellow members toward accepting the new innovations specifically online

assessment (Florin, Claudette, Anita & Chris, 2015). The reinforcement and motivation lecturers obtain from friends in utilizing online assessment influence acceptance (Osly, Amelia & Dewi, 2020), include junior and mate colleague impact on persons' intention to exhibit positive behaviour in acceptance of online assessment (Ajzen et al, 1980). Therefore, peer influence facilitates the control of the opinions of others on lecturers' intent toward the use of online assessment. Individuals that rely on their peers' advice often influence them toward accepting and utilizing technology.

Superior influence is a significant role toward acceptance of technology when it involves encouragement from head of departments and university management ranges from technical support and facilities (Elshami, Taha, Abuzaid, Saravanan, Kawas & Abdalla, 2021), and motivation (Fishbein & Ajzen, 1975) toward integration of online assessment influence lecturers to happily come to develop interest toward the application and utilisation. Superior influence regard to the strategy and administration of resources, and encouragement basically toward the fully integration and utilisation of online assessment facilitate the surface of acceptance (Alruwais et al, 2018). Therefore, superior influence refers to enlightenment and guidance toward integration of online

assessment thus having from the senior colleague of both academic and non-academic such as head of department and administrative staff as well university's management within the working environment. The administrative impact include resources availability, acceptance under compression or encouragement toward the important in adaptation of online assessment.

However, many studies have looked into peer influence and superior influence toward technology acceptance, and role they play in individual acceptance of technology, not much known on the role of these factors in determining lecturers' acceptance of online assessment. Against this background, this study set to examine the role of these factors in influencing lecturers' acceptance of online assessment in tertiary institution in North Eastern Nigeria. In particular, current study set to focus on specialised federal universities (technology-based universities) and conventional federal universities (non-technological-based universities) administering assessment online.

Research Questions

The study has the following research questions: -

1. What is the lecturers' superior influence on acceptance of online

assessment in federal universities in North Eastern Nigeria?

2. What is the lecturers' peer influence on acceptance of online assessment in federal universities in North Eastern Nigeria?

Research Hypotheses

The following research hypotheses were formulated and tested at 0.05 level of significance.

H₀₁: There is no significant difference in mean responses of lecturers' superior influence on acceptance of online assessment between specialized federal universities and conventional acceptance of federal universities in North Eastern Nigeria.

H₀₂: There is no significant difference in mean responses of lecturers' peers influence on online assessment between specialized federal universities and conventional federal universities in North Eastern Nigeria.

Methodology

The study concentrated on investigating two specialised federal universities and two conventional universities conducting assessment online in North Eastern of Nigeria in order to permit the work to complete within the time allot for compilation. The two specialised federal

universities known as universities of technology; - Abubakar Tafawa Balewa University Bauchi and Modibo Adama University Yola Adamawa State. The two conventional federal universities were non-technological universities: - Federal University of Kashere Gombe State and Federal University of Wukari Taraba State. Descriptive survey employed for this study. The study carried out in North Eastern States of Nigeria. Stratified random sampling technique was used to select the sample of the study which allowed the researcher to treat each university as a strata mainly each university is capable represented in the study mainly to aid in achieving the objectives of the study. The target population of the study consisted of 3,486 lecturers. Sample of 350 lecturers drawn in the study through

stratified random sampling technique. The instrument used for data collection was adapted from Alruwais et al, (2018). Two experts from science education ATBU Bauchi validated the questionnaire. The questionnaire consisted of twenty-four items, based on a 4- point Likert scale. The data collected from the study analyzed with the help of Statistical Package of Social Science (SPSS) version 25. The collected responses were analysed using descriptive statistics of mean and standard deviation and inferential statistics of t-test. Real limits were used for the interpretation of responses, where mean scores of 4.00 – 3.00 (Strongly Agreed), 2.99 – 2.00 (Agreed), 1.99 – 1.00, (Disagreed), and 0.99 – 0.01 (Strongly Disagreed). The result of this analysis presented in tables 1 to 4.

Result

Research Question 1: What is the lecturers' superior influence on acceptance of online assessment in federal universities in North Eastern Nigeria?

Table 1: Mean Response and Standard Deviation of Lecturers' Superior Influence on Acceptance of Online Assessment in Specialised and Conventional Federal Universities in North Eastern Nigeria

SN	Items Statement	N	M	SD
1.	Updating test instruments require no much more expenses through online assessment.	332	2.90	0.838
2.	Use of online assessment empowers the accessibility of resources such as scores, grade etc	332	2.95	0.881
3.	Online assessment boost exchange of communication that involves learning processes.	332	2.97	0.879
4.	Online assessment enabling measurement of students' performance faster.	332	3.06	0.802
5.	Online assessment facilitates accurate measurement of students' performance.	332	2.68	0.938
6.	Use of online assessment facilitates transfer of information faster.	332	2.95	0.881
7.	Use of online assessment provides high level of security to test procedure.	332	2.82	0.862
8.	Online assessment reduces lecturers' burden when assessing larger number of students.	332	2.79	0.854
9.	Fellow colleagues' confidence on the performance of online assessment influence lecturers toward acceptance.	332	2.93	0.803
10.	Online assessment requires the user to administer less effort when conducting measurement.	332	2.85	0.939
11.	Use of online assessment helps Institutions to provide accurate grading system.	332	2.83	0.782
12.	Online assessment facilitates the reduction of cost of production of examination material.	332	2.90	0.854

Grand Mean **2.89 0.858**

N = Number of Respondents, M=Mean, SD=Standard Deviation. *Strongly Agree (SA)* = 4.00 – 3.00, *Agree (A)* = 2.99 – 2.00, *Disagree (D)* = 1.99 – 1.00, *Strongly Disagree (SD)* = 0.99 – 0.01.

Table 1 showed the lecturers' superior influence toward online assessment in federal universities in North Eastern Nigeria. The table has a grand mean of 2.89

constituted from federal universities, which falls within the range of 2.99 - 2.00 (A). This implied that lecturers of federal universities in the northeast Nigeria agree that superiors

influence acceptance of online assessment in lecturers agree that superiors influence northeast Nigeria. All of the 12 items had incorporation of online assessment in North mean ratings within the range of 2.99 - 2.00 Eastern Nigeria.

(A). This means that the federal universities

Research Question 2: What is the lecturers' peer influence on acceptance of online assessment in federal universities in North Eastern Nigeria?

Table 2: Mean Response and Standard Deviation of Lecturers' Peer Influence on Acceptance of Online Assessment in Specialised and Conventional Federal Universities in North Eastern Nigeria

SN	Items Statement	N	M	SD
1.	Accessible tools use measuring facilitates peers interact with online assessment learners in universities.	332	3.07	0.754
2.	Lecturers' peer influence is due to online assessment provides efficient method for measuring learners.	332	2.96	0.751
3.	Lecturers' peer influence emerges to online assessment provides convenient method of assessing what have taught.	332	2.86	0.862
4.	Online assessment provides friendly interface to lecturers consist of what taught in context of classroom.	332	2.88	0.806
5.	Fellow lecturers' acceptance of online assessment provides the insight of improving in application of alternative Teaching strategies.	332	2.84	0.864
6.	Distribution of distractive test items to all students at the same time facilitates acceptance of online assessment.	332	2.96	0.823
7.	Lack of technology experience affects full control in the use of online assessment among lecturers.	332	2.94	0.851
8.	Validity of online assessment in terms of clarity and understanding influence urgent acceptance among lecturers' colleagues.	332	2.97	0.845
9.	Compilation policy affects the reliability of online assessment among fellow lecturers.	332	2.94	0.824
10.	Using the system when it is free from administer lot of energy facilitates acceptance of online assessment.	332	2.91	0.843
11.	Influence emanated from colleagues' opinion and support facilitate acceptance of online assessment.	332	2.92	0.799
12.	Acceptance of online assessment eliminates the habit and culture of late compilation of result among peers.	332	2.96	0.794
Grand Mean		2.93	0.818	

Table 2 showed the lecturers' peer influence universities in North Eastern Nigeria. The toward online assessment in federal table has a grand mean of 2.93 generated

from federal universities, which falls within the range of 2.99 -2.00 (A). This implied that lecturers of federal universities in the northeast agree that peer had great influence toward acceptance of online assessment. All of the 12 items had mean ratings within the

range of 2.99 -2.00 which is agree (A). This means that the federal universities lecturers agree that peers' influence facilitate the acceptance of online assessment in North Eastern Nigeria.

Research Hypotheses

H₀₁: There is no significant difference in mean responses of lecturers' superior influence on online assessment between specialized federal universities and conventional federal universities in North Eastern Nigeria.

Table 3: t-test Analysis of Lecturers' Superior Influence of Specialized Federal Universities and Conventional Federal Universities

Institutions	N	Mean	SD	df	t_cal	p_value	Decision
Specialized Universities	166	3.07	0.762	330	7.79	0.000	Significant
Conventional Universities	166	2.70	0.956				

The result from table 3 showed that there is statistically significant difference in the mean value and standard deviation of specialised and conventional federal universities lecturers. With the specialised federal universities having mean score of 3.07 and standard deviation of 0.762 (M=3.07, SD=0.762) and conventional federal universities having the mean score of 2.70 and standard deviation of 0.956 (M=2.70, SD=0.956). The result of the independent t-test also showed that there is

significant difference between specialised and conventional federal universities lecturers' superior influence of online assessment in the North Eastern Nigeria with (t=7.79, p=0.000). The null hypothesis is rejected since p<0.05. Therefore, it concluded that there is significant difference in terms of lecturers' superior influence toward online assessment between specialised and conventional federal universities in North Eastern Nigeria.

H02: There is no significant difference in mean responses of lecturers' peers influence on online assessment between specialized federal universities and conventional federal universities in North Eastern Nigeria.

Table 4: t-test Analysis of Lecturers' Peer Influence of Specialized Federal Universities and Conventional Federal Universities

Institutions	N	Mean	SD	df	t_cal	p_value	Decision
Specialized Universities	166	3.03	0.732	330	5.54	0.000	Significant
Conventional Universities	166	2.83	0.904				

The result from table 4 showed that there is statistically significant difference in the mean value and standard deviation of specialised and conventional federal universities lecturers. With the specialised federal universities having mean score of 3.03 and standard deviation of 0.732 (M=3.03, SD=0.732) and conventional federal universities having the mean score of 2.83 and standard deviation of 0.904 (M=2.83, SD=0.904). The result of the independent t-test also showed that there is

significant difference between specialised and conventional federal universities lecturers' peer' influence of online assessment in the North Eastern Nigeria with (t=5.54, p=0.000). The null hypothesis is rejected since $p < 0.05$. Therefore, it concluded that there is significant difference in terms of lecturers' peer influence toward online assessment between specialised and conventional federal universities in North Eastern Nigeria.

Discussion of Findings

The findings revealed that lecturers have good perception of superior influence toward acceptance of online assessment in the North Eastern Nigerian federal universities. The superior impact toward online assessment acceptance are being beneficial to academicians working in the universities. Thus, influence lecturers to agree incorporation of technology (online

assessment) due to the utmost provision of support and resources by the superiors. This is also reported by Alruwais, et al, (2018) that lecturers in Saudi Arabia universities agreed superior influence had impact particularly in influencing them to accept E-assessment. As well, the result corresponded with the findings of Kundu and Bej (2021) who found that superior influence as subjective norm component facilitated

perception toward e-assessment. Moreover, the findings contradicted the result of Sharma and Saini (2022) who reported that teachers' acceptance, continuance intention and self-efficacy had no influence in the use of digital technology.

The difference between specialized and conventional universities lecturers' acceptance of online assessment found with specialised universities having higher perception on lecturers' superior influence toward online assessment. The results of the present study are consistent with findings of Alruwais et al., (2018) who stated that superior influence had strong effect to accept e-assessment in Saudi universities. Kundu (2022) also found that superior influence users' intention toward e-assessment. This discussion confirmed that lecturers' superior influence were factor-influencing acceptance of online assessment in North Eastern Nigerian federal universities. More so, the study revealed that lecturers having good perception of peer influence toward integration of online assessment in the North Eastern Nigerian federal universities. This is not surprising, because online assessment becomes useful to colleagues working within the universities thus influencing lecturers toward integration of information communication technology platform for academic assessment. The universities' lecturers are found to be agree with the

emerging technologies specifically online assessment. The result also reported in the findings of Dastorani and Khoshneshin (2017) which confirmed that subjective norm as the composed factor of both superior and peer influence affect technology acceptance in Iranian Universities. As well, the result corresponded with the findings of Kundu and Bej (2021) who found that peer influence as subjective norms component facilitated students' perception toward e-assessment. Moreover, the findings contradicted the results of Florin, Claudette, Anita and Chris (2015) who revealed that peer influence does not appear to predict faculty perceptions of the usefulness of web-based technology in classroom.

The difference between specialized and conventional universities lecturers' acceptance of online assessment found with specialised federal universities having higher perception on lecturers' peer influence toward online assessment. The results of the present study are consistent with findings of Alruwais et al., (2018) who reported that peer influence had strong impact on subjective norm to accept e-assessment in Saudi universities. Kundu (2022) also established that peer influence users' intention toward e-assessment. This discussion confirmed that lecturers' peer influence was factor-influencing acceptance of online assessment in North Eastern Nigerian federal universities. The studies

contradicted with findings of Florin et al. (2015) who reported that peer influence is not a predictor for usefulness of technology in classroom

Conclusion

This study enlightens educational policy makers on the good perception of lecturers' superior and peer influence toward online assessment in the North Eastern Nigeria. Lecturers perceived that superior and peer influence online assessment important, since superior and peer influence are essential factors influencing acceptance of online assessment. Therefore, there is need for policy makers to persuade lecturers toward ensuring complete utilisation of online assessment. In practice, government should support the lecturers in order to make use of

their perceived superior and peer influence toward online assessment.

Recommendation

The study recommended that since federal universities conducting assessment online in North Eastern had good perception on the superior and peer influence. The universities management through proper monitoring need to ensure effective and consistent guidance towards utilizing online assessment mainly to set away problems of uploading online question and instead to rely on peer input. The universities management require to organise seminar and workshops for lecturers on the role of technology in education such that to enable lecturers relying on self-motivation and perception instead to often depend on superior influence.

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