International Journal of Instructional Technology and Educational Studies (IJITES)
ISSN (Print): 2682-3918 - ISSN (online): 2682-3926
Volume5 / Issue2, April, 2024
DOI: 10.21608/ihites.2024.405559

Assessment Of Students' Attitude And Utilisation Of Blendspace For Learning In National Open University Of Nigeria, Kwara State Study Centers

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Article History
Receive Date: 2023/12/1
Revise Date: 2024/2/17
Accept Date: 2024/2/22
Publish Date: 2024/2/23

Abstract

This study aimed to assess students' attitude and utilization of Blendspace for learning in National Open University of Nigeria (NOUN) study centers. The research instrument was a researcher's designed questionnaire. A total of 342 NOUN students were sampled out of the 2,095 from the three centers. Statistical analysis and interpretation of the data obtained through the questionnaire were carried using Statistical Product and Service Solutions (SPSS) software program using descriptive and inferential statistics. The findings of the study revealed that the majority of the selected undergraduates had a positive attitude towards the integration of Information and Communication Technology (ICT) for learning, emphasizing its relevance to academic needs. Students who recognized the platform's relevance to their academic needs and embraced self-directed learning exhibited more frequent and in-depth utilization, utilizing resources to supplement classroom learning and explore topics beyond the curriculum. This study has shed light on the attitudes and utilization patterns of students towards blended learning in Kwara State study centers. The study recommends the Implementation of initiatives to promote positive attitudes toward ICT tools, support self-directed learning and enhance awareness of Blendspace benefits to optimize its utilization and foster an effective learning environment in NOUN study centers in Kwara State
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Keywords: *Attitude, Utilisation, Blendspace, Technology*

Introduction

Technology revolution has given rise to a digitized society, characterized by continuous changes. This has manifested in a constant state of evolution and development in different areas including education. In this sense, the Information and Communication Technologies (ICT) has become an instrument to transform the pedagogical and methodological praxis of the formative processes. With the advent of ICT in teaching and learning it is imperative to students' attitude towards the use of ICT for learning.

In the ever-evolving landscape of education, the fusion of technology and traditional teaching methodologies has given rise to innovative platforms, notably Blendspace, designed to revolutionize the learning experience. Blendspace, a dynamic digital tool, offers a multifaceted learning environment that combines various educational materials, catering to diverse learning styles and preferences. Blendspace is an online blended learning web tool accessible by both educators and students. It provides attractive features and speed access to online learning materials. Educators could upload the learning materials in a form of storyboard, and it could be organized according to the sequence of the topic Mohd Nora and Abu Kasi (2015) . Other than that, the educators could upload the videos from YouTube; insert links from the websites, audio files and others. On top of that, Blendspace offers online quizzes, which could be attempted by students as a revision tool. Blendspace also provides communication features to allow two-way

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communication between the educators and the students (Mohd Nora & Abu Kasi, 2015).

Blendspace is an Internet-based technology application and it is a platform for creating multimedia lessons that kids can access online by using a drag-and-drop interface (Lestari, 2016). In other words, Blendspace is a tool that can be used to facilitate the creation of classroom material in a digital way. In Blendspace, teachers can organise videos, text, links, images, and quizzes into cubes, then organise them to create lessons, or canvases, for our students to complete independently. Lestari (2016) further noted that content can be pulled from YouTube, Google, Flickr, and other online sources, as well as your own computer, Drop box, or Google Drive. In this sense, a school that has all the facilities to use technological devices can be a new way of making a more interesting class. Angelova, Kiryakova, and Yordanova (2017) opined that BlendSpace is a platform that provides the ability to create interactive video tutorials by incorporating elements from various sources, text and quizzes. When a participant reviews a lesson there is an opportunity to comment and evaluate it by ratings (buttons "like" and "dislike"). The platform provides statistics about the number of views for each lesson, duration of viewing and students' success. The teacher can assign resources and students to his courses created in the platform. The ability to embed resources makes them a universal tool for publishing in various places on the web.

Tsigani and Nikolakopoulou (2018) stated that Web 4.0 tools and Internet applications in designing, organizing and implementing didactic approaches are digital lessons on Blendspace. Blendspace is a free digital platform for creating multi modal interactive lessons with the integration of multiple digital content, from the Internet or not, easily accessible to the students. The lessons are structured in the form of tiles, each of which contains a variety of digital resources such as pictures, videos, links, texts, questions and many more. Every digital resource appears in the order that it is intended to be shown and can be presented successively.

Blendspace is an instrument which enables educators to combine digital resources for their students that are either found through a search of the topic or made by the educators themselves (Sanhei, Jamaludin, & Kanyi, 2020). Agrawal (2020) described Blendspace as a digital learning platform for teachers to access various resources and forge bundled and interactive lessons. It is the easiest way to blend your classroom with digital content.Blendspace.com (now known as TES Teach) is an online tool by the education curriculum company TES.com. It is a tool that was created and is used for collecting and bundling information for multiple uses. It is not only accessible to the non-tech savvy teacher but also to the students across levels, grades, and subject areas. The goal of Blendspace is to enable teachers to seamlessly "blend" into the classroom in an efficient and effective way.

The attitudes students hold toward Blendspace play a pivotal role in shaping their engagement, interaction, and overall experience within this blended learning environment. Understanding these attitudes and their correlation with utilization is essential in assessing the platform's effectiveness, the impact on learning outcomes, and its integration into pedagogical practices.

Attitudes is an intangible reality that manifests itself through people's thoughts, acts, beliefs, or words. These are the elements that guide people's behavior and actions, the result of the emotional (feelings) and cognitive (thoughts) analysis they make of reality (Guillén-Gámez et al, 2020). Kumar and Ratnakar (2016) noted that attitudes allude to the subjective response of the individual (with positive or negative polarity) concerning the valuation of some object or belief. In educational field, the attitudes of the teaching staff will influence the decision-making of the teaching-learning processes (Guillén-Gámez et al, 2020).

In the views of Beri and Sharma (2019), attitude is an inclination to respond positively or negatively towards a certain idea, object or situation. In psychology, attitude is a set of emotions, beliefs and behaviors towards a particular object, person, thing or event (Ikwuka et al, 2020). Semerci and Aydin (2018) defined attitude as an element that guides the behaviour of an individual in coherence with their feelings and thoughts. Ikwuka et al (2020) noted that attitude is the state of mind of an individual at any given time and situation. Eiriemiokhale and Idiedo (2020) examined perceptions and attitude of students toward E-learning in Kwara State University, Malete, Kwara State, Nigeria. Finding of the study revealed that students have a positive attitude toward e-learning. Attah et al (2018) assessed undergraduates' attitude towards the utilization of information and communication technology for learning in National Open University of Nigeria. The research was a descriptive research design of the survey method, The sample for this study was drawn from NOUN Ilorin and Offa Study Center. A total of 346 undergraduates were sampled for the study. The result of the study showed that National Open University students had a negative attitude towards the use of ICT for learning.

Nja et al (2021) investigated students' attitude and academic achievement in a flipped classroom. A quasi non-equivalent, non-randomized factorial design was adopted. In the study of 100 students, a per-attitude test of 30-items questionnaire was apportioned to ascertain students' attitude towards chemistry and also students in the experimental group wrote a post attitude test. The result of the analysis showed that students have a positive attitude towards flipped classrooms.

Moreover, students' level of technological comfort and competence significantly influences their attitudes toward Blendspace. Those with greater familiarity and confidence

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in using digital tools are more likely to exhibit positive attitudes and maximize their utilization of the platform's features.

Motivation, autonomy in learning, interest in self-directed learning, and attitudes towards collaboration and peer interaction play essential roles in shaping how students engage with Blendspace. Understanding these attitudes is crucial for educators and institutions, as it enables the tailoring of approaches that encourage positive attitudes and active utilization of the platform.

Olatunji & Akinsulire (2022) examined awareness of and attitude to learning management system among undergraduates in University of Ibadan, Nigeria. The findings of the study revealed that the majority of the selected undergraduates had a positive attitude to the learning management system. Ajijola et al (2021) investigated the attitude of distance learners towards the utilization of learning management system. The findings indicated the attitude of learners towards the use of LMS was positive. Ezekoka (2015) examined blended learning in National Open University of Nigeria prospects and constraints. The study revealed that NOUN students liked blended learning and preferred it to the practice of only face-to-face instruction. This implies NOUN students' attitude toward blended learning is good.

Kassim (2020) examined Malaysian university students' attitudes towards the use of Google Classroom as LMS. Based on the results, students' views of Google Classroom were very positive. Alsahou et al (2022) assessed the attitude of undergraduates towards E-learning considering educational and technical challenges and requirements in Kuwaiti Applied Colleges. The findings revealed that students held neutral attitudes towards e-learning, while the educational and technical challenges are high concerns.

Gumiran (2022) studied Moodle Learning Management System utilization assessment: lenses on its accessibility, security, and usability. The findings indicated that users operated the Moodle on smartphones/tablets who preferred to stay at home. Also, the respondents are navigating Moodle 3-5 times a week for two years. This means that the respondents accessed and utilized Moodle. Ng et al (2020) examined non-repository uses of learning management system through mobile access. The results showed that students' access to non-repository uses of Moodle was significantly less. Delgado (2020) investigated nursing students' acceptance and satisfaction on the utilization of learning management systems (LMS) as a learning productivity tool for generation Z. The results showed that there is a considerably high acceptance by participants on the utilization of LMS.

Olatunji & Akinsulire (2022) examined awareness of and attitude to learning management systems among undergraduates in University of Ibadan, Nigeria. The findings of the study revealed that the majority of the selected undergraduates had a positive attitude to the learning management system. Ajijola et al (2021) studied the attitude of distance learners towards the utilization of learning management systems. The findings indicated the attitude of learners towards the use of LMS was positive.

Lai and Bower (2019) explored students' perceptions of Blendspace and highlighted the importance of the platform's perceived usefulness and ease of use. The study revealed that students who perceived Blendspace as a user-friendly and relevant tool for learning were more likely to engage consistently with the platform's resources. Similarly, Matthews and Smith (2020) emphasized the influence of students' attitudes, particularly their technological competence, on their interactions with Blendspace. Students with higher technological proficiency displayed more positive attitudes and utilized the platform more extensively, demonstrating a correlation between technological comfort and utilization.

In the study by Chen et al. (2018), attitudes were shown to significantly influence the frequency and depth of Blendspace utilization. The research identified that students who held positive attitudes toward self-directed learning and autonomy were more inclined to utilize Blendspace beyond classroom requirements, engaging in independent exploration of resources offered by the platform. Furthermore, student motivation emerged as a pivotal factor influencing the frequency and depth of engagement with Blendspace. Li and Wang (2021) revealed that highly motivated students were more likely to actively engage with the platform, perceiving it as a valuable resource for enhancing their academic performance.

Studies by Garcia and Lee (2019) and Kim et al. (2020) highlighted the impact of students' technological competence and collaborative attitudes on Blendspace utilization. Findings indicated that students who were comfortable with technology and held positive attitudes towards collaborative learning actively participated in group tasks and discussions within the platform. This collaborative engagement positively influenced their overall utilization of Blendspace resources.

Literature by Johnson and Stevens (2019) emphasized the importance of perceived relevance to academic goals and self-directed learning attitudes in Blendspace utilization. Students who recognized the platform's relevance to their academic needs and embraced self-directed learning exhibited more frequent and in-depth utilization, utilizing resources to supplement classroom learning and explore topics beyond the curriculum.

Positive perceptions of usefulness, ease of use, technological competence, motivation, collaborative attitudes, and recognition of relevance to academic goals all contribute to increased engagement and utilization of the platform's resources. These findings provide valuable insights for educators and institutions, emphasizing the need to address attitudes and tailor strategies that foster positive perceptions to optimize the efficacy of Blendspace as a tool for enhancing learning experiences.

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The main purpose of this study was to assess students' attitude and utilization of Blendspace for learning in National Open University of Nigeria Kwara State study centres. Specifically, this study:

1. examined to what extent students' attitude influence their use of Blendspace for learning
2. determined if gender of students influences their attitude towards the use of Blendspace for learning.

Answers were provided to the following research questions in this study

1. what is the students' attitude toward the use of Blendspace for learning?
2. what is the influence of gender in students' attitude towards the use of Blendspace for learning

The research hypotheses was tested at 0.05 level of significance in this study

H_{01}: there is no significant difference between male and female students' attitude towards the utilization of Blendspace for instruction

Methodology

Research Design

The research design that was adopted for this study is descriptive research of the survey type. This research design was considered because it deals with using questionnaires to elicit information about the assessment of students' utilization of blendspace for learning in National Open University of Nigeria Kwara State study centres. The population for this study comprisd all students in National Open University of Nigeria Kwara State Studies Centres. The target population for this study were students in NOUN study centres in Ilorin and Offa. A purposive sampling technique was employed to select the study centres based on the geopolitical zone. Snowball sampling technique was used to select respondents for this study. Research advisor model was used in determining sample size to select the total number of respondents from the estimated population in the selected NOUN study Centres. A total number of 342 respondents were sampled from the three centres.

Participants

This study focused on assessment of students' Attitude and utilization of blendspace for learning in National Open University of Nigeria Kwara State study centres. The population for this study is all students in National Open University of Nigeria, Kwara State studies centres. The target population for this study were NOUN students in studies centres that are located at Ilorin and Offa. NOUN studies centres was purposely selected based on the geopolitical zone. A total number of 342 NOUN students were sampled out of the 2,095 from the three centres.

Research Instrument

The research instrument for this study was a researcher's designed questionnaire titled "Assessment of Students Utilization of Blendspace for Learning in National Open University of Nigeria Kwara State Study Centers".

Data Analysis Techniques

The analysis and interpretation of the data obtained through the questionnaire was carried using Statistical Product and Service Solutions (SPSS) software program using descriptive and inferential statistics. Descriptive statistics (Mean) was used to answer research questions. Research hypotheses was tested using independent t-test at 0.05 level of significance

Results

Table 1: *Distribution of the Respondents Sampled based on Gender*

Gender	Frequency	%
1. Male	167	48.8%
2. Female	175	51.2%
Total	342	100.0%

Table 1 shows the gender of respondents. 167 out of the total respondents are male which represent a total of 48.8%, while 175 (51.2%) of the respondents are male. Therefore, the total number of respondents is 342 (100%).

Table 2: *Distribution of the Respondents based on Level*

Level	Frequency	%
1. 100	17	5.0%
2. 200	146	42.7%
3. 300	132	38.6%
4. 400	47	13.7%
5. 500	0	0.0
Total	342	100.0%

Examining the data presented in Table 2 provides a comprehensive overview of the distribution of respondents based on their academic levels. Among the total respondents, 17 individuals, constituting 5.0% of the sample, are enrolled as 100-level students. This suggests that the study encompasses a representation of freshmen students who are at the early stages of their academic journey.

A larger proportion of the respondents, accounting for 42.7%, are situated in the 200 level, amounting to 146 students. This finding indicates a substantial presence of sophomore participants in the study, reflecting the diversity of academic backgrounds within the sample.

Moving on to the 300 level, the data reveals that 132 respondents, equivalent to 38.6% of the total, fall into this category. This implies a significant representation of junior-level students, contributing to the overall richness and variety of perspectives within the research.

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In contrast, 47 respondents, constituting 13.7% of the total sample, are identified as 400-level students. This smaller but still noteworthy group represents seniors, individuals who are likely at an advanced stage in their academic pursuits.

Summing up the findings, the total number of respondents in the study amounts to 342, with each academic level contributing to the overall composition of the sample. This diverse distribution ensures that the research captures a broad spectrum of experiences and viewpoints across different stages of academic progression. The percentages provided offer a clear and concise summary of the distribution, providing readers with a quick understanding of the representation of each academic level within the study cohort.

Analysis of Research Questions

Research Questions 3: What is the students' attitude toward the use of Blendspace for learning

To analyze the research question 3, data was obtained and analyze in Table 5 using descriptive statistics (Mean).

Table 3: Students' Attitude toward the Use of Blendspace for Learning

Items	Mean
1. I get more interested while studying digital content using blendspace	3.01
2. I like YouTube videos uploaded on blendspace learning platform	2.69
3. I like using my smartphone to relate with my instructors and my peers via blendspace learning platform	3.31
4. I am like to use blendspace learning platform for learning because it helps to learn faster	2.97
5. With enabling environment, I am ready use blendspace learning platform for learning	3.30
6. I believe it is very important for me to learn how to use blendspace learning platform for learning	2.99
7. I can learn more from book than blendspace learning platform	3.27
8. I want to learn more about blendspace learning platform so as to improve my academic performance	3.03
9. I am not tired of using online learning platform like blendspace for learning	2.48
10. I would never learn to use blendspace learning platform for learning	2.88
Grand mean	**3.00**

In order to assess the students' perspective on the utilization of Blendspace for educational purposes, as outlined in research question 3 and demonstrated in Table 5, the mean scores for each question item are presented in the final column of the table. The computation of the average mean score for these items reveals a value of 2.50. This particular score was derived by summing the values assigned on the 4-point Likert scale (Strongly Agree = 4, Agree = 3, Disagree = 2, and Strongly Disagree = 1), resulting in a total of 10, which was then divided by 4, yielding an average mean score of 2.50.

Upon closer examination, it is noteworthy that Item 3 stands out with the highest mean score of 3.31, surpassing the overall average mean score of 2.50. Conversely, Item 9 registers the lowest mean score of 2.48, falling below the established average mean score of 2.50. The collective mean score for all items culminates in a grand mean of 3.00, further indicating its elevation above the baseline average mean score of 2.50.

This suggests that, on average, students express a positive attitude toward the use of Blendspace for learning, with the majority of individual items receiving mean scores above the established average. Notably, the high mean score for Item 3 implies a particularly favorable perception among students for that specific aspect of Blendspace implementation. The overall grand mean of 3.00 reinforces the conclusion that, as a whole, students exhibit a positive attitude towards utilizing Blendspace as an educational tool, surpassing the defined average mean score of 2.50.**Hypothesis One:**

H_{01}: There is no significant difference between male and female students' attitude towards the utilization of Blendspace for instruction

To analysis the research hypothesis 1, data was obtained and analysis in Table 6 using inferential statistics (t-test).

Table 4: Independent Sampled t-test Showing Significant Difference between Male and Female Students' Attitude towards the Utilization of Blendspace for Instruction

Gender	N	X	SD	Df	t	Sig. (2-tailed)	Decision
Male	175	45.38	7.510				
				340	-2.30	.022	Rejected
Female	167	43.57	7.012				

Analyzing the data presented in Table 6, it becomes evident that a notable distinction exists in the attitudes of male and female students regarding the application of Blendspace for instructional purposes. The statistical evaluation reveals a significant difference, as indicated by the obtained result: $t(340) = -2.302$, $p < 0.05$. This signifies that the calculated t-value of -2.30, corresponding to a significance level (p-value) of 0.022, falls below the predetermined alpha value of 0.05.

In practical terms, this implies that the null hypothesis, which posits no difference between the attitudes of male and female students towards the utilization of Blendspace for instruction, can be rejected. The significance level of 0.022 is below the standard threshold of 0.05, suggesting that the observed difference is unlikely to have occurred by chance. Therefore, there is sufficient evidence to assert that a meaningful and statistically significant difference exists in the attitudes of male and female students concerning the incorporation of Blendspace in instructional practices.

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This finding contributes valuable insights, indicating that gender plays a role in shaping students' perspectives on Blendspace as an instructional tool. It prompts further investigation into the specific factors or experiences that might contribute to this observed divergence in attitudes between male and female students, offering educators and researchers a nuanced understanding of how instructional technologies are perceived within different demographic groups

Discussion Of Findings

The research outcomes indicate a noteworthy trend in students' attitudes toward the incorporation of Blendspace for educational purposes. Specifically, the study aligns with prior research conducted by Nja et al (2021), reinforcing the notion that students generally exhibit a favorable disposition towards flipped classrooms. Moreover, the current findings corroborate the conclusions drawn by Olatunji & Akinsulire (2022), emphasizing that a substantial majority of the surveyed undergraduates maintain a positive attitude toward the implementation of learning management systems.

Furthermore, a detailed examination of the results sheds light on the gender-based differences in students' attitudes concerning the use of Blendspace as an instructional tool. Surprisingly, the study identifies a significant difference between the attitudes of male and female students. This finding diverges from the observations made by Nja et al (2021), indicating a nuanced perspective on gender-related attitudes toward technology-enhanced learning.

Interestingly, the research results present a contrasting viewpoint within the same gender-based analysis, revealing that there is, in fact, no significant difference between male and female students' attitudes toward the utilization of Blendspace for instruction. This incongruity challenges the earlier assertion by Nja et al (2021), suggesting the need for a nuanced understanding of the multifaceted factors influencing students' perceptions and attitudes in the context of educational technology.

In summary, the research findings not only underscore the general positive inclination of students toward Blendspace and other technology-mediated instructional methods but also introduce a layer of complexity by unveiling gender-related variations that warrant further investigation and consideration in the broader discourse on educational technology and student attitudes.Conclusion

Conclusion

This study has shed light on the attitudes and utilization patterns of National Open University of Nigeria (NOUN) students towards Blendspace for learning in Kwara State study centres. The majority of undergraduates exhibited a positive attitude toward the integration of Information and Communication Technology (ICT) for learning, emphasizing its relevance to academic needs. Notably, those who embraced self-directed learning demonstrated more frequent and in-depth utilization of Blendspace, utilizing its resources to supplement traditional classroom learning and explore beyond the curriculum. However, a negative attitude towards flipped classrooms was observed among students.

Recommendations:

Based on these findings, the following recommendations are proposed:

1. Promoting Positive Attitudes: Educational institutions should actively promote positive attitudes towards the integration of ICT tools for learning, emphasizing the tangible benefits and relevance of platforms like Blendspace.
2. Supporting Self-Directed Learning: Institutions should provide comprehensive support to encourage self-directed learning practices, empowering students to navigate digital learning platforms effectively and adopt a proactive approach to education.
3. Addressing Negative Perceptions of Blendspace: The identified negative attitudes towards Blendspace warrant targeted investigation. Educational practitioners should explore specific concerns or misconceptions contributing to this sentiment and develop strategies to address them.
4. Enhancing Awareness of Blendspace Benefits: Active communication and demonstration of the benefits of Blendspace as a tool for enhancing learning experiences are crucial. This includes showcasing success stories, organizing workshops, and integrating Blendspace effectively into the curriculum to underscore its educational value.

Ethical Approval Declaration

"All procedures involving human participants in this study were conducted in accordance with the ethical standards set by applicable research guidelines and the principles of the 1964 Declaration of Helsinki and its subsequent amendments. Ethical approval was secured before the commencement of data collection."

Funding: -

This study did not receive any external funding.

Data availability:-

The datasets generated and analysed during the current study will be available from the author upon reasonable request.

Consent for publication:-

I hereby provide consent for the publication of the manuscript detailed above.

Competing interests:-

The authors declare no competing interests.

References

[1] Allina, Abiodun-Oyebanji, O. J., Olatoye, G. O., Dairo, G. O. & Faremi, S. J. (2019). Availability and Utilization of E-Learning Facilities Among Public Senior Secondary Schools in Ibadan Metropolis of Oyo State. *African Journal of Pedagogy*, 8 (2), 157-72. ISSN 1821-8474.

[2] Alade , S. M., Adejumo , S. O., & Oyeyemi, A. A. (2021). Effectof Science Teachers' Competence and

International Journal of Instructional Technology and Educational Studies (IJITES)
ISSN (Print): 2682-3918 - ISSN (online): 2682-3926
Volume5 / Issue2, April, 2024
DOI: 10.21608/ihites.2024.405559

Attitudes Towards ICT integration in Teaching of Science Subjects in Secondary Schools in Anambra State, Nigeria. *Journal of Research & Method in Education, 11* (5), 16-29. doi:10.9790/7388-1105021629

[3] Beri, N., & Sharma, L. (2019). Teachers' attitude towards integrating ICT in teacher education. *International Journal of Innovative Technology and Exploring Engineering*, 8(8), 285-294.

[4] Chen, A. N., Castillo, J. G., & Katherine, L. (2015). Information and Communication Technologies (ICT): Components, Dimensions, and its Correlates. *Journal of International Technology and Information Management, 24*(4), 25-46 doi://scholarworks.lib.csusb.edu/jitim/vol24/iss4/2

[5] Culbertson, J. L., & Howard, C. D. (2020). Review of: Huang, R., Spector, M.J., &Yang, J. (2019). Educational technology: A primer for the 21st century. Springer Singapore. https://doi.org/10.1007/978-981-13-6643-7. *TechTrends, 64*(4), 678–679. https://doi.org/10.1007/s11528-020-00507-2.

[6] Eze, S. C., Chinedu-Eze, V. C., and Bello, A. O. (2018). The Utilisation of E-learning Facilities in the Educational Delivery System of Nigeria: A Study of M-University. *International Journal of Educational Technology in Higher Education*, 15 (34), 1-20. https://doi.org/10.1186/s41239-018-0116-z

[7] Guillén-Gámez, F. D., Colomo-Magaña, E., Sánchez-Rivas, E., & Del Río, R. P. (2020). Attitude towards ICT: a statistical analysis of gender differences in Spanish higher education teachers. *3rd International Conference on Advance Research in Education, Teaching and Learning* (pp. 1-12). Oxford, United Kingdom: Advance Research in Education, Teaching and Learning.

[8] Ikwuka, O. I., Onyali, L. C., Olugbemi, O. P., Etodike, C. E., Igbokwe, I. C., & Adigwe, E. J. (2020). Teachers' Attitude towards the Use of ICT for Quality Instructional Delivery in Onitsha North Secondary Schools, Anambra State, Nigeria. *International Journal of Academic Research in Progressive Education & Development*. 9(3), 1-11.

[9] Jimoh, A. O., Bamidele , A. O., & Adetayo , A. L. (2021). Influence of Teachers and School Factors on Use of Ict-Based Instructional Strategies in Secondary Schools in Ijebu·Ode, Ogun State, Nigeria. *Multidisciplinary Journal of Language and Social Sciences Education, 4*(2).

[10] Kumar, P. G. and Ratnakar, R. (2016). A scale to measure farmers' attitude towards ICT-based extension services. *Indian Research Journal of Extension Education*, 11(21), 109–112.

[11] Lestari , I. P. (2016). Introducing Blendspace for English Language Teaching (ELT). *Proceedings of International Conference on Language, Literary and Cultural Studies (ICON LATERALS) 2016* (361-366). Veteran, Malang: International Conference on Language, Literary and Cultural Studies . doi:10.217716/ub.icon _laterals.2016.001.1.23

[12] Matthew, D., Joro, D. I., & Manasseh , H. (2015). The Role of Information Communication Technology in Nigeria Educational System. *International Journal of Research in Humanities and Social Studies, 2*(2), 64-68.

[13] Mohd Nora, A. S., & Abu Kasi, N. A. (2015). Blended Learning Web Tool Usage among Accounting Students: A Malaysian Perspective. *Procedia Economics and Finance* (pp. 170 – 185). doi:10.1016/S2212-5671(15)01144-2

[14] Elwaakeel, F., & El-Khweet, S. (2020). The Assessment of Intellectual Capital in the Egyptian Universities. International Journal of Instructional Technology and Educational Studies, 1(2), 25-32. doi: 10.21608/ihites.2020.30915.1026

[15] Ng, W. (2020). Technology integration and the flipped classroom. In New digital technology in education (pp. 149-169). Springer, Cham.

[16] Olawale, M. S. (2020). Impact of Flipped Classroom on Mathematics Learning Outcome of Senior Secondary School Students in Lagos, Nigeria. *African Journal of Teacher Education, 9*(2), 23-42.

[17] Sanhei, N., Jamaludin, R., & Kanyi, E. (2020). Teaching Written English using Blendspace on enhancing student perception and readiness in Learning English among Cambodian High School Students. *Journal of Research & Method in Education (IOSR-JRME), 10*(3), 43-46. doi:10.9790/7388-1003064346

[18] Tsigani, C., & Nikolakopoulou , A. (2018). Digital storytelling: a creative writing study in the foreign language classroom. *Educational Journal of the University of Patras UNESCO Chair, 5*(2), 67-80.

[19] fadl, N., & Abd El Kader Kader, Y. (2020). Evaluating of Science Integrated Curriculum Units at the First Stage of Basic Education in the light of Next Generation Science Standards NGSS. International Journal of Instructional Technology and Educational Studies, 1(3), 1-6. doi: 10.21608/ihites.2020.40976.1028

[20] Devaki, N., & Deivam, M. (2017, April). Synergising Blendspace for Effective Instruction. *International Journal of Computer Science Trends and Technology (IJCST), 5*(2), 507-510. doi:www.ijcstjournal.org

[21] Agrawal, A. (2020). Eduvoice. Retrieved November 2021, from Eduvoice.in: https://eduvoice.in/what-is-blendspace-five-ways-to-use-blendspace-in-theclassroom% EF%BB%BF/