Zamfara International Journal of Education (ZIJE)
The Official Journal of the Faculty of Education
Federal University Gusau, Zamfara State, Nigeria
Volume 6, Number 4, June, 2026
pISSN: (Hard Copy): 2814 – 1377; eISSN (Online): 2814 – 1369 www.foefugusau.com.ng
DOI: **https://doi.org/10.64348/zije.2026503**

Utilisation of Web 2.0 Technologies for Collaborative Learning among University Undergraduate Students in Lagos State, Nigeria

ISHOLA, Adebayo Monsur
email: isholaam@tasued.edu.ng
ORCID: https://orcid.org/0000-0002-9747-4098
Phone Number: 07059209901

AKOREDE, Olufunbi Jimoh
email: akoredeoj@tasued.edu.ng
Phone Number: 07045391863
Department of Educational Technology, College of Specialised and Professional Education, Tai Solarin Federal University of Education, Ijagun, Ogun State, Nigeria.

Abstract
The study examined examine the utilisation of Web 2.0 technologies for collaborative learning among undergraduates in public universities in Southwest, Nigeria. Four research questions guided the study. A descriptive survey research design was used. The population comprised undergraduates of Lagos State University (LASU) and University of Lagos (UNILAG), Southwest Nigeria. The sample size was 300 undergraduates from Lagos State University (LASU) and University of Lagos (UNILAG), Nigeria. This was selected using stratified sampling technique. A self-researchers-designed instrument tagged Utilisation of Web 2.0 Technologies and Collaborative Learning Questionnaire (UWEBCLQ) was used for this study with (r = .88) as reliability coefficient. Descriptive statistics of mean and standard deviation were used for answering research questions 1, 2 and 4. Research question 3 was analyses using inferential statistics of regression analysis. The findings indicated that there was medium level of utilization of Web 2.0 technologies for collaborative learning among undergraduates. It was also showed that there was medium level of collaborative learning among the undergraduates. Web 2.0 technologies positively influence collaborative learning among undergraduates (β = .482, t = 12.191, P < .05). It was recommended that institutions should invest in high-speed internet, provide training for both staff and students on Web 2.0 tools, and integrate platforms like Google Workspace, WhatsApp, blogs, and wikis directly into the curriculum.
Keywords: Utilisation, Web 2.0 Technologies, Collaborative Learning, Undergraduates

Introduction
The need for collaborative learning stems from its ability to develop crucial academic, social, and emotional skills by having undergraduates work together to solve problems, share ideas, and build on diverse perspectives, fostering critical thinking, communication, empathy, and real-world teamwork, making learning more engaging and preparing students for collaborative modern workplaces. Undergraduate collaborative learning is an active teaching method where small groups of undergraduates work together on tasks, projects, or problems to achieve shared goals, moving beyond passive listening to actively construct knowledge through discussion, shared responsibility, and peer teaching, enhancing critical thinking, communication, and deeper understanding (Emeka et al., 2025). It relies on peer interaction, mutual effort, and collective problem-solving, contrasting with traditional teacher-centered models by leveraging students' diverse skills and perspectives to achieve better learning outcomes. In collaborative learning, undergraduates work in small groups (pairs or more) for joint intellectual effort; teams work towards a common objective, product, or understanding; focuses on undergraduates exploring, applying, and debating material, not just receiving it; undergraduates rely on each other as resources, sharing knowledge and skills and that learning is seen as a social process, built through conversation and interaction (Abubakar, 2025). In short, collaborative learning benefits undergraduates by boosting academic performance, critical thinking, and retention through active engagement, while also developing crucial social skills like communication, teamwork, and conflict resolution, preparing them for future careers and fostering a more inclusive, supportive learning environment. Bitrus (2023) believed that collaborative learning aid discussion on ideas and solving problems together deepens comprehension and makes learning more memorable; analyzing problems from multiple perspectives strengthens analytical and evaluation skills; and active participation and shared ownership of tasks keep students motivated among undergraduates. However, the goal attainment of collaborative learning could not have been achieved through traditional method of teaching, but through digital technologies tools. On that note, Chukwu-Umahi1 and Okoli (2023) stated that Web 2.0 technologies, like wikis, blogs, and social media, foster collaborative learning by transforming undergraduates from passive consumers to active creators, enabling real-time co-creation, sharing, and

Zamfara International Journal of Education (ZIJE)
The Official Journal of the Faculty of Education
Federal University Gusau, Zamfara State, Nigeria
Volume 6, Number 4, June, 2026
pISSN: (Hard Copy): 2814 – 1377; eISSN (Online): 2814 – 1369 www.foefugusau.com.ng
DOI: https://doi.org/10.64348/zije.2026503

discussion in dynamic online communities, moving education from teacher-centric to student-driven, problem-based, and globally connected experiences. Web 2.0 technologies are tools and platforms enabling the interactive, user-driven internet, shifting from static pages (Web 1.0) to dynamic spaces for collaboration, content sharing, and social networking, driven by user-generated content, APIs, and mobile access, exemplified by social media, blogs, wikis, and cloud apps like Facebook, YouTube, and Wikipedia (Ishola, 2024). Web 2.0 technologies in education are interactive, user-centered online tools (like blogs, wikis, social media, and video platforms) that shift learning from passive content consumption to active creation, collaboration, and knowledge sharing, fostering communication, community, and critical thinking among students and educators. These "read/write" web applications enable learners to become creators, not just consumers, by easily sharing multimedia, participating in discussions, building projects together, and receiving authentic feedback (Mamman & Mathew, 2024). Mamman (2019) stated that tools like wikis (e.g., Wikiversity) allow undergraduates to collaboratively build and edit knowledge bases, fostering group work and collective understanding; blogs (undergraduates e-portfolios, reflections), podcasts, and video platforms empower students to publish their work and ideas; social networking sites, discussion forums, and tools like Padlet (digital corkboards) facilitate conversations, debates, and peer feedback; user-generated content, focuses on users as content creators, moving beyond static webpages to dynamic, participatory environments and bookmarking, tools like Delicious or Diigo (though less common now) allowed users to tag and share interesting web pages, creating shared resource lists.

Web 2.0 technologies are highly effective in aiding collaborative learning among undergraduates by providing platforms for communication, content creation, and knowledge sharing that surpass the limitations of traditional learning environments. These tools have a positive and moderate impact on academic performance and skill development. Tools like WhatsApp, discussion forums, and instant messaging allow continuous communication between undergraduates and lecturers, breaking down physical and time barriers. Web 2.0 shifts undergraduates from passive consumers of information to active participants and creators of content. Collaborative platforms like Google Docs and wikis enable groups to work together on projects, edit documents, and brainstorm in real-time, regardless of location (Padayachee & Moodley, 2023). In the opinion of Chukwu-Umahi1 and Okoli (2023), the interactive and dynamic nature of these Web 2.0 technologies, such as video-sharing sites (YouTube) and educational games, makes learning more engaging and enjoyable for digital-native students, increasing their interest in coursework. Utilizing Web 2.0 tools helps undergraduates develop essential 21st-century skills, including digital literacy, critical thinking, problem-solving, and teamwork. Students can access learning materials and collaborate with peers anytime and anywhere, which is particularly beneficial for distance education or those with time constraints. Platforms facilitate the easy sharing of resources, ideas, and feedback among peers and instructors, leading to a robust, collectively built body of knowledge. Although, despite the benefits, the effectiveness of Web 2.0 technologies can be hampered by several challenges: poor internet connectivity, low bandwidth, and a lack of access to necessary devices in some areas remain significant barriers to successful implementation; some undergraduates and academics may have limited prior experience or knowledge on how to use specific tools effectively for educational purposes, requiring sufficient training and support from the university; integrating new technologies into the curriculum and learning how to use them can require additional time and effort from both lecturers and students and the vast amount of user-generated content means students must develop critical evaluation skills to filter trustworthy and legitimate information from false or incorrect sources (Ishola, 2024). Overall, with appropriate pedagogical design, adequate technical infrastructure, and proper training, Web 2.0 technologies can serve as powerful instruments to foster effective collaborative learning experiences among university undergraduates.

Statement of the Problem

Although, collaborative learning among undergraduate offers extensive benefits, including enhanced academic performance, the development of essential workplace skills, and improved social and psychological well-being. However, in the context of Nigeria public universities, the attainment of effective collaborative learning among undergraduates is primarily hindered by student-related behavioural issues (e.g., lack of skills), pedagogical shortcomings (e.g., inadequate instruction and assessment methods), and logistical constraints (e.g., time management and class size). Observation indicated that many undergraduates enter university without the necessary skills for effective group work, such as active listening, providing constructive feedback, negotiating, or coordinating tasks. Poor collaborative learning creates a negative multiplier effect by inhibiting the development of essential academic and professional skills, leading to a downward spiral

Zamfara International Journal of Education (ZIJE)
The Official Journal of the Faculty of Education
Federal University Gusau, Zamfara State, Nigeria
Volume 6, Number 4, June, 2026
pISSN: (Hard Copy): 2814 – 1377; eISSN (Online): 2814 – 1369 www.foefugusau.com.ng
DOI: https://doi.org/10.64348/zije.2026503

of poor academic performance, reduced motivation, and frustration that can spread through a student's entire educational experience and beyond. Thus, in order to ensure collaborative learning, this study therefore examined the utilisation of Web 2.0 technologies for collaborative learning among undergraduates in public universities in Southwest, Nigeria.

Objectives of the Study

The main objective of the study was to examine the utilisation of Web 2.0 technologies for collaborative learning among undergraduates in public universities in Southwest, Nigeria. Specifically, the study sought to:

1. determine the level of utilization of Web 2.0 technologies for collaborative learning among undergraduates;
2. ascertain the level of collaborative learning among the undergraduates;
3. find out the extent to which Web 2.0 technologies influence collaborative learning among undergraduates;

Research Questions

The following research questions guided this study:

1. What is the level of utilization of Web 2.0 technologies for collaborative learning among undergraduates?
2. What is the level of collaborative learning among the undergraduates?
3. To what extent Web 2.0 technologies influence collaborative learning among undergraduates?

Theoretical Framework

Zone of Proximal Development (ZPD)

This theory was propounded by Lev Vygotsky in the late 1920s. Zone of Proximal Development (ZPD) is Vygotsky's concept of the learning sweet spot: the gap between what an undergraduate can do alone and what they can achieve with help from a more knowledgeable peer or instructor (MKO), crucial for collaborative learning as it fosters growth through shared problem-solving and scaffolding, where peers provide temporary support to reach new levels of understanding. In collaborative settings, peers act as MKOs, offering hints, explanations, or modeling skills (scaffolding), helping each other master complex tasks, promoting deeper understanding, and developing self-regulation as they transition from guided to independent performance, effectively pushing everyone's potential. The ZPD defines the challenging yet achievable tasks that undergraduates can't do independently but can tackle in groups. In undergraduate groups, peers (or instructors) become the MKOs, possessing broader skills or knowledge to guide others. This is the temporary support (prompts, modeling, asking questions) provided by peers, gradually removed as the learner internalizes the skill. According to this theory, learning is inherently social; interaction within the ZPD builds cognitive skills and understanding. For instance, a group of undergraduates working on a complex statistical analysis. One undergraduate understands a specific formula (independent skill). Another struggles. The first undergraduate explains the formula, demonstrates its application with a small dataset (scaffolding), and then they both apply it to the main problem (within the ZPD). They learn together, and both eventually grasp the concept deeply.

Relevance of the theory to this study

Vygotsky's Zone of Proximal Development (ZPD) theory posits that undergraduates achieve their greatest potential when working on tasks that are challenging yet attainable with the guidance of a more knowledgeable other (MKO), who can be a teacher or more experienced peer. Web 2.0 technologies facilitate this process by providing platforms for enhanced social interaction, effective scaffolding, and the creation of rich, authentic learning communities. According to the theory, Web 2.0 tools help create a learning environment where tasks are neither too easy (leading to boredom) nor too difficult (leading to frustration). Working within this "sweet spot" of the ZPD, with appropriate support, boosts undergraduate motivation, self-confidence, and engagement, as they experience a sense of accomplishment by mastering tasks they couldn't do alone. the core of ZPD is social interaction. Web 2.0 tools like wikis, discussion boards, and social media platforms facilitate communication beyond the constraints of a physical classroom or schedule. This continuous interaction allows undergraduates to exchange ideas, give and receive immediate feedback, and negotiate meaning, leading to deeper understanding and improved communication skills.

Methodology

A descriptive survey research design was used for the study. The population of this study comprised undergraduates of Lagos State University (LASU) and University of Lagos (UNILAG), Southwest Nigeria. The sample size was 300 undergraduates from Lagos State University (LASU) and University of Lagos (UNILAG), Nigeria. This was selected using stratified sampling technique. In that situation, 150 undergraduates were selected from LASU and 150 from UNILAG. A self-

Zamfara International Journal of Education (ZIJE)
The Official Journal of the Faculty of Education
Federal University Gusau, Zamfara State, Nigeria
Volume 6, Number 4, June, 2026
pISSN: (Hard Copy): 2814 – 1377; eISSN (Online): 2814 – 1369 www.foefugusau.com.ng
DOI: https://doi.org/10.64348/zije.2026503

researchers-designed instrument tagged Utilisation of Web 2.0 Technologies and Collaborative Learning Questionnaire (UWEBCLQ) was used for this study. UWEBCLQ was used for the collection of data from the respondents on the level of utilization of Web 2.0 technologies for collaborative learning among undergraduates; the level of collaborative learning among the undergraduates. The questionnaire request responses on a four (4) – point scale format which was a modification of 5-point Likert scale. To ensure the face and content validity of the instrument, copies of the instrument were given to an expert in the Department of Educational Technology, Tai Solarin Federal University of Education. Reliability test of the instrument was done using a test-retest method. In this case, copies of the instrument (UPSMLTQ) were administered twice on 20 undergraduates from the Faculty of Education, Lagos State University of Education (LASUED), that were not part of the sample size within a week interval. The collected data from the dual administration of the instruments were compared using Pearson Product Moment Correlation (PPMC) and reliability coefficient was reported as (r = .88). Primary method of data collection was used in this study. Primary method includes the usage of questionnaire to collect data from the identified respondents. Descriptive statistics of mean and standard deviation were used for answering research questions 1 and 2. Research question 3 was analyses using inferential statistics of regression analysis.

Presentation of the Results

Research Question 1: What is the level of utilization of Web 2.0 technologies for collaborative learning among undergraduates?

Table 1: Descriptive statistics on the level of utilization of Web 2.0 technologies for collaborative learning among undergraduates

Items	Mean	SD	Remarks
I used Facebook for learning new knowledge most of the time.	2.87	.882	Utilized
I usually use Blogs in providing analytical deliberation for learning development.	2.77	.817	Utilized
I frequently use Wikis to provide new ideas for innovative learning.	2.81	.800	Utilized
I always use YouTube as it helps in showing how knowledge can be shared for effective learning.	2.56	.825	Utilized
I seldomly used Folksonomy to get new knowledge.	2.71	.833	Utilized
I regularly used Blogs to source for new knowledge about my studies.	2.90	.816	Utilized
I often times source information from Wikipedia for effective learning.	2.69	.802	Utilized
Most of the time I and my friends regularly share information through WhatsApp to improve effective learning.	2.74	.821	Utilized
I sometimes used Instagram for learning enlightenment.	2.66	.867	Utilized
I regularly use Blogs with fellow students for learning engagement towards improvement in learning outcomes.	2.85	.808	Utilized
Cluster Mean	2.76		

Source: Field Survey, 2026.

From table 1, it was revealed that cluster mean level of 2.76 which was found to be greater than the bench mark mean value. i.e 2.76 > 2.50. The implication of this study showed that there was medium level of utilization of Web 2.0 technologies for collaborative learning among undergraduates.

Research Question 2: What is the level of collaborative learning among the undergraduates?

2: Descriptive statistic on the level of collaborative learning among the undergraduates

Items	Mean	SD	Remark
Undergraduate actively engaging with material through discussion and problem-solving tend to have better comprehension and remember information for longer than those in passive learning environments.	2.68	.895	Medium
Collaborative projects encourage critical thinking, analytical reasoning, and creative problem-solving.	2.83	.899	Medium
Working in groups requires effective verbal and written communication, active listening, empathy, and the ability to give and receive constructive feedback.	3.02	.847	High
Undergraduates interact with peers from different backgrounds, cultures, and with varied opinions, which broadens their worldview and fosters open-mindedness and acceptance.	2.99	.886	Medium

Zamfara International Journal of Education (ZIJE)
The Official Journal of the Faculty of Education
Federal University Gusau, Zamfara State, Nigeria
Volume 6, Number 4, June, 2026
pISSN: (Hard Copy): 2814 – 1377; eISSN (Online): 2814 – 1369 www.foefugusau.com.ng
DOI: https://doi.org/10.64348/zije.2026503

Team-based activities simulate modern workplace environments, equipping undergraduates with the teamwork, leadership, and self-management skills valued by employers.	2.86	.857	Medium
Cluster Mean	2.88		

Source: Field Survey, 2026

From table 2, it was showed that cluster mean value was reported as 2.88 and the bench mark mean value was 2.50, i. e since 2.88 > 2.50. This implied that there was medium level of collaborative learning among the undergraduates.

Research Question 3: To what extent Web 2.0 technologies influence collaborative learning among undergraduates?

Table 3: Extent Web 2.0 technologies influence collaborative learning among undergraduates

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.947	.840		26.118	.000
	Web 2.0 technologies	.545	.045	.482	12.191	.000

a. Dependent Variable: Collaborative learning

Table 3 showed that the sign of the coefficient of Web 2.0 technologies is positive which implied that an increase or improvement in it will increase collaborative learning among undergraduates. The independent variables (Web 2.0 technologies) were found to be significant and strongly determine collaborative learning among undergraduates with the P-value less than 0.05 and magnitude of Web 2.0 technologies ($\beta = .482$, $t = 12.191$, $P < .05$). This implied that Web 2.0 technologies positively influence collaborative learning among undergraduates and that 48.2% increases in collaborative learning among undergraduates was accounted for by the linear combination of Web 2.0 technologies.

Discussion of Findings

The findings of the study showed that there was medium level of utilization of Web 2.0 technologies for collaborative learning among undergraduates. These findings were in tandem with Baguma et al. (2025) who investigated the utilization of Web 2.0 technologies by academics at a Higher Education Institution (HEI) in Uganda and concluded that the level to which students and lecturer utilized wed 2.0 technologies were mediumly. Ishola (2024) findings of the study indicated that there was high level utilization of Web 2.0 technologies among students in Ogun state owned universities. Web 2.0 technologies have helped to acquire new knowledge, acquiring a new innovative idea, effectively manage information acquired for learning, improves academic performance through access to information needed on time and helps in developing skills and capabilities for collaboration were among benefits of Web 2.0 technologies utilization for students learning outcomes in Ogun state owned universities. The findings of the study showed that there was medium level of collaborative learning among the undergraduates. These findings correlate with Abubakar (2025) found a medium level of collaborative learning among undergraduates is often characterized by a blend of individual and group efforts, where collaboration is present but not consistently deep, or where it is highly structured but not fully adopted by all participants. Based on studies of undergraduate collaborative dynamics. The findings of the study revealed that independent variables (Web 2.0 technologies) were found to be significant and strongly determine collaborative learning among undergraduates. This implied that Web 2.0 technologies positively influence collaborative learning among undergraduates and that 48.2% increases in collaborative learning among undergraduates was accounted for by the linear combination of Web 2.0 technologies. These findings were correlate with Abanikannda and Okedokun (2024) showed that Web 2.0 technologies aid collaborative learning by transforming the internet from a passive, read-only medium (Web 1.0) into an active, participatory, and user-generated platform. This shift enables students and educators to connect, share, create, and collaborate in real-time or asynchronously, breaking down geographical and temporal barriers.

Conclusion

This study examined the utilisation of Web 2.0 technologies for collaborative learning among undergraduates in public universities in Southwest, Nigeria and the following conclusions were drawn based on the findings that Web 2.0 technologies was positive which implied that an increase or improvement in it will increase collaborative learning among undergraduates. This implied that Web 2.0 technologies positively influence collaborative learning among undergraduates and that 48.2% increases in collaborative learning among undergraduates was accounted for by the linear combination of Web 2.0 technologies.

Zamfara International Journal of Education (ZIJE)
The Official Journal of the Faculty of Education
Federal University Gusau, Zamfara State, Nigeria
Volume 6, Number 4, June, 2026
pISSN: (Hard Copy): 2814 – 1377; eISSN (Online): 2814 – 1369 www.foefugusau.com.ng
DOI: **https://doi.org/10.64348/zije.2026503**

Recommendations

The following recommendations were raised in line with the findings of the study:

1. Institutions should invest in high-speed internet, provide training for both staff and students on Web 2.0 tools, and integrate platforms like Google Workspace, WhatsApp, blogs, and wikis directly into the curriculum.
2. Encouraging the use of these tools for group projects fosters user-generated content, knowledge sharing, and active participation.
3. Design academic activities (e.g., joint reports, research projects) that require the use of tools like Wikis, Google Docs, or Microsoft Teams for collaborative, real-time editing.
4. Create a supportive atmosphere that encourages adopting new, open-source technologies for academic work.
5. Establish clear, pedagogically sound guidelines for expected activity,, assessment, and grading when using these technologies and shift from passive learning to active, student-centered, and peer-to-peer engagement.

References

Abanikannda, M. O., & Okedokun, D. V. (2024). Collaborative learning through social media and undergraduates' self-regulation in Obafemi Awolowo University, Ile-Ife, Nigeria. *DIDACTICA DANUBIENSIS, 4*(1), 134-149.

Abubakar, A. (2025). Effectiveness of collaborative-based learning on the achievement of students in basic science at junior secondary schools in Kebbi State, Nigeria. *International Journal of Multidisciplinary Research and Growth Evaluation, 06*(06), 349-353.

Adefuye, A. L., Omoyajowo, B. S., Oluwole, M. I., Akorede, O. J., Osisanwo, T. A., & Adewoga, T. A. (2023). Perception of undergraduates on the utilization of online collaborative tools for learning in selected universities in south-west, Nigeria. *International Journal of Library Science & Education Research, 29*(8), 15-36.

Adewoye, M., & Akinde, T. A. (2023). Frequency and perceived enjoyment of the use of web 2.0 tools by undergraduates of two universities in Nigeria. *International Journal of Library and Information Science Studies, 8*(3), 1-23.

Alabi, E. B., & Atah, C. K. (2024). Perceived obstacles to the utilization of web 2.0 technologies in the delivery of business education course content in Southern Nigeria. *World Journal of Innovation and Modern Technology, 8*(1), 89-99.

Babalola, S. O. (2023). Factors influencing adoption and use of web 2.0 among Polytechnic students in Nigeria. Federal Polytechnic, Ilaro Ogun State.

Baguma, I., Aduwo, J. R., Kimuli, J., & Kabaale, E. (2025). A qualitative investigation into the use of web 2.0 technologies by academics at a higher education institution in Uganda. *International Journal of Research and Innovation in Social Science (IJRISS), IX*(V), 4958-4971.

Bitrus, S. C. (2023). Impact of collaborative learning strategy on academic achievement and retention of senior secondary school geography students in Bosso, local government area, Minna. Department of Educational Technology, School of Science and Technology Education, Federal University of Technology, Minna, Niger State.

Chukwu-Umahi, S. S., & Okoli, B. E. (2023). Extent of utilization of the available web 2.0 technologies by business educators in teaching business education courses in tertiary institutions in South East Nigeria. *International Journal of Innovative Education Research 11*(2),148-156,

Chukwu-Umahi1, S. S., & Okoli, B. E (2023). Availability and accessibility of web 2.0 technologies for teaching business education courses in tertiary institutions in South East Nigeria. *International Journal of Innovative Information Systems and Technology Research, 11*(1), 54-63.

Emeka, I. D., Onyebuchi, A. C., & Emmanuel, I. A. (2025). Effect of collaborative approach of learning on students' academic performance in mathematics in Anambra state. *African Journal of Educational Management, Teaching and Entrepreneurship Studies, 14*(2), 52-62.

Faboya, O. T., & Adamu, B. J. (2017). Integrating web 2.0 tools into teaching and learning process through mobile device technology in Nigerian schools: Current status and future directions. *International Journal of Education and Research, 5*(5), 113-124.

Hassan, I., Gamji, M. B., Nasidi, Q.Y., & Azmi, M. N. L. (2021). Challenges and benefits of web 2.0-based learning among international students of English during the Covid-19 pandemic in Cyprus. *Arab World English Journal (AWEJ) Special Issue on Covid 19 Challenges* (1) 295-306.

Ishola, A. M. (2024). Utilization of Web 2.0 technologies as veritable tools for students learning outcomes in Ogun State Owned Universities. *FUOYE International Journal of Business and Economics Education, 1*(1), 83-95.

Ishola, A. M., & Jesse, D. I. (2024). Impact of web 2.0 technologies on undergraduates' learning in Ogun state, Nigeria. *Social Science Education Journal (SOSCED-J), 6*(1), 22-31.

Lev Vygotsky (1920). Zone of Proximal Development (ZPD). https://www.simplypsychology.org/

Mamman, J. S., & Mathew, E. D. (2024). Awareness and utilization of web 2.0 technologies in teaching business education courses in universities in north central Nigeria. *KWASU International Journal of Education, 7*(2), 222-233.

Zamfara International Journal of Education (ZIJE)
The Official Journal of the Faculty of Education
Federal University Gusau, Zamfara State, Nigeria
Volume 6, Number 4, June, 2026
pISSN: (Hard Copy): 2814 – 1377; eISSN (Online): 2814 – 1369 www.foefugusau.com.ng
DOI: **https://doi.org/10.64348/zije.2026503**

Mercy, T., Adewoye, T., & Adetoun, A. (2023). Perceived usefulness of web 2.0 tools for knowledge management by university undergraduate students: A Review of Literature. *American Journal of Information Science and Technology. 7*(3), 101-109.

Padayachee, I., & Moodley, K. (2023). Factors influencing web 2.0 technology usage among academics: A case study of two South African Tertiary Institutions. *International Journal of Technology and Human Interaction, 18*(1), 1-22.