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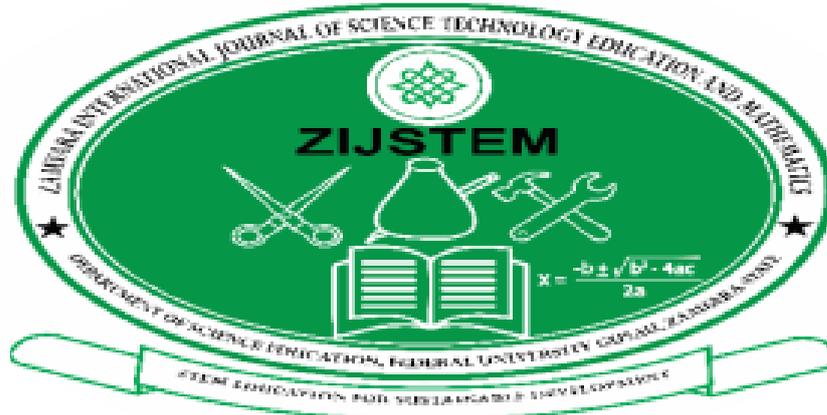


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### EDITORIAL NOTE

Zamfara International Journal of Science Technology Education and Mathematics (ZIJTEM) is the official Journal of the Department of Science Education, Faculty of Education Federal University Gusau Zamfara State, Nigeria. The Journal publishes articles of diverse fields of interest in Sciences, Technology, Education and Mathematics. Papers reporting original research and extended version of already established conference and journal articles are welcomed. Papers for publication are selected through peer review process to ensure originality, relevance and readability. ZIJSTEM is published quarterly which spans throughout the year i.e. March, June, September and December, respectively.

The aim and scope of the journal is to provide an academic medium and an important reference for the advancement and dissemination of information that supports high level learning, teaching and research in the fields of Sciences, Technology, Education and Mathematics.

The articles in this volume are academic and professional discourse written by reputable scholars in their area of specialization.

**Professor Bashir Suleiman**

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### **FORWARD**

On Behalf of the staff and students of the Department of Science Education, Federal University Gusau, Zamfara state, Nigeria, we humbly acknowledge and thank Allah (S.W.T) the most beneficent, the most merciful for without his will, collection and computation of this journal publication would not have been possible. May all praise be ascribed unto Him. The department is sincerely grateful to its accommodating mentor Prof. M.G. Abubakar, Vice Chancellor, Federal University, Gusau and his management team for giving the department enabling environment for academic activities. The department's profound gratitude goes to Dr. Umar Sodangi who doubled as the Dean, Faculty of Education, Federal University, Gusau and Associate Editor of Zamfara International Journal of Science, Technology, Education and Mathematics (ZIJSTEM). Furthermore, Special gratitude goes to our contract and visiting Professors, the staff and students of the Department of Science Education, Federal University, Gusau, for their supports and foresight towards actualizing the dream of the department.

The Zamfara International Journal of Science, Technology, Education and Mathematics (ZIJSTEM) is a brain child of Department of Science Education with the aim of bringing science and technology education into global and well recognized journals of science and technology education research. This is first of its kind, among Science Education Departmental Journals in Northwest, Nigeria and by extension one of the highly placed departmental journals in Nigeria, considering its online visibility and originality, based on well-known global best practices.

#### **Dr. Nuhu Ishaq Lawal**

Associate Editor/Head of Department,  
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### CALL FOR ARTICLES

The Zamfara International Journal of Science, Technology, Education and Mathematics (ZIJSTEM) calls for scholarly articles for review and possible publication in its next edition (Volume 3, Number 1, March, 2026), ZIJSTEM publishes articles that emphasizes on research development and application within the field of Sciences, Technology, Education and Mathematics. All manuscripts are reviewed by editorial review committee. Contributions must be original, not previously or simultaneously published elsewhere, and are critically reviewed before they are published. Papers, which must be written in English language, should have good grammar and proper terminologies.

### PLAGIARISM POLICY

ZIJSTEM is committed to maintain high standards through an in-depth peer review process with sound ethical policies. Any infringements of professional ethical codes, such as plagiarism; including self-plagiarism, fraudulent use of data are seriously frowned at by the journal with zero tolerance.

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8. Quotations of more than 40 words should be indented and typed single spacing with indication of the pages where the quotes were lifted
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12. All text within the table should be clearly legible, and all graphics and legends should be easily distinguished when printed in black and white
13. Tables should be in horizontal line only, with only blank space to separate column
14. Tables and figures that may be included in the main text of the paper should be numbered separately, in the sequence that they are mentioned in the text.
15. Figures should be saved in a neutral data format such as JPEG, TIFF OR EPS.

#### **SUBMISSION OF MANUSCRIPTS & ASSESSMENT FEE**

Manuscripts for Volume 3. Number 1, with an evidence of a non-refundable assessment fee of five thousand Naira (N5000:00) only per manuscript should be forwarded electronically to the Editor-In-Chief or Publication Editor via; [des@fugusau.edu.ng](mailto:des@fugusau.edu.ng) on or before February 28, 2026. Furthermore, upon acceptance of manuscript for publication a non-refundable publication fee of twenty-five thousand naira (N25, 000:00) will be required for online version only, while thirty-five thousand naira (35,000:00) only for both online and hard copy versions per manuscripts, respectively.

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**TABLE OF CONTENTS**

S/N	Authors, Paper Title and DOI Index	Pages
1	<b>ANKA, Nafisatu Halilu., OLATUNBOSUN, Mujidat Lukman &amp; SULEIMAN, Shukura (2025):</b> Assessment on Integration of Information and Communication Technology tools for Biology Concepts Teaching among Secondary School Teachers in Zamfara State, Nigeria <a href="https://doi.org/10.64348/zije.2025184">https://doi.org/10.64348/zije.2025184</a>	1-7
2	<b>OKHAWERE, Paulson Young Ofenimu (2025):</b> Conceptual Analysis of Organizational Citizenship Behaviour as a Driver of Workplace Productivity in Nigeria <a href="https://doi.org/10.64348/zije.2025185">https://doi.org/10.64348/zije.2025185</a>	8-15
3	<b>IBRAHIM, Aisha Zaid., UMAR, Sambo Gumbi &amp; ABDULLAHI, Amina Shehu (2025):</b> Comparative assessment on Availability of Social Amenities and 9-Year Basic Education Curriculum implementation among public Primary Schools in North-West, Nigeria <a href="https://doi.org/10.64348/zije.2025186">https://doi.org/10.64348/zije.2025186</a>	16-25
4	<b>UMORU, Raphael Sunday., OMONYA, Ogezi Cephas &amp; USMAN, Shehu Ahmed (2025):</b> Assessment of Manpower-Development- And- Training on Service Delivery among United Bank for Africa (UBA) Staff in Otukpo Local Government Area of Benue State, Nigeria <a href="https://doi.org/10.64348/zije.2025187">https://doi.org/10.64348/zije.2025187</a>	26-34
5	<b>OMOYAJOWO, Bamidele Stephen., BAMBI, Babatunde Ishola &amp; FEMI, Adeoye Alabi (2025):</b> Rethinking Learner Autonomy: The Role of Artificial Intelligence In Enhancing Self-Regulated Learning In Nigerian Higher Education <a href="https://doi.org/10.64348/zije.2025188">https://doi.org/10.64348/zije.2025188</a>	35-46
6	<b>ADEYEMI, Aminat Adeola (2025):</b> Correlation Between Office-Technology-Management and Managerial Skills Acquisition on sustainable Economic Development among Postgraduate Students in Tai Solarin University of Education, Ogun State, Nigeria <a href="https://doi.org/10.64348/zije.2025189">https://doi.org/10.64348/zije.2025189</a>	47-56
7	<b>GAMBO, Mustapha Aliyu (2025):</b> Impact of Adjustments on Academic Performance among Senior Secondary School Students in Jere Local Government Area of Borno State, Nigeria <a href="https://doi.org/10.64348/zije.2025190">https://doi.org/10.64348/zije.2025190</a>	57-65
8	<b>AHMAD, Manko Umar., YUSUF, Salahudeen &amp; ETSU, Shabamaliki Muhammad (2025):</b> Effect of Reflective Teaching Approach on Achievement in Longitude and Latitude Among Secondary School Students in Bosso, Niger State <a href="https://doi.org/10.64348/zije.2025191">https://doi.org/10.64348/zije.2025191</a>	66-74
9	<b>AMINU, Aliyu &amp; NASIRU, Mukhtar (2025):</b> Effects of Project-Based learning Strategy on Performance and Retention in Metalworks among Students in Technical Colleges of Katsina state, Nigeria <a href="https://doi.org/10.64348/zije.2025192">https://doi.org/10.64348/zije.2025192</a>	75-87
10	<b>ADEYEMI, Aminat Adeola &amp; TIAMIYU, Rashidat (2025):</b> Influence of Computer-Based Facilities and Entrepreneurship Training on Job	88-96



	Productivity among Tertiary Institution Secretarial Staff in Ogun State, Nigeria <a href="https://doi.org/10.64348/zije.2025193">https://doi.org/10.64348/zije.2025193</a>	
11	<b>FASINA, Joke Elizabeth., ISHOLA, Adebayo Monsur &amp; ADEYEMI, Olalekan Timothy (2025):</b> Assessment of Technological Advancement on Classroom learning Engagement among Public Secondary School Students in Ijebu-ode Local Government Area of Ogun State, Nigeria <a href="https://doi.org/10.64348/zije.2025194">https://doi.org/10.64348/zije.2025194</a>	97-107
12	<b>MUKHTAR, Muhammad Sani (2025):</b> Effect of Jigsaw Strategy on Performance in Plane-Shapes Concept among Secondary School Students in Zuru Metropolis of Kebbi State, Nigeria <a href="https://doi.org/10.64348/zije.2025195">https://doi.org/10.64348/zije.2025195</a>	108-116
13	<b>ZANKAN, J. A. A., YUSUF, J. A. &amp; DARGAK, P. P. (2025):</b> Miners Adaptation Strategies on Impact of Artisanal Mining Activities Among Rural Communities In Kaduna State, Nigeria <a href="https://doi.org/10.64348/zije.2025196">https://doi.org/10.64348/zije.2025196</a>	117-127
14	<b>YAKI, A. A., ADAMU, H., SADIQ, O. K. &amp; MUSTAPHA, M. T. (2025):</b> Transforming Pedagogical Practices: The Impact of a Connected Learning for STEM Intervention on Science and Mathematics Teachers in Northern Nigeria <a href="https://doi.org/10.64348/zije.2025197">https://doi.org/10.64348/zije.2025197</a>	128-135
15	<b>SULEIMAN, Balarabe &amp; MAFINDI, Farida Sanusi (2025):</b> Bridging Language and Agriculture: Enhancing English-as-a-Second-Language (ESL) Learning for Agricultural Development among Rural Community Youths in Nigeria <a href="https://doi.org/10.64348/zije.2025198">https://doi.org/10.64348/zije.2025198</a>	136-151
16	<b>UMATE, B. A., AMINU, T., SAADU, Ibrahim &amp; EZEANYA, C. M. (2025):</b> Qualitative study on Collaborative Instructional Strategies on Academic Performance in Chemistry: A Systematic Approach <a href="https://doi.org/10.64348/zije.2025199">https://doi.org/10.64348/zije.2025199</a>	152-165
17	<b>DARGAK, Paul Peter &amp; GOYIT, Henry Yohanna (2025):</b> Effects of Economic Status on Utilization of Maternal Health-care Services among Child-Bearing Age Mothers in North-Central, Nigeria <a href="https://doi.org/10.64348/zije.2025200">https://doi.org/10.64348/zije.2025200</a>	166-173
18	<b>UMORU, Raphael Sunday., ONMONYA, Ogezi Cephas &amp; OKLA, Stanley Ochoche (2025):</b> Correlation Between Innovative Leadership Practices and Growth of Small and Medium Scale Enterprises in Otukpo Local Government Area of Benue State, Nigeria <a href="https://doi.org/10.64348/zije.2025201">https://doi.org/10.64348/zije.2025201</a>	174-182
19	<b>SHOLA, Adebayo Monsur., FASINA, Joke Elizabeth., ADERONMU, Temitope Sikiru Babalola., ADEFUYE, Adetayo Linus &amp; AKOREDE, Olufunbi Jimoh (2025):</b> Leveraging on the Fourth-Industrial-Revolution on Digital Skills Acquisition among undergraduate students in Tai-Solarin University of Education, Ogun State, Nigeria <a href="https://doi.org/10.64348/zije.2025202">https://doi.org/10.64348/zije.2025202</a>	183-190



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DOI: <https://doi.org/10.64348/zije.2025183>

20	<b>OLOTA, Philip Olaoluwa &amp; OLEKANMA, Joshua Eziogu (2025):</b> Effects of Touchmath Multisensory Program on Addition and Subtraction Skills among Selected Public School Pupils in Uyo, Akwa Ibom State, Nigeria <a href="https://doi.org/10.64348/zije.2025203">https://doi.org/10.64348/zije.2025203</a>	191-200
21	<b>ABDULRASHEED, Mohammed., ATIKU, Usman Kende., RILWANU, Bello., SHEHU, Umar &amp; ABUBAKAR, Samaila (2025):</b> Analysis of Aeromagnetic Data of North-Eastern Part of Sokoto Basin for Identification of Geological Structures in Sokoto State, Nigeria <a href="https://doi.org/10.64348/zije.2025204">https://doi.org/10.64348/zije.2025204</a>	201-213
22	<b>BALA, Khadijah &amp; SULE, Muhammad (2025):</b> Effects of Digital Communication on Segmented and Super-Segmented Features of Pronunciation Patters among Undergraduate English Language Students in Nigeria <a href="https://doi.org/10.64348/zije.2025205">https://doi.org/10.64348/zije.2025205</a>	214-221
23	<b>LAWAL, Muhammad &amp; UMAR, Muazu Abdulrazak (2025):</b> Assessment of Major Factors of Climate Change within the Period 1990-2024 in North-Western Region of Nigeria <a href="https://doi.org/10.64348/zije.2025206">https://doi.org/10.64348/zije.2025206</a>	222-236
24	<b>JULIUS, Elizabeth (2025):</b> Effect of Project-Based Learning Approach on Problem-Solving Ability in Mathematics among Secondary School Students in Kebbi Metropolis, Kebbi State, Nigeria <a href="https://doi.org/10.64348/zije.2025207">https://doi.org/10.64348/zije.2025207</a>	237-246
25	<b>IBRAHIM, Salihu Yusuf &amp; ABDULLAHI, Hussain (2025):</b> An Overview of the Emergence of Open Access Publishing: Government Policies and the Academia in Africa <a href="https://doi.org/10.64348/zije.2025208">https://doi.org/10.64348/zije.2025208</a>	247-256
26	<b>ALFRED, Sunday Omole &amp; AMINU, Muhammad (2025):</b> Students' Preference for Admission into Federal Colleges of Education (Technical) in Nigeria: Voluntary Choice or Systemic Coercion? <a href="https://doi.org/10.64348/zije.2025209">https://doi.org/10.64348/zije.2025209</a>	257-266
27	<b>MAHMUD, Wasila., UGURU, Chike &amp; MUSTAPHA, Yakubu (2025):</b> Impact of Digital-Learning Tools on Knowledge and Skills Acquisition in Agricultural Sciences among Secondary School Students in Northern Nigeria <a href="https://doi.org/10.64348/zije.2025210">https://doi.org/10.64348/zije.2025210</a>	267-275
28	<b>MUHAMMAD, Khadija Bala &amp; SULE, Muhammad (2025):</b> Acoustic Analysis of Nigerian English Vowels: A Comparative Phonetic Study of Educated and Non-Educated Speakers <a href="https://doi.org/10.64348/zije.2025211">https://doi.org/10.64348/zije.2025211</a>	276-282