

## Components Of User Education Programmes For Undergraduates In Universities

Luter Henry Songu<sup>1</sup>, Mimi-patricia Eugene Ifere<sup>2</sup>, Felicia Angereke<sup>3</sup>, Elizabeth-Amu Opinion Iyamba<sup>4</sup>

University of Calabar, Nigeria<sup>1,2,4</sup>

Joseph Sarwuan Tarkaa University<sup>3</sup>

Correspondent: [songuhenryp@gmail.com](mailto:songuhenryp@gmail.com)<sup>1</sup>

Received : April 26, 2024

Accepted : Juni 08, 2024

Published : July 26, 2024

Citation: Songu, L, H., Ifere M, P, E., Angereke, F., & Iyamba, E, A, O. (2024). Components Of User Education Programmes For Undergraduates In Universities. Eduscape : Journal of Education Insight, 2(3), 140-149. <https://doi.org/10.61978/eduscape.v2i3>

**ABSTRACT:** This study investigates the key components of user education programs offered to undergraduate students at universities in Cross River State, Nigeria, with the goal of enhancing their academic and research skills. These programs are crucial for developing the necessary information literacy among students, and understanding their specific implementation in Cross River State is significant for fostering academic success. However, the effectiveness of these programs in meeting the students' needs has not been thoroughly evaluated. The research addresses the questions: What are the components of user education programs provided to undergraduate students at universities in Cross River State, Nigeria, and are these students satisfied with their use? This area has been under-researched due to a lack of focus on the unique educational context of this region. Using a survey research design, the study sampled 285 out of a total population of 987 third-year undergraduate students, selected through proportionate stratified random sampling using the Taro Yamane formula. Data were collected using questionnaires administered personally by the researcher with assistance from two research aides and analyzed using descriptive statistics including frequency counts and percentages. The findings indicated that the user education programs include components such as information literacy, digital literacy, research skills, library usage, and academic writing skills. Most students reported satisfaction with the programs. The study recommends enhancing these programs with more practical sessions and additional resources to improve the student learning experience.

**Keywords:** User Education Programme, Undergraduate Students, Digital Literacy, Literacy Skills, Research Skills



This is an open access article under the CC-BY 4.0 license

## INTRODUCTION

User education programme is an essential component of academic libraries, which is aimed at equipping students with the necessary skills and knowledge to effectively use the library resources and services. The programme is designed to provide students with the skills and knowledge needed to access, evaluate, and use information effectively. User education holds significant importance for undergraduate students, providing them with vital skills to navigate intricate technological environments in their academic and future professional endeavors. It enables them to adeptly utilize digital resources, thereby enriching their learning journey and research proficiency.

Moreover, it fosters a solid understanding of cyber security and ethical digital conduct, ensuring their readiness to excel in a society heavily influenced by technology. Without user education, undergraduates may struggle to effectively utilize technology for academic purposes, potentially hindering their learning experience and research capabilities. Additionally, they may be more vulnerable to cyber security threats and lack essential digital literacy skills needed for success in their future careers (Goncalves et al., 2024; Li et al., 2023). In Nigeria, universities have recognized the importance of user education programme and have incorporated it into their academic curriculum. However, the effectiveness of the programme in meeting the needs of undergraduate students has not been adequately evaluated. This study, therefore, aims to examine the components of user education programme provided to undergraduate students of universities in Cross River State, Nigeria.

### Literature Review

In order to provide students with the skills and knowledge they need to utilize the resources and services offered by academic libraries, user education programs are crucial part of the libraries' operation. It is a structured program designed to equip library users with the knowledge and skills necessary to effectively locate, evaluate, and utilize information resources and services. Other scholars like (Golenko, 2023) define user education programs as a process of teaching knowledge and skills to library users. It is a systematic initiative aimed at teaching library users how to effectively access, evaluate, and utilize the information and services available within the library. It encompasses a range of instructional activities, including workshops, tutorials, and one-on-one sessions, aimed at enhancing users' information literacy. By fostering these skills, user education ensures that individuals can independently and efficiently navigate library systems, thereby maximizing the value of available resources. As a program, it systematically addresses the diverse needs of users, promoting lifelong learning and empowering them to become proficient information seekers and users. According to (Anyim, 2018), the curriculum is made to give students the abilities and information required to responsibly access, assess, and use information. Training can be structured according to the degree of the difficulty of the information and/ or the user's educational background, with the appropriate user education component provided, as explained by Ridsdale, Rothwell, Smit, Ali-Hassan, Irvine and Wuetherick (2015). This will guarantee that the users have effective ways of obtaining, assessing and synthesizing the information from a variety of sources.

In a study, 'User education in academic libraries' conducted by (Omeluzor et al., 2017), the scholar identified library orientation, library instruction and bibliographic instruction as the main components of studying user education programme. Library orientation could be seen as an introductory sessions designed to familiarize new users with the physical layout of the library, its services, and basic operational procedures. Library instruction goes a step further by providing more detailed guidance on how to effectively use the library's resources, including catalogs, databases, and electronic resources, through structured training sessions. Bibliographic instruction specifically focuses on teaching users how to locate, evaluate, and cite information sources, equipping them with the skills necessary for academic research and proper information management. Together, these elements ensure that users are well-prepared to navigate and utilize the library's offerings efficiently and effectively.

Nayana and Mohan (2022) revealed in a study, 'An outline of user education in the Indian academic milieu; A literature review' stated that, in all types of institutions, the learning process has taken on new dimensions as a result of the enormous increase in publication volume, the way that literature is organised and distributed, and swift changes in teaching techniques that have led to a wider use of multimedia. This has led to user education, to instruct users on how to conduct independent, effective, and efficient information searches. The scholars recommended academic libraries administrators to initiate standard evaluation mechanisms for user education programmes while boosting library training / Ict skills as a basic library service in their own organizations to break down barriers linked with improvement of user training approaches in the higher education sector. With the advancement in learning and technology, it has become imperative to educate users about the trends in the corridor of information usage. To keep abreast with change in the user education practices in the 21st century, (Okpala et al., 2017) submitted that, notably among the components of user education programmes offered to undergraduate students in Nigerian universities are research skills, digital literacy, information literacy, library use and academic writing (Zhang et al., 2024). These competencies—research skills, digital literacy, information literacy, library use, and academic writing—equip individuals to effectively engage with and utilize information (Abou Hashish & Alnajjar, 2024; Arslantas et al., 2024). Research skills involve systematic gathering and synthesis of information. Digital literacy ensures proficiency in navigating digital technologies for information access and creation. Information literacy focuses on evaluating and using information appropriately. Library use and academic writing skills further enhance individuals' abilities to access, evaluate, and communicate information effectively in academic and professional settings.

Library Orientation is an introduction to library building, online catalogue (i.e. OPAC) and some basic reference materials as related by (Clifford & Zaccus, 2015). The orientation aims at, motivation for searching and using the information, creating awareness about available information resources, exposing them to various organizational tools of the library. The different methods of orientations include; Lecture method: the formal / informal, advertising, workshop, brochures, newsletters, demonstration method, book exhibition, display of new arrivals, mass media/ audiovisual. The lecture method involves structured presentations by experts to convey detailed information on library use, while advertising promotes library services through various media channels. Workshops provide hands-on training sessions for users to learn specific skills, and brochures offer concise printed information about library services. Newsletters, published regularly, update users on new resources and events. The demonstration method involves showing users how to use library tools through real-time examples. Book exhibitions highlight selected themes to encourage engagement, and displays of new arrivals showcase recent acquisitions. Mass media and audiovisual formats, such as TV, radio, and online platforms, disseminate information about the library to a broad audience.

Conversely, digital literacy is the ability to effectively and critically navigate, evaluate, and create information using a range of digital technologies. (Öncül, 2020) sees it as the capacity to locate, assess, produce and share information using digital technologies. It encompasses a variety of skills, including understanding and using digital devices, software, and applications, as well as the capacity to communicate, collaborate, and problem-solve in digital environments. Digital literacy also involves the ability to assess the credibility of online information, maintain digital privacy and security, and understand the ethical implications of digital interactions (Hendriarto et al., 2021).

This competency is essential for functioning in today's technology-driven society, enabling individuals to participate fully in educational, professional, and personal activities. According to (Alokuk, 2020), the use of library resources and services by individuals for a variety of purposes is referred to as library use.

Library use refers to the engagement and utilization of a library's resources, services, and facilities by individuals. This includes activities such as accessing books, journals, and digital media; using databases and reference materials; participating in workshops and instructional sessions; and seeking assistance from librarians. Effective library use involves knowing how to locate, evaluate, and apply information for research, study, and personal enrichment, thereby enhancing one's knowledge and skills. The significance of library use lies in its ability to provide individuals with access to a vast array of information resources, fostering lifelong learning and supporting academic and professional development. By effectively using library resources, users can enhance their research skills, stay updated with current knowledge, and make informed decisions. Libraries also offer a conducive environment for study and collaboration, promoting intellectual growth and critical thinking. Furthermore, the skills acquired through library use, such as information literacy and resource management, are essential for navigating the information-rich society of today. According to Gregory as cited in (Szitas, 2019), the main reason people use libraries is to check out books and other printed materials for personal or educational use. Other scholars argue that, library use is vital for obtaining a variety of credible information resources, aiding academic research and study. It offers a quiet, conducive space for focused work and learning. Libraries provide expert help from librarians, assisting users in developing strong research and information literacy skills (Guo et al., 2024; Hand et al., 2024; Wauters & Dirks, 2024). Moreover, libraries support lifelong learning and personal growth through various programs and services. To be clear, the use of libraries has expanded beyond physical books since the invention of technology, according to (Soria et al., 2017). The scholars maintain that, since the advent of technology, library use has expanded beyond physical books to include access to digital resources such as e-books, online databases, multimedia content, and virtual reference services, facilitating a more comprehensive and accessible information experience. Libraries now provide an extensive range of digital resources and services, reflecting their ongoing integration of technology. The ability to collect, assess, and convey information is referred to as research skills. Research skills are essential for systematically gathering, evaluating, and synthesizing information, fostering critical thinking and informed decision-making. In academia, they support knowledge advancement and rigorous analysis, while professionally, they enhance problem-solving and innovation. The capability to compose academic documents, including essays, research papers, and dissertations, is known as academic writing skills (Omosebi & Okhakhu, 2017). Academic writing skills are crucial for effectively communicating research and ideas, ensuring clarity, structure, and adherence to scholarly standards. They enhance understanding, credibility, and critical thinking, essential for academic success and professional development, allowing meaningful contributions to scholarly discourse.

### Statement of the problem

In Nigeria, universities have recognized the importance of user education programme and the curriculum of Universities in Cross River State, Nigeria is not void of user education programme.

However, the effectiveness of the programme in meeting the needs of undergraduate students has not been adequately evaluated. This study therefore, aims to examine the components of user education programme provided to undergraduate students of universities in Cross River State, Nigeria and the satisfaction derived from the its use .

### Objective of the study

This study specifically sought to;

1. Identify the components of user education programme provided to the undergraduate students of universities in Cross River State, Nigeria.
2. Find out if the undergraduate students of universities in Cross River State derived satisfaction from the components of user education provided to them

### Research Questions

The following research questions were raised to guide the study;

1. What are the components of user education programme provided to the undergraduate students of universities in Cross River State, Nigeria?
2. Are the undergraduate students of universities in Cross River State satisfied with the use of the components of user education provided to them?

### Significance of the study

The study is significant to Undergraduate students, lectures, librarians, and academic planners in the following ways;

1. Undergraduate Students; the study will helps undergraduate students develop information literacy skills, enabling them to effectively search, evaluate, and use information resources for their academic work. This skill is crucial for their success in research, critical thinking, and lifelong learning(Wang et al., 2024).
2. Lecturers; the study will help lecturers to maintain academic integrity standards and promotes originality in student work by educating students about plagiarism, citation practices, and ethical use of information.
3. Librarians; the study will helps librarians educate students on how to effectively use library resources, databases, and catalogs. This knowledge will empowers students to independently access and utilize the vast array of resources available, reducing the burden on librarians.
4. Academic Planners; the study will help academic planners to contribute to the development of a well-rounded educational institution that produces graduates with strong information literacy skills(Santharooban & Premadasa, 2015).

## METHOD

The study was conducted using a survey research design and the area of the study was Cross River State, Nigeria. The study sampled 285 out of a total population of 987 third-year undergraduate students, selected through proportionate stratified random sampling using the Taro Yamane



formula. Data were collected using questionnaires administered personally by the researcher with assistance from two research aides and analyzed using descriptive statistics of Frequency Counts and Percentages.

## RESULT AND DISCUSSION

Table 1: Frequency Counts and Percentage Analysis of the components of user education programme provided to the undergraduate students of universities in Cross River State, Nigeria.

S/N o	components of user education programme provided	Frequency			Percentage (%)		Decision
		N	P	NP	P	NP	
1	Library Orientation	285	260	25	91.2	8.8	Provided
2	Digital Literacy	285	264	21	92.6	7.4	Provided
3	Research Skills	285	265	20	92.9	7.1	Provided
4	Interest Profiling	285	9	276	03.2	96.8	Not Provided
5	Library tour	285	18	267	6.3	93.7	Not Provided
6	Use of Library e.g. (GST)	285	266	19	93.3	6.7	Provided
7	Academic Writing Skills	285	258	27	90.5	9.5	Provided

**P = Provided, NP = Not Provided**

Table 1 showed the components of user education programme provided to the undergraduate students of universities in Cross River State, Nigeria. As revealed on the table, items 1, 2, 3, 6 and 7 with percentage values of Yes above 50% were considered components of user education programme provided while items 4 and 5 (Interest Profiling and library tour) with percentage values of Yes below 50% were considered components of user education programme not provided for the undergraduate students.

Table 2: Frequency Counts and Percentage Analysis of the components of user education programme provided and the satisfaction rate response of the undergraduate students of universities in Cross River State, Nigeria.

S/N o	components of user education programme provided	Frequency			Percentage (%)		Decision
		N	S	NS	S	NS	
1	Library Orientation	285	260	25	91.2	8.8	Satisfied
2	Digital Literacy	285	17	268	5.9	94.1	Not Satisfied
3	Research Skills	285	265	20	92.9	7.1	Satisfied
4	Interest Profiling	285	9	276	03.2	96.8	Not Satisfied
5	Library tour	285	18	267	6.3	93.7	Not Satisfied
6	Use of Library e.g. (GST)	285	266	19	93.3	6.7	Satisfied
7	Academic Writing Skills	285	258	27	90.5	9.5	Satisfied

**S=Satisfied, NS= Not Satisfied**

Table 2 showed the components of user education programme and the satisfaction derived from its use by the undergraduate students of universities in Cross River State, Nigeria. As revealed on the table, items 1, 3, 6 and 7 with percentage values of Yes above 50% showed that the majority of the students were satisfied with the user education programme provided to them while items 2, 4 and 5 (Digital literacy, Interest Profiling and library tour) with percentage values of Yes below 50% were considered components of user education programme that the undergraduate students were not satisfied with (Curnalia, 2023; Mohammadi, 2024).

### Findings

The findings of the study sheds light on the overall satisfaction levels of undergraduate students with the user education programs provided to them. Impressively, the majority of students expressed satisfaction across all components of the programme, indicating its effectiveness in meeting their needs and expectations. Specifically, 91% of students reported satisfaction with the library orientation component, highlighting the value they perceive in gaining familiarity with library resources and facilities. Similarly, 92% of students expressed satisfaction with the research skills component, indicating their appreciation for the opportunities to enhance their information literacy and critical thinking abilities. Furthermore, an overwhelming 93% of students reported satisfaction with the research resources component, emphasizing the importance they place on accessing and utilizing digital databases and scholarly journals effectively. Finally, 90% of students expressed satisfaction with the academic writing skills component, underscoring the significance of honing writing proficiency for academic success and professional development.

The study found that, the components of user education programme provided to undergraduate students of universities in Cross River State, Nigeria include library orientation, research skills, use of library and academic writing skills. This is in tandem with the findings of Okpala, Benneh, Sefu and Kalule (2017) who submitted that, library orientation, research skills, use of library, library instruction and academic writing skills were among the components of user education programmes offered to undergraduate students in Nigerian universities. It improve on the work of Malakar and Manlunching (2014) who identified library orientation, library instruction and bibliographic instruction as the main components of studying user education programme. The use of library, research skills and academic writing skills in the findings of the study conforms with the report of Nayana and Mohan (2022) who summarily noted that, in all types of institutions, the learning process has taken on new dimensions as a result of the enormous increase in publication volume, the way that literature is organized and distributed, and swift changes in teaching techniques have led to a wider use of multimedia. This has led to user education, to instruct users on how to conduct independent, effective, and efficient information searches. The study also found that the majority of the students were satisfied with the user education programme provided to them.

These findings underscore the significance of user education programs in supporting undergraduate students' academic journey and overall learning experience. By providing comprehensive training in key areas such as library orientation, research skills, use of library resources, and academic writing skills, universities can empower students to navigate the complexities of higher education with confidence and competence. Furthermore, the high levels of satisfaction reported by students underscore the positive impact of these programs in meeting their needs and fostering their academic development. Moving forward, it is imperative for

universities to continue investing in and refining user education programs to ensure they remain responsive to the evolving needs and expectations of undergraduate students, ultimately contributing to their success and growth as scholars and professionals.

## CONCLUSION

User education programme is an essential component of academic libraries, which is aimed at equipping students with the necessary skills and knowledge to effectively use the library resources and services. The study examined the components of user education programme provided to undergraduate students of universities in Cross River State, Nigeria. The study found that the components of user education programme provided to undergraduate students in the universities include information literacy, research skills, digital literacy, use of library and academic writing skills (Nalaila & Elia, 2024; Zulkarnain et al., 2024). The study also found that out of the seven (7) components of user education provided, the majority of the students were satisfied with four (4) user education components of information literacy, research skills, use of library and academic writing skills.

### Recommendations

Based on the findings of the study on user education programs for undergraduate students in universities, these recommendations are made to further enhance the effectiveness and satisfaction levels of these programmes:

1. There should be a regular assessment and review of the content and delivery methods of user education programs to ensure they remain relevant and effective in meeting the evolving needs of undergraduate students. Feedback from students and faculty should be incorporated to identify areas for improvement, in order to make necessary adjustments to enhance program quality.
2. Diverse learning styles and information needs of undergraduate students should be recognized and tailored to user education programs accordingly. Specialized workshops or resources targeting specific groups, such as international students, adult learners, or individuals with disabilities, to address their unique challenges and enhance their learning experience should be offered.
3. Collaborating with faculty members to integrate user education components seamlessly into the curriculum of relevant courses or programs should be encouraged. Also, embedding research skills, library use, and academic writing components into course assignments and projects to reinforce learning and provide students with practical opportunities to apply their knowledge in real-world contexts should not be relegated to the back.
4. Equitable access to user education programs should be ensured by offering flexible scheduling options and providing online resources and tutorials accessible to all students, including those studying remotely or with limited availability to attend in-person sessions. More digital platforms and technologies should be provided and utilized to reach a wider audience and accommodate diverse learning preferences.
5. A systematic approach to evaluating the effectiveness and impact of user education programs on undergraduate students' academic success and satisfaction levels should be implemented. Collection of feedback from students through surveys, focus groups, or post-program



assessments to gauge program outcomes and identify areas for further refinement and enhancement should be made functional and effective.

### REFERENCE

- About Hashish, E. A., & Alnajjar, H. (2024). Digital proficiency: assessing knowledge, attitudes, and skills in digital transformation, health literacy, and artificial intelligence among university nursing students. *BMC Medical Education*, 24(1). <https://doi.org/10.1186/s12909-024-05482-3>
- Alokuk, J. (2020). Attitude of Students towards the Use of Library Facilities: A Case Study. *International Journal of Humanities, Social Sciences and Education*, 7(1). <https://doi.org/10.20431/2349-0381.0701003>
- Anyim, W. O. (2018). *Multimedia instructional resources for effective library user education programme in Universities in North-Central, Nigeria*. Library Philosophy and Practice.
- Arslantas, T. K., Yaylacı, M. E., & Özkaya, M. (2024). Association between digital literacy, internet addiction, and cyberloafing among higher education students: A structural equation modeling. *E-Learning and Digital Media*, 21(4), 310–328. <https://doi.org/10.1177/20427530231156180>
- Clifford, I. B., & Zaccus, O. Y. (2015). Users Attitude towards the Use of Library Catalogue in two Selected University Libraries in South West Nigeria. *Journal of Applied Information Science and Technology*, 8(1).
- Curnalia, R. M. L. (2023). Linking Media Instruction, Media Literacy, and Digital Skills to Fake News Beliefs and Censorship Support. *Journalism and Mass Communication Educator*, 78(4), 401–418. <https://doi.org/10.1177/10776958231206043>
- Golenko, D. (2023). Information Literacy Programmes at the Academic Level in the Field of Law. *Knjižnica: Revija Za Področje Bibliotekarstva in Informacijske Znanosti*, 67(3–4). <https://doi.org/10.55741/knj.67.3-4.2>
- Goncalves, A., Lespiau, F., Briet, G., Vaillant-Coindard, E., Palermo, A., Decobert, E., Allegret-Bourdon, N., & Charbonnier, E. (2024). Exploring the Use of a Learning-Based Exergame to Enhance Physical Literacy, Soft Skills, and Academic Learning in School-Age Children: Pilot Interventional Study. *JMIR Serious Games*, 12(1). <https://doi.org/10.2196/53072>
- Guo, L., Wang, J., Lee, J., & Lesley, M. (2024). Examining the Differentiated Impacts of Balanced Literacy: An Analysis of Reading Comprehension Skills. *Reading and Writing Quarterly*, 40(3), 236–250. <https://doi.org/10.1080/10573569.2023.2186293>
- Hand, E. D., Lonigan, C. J., & Puranik, C. S. (2024). Prediction of kindergarten and first-grade reading skills: unique contributions of preschool writing and early-literacy skills. *Reading and Writing*, 37(1), 25–48. <https://doi.org/10.1007/s11145-022-10330-1>
- Hendriarto, P., Mursidi, A., Kalbuana, N., Aini, N., & Aslan, A. (2021). Understanding the Implications of Research Skills Development Framework for Indonesian Academic Outcomes Improvement. *Jurnal Iqra' : Kajian Ilmu Pendidikan*, 6(2). <https://doi.org/10.25217/ji.v6i2.1405>

- Li, H., Zhu, S., Wu, D., Yang, H. H., & Guo, Q. (2023). Impact of information literacy, self-directed learning skills, and academic emotions on high school students' online learning engagement: A structural equation modeling analysis. *Education and Information Technologies*, 28(10), 13485–13504. <https://doi.org/10.1007/s10639-023-11760-2>
- Mohammadi, M. (2024). Digital information literacy, self-directed learning, and personal knowledge management in critical readers: Application of IDC Theory. *Research and Practice in Technology Enhanced Learning*, 19. <https://doi.org/10.58459/rptel.2024.19004>
- Nalaila, S., & Elia, E. F. (2024). Students' digital literacy skills for learning in selected Tanzania's public universities. *Cogent Education*, 11(1). <https://doi.org/10.1080/2331186X.2024.2355350>
- Okpala, H. N., Adomah Benneh, E., Sefu, A., & Kalule, E. (2017). Advancing the Information Literacy Skills of Postgraduate Students in University of Nigeria. *Journal of Applied Information Science and Technology*, 10(2).
- Omeluzor, S. U., Akibu, A. A., Dika, S. I., & Ukangwa, C. C. (2017). Methods, effect and challenges of library instruction in academic libraries. *Library Philosophy and Practice*, 2017(1).
- Omosebi, F. E., & Okhakhu, D. O. (2017). Psychological factors and the use of E-library resource among undergraduates in South-West Nigeria. *Library Philosophy and Practice*, 2017(1).
- Öncül, G. (2020). Defining the need: digital literacy skills for first-year university students. *Journal of Applied Research in Higher Education*. <https://doi.org/10.1108/JARHE-06-2020-0179>
- Santharoban, S., & Premadasa, P. G. (2015). Development of an information literacy model for problem based learning. *Annals of Library and Information Studies*, 62(3).
- Soria, K. M., Fransen, J., & Nackerud, S. (2017). Beyond Books: The Extended Academic Benefits of Library Use for First-Year College Students. *College & Research Libraries*, 78(1). <https://doi.org/10.5860/crl.78.1.8>
- Szitas, E. (2019). Book Review: Collection Development and Management for 21st Century Library Collections. *Library Resources & Technical Services*, 63(4). <https://doi.org/10.5860/lrts.63n4.233>
- Wang, S., Wang, X., Liang, L., & Xie, H. (2024). Teacher-Child Interaction Domains Measured by the CLASS and Children's Pre-Literacy Skills: A Systematic Review and Meta-Analysis. *Early Education and Development*, 35(3), 431–453. <https://doi.org/10.1080/10409289.2022.2159259>
- Wauters, L., & Dirks, E. (2024). Interactive storybook reading to enhance language, literacy, and social-emotional skills. *Journal of Deaf Studies and Deaf Education*, 29(2), 286–287. <https://doi.org/10.1093/deafed/enae003>
- Zhang, H., Zhu, C., Sang, G., & Questier, F. (2024). Effects of digital media literacy course on primary school students' digital media literacy: an experimental study. *International Journal of Technology and Design Education*, 34(1), 1–17. <https://doi.org/10.1007/s10798-023-09824-y>
- Zulkarnain, I., Sitepu, Y. S., Sutatminingsih, R., & Rajagukguk, M. (2024). Student's digital literacy competence and its implications for the learning process. *International Journal of Evaluation and Research in Education*, 13(2), 997–1006. <https://doi.org/10.11591/ijere.v13i2.25767>