



Strategy for Leveraging E-Journals in Academic Libraries to Support Inclusive and Quality Education (SDG 4)

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Abstract

The strategic use of electronic journals (e-journals) in academic libraries plays a vital role in supporting inclusive and quality education, particularly within higher education in urban institutions. This study investigates how the Universitas Negeri Jakarta (UNJ) Library manages its e-journal subscriptions and evaluates their utilization to meet the academic needs of the users. Using a qualitative approach, data were collected through institutional reports, usage statistics, and interviews with librarians and students from various faculties to gain user perspectives on e-journal's access and awareness. Findings show that the library currently subscribes to EBSCO, Emerald, and Gale, with high levels of engagement in 2024–2025, while Wiley was discontinued in 2023 due to low usage and budget constraints. Despite substantial access data, most students reported limited awareness or use of these platforms, reflecting barriers such as insufficient outreach, low digital literacy, and limited curricular integration. The study recommends structured information literacy programs, proactive promotion, stronger collaboration with faculties, and institutional policies embedding e-journals into teaching. By actively promoting e-journal use, establishing policies that optimize digital resources, and advocating for adequate funding from university management, UNJ Library will advance inclusive, high-quality education aligned with SDG 4 vision.

Keywords: e-journals, academic libraries, inclusive education, digital literacy, SDG 4

1. INTRODUCTION

E-journals are a crucial source of scientific information that supports academic activities in higher education. With their accessible, up-to-date, and credible characteristics, e-journals are important instruments in research-based learning, scientific writing, and knowledge development. In today's digital era, e-journals are no longer a complement, but a primary necessity in a dynamic and technology-based education system, including in universities.

Universitas Negeri Jakarta (UNJ), as a state university located in the capital city, has a strategic role in the national education system. Located in a complex and multicultural urban community, UNJ serves students from various backgrounds, both socially or economically. Higher education in urban society such as Jakarta faces unique challenges, including gaps in information access, inequalities in digital literacy, and the need for inclusive learning approaches. In this context, academic libraries play an important role in ensuring that the entire community has fair access to digital information resources.

Although UNJ has provided access to various e-journal platforms through institutional subscriptions, the overall utilization rate still shows some rooms for improvement. Based on the 2024 usage statistics data from the Technical Implementation Unit of UNJ Library, the number of full-text requests were 2,924 for EBSCO, 9,520 for Gale, and 21,577 for Emerald. Up to June 2025, the usage figures showed a consistently high engagement, namely 921 (EBSCO), 7,940 (Gale), and 10,819 (Emerald). Wiley was previously subscribed but then discontinued in 2023 due to budget constraints and relatively low usage levels with 3,520 downloads (UNJ Library, 2025).

The data above reflects activity access from the entire academic community, including lecturers and students. When compared to the total number of UNJ students—which reaches 30,673 students, including 125 international students and 90 students with disabilities (Pustikom UNJ, 2025), the data implies that e-journals have not been fully utilized as a primary source in academic activities. This finding suggests the need for a more focused strategy to improve literacy and inclusive utilization of e-journals.

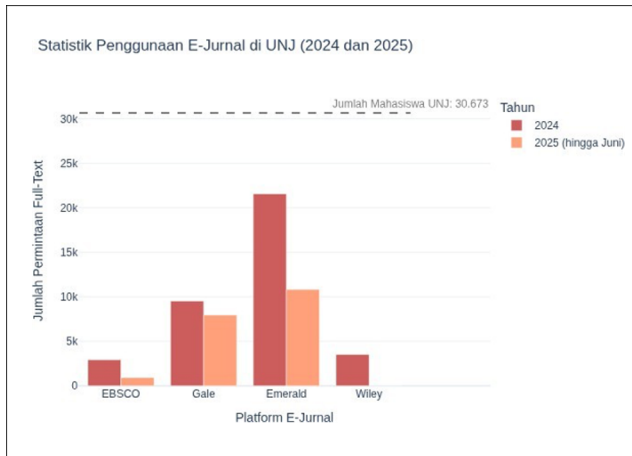


Figure 1. E-journal Usage Statistics from 2024 to 2025

In line with Sustainable Development Goal (SDG) 4, higher education is required to ensure inclusive and quality access for all. SDG 4 emphasizes the importance of fair, equitable education that supports lifelong learning. E-journals have great potential to support the achievement of these goals, especially in urban education system that demands flexibility, affordability, and diversity of information sources. However, without a focused strategy and adequate institutional support, this potential could not be optimally achieved.

The literature review shows that academic libraries in urban areas need to develop contextual strategic approaches that are tailored to user characteristics and local challenges. These strategies include information literacy training, integrating e-journals into the learning process, and active promotion that reaches all students' level. Without such interventions, the information gap will persist, and e-journals will remain passive resources with no significant impact on the quality of education. Supporting this statement, some studies highlight that the digital division between urban and rural areas has a direct impact on the quality of education, especially for young people who do not have access to information and communication technology (ICT) (Choung et al., 2018). The access and skills in using ICT are key factors in strengthening both educational participation and information equity. Meanwhile, another research in Azad Jammu and Kashmir universities shows that the use of e-resources has a positive impact on students' academic learning despite some obstacles such as the lack of ICT infrastructure and awareness in using digital resources (Kabir Khan, n.d.). These two studies reinforce the urgency of developing

information literacy strategies and systematically integrating e-journals into higher education practices to support the achievement of SDG 4.

Therefore, this article aims to thoroughly examine the strategy in utilizing e-journals at UNJ to support inclusiveness and quality in higher education. This study will analyze the actual conditions of e-journal usage, identify obstacles faced by users, and formulate strategic approaches that can be applied by academic libraries to improve the effectiveness of digital information services, particularly in supporting the achievement of SDG 4 in urban education environments.

2. METHOD

This research uses a qualitative approach to understand the utilization of e-journals in Universitas Negeri Jakarta (UNJ) Library. The main data were obtained from the library's annual reports, e-journal usage statistics, and interviews with librarians, specifically in the development collection department. These three sources provide a comprehensive overview of the policies, access trends, and e-journal management strategies that have been implemented.

To deepen the analysis, complement data were collected through interviews with 45 students from eight faculties and five students from graduate school. Relevant scientific literature was also used to support the interpretation and provide a coherent theoretical context for the findings. All data were analyzed thematically to identify patterns that related to access, utilization, and challenges in the use of e-journals in higher education. This study used a triangulation method, which compared and confirmed information from various data sources—institutional documents, librarian and student interviews, and scientific literature—to increase the validity and credibility of the findings. The triangulation method itself is a multi-method approach that allows researchers to obtain more complete findings by capturing phenomena from various perspectives, thereby reducing bias in data collection and analysis (Sugiyono, 2023).

3. RESULTS AND DISCUSSION

3.1 Usage Statistics for E-Journal

E-journal usage is an important indicator in measuring the effectiveness of digital information services in higher education institutions. Based on statistical reports on the usage of subscribed e-journals in the Universitas Negeri Jakarta (UNJ) Library (EBSCO, GALE, EMERALD, and WILEY) there was a fluctuation in using the services during the 2021–2025 period—with data for the Emerald platform starting earlier than 2017. All data was recorded until June 2025. This analysis provides a quantitative basis for assessing the extent to which e-journals are utilized by the academic community and helps identify the potential chances and challenges in optimizing digital access to scientific resources at UNJ.

3.1.1 EBSCO

The EBSCO platform underwent a significant surge in 2022 with 7,539 downloads, despite the decline to 921 downloads in the first half of 2025. It should be noted that in 2025, the data are still partial and require further monitoring to determine the overall annual trend. This decline may indicate challenges in maintaining the relevance and ease of the access, despite the offer of a broad multidisciplinary collection by EBSCO.

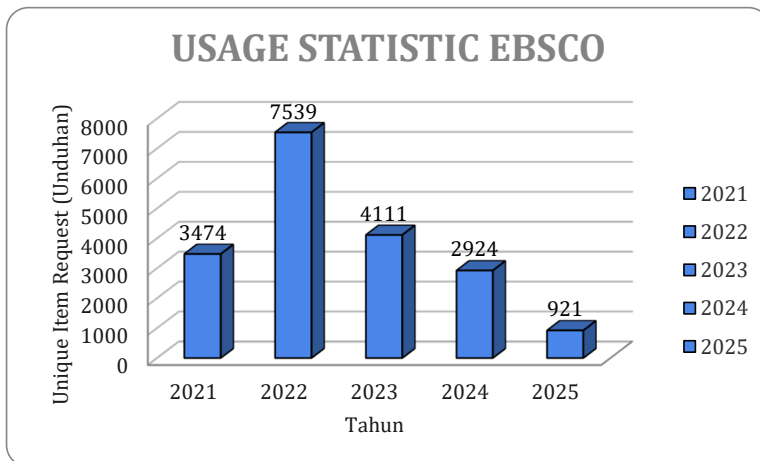


Figure 2. Usage Statistic EBSCO

3.1.2 GALE

GALE maintained a relatively stable and high usage pattern throughout the monitoring period, with the highest figures in 2022 and 2024 with 9,627 and 9,520 downloads respectively. Despite a slight decline in the first half of 2025 (7,940 downloads), GALE remains one of the platforms with the highest utilization rate in UNJ.

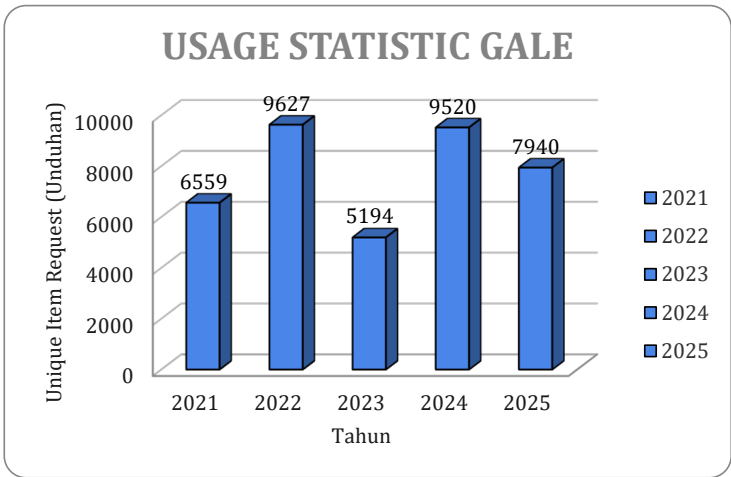


Figure 3. Usage Statistics GALE

3.1.3 EMERALD

EMERALD has shown fluctuating usage since 2017, with some years unrecorded or showing zero figures. Although it provides quality journals, especially in the social and management fields, EMERALD's utilization is still relatively low compared to others. This is likely due to the deficient integration of its content with the curriculum and the lack of internal promotion in campus.

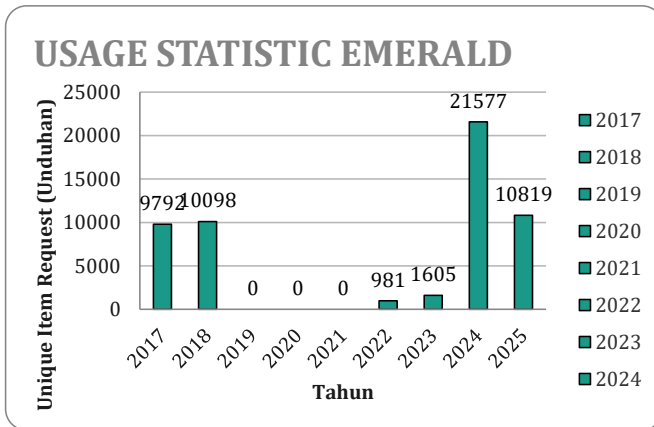


Figure 4. Usage Statistics EMERALD

3.1.4 WILEY

WILEY’s data access was only available for a year and shows a low usage rate compared to others. The lack of longitudinal data make it difficult to analyze long-term trends, but this may indicate that WILEY was not either a primary source for UNJ library users or that the access to it was not fully optimized.

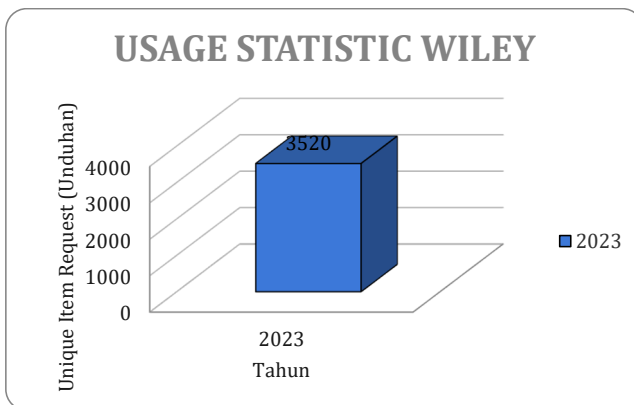


Figure 5. Usage Statistic WILEY

As described above, the use of e-journals at the Universitas Negeri Jakarta Library shows significant variety among the platforms, with diverse challenges and

opportunities. In order to understand these findings as limited statistical figures alone, a review that zero in on previous international research is needed. By examining the findings of relevant studies in various higher education contexts, researchers can gain a more complete picture of the main factors that influence the use of e-journals, as well as obtain strategic recommendations that can be applied at UNJ Library. Therefore, the following section presents a deeper analysis with a cohesive literature review that supports these findings.

In line with this discussion, research conducted in Tanzania revealed that the low use of subscription-based e-resources is largely influenced by technical barriers such as limited availability of computer devices, nonoptimal internet access, and IP address-based access restrictions (Moikan Mollel & Mwantimwa, 2019). In addition, user incompetency and the lack of advocacy in using e-resources through adequate training also contribute to the findings. Molel's recommendations regarding the use of digital access tools and the need for information advocacy are highly relevant to the case in UNJ, which has similar obstacles. As a result, increasing the level of e-journal usage through more intensive education and promotion programs could be the solution.

Meanwhile, research conducted in Nigeria shows that even though the e-journal resources are available, utilization by graduate students is still moderate due to limited access through inadequate mobile devices (Amos, n.d.). This condition parallels the fluctuation in e-journal usage at UNJ, particularly the decline in access in the first semester of 2025. Therefore, both technological update and mobile compatibility play an important role to keep pace with modern learning styles that demand easy and flexible access.

Another study emphasizes the importance of information literacy and individual experience as key factors in the optimal utilization of e-resources (Ruzegea & Msonde, 2021). This indicates that undergraduate students use e-resources more intensively than graduate students due to the skill and literacy gap in graduate students. This study recommends strengthening information literacy as an integral part of ongoing curriculum development and library training programs. This

strategy can help UNJ to improve the digital competence of its academic community, as well as encourage more optimal and inclusive use of e-journals in the future.

Based on the discussion above, it is clear that the use of e-journals in higher education does not solely depend on the availability of resources, but is also influenced by factors such as accessibility, technological support, and user competence. A deep understanding of these factors is an important foundation in designing effective and responsive digital information services, so that e-journals can optimally support academic and research needs.

3.2 Availability and Utilization Gap

The gap between the availability of e-journals facilities and its utilization at Universitas Negeri Jakarta (UNJ) is a crucial issue that needs to be addressed seriously. Although UNJ has a total of 30,673 students, including 125 international students and 90 students with disabilities (Pustikom UNJ, 2025), the recorded number of e-journal accesses is still infinitesimal compared to the population. Based on usage statistics from the Technical Implementation Unit of UNJ Library, the total number of full-text e-journal requests in 2024 was 34,021 downloads (2,924 for EBSCO, 9,520 for Gale, and 21,577 for Emerald). By June 2025, it had reached 19,680 downloads (921 for EBSCO, 7,940 for Gale, and 10,819 for Emerald) (UPT Perpustakaan UNJ, 2025). When compared to the number of students, these figures show that the average use of e-journals per student is still very low, highlighting a significant gap between the availability and utilization of digital resources.

Interviews with 45 students from various faculties reinforce the above condition. Of these, only 26 students were aware of the library's e-journal service, while 19 students were not. Among those who were aware of the service, many had never accessed it because they did not understand how to access it. Meanwhile, students who were unaware stated that they had never received any information about it. These findings confirm that the problem lies not only in the lack of use, but also the lack of continued information and education for students as the main users (Alisya Kharima & Yessicha Viona, 2025).

Lack of knowledge on how to access and the information on how to do it hinder the optimal use of e-journal services that are actually available. This situation requires a more effective strategy to improve digital literacy and disseminate information through advocacy, training, and integration of e-journal use in academic activities. Without these measures, the availability of broad digital access would not reach its maximum impact on the development of student competencies. In addition, the data regarding Wiley subscription termination in 2023 due to budget constraints and low usage (3,520 downloads) serves as a concrete example that underuse facilities ultimately result in wasting resources. As a result, the institution management should evaluate the current condition and design policies that could increase access across all faculties in any education levels.

Addressing this gap is critical not only to improve academic and research quality but also to ensure inclusivity and equitable access for the entire community, including students with disabilities. A holistic approach that builds user capacity building and improves communication is key to optimizing the sustainable use of e-journal facilities at UNJ.

3.3 Libraries' Impacts on Inclusive and Quality Education (SDG 4)

The impact of academic libraries on inclusive and quality education (SDG 4) is a crucial aspect that needs to be discussed comprehensively. SDG 4 demands the provision of inclusive, equitable, and high-quality education as the foundation for lifelong learning for all individuals. To achieve this goal, academic libraries serve as central hubs of information and learning resources that are fair, inclusive, and foster digital literacy in higher education.

Located in the capital city, UNJ has a very diverse student population, including students with disabilities and international students. This socio-cultural diversity demands the library services to be more inclusive, responsive, and affordable for the entire community. UNJ must manage its library and e-journal access by considering students' socio-cultural characteristics while addressing technological and policy challenges. The availability of inclusive and up-to-date library services at UNJ serves as a prerequisite to ensure all students have equal access to quality and equitable education. According to a study conducted in Ghana, university libraries play a

strategic role in supporting SDG 4 through inclusive and unbiased information services (Samuel Owusu Ansa, 2021). These services support lifelong learning capacities and encourage collaboration among stakeholders. However, obstacles such as negative public perceptions, limited funding, and technological developments are challenges that must be addressed through relevant policies and innovations. This action will ensure libraries' effective contribution to quality education.

As a holistic goal, quality education encompasses equality in physical, cognitive, and emotional growth (Banerjee Assistant Professor et al., 2025). To achieve that, we need competent teachers in conducting effective learning, which is also supported by good library access and services. Libraries serve as knowledge centers that support lifelong learning, including literacy training and research strategies (Atta-Obeng & Dadzie, 2020). Collaboration between libraries and educational institutions also holds the key to strategically improve the access and quality of inclusive learning. Library services that support students with disabilities are essential to achieving SDG 4. In the case of developing countries, inclusive policies and assistive technologies in libraries still require a lot of improvement (Eneya & Adesina, 2025). Given UNJ's increasingly inclusive student profile, implementing such services is essential to ensure equal and seamless access to learning resources.

Another research identified a number of obstacles in online information search behavior of first-year doctoral students, such as limited internet infrastructure and paid access to digital resources (Owusu-Bempah, 2024). These obstacles affected the quality of education, especially for students with limited information literacy skills. Therefore, the UNJ Library should provide digital literacy programs so that students can make optimal use of e-journal resources. Moreover, libraries and their associations play a role in ensuring universal access to information, fostering literacy, and preserving cultural heritage (Poluru, 2020). This function is integral to the sustainable education transformation agenda that the UNJ Library must adopt to achieve inclusive, high-quality education within the capital city's socio-cultural context.

Overall, the UNJ Library must continue innovating and adapting to socio-cultural and technological needs. It should provide inclusive services and adequate e-journal

access to bridge educational gaps and enhance academic quality. Strengthening digital literacy, implementing assistive technologies, and fostering collaboration are key to the library's success as an agent of educational transformation supporting SDG 4.

The correlation between the use of e-journals and the achievement of SDG 4 at UNJ is very strong. Broad and inclusive access to e journals enables students to obtain high-quality information essential for research, learning, and competency development. Thus, greater e-journal utilization directly enhances two keys in SDG 4 indicators, which are education quality and equalizes learning opportunities. Efforts to expand and optimize UNJ's digital library services must continue to address the complex accessibility needs of a diverse academic community and deliver truly inclusive education.

3.4 Strategy and Development to Support SDG 4 at UNJ Library

The management of UNJ Library must be designed with a comprehensive strategy to optimize the role of the library in supporting SDG 4: inclusive, equitable, and quality education. As a university located in the capital city with a socially and culturally diverse student community, UNJ faces unique urban challenges such as Jakarta's heavy traffic. Students' mobility from their residences to campus or other information centers is often hampered by congestion. Therefore, UNJ must optimize digital library services—particularly access to e-journals—to ensure students can easily and efficiently get quality information without facing time-and energy-consuming physical barriers. The strategy must actively promote digital services to encourage students and lecturers to use available e-journals. A structured digital literacy program is also essential to strengthen their ability to search, manage, and use digital information effectively. In addition, policies supporting affordability and accessibility—including assistive technologies for students with disabilities—are vital to ensuring comprehensive inclusiveness.

On the other hand, the issue of limited funding can be an obstacle to expanding and developing digital services. In this context, the UNJ Library must therefore advocate to university leaders for recognition as an integral part of institutional success. Priority should be given to adequate budgets for quality e-journal subscriptions and supporting infrastructure. In addition, collaborative programs with

lecturers should be developed to integrate e-journals into academic activities rather than leaving them as passive resources. In addition, strengthening partnerships with faculties, research centers, and related institutions will increase the effectiveness of collective management and digital library services. Investment in information technology infrastructure, including high-speed internet and user-friendly digital platforms, is essential to ensure flexible, easy access to library services for all students, particularly given mobility limits caused by capital city traffic.

Overall, the strategy and development at UNJ Library must accommodate social and geographical challenges while prioritizing inclusive and efficient digital access. Optimal use of e-journals will indicate the library's success in contributing to SDG 4, including equalizing and improving education quality at UNJ. Thus, the library serves not only as a provider of learning resources but also as an agent of educational transformation, responsive to urban dynamics and contemporary student needs.

4. CONCLUSION

In conclusion, despite the substantially increased access data, disparities in access and utilization persist across faculties and student groups. This creates barriers such as insufficient outreach, low digital literacy, and limited curricular integration. Addressing these gaps requires adaptive strategies that strengthen digital literacy, promote inclusivity, and embed e-journals into teaching practices. The UNJ Library plays a pivotal role in advancing SDG 4 by ensuring equitable, high-quality access to information. Given the mobility challenges of Jakarta's urban environment, optimizing digital library services is essential to provide students with seamless access to knowledge anytime and anywhere. Ultimately, UNJ's academic library must position itself not only as a resource center but also as a transformative agent that drives inclusive and sustainable educational excellence.

Effective library management strategies should actively promote e-journal use, establish policies that optimize digital resources, and advocate for adequate funding from university management. Strong collaboration with lecturers in integrating e-journals into teaching is essential to advancing inclusive, high-quality education aligned with UNJ's SDG 4 vision.

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