Khizanah al-Hikmah : Jurnal Ilmu Perpustakaan, Informasi, & Kearsipan
p-ISSN: 2354-9629
e-ISSN: 2549-1334
Volume 14 Issue 1, March, 2026

Reconceptualizing Information Literacy as Social Practice Through Project-Based Service Learning in Library and Information Science

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Notes

Submitted: 24-02-2026
Revised: 10-03-2026
Accepted: 26-03-2026

How to cite: Marlini, M., Barawi, M. H. bin, Erlianti, G., Rahmah, E., Asmara, R., & Desriyeni, D. (2026). Reconceptualizing Information Literacy as Social Practice Through Project-Based Service Learning in Library and Information Science. Khizanah Al-Hikmah : Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan, 14(1). https://doi.org/10.24252/kah.v14i1a1

DOI: 10.24252/kah.v14i1a1

ABSTRACT

Background: The rapid proliferation of digital information has intensified the need for robust information literacy (IL) competencies in higher education. Many Library and Information Science (LIS) curricula rely on decontextualized instructional designs, which often limit students' ability to apply these critical skills within authentic social frameworks.
Purpose: This study evaluates the efficacy of a Project-Based Service Learning (PjBSL) model, developed using the ADDIE instructional framework, in enhancing the applied information literacy outcomes of undergraduate LIS students.
Methods: The researchers employed a quasi-experimental pretest-posttest design involving 60 students. Participants were divided into experimental and control cohorts (n = 30 per group). Data were synthesized from expert validation, student practicality surveys, ACRL-aligned performance rubrics, and standardized learning assessments.
Findings: The PjBSL model demonstrated exceptional validity (ICC = 0.922) and high practicality (M = 89.3). Notably, the experimental group showed significant performance gains over the control group ($p < 0.001$), supported by a remarkably large effect size ($d = 2.61$).
Originality/Value: The findings indicate that integrating structured community-based projects transforms information literacy from a theoretical exercise into a socially contextualized practice. This research offers a scalable pedagogical shift for LIS education, bridging the gap between classroom instruction and real-world application.

Keywords: Information Literacy; Project-Based Service Learning; Library and Information Science of Higher Education; ACRL Framework; Experiential Learning

1. INTRODUCTION

Digital information has changed the way knowledge is created, accessed, and evaluated in today's society. The abundance of information no longer guarantees that individuals are adequately informed. Instead, it presents new obstacles with respect to information overload, misinformation, and lack of depth of engagement (Malhotra et al., 2025). In response to these

conditions, higher education institutions are increasingly expected to cultivate students' critical thinking skills in engaging with information in both ethical and purposeful ways. Consequently, information literacy has emerged as an essential competency for academic success, professional practice, and lifelong learning (Asif & Naveed, 2026). It enables students of higher education to identify information needs, access relevant academic sources, evaluate credibility, and use information ethically in learning and research (Hicks et al., 2023). For Library and Information Science (LIS) students, these competencies are particularly vital in the early era of artificial intelligence, where the ability to critically evaluate and manage the expanding volume of digital and AI-generated information is essential (Haffenden et al., 2023). Graduates from LIS education need to demonstrate a high level of information literacy as part of their degree program in academic and community contexts (Caffrey et al., 2025). This shifts the focus from procedural search practices toward a deeper exploration of the social dimensions of information.

Current research within the field of LIS proves this holistic perspective. The Association of College and Research Libraries (ACRL) Framework classifies information literacy as the product of social processes that are contextual, dynamic, and reflexive, as opposed to just a collection of technical skills or activities performed in isolation (DeFrain et al., 2025; Kuehn, 2022). According to Hicks et al (2023), information practices exist within the social context of learners' beliefs in their sharing and learning from each other through the creation of community-based norms for negotiating authority, context, and meaning. Information literacy is viewed as someone who has the ability to share knowledge with others, while also having negotiated with a community of practice what that knowledge means (Svensson et al., 2022). Students are more likely to acquire these competencies when engaged in authentic activities that necessitate collaboration, reflection, and socially responsible decision-making.

Even with this broader understanding, information literacy instruction in many LIS Study Programs remains fragmented, focused primarily on theoretical concerns, and disconnected from the practical realities of society. There have been numerous studies that students lack the necessary competencies related to information literacy and that LIS students struggle with these competencies (Kupeshan & Raja, 2025). Students are mostly able to access information, their dependence on copy and paste methods and superficial information processing reveals the deficiencies of traditional instructional models that lack structured and contextual guidance (Dempsey & Dalrymple, 2025). In recognition of these problems, some of the research have explored a variety of pedagogical innovations with project-based learning (Supriyanti et al., 2020; Anjli et al., 2023). The project-based learning is emerging as a prominent approach to improved student engagement, better learning outcomes, and critical thinking skills through active learning (Guo et al., 2020; Pudjiarti et al., 2024). Nevertheless, prior applications of information literacy in project-based learning continue to prioritize product completion over reflective information practices and tend to overlook the social and ethical dimensions in information use.

Building on these pedagogical developments, service learning has been widely recognized as a promising practice model that links academic education with meaningful social engagement. Service learning allows students to practice disciplinary knowledge on real community needs and develops their sense of civic responsibility and ethical behavior (Cantel & Rha, 2025). This model of experience is consistent with current views in the literature on information literacy as situated learning and ethical practice (Martín-Ondarza, 2025). Constructivist learning theory has played a significant role in this move. Constructivism conceives learning as an active process in which students constructed

knowledge from interaction with real problems and social whichever mediated inquiry (Noguera Fructuoso et al., 2022). In this model of learning, teachers do not teach but guide inquiry. Learning is significant when students perceive that what they learn conceptual understanding connects to authentic situations and reflective experience (Choi et al., 2023). Service learning is a form of constructivist pedagogy, which combines academic inquiry within the community in a manner that allows students to use information practices ethically to address authentic social needs (Resch & Schrittesser, 2023).

Whereas most of the pedagogical advantages of project-based learning and service learning approaches have been recognized, many instructional methods continue to emphasize procedural instruction of classroom, rather than focusing on authentic practice-based information opportunities (Leung, 2022; Nicholson & Seale, 2022). International guidance has long positioned information literacy as a foundation for lifelong learning and called for its integration into curricula through collaboration among librarians, faculty, and the wider learning community, with room for local adaptation (Lechtenberg & Donovan, 2022). The ACRL Framework further supports this shift by offering four interconnected frames for context-sensitive curricular design (Kuehn, 2022). Recent LIS studies in Bangladesh and the Philippines show growing interest in guided inquiry and service-learning approaches. Recent LIS studies in Bangladesh (Hossain & Sormunen, 2025) and the Philippines (Cantel & Rha, 2025) likewise point to growing interest in guided inquiry and service-learning approaches, yet a coherent instructional design for Indonesian LIS higher education remains underexplored. To situate the present study within these broader developments, Table 1 summarizes selected international and regional reference points relevant to the current research.

Table.1 International and Regional Reference Points for Situating Information Literacy in LIS education

Reference point	Key point	Relevance to this study
IFLA Guidelines on Information Literacy for Lifelong Learning	Information literacy should support lifelong learning and be integrated into the curriculum with local adaptation.	This provides the broad basis for a locally grounded PjBSL model.
ACRL Framework for Information Literacy for Higher Education	Information literacy is framed as contextual and inquiry-based learning across four interconnected frames.	This supports the shift from procedural teaching to authentic information practice.
Hossain and Sormunen (2025), Bangladesh	Guided inquiry can be embedded in regular LIS courses.	This shows that curriculum-based IL innovation is feasible in a developing-country context.
Cantel and Rha (2025), Philippines	Service learning can make IL instruction more authentic and reflective	This supports the use of community-based learning in LIS education.
Present study at Universitas Negeri Padang, Indonesia	This study develops and evaluates a PjBSL model in an undergraduate IL course.	This addresses the limited evidence from Indonesian LIS higher education.

As shown in Table 1, contemporary international and regional perspectives increasingly position information literacy as embedded, inquiry-driven, and socially grounded learning. Nevertheless, empirical research that systematically integrates these perspectives into a coherent instructional design framework remains scarce, particularly in the context of Library

and Information Science (LIS) higher education in Indonesia. Addressing this gap, this study develops a Project-Based Service Learning (PjBSL) model to enhance information literacy among LIS students at Universitas Negeri Padang, West Sumatra, Indonesia. In doing so, it contributes to the ongoing reconceptualization of information literacy instruction as an immersive and socially contextualized learning process.

The significance of this study is twofold. First, it responds to persistent instructional challenges in LIS education by offering a pedagogically grounded and empirically validated model for information literacy instruction. Second, it contributes to the broader body of information literacy research by providing evidence of how experiential and service learning can strengthen both learning outcomes and higher-order information competencies. Accordingly, this study aims to develop a valid, practical, and effective PjBSL instructional model and to examine its impact on students' information literacy competencies and learning outcomes. Specifically, the study evaluates the validity and practicality of the proposed PjBSL instructional model for information literacy instruction in LIS higher education and investigates the extent to which the PjBSL model improves students' information literacy competencies compared to conventional instruction. By reconceptualizing information literacy as a socially grounded practice, this research offers important implications for curriculum development in LIS higher education in preparing future information professionals.

2. METHODS

This study adopted a design-based research approach to develop and evaluate a PjBSL instructional model for enhancing information literacy among undergraduate LIS students. The model development phase followed the ADDIE framework, including analysis, design, development, implementation, and evaluation stages (Mattson et al., 2025), which addressed how well the instructional elements align with existing thought on information literacy. To assess the effective of PjBSL model, the research utilized a quasi-experimental pretest and posttest control group design. The learning outcomes were compared between students who participated in the PjBSL intervention and those who received traditional instruction.

The study encompassed 60 undergraduate students enrolled in an Information Literacy course in the LIS study program at Universitas Negeri Padang (UNP), West Sumatera, Indonesia. UNP was selected as the study site because it offers a formal Information Literacy Course within the undergraduate LIS curriculum, providing an appropriate instructional setting for developing and evaluating the PjBSL Model. Data were collected during the first semester of the 2025/2026 academic year, from July to December 2025. Participants were randomly assigned to one of two groups: an experimental group (n = 30) that received PjBSL instruction and a control group (n = 30) that received traditional lecture-based instruction. Prior to the intervention, both groups possessed comparable academic backgrounds and levels of fundamental information literacy skills.

The PjBSL intervention engaged students to involve on structured community projects which focused on information literacy as a practice of social and embodied experience (Bringle et al., 2023). Students did this in collaboration with people from the community to determine what real information needs they had, generate questions to ask in response, find and critically evaluate disparate sources of information, and create service-related products such as an information guide or literacy materials. During the intervention, the PjBSL model highlighted the importance of thinking about how to use information ethically, how to think

critically about authority in different social situations, and how to engage in reflective engagement. The control group, on the other hand, got traditional instruction that focused mostly on procedural information literacy skills like database searching and source evaluation, with no direct involvement from the community.

This study employed multiple data collection methods to assess the validity, practicality, and learning outcomes of the proposed model. Content validity was established through expert judgment involving five specialists, including two experts in information literacy and three experts in instructional design. To ensure anonymity, the experts are referred to using coded identifiers. They evaluated the instructional model and its accompanying learning materials in terms of relevance, clarity, pedagogical appropriateness, and feasibility. The practicality of the model was assessed using student questionnaires examining the clarity, usefulness, and feasibility of the learning activities. This evaluation was conducted with 16 students from the experimental group during the initial implementation of the PjBSL model. To measure students' information literacy competencies, performance-based rubrics aligned with the ACRL Framework for Information Literacy were employed. The rubric incorporated socially contextualized indicators to assess students' ability to apply information literacy in community settings, negotiate power relations, and reflect on ethical responsibilities, as presented in the following table.

Table 2. Socially Situated Information Literacy Indicators

Indicator	Description
Contextual Information Awareness	Understanding community-specific information needs and socio-cultural conditions shaping information use
Authority and Credibility Negotiation	Examining representation, power relations, and marginalized perspectives in information sources
Ethical and Civic Responsibility	Applying information ethically through attribution, responsible dissemination, and reflection on societal impact
Collaborative Knowledge Production	Communicating findings with stakeholders and producing outputs supporting collective problem solving

Data analysis was carried out separately for expert validation, model practicality, and student learning outcomes. Expert validation data from five validators were analyzed using mean scores, standard deviations and the Intraclass Correlation Coefficient (ICC) to determine content validity and inter-rater reliability. Practicality questionnaire data were analyzed descriptively using mean scores to assess the clarity, usefulness, and feasibility of the learning activities. Learning outcomes data from the 60 students in the quasi-experimental phase were analyzed using descriptive and inferential statistics. Means and standards deviations were calculated for the pretest, posttest, and follow-up scores. The assumptions of normality and homogeneity were tested using the Shapiro-Wilk and Levene's tests. Posttest differences between the experimental and control groups were examined using an independent samples t-tests, and Cohen's *d* was calculated to estimate effect size. Follow-up data gathered six weeks after the intervention were analyzed to examine the persistence of learning improvements. All statistical analyses were conducted in SPSS version 26.0, with a significance threshold established at $p < 0.05$.

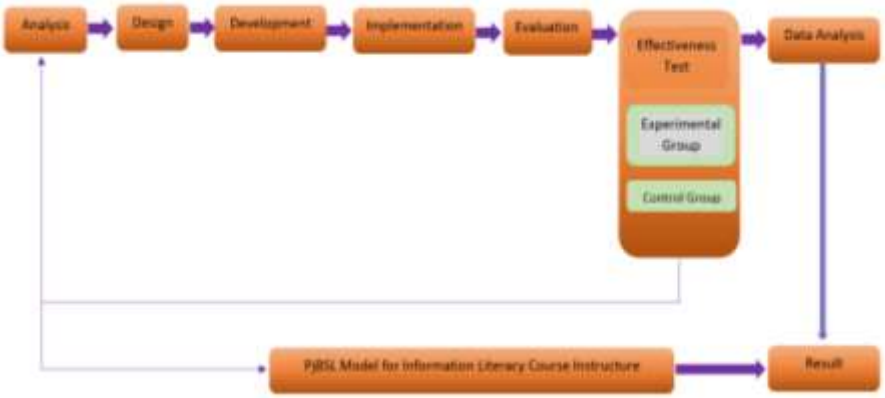

Figure 1. The research process

3. RESULTS AND DISCUSSION

This section presents the results and key findings of the study. It first examines whether the experimental and control groups were comparable at baseline. It then presents the impact of the PjBSL intervention on students' information literacy outcomes, including rubric-based performance across ACRL dimensions. Evidence of the model's validity and practicality is also discussed.

Participants and Baseline Equivalence

A total of 60 undergraduate LIS students from LIS Study Program at UNP, West Sumatera, Indonesia, participated in this study. All participants were enrolled in the information literacy course during the first semester of the 2025/2026 academic year. They were randomly divided into two groups. Thirty students joined the experimental group and learned through the PjBSL model, while the other thirty received conventional lecture-based instruction. Pretest information literacy scores were used to confirm that both groups started with comparable baseline levels before the intervention.

Table 3. Baseline Equivalence of Pretest Information Literacy Scores

Group	n	Mean	SD	t(df)	p-value	Cohen's d
Experimental (PjBSL)	30	44.45	18.29	0.97 (51.68)	0.335	0.25
Control (Conventional)	30	38.75	26.35			

Note. Welch's t-test was used due to unequal variances, confirming no significant baseline difference between groups.

As shown in Table 3, the experimental group had a mean pretest score of 44.45 (SD = 18.29), whereas the control group had a mean score of 38.75 (SD = 26.35). Although the experimental group's mean was slightly higher, the difference was not statistically significant. Welch's independent samples t-test confirmed this result, t(51.68) = 0.97, p = .335, with a small effect size (d = 0.25). These findings indicate that both groups began the study with comparable levels of information literacy, and the observed baseline difference was negligible in practical terms. This initial equivalence strengthens the internal validity of the quasi-experimental design by reducing the likelihood that subsequent differences can be attributed to pre-existing group disparities. Accordingly, improvements observed in the posttest phase can be more confidently attributed to the PjBSL intervention rather than baseline variation.

Effectiveness of the PjBSL Model on Learning Outcomes

Following the intervention, posttest scores were analyzed to evaluate the effects of the PjBSL model on students' information literacy outcomes. Initial assumption verifications indicated that posttest scores followed a normal distribution in both groups. The Shapiro Wilk test produced p = 0.171 for the experimental group and p = 0.190 for the control group. Levene's test also showed that the variances were the same, which meant that the data was ready for more group comparisons.

Table 4. Posttest Comparison of Information Literacy Scores Between Experimental and Control Groups

Group	n	Mean	SD	Mean Difference (Exp–Ctrl)	95% CI	t(df)	p-value	Cohen's d
Experimental (PjBSL)	30	88.73	8.06	21.00	[16.83, 25.17]	10.119 (58)	< 0.001	2.61
Control (Conventional)	30	67.73	8.06					

Note. An unpaired t-test of posttest results. Cohen's d indicates the huge PjBSL teaching advantage.

The posttest results, as shown in Table 4, showed substantial differences between the two groups. An independent samples t-test revealed a statistically significant difference in performance, t(58) = 10.119, p < 0.001. The experimental group attained a significantly higher mean score (M = 88.73, SD = 8.06) compared to the control group (M = 67.73, SD = 8.06). The average difference was 21.00 points, accompanied with a 95% confidence range of [16.83, 25.17]. Cohen's d indicated an exceptionally large effect size (d = 2.61), indicating a significant instructional effect. The results revealed that the PjBSL model significantly improved the information literacy of students compared to traditional education models. This finding supports the importance of incorporating structured project-based learning with community-based learning in LIS graduate education.

Information Literacy Outcomes across ACRL Framework Dimensions

In conjunction with the detailed posttest outcomes, the students' abilities in information literacy were measured through a performance-based rubric that is aligned with the ACRL Framework. In this study, Table 5 demonstrates the mean scores across five essential dimensions of the ACRL frameworks, including identifying information needs (Know), devising search strategies (Access), appraising sources (Evaluate), integrating information (Use), and adhering to ethical and legal standards in the utilization of information.

Table 5. Scores Reflects Rubric-Based Information Literacy across ACRL Dimensions of the Experimental Group

ACRL Dimension	Indicator Focus	Mean Score	SD	Performance Level
Know	Identifying information needs	88.7	5.8	Very good
Access	Developing search strategies	89.2	5.5	Very good
Evaluate	Critical evaluation of sources	85.5	6.3	Good
Use	Integrating and communicating information	90.1	5.2	Very good
Ethical/Legal	Ethical use and citation	89.8	4.9	Very good

The experimental group performed very well on all of the ACRL dimensions, as shown in Table 5. The mean scores were between 85.5 and 90.1, which shows that most of the students who took part in the PjBSL intervention were very good at what they did. The Use dimension (M = 90.1, SD = 5.2) and the Ethical and Legal dimension (M = 89.8, SD = 4.9) got the highest average scores. These results show that the students did a great job of gathering information, sharing what they learned, and using it fairly during project activities. Students did well in the Know dimension (M = 88.7, SD = 5.8) and the Access dimension (M = 89.2, SD = 5.5), which means they were good at figuring out what information they needed and how to acquire it.

The Evaluate dimension had the lowest average score (M = 85.5, SD = 6.3), but the performance was still good enough. This trend shows that it's still a little hard to critically evaluate sources, which means figuring out if a source is reliable and spotting bias. The rubric results show that the PjBSL model is a good way to help people get better at many parts of information literacy, especially when it comes to putting what they learn into practice and following the ACRL Framework.

Validity and Practicality of the PjBSL Instructional Model

Before the PjBSL model could be used more widely, it had to pass tests of validity and practicality. The content validity of the model and its accompanying instructional materials was confirmed through an expert review conducted by five specialists, comprising two experts in information literacy, Prof. Dr. Harris Effendi Thahar, M.Pd, and Dr. Ardoni, M.Si., and three experts in instructional design, Prof. Dr. Darmansyah, ST, M.Pd., Prof. Z. mawardi, M.Pd., and Dr. Nursaid, M.Pd. The results of the expert validation and practicality assesment of the PjBSL instructional model are presented in the Table 6.

Table 6. Expert Validation of the PjBSL Instructional Model

Measure	Value
Number of validators	5
Number of items	41
Intraclass Correlation Coefficient (ICC)	0.922
Cronbach's Alpha	0.978
Validity Category	Very high

Table 6 indicates a high level of agreement among the experts, as reflected by an Intraclass Correlation Coefficient (ICC) of 0.922. This result demonstrates a strong degree of consistency in expert evaluations regarding the coherence, clarity, and utility of the PjBSL model components. Furthermore, the instrument exhibited excellent internal consistency, with a Cronbach's alpha of 0.978 across 41 assessment items, indicating that the validation instrument is highly reliable.

Table 7. Student Practicality Evaluation of the PjBSL Model

Indicator	Mean Score	Category
Clarity of learning instructions	89.6	Very practical
Ease of project implementation	90.2	Very practical
Relevance to course objectives	88.5	Very practical
Usability of learning materials	89.0	Very practical
Overall practicality	89.3	Very practical

The practicability of the PjBSL model was further evaluated in a pilot study during the initial implementation phase with a group of 16 undergraduate LIS students drawn from the experimental group. The average score for how useful the learning materials and teaching methods were, based on student evaluations, was 89.3, which is very useful (Table 7). There were consistently high ratings for how clear the advice was, how easy it was to carry out the project, how relevant it was to course goals, and how easy it was to use the learning tools. The results show that the PjBSL model is very valid, very reliable, and very useful in the classroom. The fact that both experts and students agree that the approach is effective for teaching information literacy in LIS higher education shows that it is both pedagogically valid and practice.

The PjBSL approach has shown to be valid, practical, and effective to a great extent for developing information literacy skills of undergraduate LIS students across the ACRL domains. These outcomes strengthen the consensus that information literacy development is a socially and ethically justified undertaking, as opposed to a set of procedural skills. The learning improvements resulting from community-engaged inquiry provide a unique teaching context that fosters greater student engagement with information practices. PjBSL facilitates greater student engagement as opposed to traditional teacher centered education that focuses more on access and retrieval techniques. PjBSL focuses on active student engagement in real information problem situations and therefore fits with more current views of information literacy as contextual, reflective, and socially responsible (Rapchak, 2021). Compared to rabid information literacy teaching for a specific purpose, embedded and service-based approaches promote a richer understanding of the multidimensional potential of information literacy (Macnaught et al., 2024). The addition of community-based activities with instructional design and ethical reflection seems to have reinforced students' socially conscious information use and critical thinking, resulting in enhanced higher order thinking skills.

In LIS education, community-based activities greatly enhance information literacy as a professional and civic responsibility. The PjBSL model goes beyond skill-based education by integrating ethical reasoning, situational assessment, and mindful engagement with information (Dommermuth & Roberts, 2022). This approach reflects the ACRL Framework principle regarding inquiry and contextual authority. Students recognized authentic information needs, evaluated information sources in specific social contexts, and ethically utilized information in community contexts (Zainuri & Huda, 2023). These experiences appear to foster higher order through contemplation and practical problem solving. This research contributes to the discourse on the function of socially situated pedagogy in strengthening the professional preparation of LIS programs.

The socially situated pedagogy is also reinforced by substantial expert consensus and internal coherence. The findings from the validation show the instructional design and the

latest understanding of information literacy strongly correlate. As Hicks et al., (2023) noted, LIS curricula are increasingly calling for teaching methods that incorporate ethical and contextual aspects of inquiry together with technology. The PjBSL design's integration of project-based and service learning is one of the few designs that provide a comprehensive approach to the cognitive, moral, and contextual dimensions of information practice (Dobson, 2023). It also helps to account for the substantial instructional effect found. This is a result of the students engaging in 'real' information practices that are quite different from the typical norms of the classroom. Higher order information literacy skills are best developed through a rigorous instructional design within a particular theory rather than through a collection of isolated instructional designs or through a practices-based instructional approach (Tripathi et al., 2025). The PjBSL model, therefore, constitutes a strong design for the provision of ethically and socially informed information literacy education in LIS higher education.

The PjBSL model exemplifies an ethically grounded instructional framework that develops information literacy pedagogy in LIS higher education through integrated design, proof of concept, and experiential practice. Its systematic design proves that the principles of contemporary information literacy combined with service learning and community engaged learning elicits the development of higher order thinking that is pertinent to the future professional roles of librarians and information specialists. Community engaged inquiry promotes ethical thinking and situational judgment, augmenting social responsiveness in information practices beyond the classroom, skill-based instruction (Adi et al., 2025). It highlights the vital role of LIS education in equipping future information practitioners to work in socially responsive, contextual, and information-rich environments (Caffrey et al., 2025). Community engaged learning projects are an important organizational element of LIS curricula that aim to enhance reflective practice in information literacy. Furthermore, the practice of evolving pedagogies will require structured support for learners to engage in critical and ethical reflective practices, aligned with the curriculum, competency based assessment, and ongoing community engagements.

Furthermore, the extensive student practicality assessments affirm the PjBSL model as a plausible and scalable approach to information literacy education in LIS higher education. This LIS program instructional innovation viability is particularly important, given the complexity of information tasks that LIS practitioners and educators are expected to undertake. According to Liu et al.,(2024), PjBSL's systematic approach allows students to engage in inquiry, evaluate and ethically utilize information, and provide guidance that does not overwhelm them cognitively. In LIS, this scaffolding is particularly relevant, as students training to become information professionals need to develop not only search skills, but also the ability to assess information and the social responsibility that accompanies the practice of using information. With PjBSL, students created an integrated model that connects the academic skills of information literacy with meaningful skills in the community (Lechtenberg & Donovan, 2022). Authentic problem solving in project-based learning is important Muñoz Alcón et al.,(2022), and service learning enhances the awareness of citizenship and the professional purpose of the students (Thornburgh et al., 2022).

Feasibility, however, must be understood within the wider institutional and curricular frameworks of LIS education. Experiential instructional methods often encounter difficulties with assessment alignment, instructional complexity, and resource limitations, especially in blended or technology-mediated learning situations (Radović et al., 2021). For PjBSL to operate as a sustainable method, its execution requires curricular integration, institutional

dedication, and enduring partnership with community stakeholders, rather than isolated classroom projects. These factors are particularly pertinent in library and information science degrees, where information literacy is intricately linked to professional practice and community involvement (Afzal, 2023). The evidence of practicality underscores that socially contextualized information literacy teaching may be implemented in pedagogically feasible manners while enhancing professional competence development. In this regard, project-based service learning provides a feasible avenue for enhancing instructional relevance and morally sound preparation of future information workers in higher education.

The established instructional framework, evidence showing improvement in ACRL-aligned competencies illustrates how effective PjBSL is at developing information literacy in LIS higher education. The effectiveness shows that project inquiry and service learning integration leads to a higher order thinking, ethical, and knowledge application pedagogy. When students work in community-based projects, they experience and respond to real information needs, which involves contextual credibility assessment and responsible use of information in a real social problem. These scenarios mirror professional demands of future librarians and information specialists (Lee et al., 2022). Such environments foster high level competences beyond mere procedural skills to use information. PjBSL supports students' learning continuum as they synthesize information, formulate positions, and assume ethical responsibility in social environments (Ekpenyong, 2022). The findings reiterate the current belief that information literacy is an activity in context that transforms the user and not a mere collection of technical skills.

Cultivating students' skills of critical assessment is still a lasting challenge and is one of the most complex skills to teach in information literacy. The ability to evaluate requires students to grapple with issues involving authority, biases, and conflicting data, which prior studies have consistently pointed to as particularly difficult to develop with the LIS curricula (Khosravi et al., 2021). Though PjBSL substantially improves the ethical and practical dimensions of information practice, our findings suggest the necessity of stronger scaffolding aimed at assisting practitioners with more sophisticated critical evaluations of information in complex contexts. Such development is all the more relevant for future librarians and information professionals, whose work will require advanced evaluative and responsible information handling (Nicholson & Seale, 2022). The impact of the PjBSL model confirms its value as an innovative framework for preparing LIS graduates to engage with information in an ethical, critical, and socially responsible way.

In the vast field of LIS professional preparation, PjBSL stands out in LIS education as an innovative model for developing information literacy skills. Information literacy development is strongest in learning environments where students engage with real information problems, community issues, and professional roles in a socially situated manner. Such environments are also ideal for the development of practical, ethical, and evaluative skills essential for future librarians and information professionals. As noted by Hossain & Sormunen, (2025), LIS programs are encouraged to introduce structured service learning projects into the information literacy curriculum as well as provide guidance for critical evaluation of, and engagement with, complex information ecosystems. Filippelli, (2022) points out that the evaluation metrics that align with competency-based approaches highlight the importance of lasting partnerships with community stakeholders that are vital to the long-term sustainability of the projects. This position represents a notable shift towards more experiential and socially aware approaches in educational practices for information literacy in Library and Information Science (LIS) education.

4. CONCLUSION

This study demonstrates that the proposed PjBSL model is valid, reliable, and practical for information literacy instruction in LIS higher education, as evidenced by strong expert evaluation and positive student responses during implementation. It also shows that the model is more effective than conventional lecture based instruction in improving students' information literacy competencies. This suggests that students benefited from a more authentic, participatory, and context-sensitive learning experience. The key contribution of this study lies in the development of a coherent PjBSL instructional model for information literacy instruction. This model extends LIS pedagogy beyond procedural classroom teaching by promoting a more socially grounded and practice oriented approach. The model prepares future information professionals to navigate the complexities of the digital environment and to use information professionally across diverse contexts. The study is however bound by a few limitations, in that, the approach largely explores a single institutional context which could limit its generalizability. While the approach improved the practical and ethical dimensions of information literacy, critical assessment proved particularly demanding, suggesting a need for greater targeted scaffolding. Future research should explore the sustainability of the PjBSL model across diverse cultural and institutional settings, assess its impact on the development of a professional identity over time, and incorporate qualitative dimensions of students' reflective experiences. This study provides a basis for theorizing and enhancing the socially responsive pedagogy of information literacy within LIS higher education.

AUTHORS' CONTRIBUTIONS

Marlini: Writing original draft; conceptualising; methodology; instructional model development; and data analysis.
Mohamad Hardyman bin Barawi: Methodology; instructional model development; and data analysis; validation; and data interpretation and writing.
Gustina Erlianti: Drafting instruments; validation; and data interpretation and writing, reviewing & editing.
Elva Rahmah: Investigation; Validation; data collection; Formal Analysis; and Writing, Reviewing & Editing.
Rini Asmara: Practicality; Validation; and Statistical Writing, Reviewing & Editing.
Desriyeni: Validation; and statistical writing, reviewing & editing.

CONFLICT OF INTERESTS

The authors consider that there are no conflicts of interest regarding this article. There were no sources of funding for this study that could have affected the research process, results, or their interpretation.

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