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ABOUT THE JOURNAL

The **PAARL Research Journal (PRJ)** is published and managed by the Philippine Association of Academic/Research Librarians, Inc. PRJ is an annual, peer-reviewed publication for library research in the field of Philippine academic and research librarianship.

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EDITOR'S INTRODUCTION

The eleventh issue of the PAARL Research Journal (PRJ) features papers presented during the 2025 PAARL Research Colloquium, held on 10 October 2025 via Zoom. Each submission underwent two rounds of peer review by a panel of experts before being forwarded to the Editorial Board. The Board, composed of myself and three other members, then conducted further evaluation to assess their scholarly contribution and readiness for publication, using a custom-developed rubric with eight criteria and a passing score of 60%. Following this rigorous process, all three submitted papers successfully met the threshold and were deemed suitable for publication.

This issue delves into the evolving landscape of academic and research libraries in the Philippines, presenting three seminal articles that collectively highlight the critical interplay of technological advancement, user-centric evaluation, and pedagogical transformation in modern librarianship.

The first article, "Application of Generative AI to Support Contextual and Exploratory Search in a Library Discovery Service" by Luis Ezra Cruz, investigates the integration of generative artificial intelligence into academic library discovery platforms. Through a heuristic evaluation, the study highlights the potential of AI tools such as Primo Research Assistant to enhance query comprehension and search effectiveness, while also identifying usability challenges that need to be addressed to fully support complex and exploratory academic research.

The second article, "What People Are Saying About City Libraries in Metro Manila: Insights from Google Maps Reviews" by Luis Ezra Cruz and Agnes Barsaga, offers a novel approach to library service evaluation by analyzing user-generated online reviews. This qualitative and sentiment analysis reveals key themes such as service quality, facilities, accessibility, and technology infrastructure, providing valuable user-centered insights that complement traditional assessment methods and inform strategies for improving library services.

The third article, "From Research Made Easy to TALASIK: A Mixed-Methods Assessment of the UP Diliman University Library Instruction Program" by Chloe Maeve Domingo and Nicole Zulueta, examines the redesign and evaluation of a university library instruction program. Using a mixed-methods case study, the authors assess the transition from a traditional one-shot orientation to a customizable, modular program tailored to evolving student and faculty needs, demonstrating the importance of adaptability and targeted instruction in academic library education.

Taken together, these studies reflect the dynamic shifts shaping library services in the digital age. Cruz's work on generative AI exemplifies the role of **emerging technologies**, while Cruz and Barsaga's analysis of Google Maps reviews highlights the critical value of **user feedback** in service evaluation. Domingo and Zulueta's assessment of the library instruction program,

in turn, demonstrates the need for **instructional innovation** to meet evolving educational demands."

Collectively, their contributions provide timely guidance for librarians seeking to harness AI tools, develop more responsive user services based on authentic feedback, and design adaptable educational programs that empower students and faculty in an increasingly complex information environment."

Acknowledgements

This issue of the PRJ would not have been possible without the dedication and expertise of my fellow Editorial Board members, namely, Dr. Reysa Alenzuela, Dr. Rhea Rowena Apolinario, and Ms. Roana Marie Flores-Solemos, whose careful evaluation and editorial support ensured the quality of the published articles. I also extend my sincere gratitude to the 2025 Board of Directors for entrusting me once again with the responsibility of serving as Editor-in-Chief.

It is my hope that these studies will enrich the body of knowledge in academic librarianship and inspire more librarians across the country to pursue and produce high quality research.

Mabuhay ang PAARL!

CHITO N. ANGELES
Editor-in-Chief

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Application of Generative AI to Support Contextual and Exploratory Search in a Library Discovery Service

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ABSTRACT

The rapid growth of scholarly output and interdisciplinary research has made it increasingly difficult for scholars to locate, evaluate, and connect with relevant materials. This often leads to information overload and the risk of overlooking important studies. Integrating artificial intelligence into library discovery services provides an opportunity to enhance query comprehension, accuracy, and overall search effectiveness. To address the limits of traditional keyword searching, a university library in the Philippines (Institution A) integrated Primo Research Assistant into its Primo VE platform in January 2025. This case study evaluated the tool's potential to support contextual and exploratory academic searching. A heuristic evaluation was conducted by three academic librarians over a three-week period using Jakob Nielsen's 10 Usability Heuristics. The evaluation found that the system handled straightforward queries effectively, produced academically framed summaries, and presented results in a clean, intuitive interface. Strengths included visibility of system status, clarity of presentation, and recognition-based navigation. However, recurring issues were noted in the handling of complex queries, limited support for exploratory search, vague error feedback, and the absence of user documentation. While most issues were minor, several moderate concerns may reduce efficiency and limit adoption. Overall, Primo Research Assistant showed promise as a complement to a traditional library discovery service. Improvements in query interpretation, contextual sensitivity, exploratory features, and user support are needed to strengthen its role in academic research workflows.

Keywords: *generative AI, exploratory search, contextual search, library discovery services, Primo Research Assistant; information retrieval*

INTRODUCTION

The increasing volume of scholarly output and the expansion of interdisciplinary research have complicated researchers' ability to locate, assess, and connect relevant materials. This sharp rise in published research makes it harder for scholars to identify key contributions in their fields of interest (Khalid & Wu, 2020). Researchers are frequently overloaded with sources that are hard to sort through due to the sheer number and diversity of topics. While traditional keyword-based search engines and discovery services are effective at retrieving specific resources, they are often inadequate for exploratory searches, especially when users lack familiarity with terminology or context (Oviedo-Garcia, 2016; Tang, 2024). In these cases, search results often lack relevance, causing frustration. The absence of advanced filtering and ranking based on relevance and quality can yield thousands, even millions, of irrelevant results

(Schölvinck et al., 2024). Despite the rapid growth of indexed content in search engines, databases, and digital libraries, the lack of consistent structure leads to numerous irrelevant search results, hindering the location of pertinent research (Khan et al., 2012). Consequently, researchers often face information overload, risking the inclusion of less significant studies. Without automated quality and relevance assessment, manual sorting of vast data volumes is inefficient and error-prone (Oviedo-Garcia, 2016).

Meanwhile, integrating artificial intelligence (AI) in library discovery services offers numerous benefits that enhance both user experience and operational efficiency. AI technologies such as natural language processing and machine learning enhance the comprehension of user queries, making search results more relevant and accurate (Chemulwo & Sirorei, 2021; Shamsitdinova et al., 2024). AI can interpret the context of queries, reducing the ambiguity and imprecision often associated with traditional search methods (Shamsitdinova et al., 2024). In addition, AI-powered recommendation systems provide personalized content suggestions based on user behavior and preferences, increasing user engagement and satisfaction (Sivasankari et al., 2024).

To address the limitations of conventional keyword searching, particularly in contextual and exploratory inquiries, an academic library in the Philippines (Institution A) adopted Primo Research Assistant in January 2025. This generative AI tool was integrated into the Primo VE discovery platform, a discovery service by Ex Libris. Its primary advantage is its ability to process natural language queries, moving beyond simple keyword searching to understand a user's intent and context. Leveraging generative AI, the tool synthesizes information from the Central Discovery Index (CDI) to provide structured summaries rather than simple lists of search results (Ex Libris, 2025). It also supports exploratory search by suggesting related research areas and concepts that users may not initially consider. In this study, contextual search refers to search processes in which systems attempt to interpret the user's intent, background, and situational needs to deliver results that are meaningful beyond exact keyword matches. Exploratory search, by contrast, involves open-ended and learning-oriented information seeking, where users may not have a well-defined goal and progressively refine their understanding through interaction with the information space (Marchionini, 2006). These approaches differ from traditional keyword-based searching by emphasizing sense-making, discovery, and iterative refinement rather than simple retrieval.

Primo Research Assistant was adopted following an internal evaluation within Institution A. After the evaluation, the tool was made available to the wider academic community. Users can access it within the Primo VE interface, where it appears as a persistent menu tab. The underlying platform, Primo VE, is a subscription service provided by Ex Libris, a library technology firm under Clarivate, a global provider of academic data and analytics.

This paper presents a preliminary evaluation of Primo Research Assistant, based on a heuristic analysis conducted by three expert evaluators. To guide the evaluation, this study sought to answer the following research question: How effectively does Primo Research Assistant support contextual and exploratory search within the Primo VE discovery platform, based on established usability and design heuristics?

Specifically, the study aims to:

1. Identify usability strengths and weaknesses of Primo Research Assistant using heuristic principles.
2. Provide recommendations for improving AI-assisted discovery experiences in academic libraries.

Findings from this analysis aim to contribute to the understanding of how heuristic evaluation can inform the design and implementation of next-generation discovery services in research libraries.

REVIEW OF RELATED LITERATURE

The emergence of generative artificial intelligence (AI) has opened up new possibilities in academic library environments, shifting traditional libraries from passive providers of information toward more proactive knowledge-facilitating roles. For example, Kim (2025) examined a case study of a South Korean university library in which a generative AI chatbot was introduced. The study found that generative AI enabled deeper personalization, faster responses to user queries, and an enhanced user experience, signaling a transformation in the role of academic libraries in the digital era. Similarly, pilot reports from institutions such as Northwestern University Libraries show that generative AI search tools are being used for semantic, context-aware queries, moving beyond purely keyword-driven discovery. These developments lay the groundwork for considering how AI–powered tools can enhance discovery services in academic libraries. In the specific context of library reference and conversational services, earlier research on chatbots and conversational agents in libraries provides relevant grounding. Rubin et al. (2010) explored artificially intelligent conversational agents in libraries, noting that while they hold promise for enhancing user experience, they also raise issues around accuracy, user expectations, and the preservation of human-mediated services. More recently, Nawaz and Saldeen (2020) conducted a review of AI chatbots for academic library reference services, finding that although chatbots offer accessibility and 24/7 service potential, they also incur risks if user expectations are mismatched. Collectively, these works highlight that generative AI tools in libraries offer substantial potential, especially for search and discovery, but require careful attention to design, usability, and user interface factors to be effective.

While most library discovery tools have historically focused on keyword searches and retrieving bibliographic results, the concept of exploratory search has received growing scholarly attention in the information science literature. Marchionini (2006) famously described exploratory search as a process of investigating information spaces when users are unsure of the vocabulary, need to learn about a domain, or the search goal itself is evolving. More recently, Medlar, Kotkov, and Glowacka (2023) conducted a comprehensive review of empirical studies on exploratory search and found that, although exploratory search is inherently interdisciplinary, many empirical studies remain narrow in scope, often using student populations and focusing on computer science literature. Within library discovery systems, the challenge is especially complex, with users engaging in academic research often facing information overload, unfamiliar terminology, and poorly scoped domains (Oviedo-Garcia, 2016).

Under these conditions, tools that support contextual understanding, query refinement, and domain exploration become valuable. These features align closely with your study's focus on contextual and exploratory search in a discovery service.

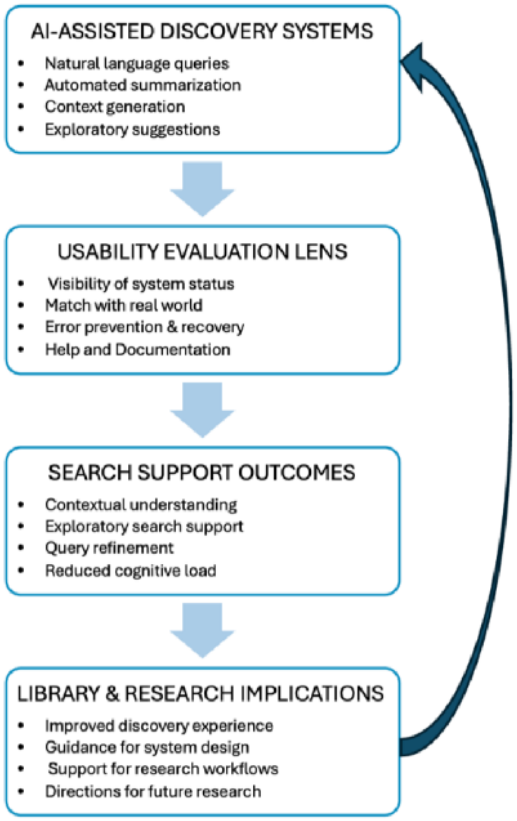
Usability evaluation remains a key methodological approach in assessing interactive systems, including library discovery services. The heuristic evaluation method developed by Nielsen (2024) has been widely applied in both general user-interface contexts and library systems. In the realm of academic libraries, Silvis et al. (2019) applied a heuristics-based framework to evaluate the information architecture of academic library websites, resulting in a tailored set of heuristics for library contexts. Another usability study (Almenara et al., 2024) demonstrates the continued relevance of heuristic evaluation in business settings, and by extension, informs its applicability in library systems. Within library discovery contexts, Campbell and Jeffery (2024) employed user experience (UX) testing, incorporating heuristic elements, to enhance the discoverability of non-traditional resources in a discovery tool environment.

Existing literature establishes strong theoretical foundations for generative AI applications, exploratory search theory, and heuristic usability methods, but few have combined these in a single evaluative framework. Kim (2025) highlighted the transformative role of generative AI in academic library services, while Medlar, Kotkov, and Glowacka (2023) identified significant research gaps in empirical studies of exploratory search systems. Yet, no prior study has comprehensively assessed an AI-powered discovery assistant using a heuristic lens to determine its effectiveness in supporting contextual and exploratory research behaviors. This gap is particularly relevant as tools like Primo Research Assistant introduce new interaction paradigms that combine conversational input, context generation, and system-assisted refinement within a familiar discovery interface. Understanding how these features align with established usability principles is crucial for ensuring that AI adoption enhances, rather than complicates, the user experience.

This study is guided by a conceptual framework (Figure 1) that situates AI-assisted discovery systems within a usability evaluation context. The framework conceptualizes AI-enhanced discovery features as the object of analysis and applies established usability heuristics as the evaluative lens through which system behavior and interaction design are examined. By mapping usability principles to outcomes related to contextual understanding, exploratory search support, and query refinement, the framework clarifies how design strengths and limitations influence the academic search experience. It further connects these evaluative outcomes to practical implications for library services, system design decisions, and directions for future research on AI-assisted discovery.

Figure 1

Conceptual Framework for Evaluating AI-Assisted Discovery Systems in Academic Libraries



METHODOLOGY

This study employed heuristic evaluation using Jakob Nielsen's 10 Usability Heuristics (Nielsen Norman Group, 2024) (Table 1) to examine the interface design and functional behavior of the Primo Research Assistant, a conversational search support feature integrated into the Primo VE discovery platform of an academic library in the Philippines. Developed in the early 1990s and formally articulated by Nielsen and Molich, these heuristics constitute a set of general usability principles for identifying interface design issues. Owing to their adaptability and effectiveness in expert-based and early-stage evaluations, they have been widely applied across various domains, including web interfaces, information systems, and digital library environments. Its continued relevance has been reaffirmed through subsequent refinements and applications in contemporary usability studies (Nielsen Norman Group, 2024).

Heuristic evaluation is a widely accepted method for identifying usability issues in interactive systems (Figueroa et al., 2019; Gonzalez-Holland et al., 2017; Sánchez et al., 2023), and Nielsen's framework has proven effective in detecting a broad range of interface design and interaction problems (Gonzalez-Holland et al., 2017; Hancock et al., 2020). Compared to other usability techniques, heuristic evaluation enables the early identification of issues with relatively low resource demands, making it particularly suited for evaluating library systems (Figueroa et al., 2019).

Table 1
Nielsen's 10 Usability Heuristics

Heuristic	Description
1. Visibility of system status	Keep users informed about what is going on t hrough timely and appropriate feedback.
2. Match between system and the real world	Use language, concepts, and conventions familiar to the user rather than system-oriented terms.
3. User control and freedom	Allow users to undo and redo actions and easily navigate without getting stuck.
4. Consistency and standards	Follow platform conventions and maintain consistency throughout the interface.
5. Error prevention	Design to prevent problems from occurring in the first place.
6. Recognition rather than recall	Minimize user memory load by making objects, actions, and options visible.
7. Flexibility and efficiency of use	Allow both novice and expert users to tailor frequent actions and shortcuts.
8. Aesthetic and minimalist design	Avoid irrelevant or rarely needed information; keep interface clean and focused.
9. Help users recognize, diagnose, and recover from errors	Provide clear, constructive error messages and guidance for recovery.
10. Help and documentation	Offer easily accessible help and documentation to assist users when needed.

To strengthen the validity and breadth of the evaluation, three expert evaluators were purposively chosen: (1) the author, who is a librarian specializing in library technologies and systems, (2) a subject librarian from a different academic institution in the Philippines, and (3) a reference librarian from a third academic library. Evaluators examined system responses, interface behavior, and interaction flow against each heuristic, documenting both observed strengths and usability violations. All evaluators had professional experience in academic reference services, discovery platforms, and interface evaluation, providing a well-rounded and practitioner-informed perspective.

To ensure systematic and replicable coverage of typical academic queries, the evaluation employed a standardized test script consisting of 30 self-contained natural-language prompts developed collaboratively by the evaluators through an iterative, evidence-informed process. The prompts were evenly distributed across five predefined query types representing common academic research needs: (1) exploratory, (2) factual/bibliographic, (3) analytical/synthesis, (4) technical or discipline-specific, and (5) instructional or process-oriented.

Topics were intentionally aligned with broad disciplinary areas commonly represented at Institution A, including the social sciences, humanities, education, and STEM fields, to reflect realistic academic information-seeking behavior. Rather than being randomly assigned, prompts were purposively designed to assess the system's handling of varying levels of complexity, abstraction, and contextual specificity. Because the system does not support follow-up questions, all prompts were designed to be standalone and contextually clear, eliciting direct responses without requiring multi-turn interactions. Each evaluator submitted responses for the complete 30-prompt set. To refine the evaluation instrument, the draft prompt script was pilot-tested by two independent academic librarians with experience in reference services and academic searching who were not involved in the main evaluation and had no prior exposure to the system. Their role was limited to identifying unclear, overly narrow, or ambiguous prompts, and their feedback informed revisions to improve clarity, balance, and coverage across query types. Participation in the pilot testing was voluntary, with no compensation or incentives provided. The finalized prompt set was reviewed and approved by all evaluators prior to formal testing.

Over a three-week period, from August 19 to September 9, 2025, each evaluator independently interacted with Primo Research Assistant using a structured set of natural language queries representative of academic research behavior across disciplines. The system's interface, behavior, and responses were evaluated against Nielsen's ten usability heuristics (Nielsen Norman Group, 2024): visibility of system status, match between system and the real world, user control and freedom, consistency and standards, error prevention, recognition rather than recall, flexibility and efficiency of use, aesthetic and minimalist design, error recovery, and help/documentation.

Evaluator feedback was analyzed qualitatively through a structured, three-step process. First, all observations were organized by Nielsen's ten heuristics, noting both positive features (observed strengths) and usability violations (issues). Second, each usability issue was categorized by type (e.g., navigation, language, system feedback) and assigned a severity rating, minor, moderate, or critical, based on its potential impact on the user experience. If an issue caused only slight inconvenience but did not block progress, it was rated as minor. If it disrupted task flow or caused noticeable frustration, it was considered moderate, and if it completely prevented task completion or misled users, it was marked as critical. Third, findings were compared across the three evaluators to identify recurring themes, shared concerns, and points of divergence. This process produced a detailed heuristic evaluation table, which includes the specific heuristic evaluated, observed strengths, and usability issues identified and their severity ratings (minor, moderate, critical, or none).

All evaluators conducted independent assessments. After individual coding, the coders met online to discuss the results and reconcile their findings. Divergent severity ratings were discussed until a consensus rating was reached. In cases where full agreement was not possible, the majority rating prevailed. To ensure consistency and objectivity in the coding process, inter-rater reliability was assessed using Cohen's kappa, yielding a substantial agreement ($\kappa = 0.79$). This process produced a detailed heuristic evaluation table that summarized each heuristic, observed strengths, identified usability issues, and their agreed-upon severity ratings.

This study did not involve human participants or personal data collection. The evaluation focused exclusively on system interactions within an institutional discovery platform using standard academic queries. All evaluators were professional librarians who participated voluntarily in their professional capacity. Formal ethics clearance was not required because no human subjects, identifiable data, or sensitive information were involved. Nonetheless, ethical standards of transparency, confidentiality of institutional system data, and responsible reporting were observed throughout the study.

RESULTS

The heuristic evaluation of Primo Research Assistant identified key strengths and areas for improvement in supporting contextual and exploratory academic information retrieval. Observations were organized according to Jakob Nielsen's 10 Usability Heuristics. For each heuristic, evaluators recorded both positive features and usability issues, which were then assigned severity ratings (minor, moderate, critical, or none) to indicate their potential impact on the user experience.

To provide transparency, evaluator perspectives are identified using the labels E1 (technology librarian), E2 (subject librarian), and E3 (reference librarian) throughout this section.

Table 2

Summary of Nielsen Heuristic Evaluation of Primo Research Assistant

Heuristic	Observed Strengths	Usability Issues Identified
1. Visibility of system status	Generally good feedback during query processing, keeping users informed that the system is working.	Occasional delays in response generation causing uncertainty about system activity. Severity: Minor
2. Match between system and the real world	Use of academic language in summaries aligned with user expectations and aided readability.	Inconsistent interpretation of complex or ambiguous queries; sometimes missing important contextual details. Severity: Moderate
3. User control and freedom	Easy query revision and navigation through results.	Lack of intuitive options for refining or redirecting exploratory searches limits deeper information discovery. Severity: Minor
4. Consistency and standards	Interface mostly adheres to standard web conventions, aiding ease of use.	Minor inconsistencies in terminology across interface elements that may affect clarity. Severity: Minor

Heuristic	Observed Strengths	Usability Issues Identified
5. Recognition rather than recall	Clearly labeled summaries and well-presented key information facilitate quick comprehension.	No significant usability issues identified. Severity: None
6. Error prevention	N/A	No explicit guidance on how to structure natural language queries to prevent errors. Severity: Moderate
7. Error recovery	N/A	Vague error messages without constructive suggestions hinder users from correcting queries. Severity: Moderate
8. Flexibility and efficiency of use	Supports natural language queries, accommodating various experience levels.	No significant usability issues identified. Severity: None
9. Aesthetic and minimalist design	Clean, focused interface that minimizes distractions.	No significant usability issues identified. Severity: None
10. Help and documentation	N/A	Absence of comprehensive help or user guidance/ Severity: Moderate

Visibility of System Status

The system generally succeeded in communicating when queries were being processed. For brief factual requests, such as "Give the complete citation of Pedagogy of the Oppressed by Paulo Freire," responses appeared almost instantly. E1 remarked that the "immediate display of citations signals responsiveness comparable to established databases."

However, with broad exploratory prompts like "What are the major theories of climate change?" or "What are the current debates in postcolonial literature?" response generation occasionally took up to 20 seconds. During this delay, only a static loading icon appeared, with no accompanying message such as "Generating response…" or "This may take longer for complex queries." E3 noted that "without feedback, it's unclear if the system froze or is still processing." This uncertainty modestly disrupted the flow of interaction and received a minor severity rating.

Match Between System and the Real World

The system's use of academic discourse was one of its clearest strengths. When presented with technical queries like "Explain the difference between CRISPR-Cas9 and RNA interference in gene editing," the responses employed accurate terminology and a level of explanation consistent with scientific literature. Evaluators appreciated that the tone and register mirrored the style of academic abstracts, which lent authority to the content and made the information easier to integrate into scholarly work.

That said, the system's ability to capture the contextual or situational dimensions of a query was uneven. For analytical tasks, such as "Compare the effects of monetary policy in emerging and developed economies," responses often provided a general overview of monetary policy mechanisms but did not explicitly contrast the two contexts side by side. Similarly, when evaluators used exploratory queries with regional anchors, such as "What are the challenges of digital literacy in the Philippines?", the responses reverted to global descriptions of digital literacy issues without addressing the local context. This tendency toward generalization limited the system's effectiveness for users seeking domain-specific insights. With these observations, a moderate severity rating was assigned to the specific heuristic.

User Control and Freedom

Evaluators reported that the system allowed them to revise and reformulate queries with ease. For example, when a process-oriented question like "How do I format tables in APA 7th edition?" was rephrased to focus instead on "figures in APA 7th edition," the system responded without confusion, immediately producing relevant guidance. This flexibility gave users a sense of control and encouraged experimentation in phrasing queries.

However, opportunities for supporting exploratory or iterative searching were not fully realized. Suggested follow-up prompts were sometimes displayed, but their placement at the bottom of the response and their small font size made them easy to overlook. During the evaluation, one participant who began with the exploratory query "What are the major theories of climate change?" wanted to drill down further into "anthropogenic vs. natural drivers of climate change" but received no visible guidance on how to continue. Instead, the user had to manually compose the new query. This absence of structured pathways limited the tool's usefulness for building deeper lines of inquiry. This lack of intuitive options limited discovery, which caused the minor severity rating.

Consistency and Standards

In general, the interface adhered to familiar web design conventions, which minimized the learning curve for evaluators. Buttons, search bars, and icons appeared in expected locations, and standard labeling practices were largely maintained. This predictability reduced friction, particularly for evaluators approaching the tool for the first time.

Minor inconsistencies were nonetheless observed. Terminology used to describe outputs was not uniform: in some places the system referred to its output as a "summary," in others as a "response," and occasionally as a "result." While none of these labels were incorrect, the lack of standardization caused momentary hesitation. For example, when evaluators looked back through previous interactions, it was not immediately clear whether "summary" implied a different type of content than "response." Although subtle, such inconsistencies can become more disruptive in sustained academic use, where precision and clarity of labeling are expected; thus, the specific heuristic was given a minor severity rating.

Recognition Rather Than Recall

A notable strength was the system's support for recognition rather than recall. Summaries were clearly labeled, and key information was well presented, facilitating quick comprehension without requiring users to remember prior steps or commands. For instance, factual queries like "Who was the author of The Republic?" returned straightforward answers that were easy to scan without additional navigation. The clarity of presentation reduced cognitive load and allowed evaluators to focus on content rather than system operation.

Error Prevention and Recovery

The system did not provide clear guidance on how to formulate queries effectively. For example, when evaluators attempted exploratory prompts like "What are the challenges of digital literacy in the Philippines?" the system produced a general answer, but it was not always clear whether the vague output stemmed from the question itself or from system limitations. No examples or on-screen tips were offered to help users refine their phrasing, and the input box contained no placeholder hints such as "Try asking about theories, authors, or comparisons."

This lack of preventive guidance was particularly noticeable with technical or process-oriented tasks. In one case, an evaluator asked, "Give me the proper structure of APA references," but because the query was broad, the system responded only with a generic overview. If the system had suggested narrower phrasings, such as "Do you want a book, journal, or website reference?", the outcome would have been more accurate. The absence of such scaffolding increased the risk of errors and placed the burden entirely on users to discover the most effective way of asking questions. Given these observations, a moderate severity rating was given.

Error Recovery

When errors did occur, evaluators found that the messages provided were vague and unhelpful. A typical response was phrased along the lines of "I cannot process this request," without indicating why the query failed or how it might be corrected. For instance, a factual request for a citation was entered with a typo in the author's name. Instead of suggesting a possible correction or displaying a "Did you mean…" prompt, the system simply returned no result. Such interactions interrupted the research flow and left evaluators guessing how to adjust their queries. The absence of constructive recovery mechanisms limited the tool's reliability in scenarios where trial-and-error searching is common, which ultimately leads to the assignment of a moderate severity rating.

Flexibility and Efficiency of Use

The interface demonstrated flexibility by accommodating users with varying levels of search expertise through conversational query input. Novice users could type in broad questions, while more experienced researchers experimented with complex, multi-layered prompts. For example, evaluators asking "What are the strengths and limitations of qualitative versus quantitative research methods?" received a structured response that allowed easy comparison between the two approaches.

Aesthetic and Minimalist Design

The minimalist interface design supported focused attention on results, minimizing distractions. The uncluttered layout, with limited color use and straightforward typography, was positively received by evaluators. In particular, the absence of excessive visual elements allowed users to scan content without interruption.

Help and Documentation

Help features and documentation were sparse and not clearly visible, potentially hindering users' onboarding and troubleshooting. The absence of a dedicated help menu, tutorial, or set of examples meant that evaluators relied on trial and error to understand system capabilities. For example, a new user unfamiliar with citation queries would not immediately know that entering "Give the complete citation of…" would yield results.

In more complex cases, such as refining exploratory queries, there was no built-in guidance to suggest alternative phrasing or search strategies. The lack of comprehensive documentation limited users' ability to fully utilize the system and placed a greater burden on prior experience with digital research tools; thus, it was given a moderate severity rating.

DISCUSSION

The results show that Primo Research Assistant demonstrates sound usability in terms of layout, readability, and interaction flow. The evaluators agreed that the system's minimalist design, clear labeling, and quick responses for factual queries supported ease of use and reduced cognitive effort. These characteristics align with established usability principles that emphasize simplicity, immediate feedback, and visual clarity as key contributors to a positive user experience (Gonzalez-Holland et al., 2017; Figueroa et al., 2019; Almenara et al., 2024). From the perspective of Marchionini's (2006) framework, these strengths indicate strong support for lookup-oriented and well-defined information needs, where users seek concise answers rather than engage in extended learning or exploration. The clean interface, absence of visual clutter, and straightforward presentation of answers therefore made the system suitable for both novice and experienced users when performing focused, factual tasks.

However, several heuristics revealed limitations that affect the tool's performance in complex or exploratory research tasks. The most notable weaknesses were observed in the match between the system and the real world, error prevention, and the provision of help and documentation. Although the system employed academically appropriate language, it struggled to maintain contextual accuracy in domain-specific or localized topics. Queries that required contrastive or situational responses—such as those involving regional or disciplinary distinctions—often produced generalized results. Within Marchionini's (2006) framework, this reflects limited support for exploratory search behaviors, which depend on contextual grounding, iterative refinement, and sense-making over time. Similar tendencies toward generic synthesis have been noted in studies of algorithm-driven discovery tools, where localized or comparative depth is often underdeveloped (Silvis et al., 2019; Campbell and Jeffery, 2024).

The limited availability of guidance mechanisms further constrained exploratory engagement. The absence of prompt examples, tutorial cues, or structured follow-ups made it difficult for users to refine their searches or progressively develop their understanding of a topic. This finding aligns with prior usability research showing that systems lacking explicit scaffolding place higher cognitive demands on users (Hancock et al., 2021; Sánchez et al., 2023). Without cues for effective query formulation or system-generated pathways for deeper inquiry, users were required to manually reformulate queries, interrupting the exploratory process. As Marchionini (2006) emphasizes, effective exploratory systems should actively guide users through evolving information spaces; the absence of such guidance limits the system's ability to support learning-oriented exploration. Overall, the heuristic evaluation suggests that Primo Research Assistant performs effectively for straightforward factual searching but requires further development to better support contextual understanding, user assistance, and exploratory research. While it meets many established usability standards, the current design prioritizes task efficiency over sustained exploratory interaction, a pattern also observed in other evaluations of academic discovery interfaces (Tang, 2024; Sivasankari et al., 2024).

CONCLUSION

The evaluation of Primo Research Assistant demonstrated its strong potential in improving academic discovery through its natural language query processing and automated summarization functions. The results showed that the system performs well when handling straightforward and moderately complex queries, often producing concise, clearly organized summaries written in a tone that matches scholarly expectations. Its design follows common web conventions, which helped users interact with it easily regardless of their experience with research platforms. Another important strength lies in the visibility of system status during query processing, which reassured users that their inputs were being managed. Together with recognition-based navigation and clearly labeled summaries, these features reduced cognitive effort and supported efficient access to information.

Despite these positive findings, several important issues emerged. When confronted with highly specialized or ambiguous queries, the system often produced incomplete or less relevant outputs that did not fully reflect disciplinary depth. This reduced its usefulness for more complex research tasks that demand precision and contextual understanding. In addition, the absence of constructive guidance when a query failed left users without direction, interrupting the flow of research and lowering confidence in the system. The limited ability to refine, redirect, or expand exploratory searches also made it difficult for users to pursue evolving questions. For more experienced researchers, the lack of advanced controls for adjusting the scope and depth of summaries reduced efficiency and adaptability. Minimal help documentation further limited onboarding and troubleshooting, raising barriers to wider adoption and effective independent use.

Beyond system-level findings, the evaluation also carries implications for library practice. Tools like Primo Research Assistant can be integrated into reference services, instructional sessions, and information literacy programs to provide users with more accessible entry points to research. However, the issues identified, particularly in handling complex queries and

providing guidance, suggest that librarian mediation remains essential. Training and user education will be important to maximize the benefits of conversational search while ensuring that students and researchers continue to develop critical search and evaluation skills.

While this study provides valuable insights into the usability of the Primo Research Assistant through heuristic evaluation, several limitations should be noted. First, the evaluation was conducted by a limited number of expert evaluators rather than a broader sample of end-users, which may limit the generalizability of the findings to actual user behavior. Second, the study focused solely on the interface and interaction design of a single AI-enhanced discovery system within a single institutional context, thereby limiting cross-system comparisons. Third, while inter-rater reliability was established to ensure coding consistency, qualitative interpretations remain partly subjective. Finally, as the system continues to evolve through vendor updates, some identified issues or interface elements may change over time, potentially affecting the long-term applicability of the findings.

RECOMMENDATION

Overall, Primo Research Assistant demonstrates potential as a useful complement to academic information search but still requires focused refinements to function as a dependable scholarly tool. Improving its capacity to interpret complex or domain-specific queries and strengthening its sensitivity to contextual distinctions will enhance the accuracy and relevance of responses. Providing clearer system feedback when queries yield incomplete or unsuccessful results will help maintain user trust and minimize confusion during interaction. Greater flexibility in handling exploratory searching, such as through follow-up suggestions, adaptive prompts, and thematic pathways, can also support users engaged in iterative or sense-making tasks. For experienced researchers, adjustable settings that control the level of detail, citation format, or structure of results would make the system more efficient for advanced use. Equally important is the integration of comprehensive user guidance and documentation, which remains limited in the current version. Step-by-step examples, tutorial prompts, or embedded tips could assist both novice and experienced users in understanding the system's full capabilities and constraints. Continuous heuristic evaluation across different user groups and task types will be valuable for tracking design progress over time. Future studies may also extend this approach to comparable search environments, such as discovery layers, bibliographic databases, and institutional repositories, to identify shared usability patterns and design priorities. Addressing these areas will allow Primo Research Assistant to evolve into a reliable and adaptable research support tool that meets the diverse needs of students, faculty, and information professionals across disciplines.

Author Declaration on the Use of AI Tools

Artificial intelligence tools, specifically Grammarly and ChatGPT, were used solely for grammar checking, language refinement, and final proofreading of this manuscript. All data analysis, interpretation, and scholarly writing were conducted by the authors. The use of AI did not involve the generation of original content, data analysis, or conceptual framing of the study.

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What People Are Saying About City Libraries in Metro Manila: Insights from Google Maps Reviews

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ABSTRACT

Public libraries play a central role in fostering equitable access to information, lifelong learning, and social inclusion within their communities. Evaluating how effectively these libraries fulfill these roles is essential for ensuring that services remain responsive to user needs. While traditional assessment tools, such as surveys and usage statistics, provide valuable quantitative insights, they often overlook the spontaneous and candid perspectives that reflect genuine user experiences. This study examines the potential of online review platforms, specifically Google Maps, as alternative sources of user feedback for evaluating public library services. The research focused on city libraries in Metro Manila, Philippines and employed qualitative content analysis and sentiment analysis of user-generated reviews. Nine city libraries with sufficient reviews within the predetermined date range were analyzed using Taguette for thematic coding and TextBlob for sentiment classification. Findings revealed six recurring themes: service quality, collections, facilities, accessibility, programs, and technology. Service quality and facilities emerged as the most frequently mentioned areas. Overall sentiment toward Metro Manila city libraries was largely positive, with users highlighting courteous staff and well-maintained facilities. However, concerns were raised about inconsistent operating hours, limited technological infrastructure, and outdated online information. The study shows that online reviews provide valuable and timely insights into user experiences and expectations, complementing formal evaluation mechanisms. It recommends that city libraries in Metro Manila adopt systematic monitoring of online feedback, strengthen their digital presence, and address operational and infrastructural gaps to improve user satisfaction.

Keywords: *library assessment, sentiment analysis, content analysis, online reviews, Google Maps, public libraries, city libraries*

INTRODUCTION

The evaluation of library services has long been central to sustaining their relevance and effectiveness. Traditional assessment tools such as surveys, program reports, and usage statistics provide structured and systematic measures of performance. While valuable, these approaches are often resource-intensive and limited in their ability to capture the spontaneity of user experiences or provide timely insights into emerging needs (Chen & Chang, 2024). As a result, important aspects of user satisfaction, such as interpersonal interactions or perceptions of accessibility, may remain underrepresented in formal evaluations. The rise of digital platforms presents new opportunities for understanding user perspectives. Online review sites have become spaces where individuals share candid and detailed feedback on a wide range of public services. Google Maps, in particular, has emerged as a widely used platform for rating and

reviewing public facilities, including libraries. These reviews, while informal and unstructured, can shed light on users' everyday experiences by highlighting service strengths, common concerns, and expectations for improvement. Research in other countries has demonstrated that Google Maps reviews can serve as a valuable complement to formal assessment methods, yet this potential remains underexplored in the context of public libraries (Borrego & Comalat Navarra, 2021; Khan & Loan, 2022).

Public libraries are widely regarded as essential community institutions that extend far beyond their traditional role as repositories of books. They provide inclusive access to information, promote lifelong learning, and foster civic and cultural engagement (de Oliveira Silva et al., 2025; Campana et al., 2022). In many countries, public libraries function as anchors for social inclusion, offering free resources and safe environments where individuals of diverse backgrounds can study, collaborate, and participate in community programs. By bridging gaps in access to education and technology, they contribute to reducing social inequalities and enhancing overall community well-being.

In the Philippines, the role of public libraries is formally recognized under Republic Act No. 7743, which mandates the establishment of congressional, city, municipal, and barangay libraries and reading centers nationwide. As of 2024, the National Library of the Philippines reported over 1,700 affiliated public libraries. Within this system, city libraries occupy a particularly important position as urban centers for information access, educational support, and community programming. Despite this significance, research on Philippine public libraries has largely focused on formal evaluation tools such as surveys and program reports (i.e., Bongo & Acosta, 2023; Dorado, 2010; Fagyan et al., 2023; Tuble & Bayoneta, 2020). This study focused on public city libraries in Metro Manila due to their relatively high digital visibility and volume of user-generated reviews.

Although this study focuses on city public libraries, its primary contribution lies in demonstrating how user-generated online reviews can be systematically analyzed to capture user perceptions of library services. This approach is increasingly relevant to academic and research libraries in the Philippines, many of which maintain a public presence on digital platforms such as Google Maps and social media. The themes examined in this study, service quality, facilities, accessibility, programs, and technology, are also central to academic library assessment and user experience research, making the findings and methods transferable across library types.

STATEMENT OF THE PROBLEM

Despite the growing body of international research utilizing online reviews to assess library services, there remains a lack of empirical evidence on how Philippine public libraries are perceived in these digital spaces. This gap limits the understanding of how users express satisfaction, dissatisfaction, and expectations in informal online contexts. Consequently, there is a need to analyze user-generated reviews to uncover insights that can inform library service improvement and policy development. While studies abroad have explored online reviews for libraries (Borrego & Comalat Navarra, 2021; Khan & Loan, 2022), a comprehensive review

of existing literature revealed no prior studies that examined Philippine public libraries using this method. This study addresses that gap.

RESEARCH QUESTIONS

This study is guided by the following research questions:

1. How do users perceive city public libraries in Metro Manila through Google Maps reviews?
2. What themes emerge from user-generated reviews of these libraries?
3. What sentiments are reflected in these reviews toward library services?

SCOPE AND LIMITATIONS

This study has several limitations. First, it focuses exclusively on public libraries in Metro Manila, Philippines, and therefore, the findings may not be applicable to academic, special, or other types of libraries. Second, the analysis is based solely on publicly available user reviews from Google Maps, which may not represent the views of all library users, as many patrons do not leave online feedback. The data is limited by the quantity and quality of reviews available, which can vary widely across libraries and may be influenced by factors such as user demographics or motivation to post. Additionally, the study does not capture other digital platforms or offline user feedback, potentially missing broader perspectives on library services. Finally, because reviews are unsolicited and unstructured, they may lack consistency and depth compared to formal evaluation methods, limiting the ability to generalize the findings. Future research could address these limitations by incorporating multiple data sources and exploring other library types and geographic areas.

REVIEW OF RELATED LITERATURE

Evaluating library effectiveness has long relied on structured evaluation methods. Surveys, usage statistics, and program reports remain the most common means of measuring service quality and user satisfaction. These approaches offer systematic and quantifiable data, enabling libraries to monitor performance over time and compare results across institutions. Surveys such as LibQUAL+ and SERVQUAL are widely used to measure user satisfaction and service quality. LibQUAL+, for instance, evaluates dimensions such as Information Control, Library as Place, and Affect of Service, providing insights into user satisfaction and areas for improvement (Killick et al., 2014; Roy et al., 2012). Usage statistics, including circulation numbers, collection size, and reference service data, are also essential for quantifying library performance and identifying trends over time (Schufreider & Romaine, 2008). However, the limitations of these approaches are well documented. They often depend on users' willingness to participate, may overlook everyday experiences, and sometimes fail to capture the full range of perspectives that shape user satisfaction (Chen & Chang, 2024). Usage statistics, in particular, lack contextual detail, making it difficult to understand the reasons behind fluctuations in use or shifts in user perceptions (Mussell & Gordon, 2017). In addition, the collection,

reformatting, and analysis of structured data can be time-consuming and resource-intensive, at times overshadowing timely interpretation and decision-making (Schufreider & Romaine, 2008). As Khan and Loan (2022) argue, while structured evaluations remain valuable, they are not always sufficient to provide timely, authentic, and nuanced insights into user needs and expectations. While SERVQUAL and LibQUAL+ provide established frameworks for assessing library service quality, these models are primarily designed for institution-initiated, structured evaluations. In contrast, online reviews posted on platforms such as Google Maps are spontaneous, user-driven, and shaped by the affordances of digital platforms. These reviews reflect subjective user experiences rather than standardized service expectations, often emphasizing personal encounters, emotions, and situational factors. As such, this study does not apply SERVQUAL or LibQUAL+ as analytical instruments, but instead uses them as contextual anchors, while interpreting Google Maps reviews through a user experience–oriented lens that recognizes the platform-mediated and expressive nature of online feedback.

With the rise of digital platforms, online reviews have become an important source of spontaneous and user-generated feedback. Unlike formal surveys, these reviews are unsolicited and often reflect immediate experiences, making them valuable for understanding user sentiment in real time. Studies in consumer research show that reviews on platforms such as Yelp and Amazon create social value for other users and can influence organizational reputation and performance (McIntyre et al., 2016), while also shaping consumer decision-making more strongly than website recommendations or expert opinions (Lee & Hong, 2021; Magnani, 2020). These same mechanisms apply in library contexts, where users increasingly rely on digital platforms to express their experiences and evaluate public services. Google Maps, in particular, has become a widely used platform for rating and reviewing public institutions, including libraries, and the reviews posted there reveal recurring themes of user satisfaction and dissatisfaction (Borrego & Comalat Navarra, 2021; Khan & Loan, 2022). Chen and Chang (2024) further note that integrating digital review platforms into library evaluation frameworks can enhance responsiveness by capturing candid user perspectives that complement structured assessment tools. Recent studies have demonstrated the growing relevance of digital review platforms in evaluating library services. Borrego and Comalat Navarra (2021), in their analysis of Google Maps reviews of public libraries in Spain, found that staff behavior, facilities, and accessibility were the most frequently discussed aspects of user experience. Similarly, Khan and Loan (2022) showed that online reviews provide meaningful insights into users' satisfaction with library collections and services that complement traditional survey-based methods. These studies indicate that Google Maps reviews can serve as a valuable source of user-centered evidence for understanding how libraries are perceived by the public.

Despite their potential, online reviews also pose challenges, including variability in review quality, representativeness of the data, and the subjective nature of user comments. This can stem from factors such as irrelevancy, incredibility, exaggeration, and untimeliness of reviews (Hong et al., 2018). The presence of fake reviews further complicates the assessment of review quality. Hossain et al. (2024) note that various methods, including natural language processing and machine learning, have been proposed to detect fake reviews, but the challenge remains significant due to the increasingly sophisticated tactics employed by fake reviewers. Another issue is the high degree of polarity, with most reviews being either very positive or

very negative. Schoenmueller et al. (2020) explained that this polarity is driven by self-selection bias, where users with extreme opinions are more likely to leave feedback, reducing the representativeness of the data. Online reviews are also inherently subjective, reflecting individual experiences and opinions, which can make it difficult to derive objective insights (Husain et al., 2023).

Despite these limitations, analyzing online reviews remains particularly valuable in the context of city public libraries, where formal and systematic evaluation mechanisms are often limited or inconsistently applied. Google Maps reviews provide a continuous stream of unsolicited user feedback that captures everyday experiences of library use as they occur. Examining these reviews allows researchers and library managers to identify recurring strengths, weaknesses, and expectations that may not be visible through traditional assessment tools, making them a necessary and complementary source of evidence for understanding public library performance. Given these gaps, this study examines how Google Maps reviews reflect user perceptions of city public libraries in Metro Manila, focusing on their digital visibility, the thematic concerns expressed by users, and the overall sentiment toward library services. By drawing on both consumer review research and library assessment literature, the study positions online reviews as a complementary source of evidence for understanding contemporary library use and user experience.

METHODOLOGY

This study employed a qualitative content analysis approach to examine Google Maps reviews of city libraries in Metro Manila, Philippines. Content analysis was selected because it enables a systematic and objective examination of textual data to identify patterns, meanings, and themes that represent user experiences and perceptions (Flick, 2009). It is particularly suited for analyzing user-generated online content, as it captures both explicit statements and underlying sentiments in naturally occurring text. This approach is appropriate for exploratory research that seeks to understand how users express satisfaction, dissatisfaction, and expectations without relying on predefined categories (Elo & Kyngäs, 2008). The research focused on public city libraries in Metro Manila that were listed on Google Maps and had at least five relevant ratings and reviews posted within the past five years from February 10, 2025, the time of data collection. Metro Manila was selected because it has the highest concentration of urban public libraries in the Philippines and represents diverse user demographics and library contexts. Libraries in this region also tend to have higher online visibility and engagement, making them suitable for exploratory analysis using digital feedback sources. The list of public libraries was obtained from the official directory of Affiliated Public Libraries published by the National Library of the Philippines (NLP) as of February 10, 2025. From this directory, ninety-four public libraries were identified within Metro Manila, fifteen of which were classified as city libraries. Each city library was verified on Google Maps, and nine met the inclusion criteria of having at least five reviews within the specified five-year period. This threshold was established to ensure reliability by minimizing the influence of isolated or outdated feedback. The number of reviews per library, however, varied considerably, from as few as five to more than thirty, posing a potential limitation in terms of representativeness. Libraries with limited online engagement may not fully reflect the range of user experiences or satisfaction levels present in the broader

community. As such, the findings should be interpreted as indicative rather than exhaustive, providing insight into emerging patterns of user perception rather than statistically generalizable conclusions. Likewise, given the subjective and expressive nature of user-generated online reviews, the analysis prioritized thematic patterns and sentiment rather than predefined service quality dimensions. This approach aligns with user experience research, which views online reviews as forms of public digital communication influenced by platform design and social context rather than objective measures of service performance.

All textual reviews were imported into Taguette, a qualitative text analysis tool. An inductive coding approach was applied, beginning with open coding of all review texts. Each review was read line by line, and descriptive labels were assigned to meaningful statements. Similar codes were then clustered and refined into broader categories that reflected shared ideas. Through iterative comparison, these categories developed into the main themes of facilities, staff interaction, service quality, and accessibility. This process ensured that the themes emerged directly from the data rather than from prior assumptions. Inductive coding was conducted by two researchers who independently reviewed and coded the Google Maps reviews. After the initial coding phase, the researchers compared their codes and discussed discrepancies to reach consensus on the final set of themes. This iterative comparison process helped ensure consistency and reliability in theme development and reduced individual coder bias.

To complement the thematic analysis, sentiment analysis was performed using TextBlob, a Python-based natural language processing tool. TextBlob generated sentiment polarity scores for each review, ranging from –1.0 (negative) to +1.0 (positive). Based on these scores, each review was classified as positive, neutral, or negative. The sentiment results were examined alongside the identified themes to provide a more complete understanding of user perception. This combined approach strengthened the credibility of findings by integrating qualitative interpretation with computational analysis. Additional contextual information was recorded for each library, including its average Google rating, presence of a Facebook page or official website, and availability of contact details such as a telephone or mobile number. These data helped situate the findings within each library's digital visibility and accessibility context. To minimize bias, only libraries with at least five reviews from the past five years were included. This criterion reduced the influence of extreme or atypical feedback and helped ensure that the data reflected consistent user patterns. The study acknowledges limitations related to self-selection bias, the uneven number of reviews across libraries, and the subjective nature of online feedback, which are further discussed in the Discussion section.

RESULTS AND FINDINGS

An analysis of Google Maps reviews gathered on February 10, 2025, from nine city libraries across Metro Manila provided key insights into how users perceive and experience these libraries.

User Ratings

The Google Maps ratings of the nine city public libraries in Metro Manila ranged from 4.0 to 4.9, indicating generally positive user perceptions (Table 1). Among these, Muntinlupa City Public Library, Parañaque City Public Library, and Manila City Library emerged as the highest-rated libraries. These libraries were frequently commended for courteous staff, clean facilities, and organized collections. In contrast, Malabon City Library, Taguig City Public Library, and Caloocan City Public Library received comparatively lower ratings, which may be associated with limited operating hours, fewer facilities, or lower levels of digital visibility. Rather than focusing on individual ratings, these patterns suggest that service quality and facility conditions play a key role in shaping overall user satisfaction.

Regarding online presence, five of the libraries had active Facebook pages: Marikina City Library, Pasig City Library, Taguig City Public Library, Valenzuela City Library, and one other. Only Manila City Library and Muntinlupa City Public Library maintained official websites. The remaining libraries did not have either a Facebook page or an official website. Google star ratings, Facebook page presence, and the availability of contact details were recorded as contextual indicators of each library's digital visibility and accessibility. These variables were used descriptively to support the interpretation of thematic and sentiment patterns, rather than as independent analytical variables, helping to situate user perceptions within each library's broader online presence.

Table 1
Overall Ratings and Presence of Facebook and Homepage Websites

City Library	Overall Rating	Total Reviews	Facebook Page	Homepage/ Website
Caloocan City Public Library	4.1	7	No	No
Malabon City Library	4.0	5	No	No
Manila City Library	4.8	28	No	Yes
Marikina City Library	4.5	19	Yes	No
Muntinlupa City Public Library	4.9	9	No	Yes
Parañaque City Public Library	4.9	14	No	No
Pasig City Library	4.2	27	Yes	No
Taguig City Public Library	4.0	5	Yes	No
Valenzuela City Library	4.7	54	Yes	No

Thematic Analysis of Major Themes

The thematic analysis identified six major themes: service quality, collections, facilities, accessibility, programs, and technology. The thematic summary can be found in Table 2, while Table 3 summarizes the recurrent themes by library.

Service Quality

User comments on service quality frequently focused on interactions with library staff. Reviewers consistently described librarians and guards as "kind," "accommodating," "friendly," and "approachable" across the Caloocan City Public Library, Manila City Library, Marikina City Library, Parañaque City Public Library, Pasig City Library, and Valenzuela City Library. However, some feedback highlighted specific concerns. At the Manila City Library, users noted "very noisy" staff and raised issues about a dress code requiring shoes and forbidding shorts. The Valenzuela City Library also received suggestions to manage "noisy groups." Overall, staff behavior may strongly influence user impressions. Libraries with courteous and attentive personnel appear to receive higher satisfaction, while issues such as noise or dress rules may shape perceptions of comfort and inclusivity. The prominence of staff-related feedback in user reviews aligns with previous studies emphasizing the importance of interpersonal interactions in shaping library user satisfaction. Chen and Chang (2024) note that user-generated feedback often foregrounds service encounters that are not fully captured by structured evaluation tools. Similarly, Borrego and Comalat Navarra (2021) found that positive staff behavior was a dominant theme in Google Maps reviews of public libraries, reinforcing the significance of frontline service in influencing overall user perception. These findings suggest that courteous and accommodating staff remain central to how users evaluate library services, even in informal online contexts.

Collections

Feedback on library collections focused on their breadth, variety, and condition. The Manila City Library was praised for the "good preservation" of "documents and old newspapers" and described as a "convenient place to look for a book about history and other stuff," serving as an "informative" resource for students. The Muntinlupa City Public Library was noted for having "a lot of helpful books." The Parañaque City Public Library was commended for offering "good book references for research" and for its "well organized or ordered" collection, with reviewers also acknowledging the library's active receipt of book donations. The Pasig City Library was recognized for its "wide variety of resources," offering "books that I needed" and "many books." Comments about collections suggest that users may value both the range and organization of materials. Well-kept and relevant holdings seem to contribute to convenience and trust in the library's usefulness for study or leisure. User comments on library collections reflect patterns observed in earlier research, where accessibility, relevance, and organization of materials strongly influence perceived library value. Khan and Loan (2022) reported that users frequently associate the usefulness of libraries with the availability of relevant and well-maintained collections in online reviews. Similarly, Tuble and Bayoneta (2020) emphasized that collections supporting academic and personal information needs contribute significantly to positive user assessments. The findings in this study support these observations, indicating that users continue to view collections as a core indicator of library effectiveness.

Facilities

User comments on physical infrastructure and the environment covered cleanliness, temperature control, and study space layout. Cleanliness was positively noted in the Manila City Library, Marikina City Library, and Parañaque City Public Library. Temperature control, especially air conditioning, was frequently mentioned; the Parañaque City Public Library was praised for being "fully air-conditioned on all 5 floors," whereas the Pasig City Library was criticized for a "lack of air conditioning units." Study and reading spaces were generally well-received, described as a "great place to relax and read" (Manila City Library) and a "comfortable place to study" (Valenzuela City Library). Specific amenities, such as a "playroom for kids" and "game boards" at the Parañaque City Public Library, and a room "like a daycare in Korea" for children at the Valenzuela City Library, were also highlighted. Construction and relocation affected perceptions as well, with the Pasig City Library being "closed indefinitely for construction" and the Marikina City Library noted for a "misleading location" due to a past move. The Valenzuela City Library was also praised for its "ultra-modern facility" and the distinctive design of its "6th Floor." These comments indicate that comfort, cleanliness, and well-maintained spaces may make libraries more inviting, while closures or unclear relocation details could discourage users. The emphasis on cleanliness, comfort, and physical environment in user reviews is consistent with studies highlighting the role of library spaces in shaping user experience. Borrego and Comalat Navarra (2021) observed that physical facilities are among the most frequently discussed aspects in online library reviews, often influencing overall satisfaction. Campana et al. (2022) similarly argued that well-designed and welcoming library spaces enhance inclusivity and sustained use. The findings of this study affirm that physical conditions, including air conditioning, seating, and child-friendly spaces, play a significant role in how users evaluate city public libraries.

Accessibility

Comments on accessibility addressed geographic location, ease of access, and operating hours. Libraries described as "easy to locate" or "in the center," such as the Manila City Library and Valenzuela City Library, which was called "very accessible," were favored. However, operational hours were a common concern. The Marikina City Library faced inconsistencies with Saturday hours, and the Muntinlupa City Public Library's schedule was seen as problematic due to closures on Saturdays and during class hours. The Pasig City Library struggled with temporary closure for construction and a lack of updated online information. One review for the Valenzuela City Library indicated confusion when a user believed the "library no longer exist." Accessibility may be influenced not only by location but also by predictability of schedules and clarity of information. Limited or irregular hours, along with outdated details, appear to affect how users plan and sustain their visits. Concerns related to operating hours, location, and availability of accurate information mirror findings from prior research on library accessibility. Dorado (2010) and Tuble and Bayoneta (2020) highlighted that inconsistent schedules and limited visibility can negatively affect library utilization and public perception. Chen and Chang (2024) further noted that online platforms often amplify user frustration when operational information is outdated or unclear. The results of this study reinforce the importance of predictable access and clear communication in sustaining positive user experiences.

Programs

Although less frequently mentioned, library programs contributed positively to user perceptions where they were present. The Pasig City Library, in particular, was noted for its reading programs and outreach initiatives, including a mobile library service known as Basa Muna (translated as "Read First"), which aims to bring books and reading activities to communities with limited access to library facilities. This positive framing aligns with earlier research emphasizing the role of library programs in community engagement. Bongo and Acosta (2023) observed that reading programs and outreach initiatives contribute to perceptions of library relevance, particularly among children and families, while Scott (2011) emphasized that visible and well-promoted programs strengthen libraries' roles as community hubs. The relatively limited number of program-related comments in online reviews may reflect lower visibility or promotion rather than limited impact, highlighting the importance of digital platforms in communicating program offerings to the public.

Technology

The availability of technological resources was consistently noted. The Caloocan City Public Library, Marikina City Library, Parañaque City Public Library, and Pasig City Library were all recognized for providing "free internet service" or "free Wi-Fi." Some reviewers also mentioned the availability of computers, although the Marikina City Library was noted for having a limited number of electrical outlets. Overall, internet access and digital facilities seem to be increasingly viewed as basic expectations. Libraries that offer stable connectivity and functional spaces for device use may better meet the needs of students and information seekers. User expectations regarding internet access and digital facilities reflect broader trends identified in public library research. Fagyan et al. (2023) observed that access to Wi-Fi (Wireless Fidelity), computers, and adequate power sources has become a baseline expectation among library users. Kim and Lee (2021) further noted that technological infrastructure increasingly shapes user satisfaction and perceptions of accessibility. The findings of this study support these conclusions, indicating that inconsistencies in technological support may hinder effective library use, particularly for students and information seekers.

Table 2
Thematic Analysis of Major Themes

Category	Library	User Feedback Highlights
Service Quality	Caloocan City Public Library	Staff described as "kind," "accommodating," "friendly," "approachable"
	Malabon City Library	Staff mostly positive; some noted "very noisy" staff; dress code issues (shoes required, no shorts)
	Marikina City Library	Staff described positively
	Parañaque City Public Library	Staff described positively

	Pasig City Library	Staff described positively
	Valenzuela City Library	Staff described positively
Collections	Manila City Library	Good preservation of documents and old newspapers; informative for students; "convenient place to find history books"
	Muntinlupa City Public Library	Has "a lot of helpful books"
	Parañaque City Public Library	Good references for research; well-organized; active in receiving book donations
	Pasig City Library	Wide variety of resources; "books that I needed" and "many books"
Facilities	Manila City Library	Clean; "great place to relax and read"
	Marikina City Library	Clean; "misleading location" due to past relocation
	Parañaque City Public Library	Clean; fully air-conditioned on all 5 floors; playroom and game boards for kids
	Pasig City Library	Lack of air conditioning; "closed indefinitely for construction"
	Valenzuela City Library	Comfortable study spaces; "ultra-modern facility"; daycare-like room for kids; notable 6th floor design
Accessibility	Manila City Library	Easy to locate; centrally located
	Valenzuela City Library	Very accessible
	Marikina City Library	Issues with Saturday hours
	Muntinlupa City Public Library	Schedule problems due to Saturday closures and class hours
	Pasig City Library	Temporary closure for construction; no updated online info
	Valenzuela City Library	Confusion in one review about whether the library still exists
Programs	Pasig City Library	Special children's book section; reading programs and storytelling; mobile library service ("BasaMuna")
Technology	Caloocan City Public Library	Free internet service and wifi
	Marikina City Library	Free wifi; limited number of power outlets
	Parañaque City Public Library	Free internet service
	Pasig City Library	Free wifi and computers available

Sentiment Analysis

This section details the sentiment and subjectivity analysis results for selected public libraries in Metro Manila, derived from Google Maps reviews. This analysis utilized TextBlob to quantify the emotional tone, known as polarity, and the degree of personal opinion, or subjectivity, present within the user comments. Table 4 provides a summary of the sentiment analysis.

The data reveals a generally positive sentiment across most of the reviewed public libraries, accompanied by varying degrees of subjectivity in the user feedback. The average polarity, which ranges from -1.0 (negative) to +1.0 (positive), and average subjectivity, which ranges from 0.0 (objective) to 1.0 (subjective), offer insights into the nature of these user opinions.

The Muntinlupa City Public Library stands out with the highest average polarity at 0.700 and a very high average subjectivity of 0.800. This suggests that while it has a relatively low review count (3), the feedback it receives is distinctly positive and heavily laden with personal opinions. The Valenzuela City Library, with 9 reviews, and the Caloocan City Public Library, with 4 reviews, also demonstrate strong positive average polarities of 0.479 and 0.438 respectively. These positive sentiments are coupled with moderately high subjectivity scores (0.556 and 0.525), indicating that users are sharing favorable and opinion-based comments.

Table 3

Thematic Analysis by Library

Library	Service Quality	Collections	Facilities	Accessibility	Programs	Technology
Caloocan City Public Library	Kind, accommodating, friendly, approachable staff	-	-	-	-	Free internet service and Wi-Fi
Manila City Library	Mostly positive staff; some "very noisy"; strict dress code issues	Well-preserved documents and newspapers; helpful for students and history research	Clean; great place to relax and read	Easy to locate; centrally located	-	-
Marikina City Library	Staff described positively	-	Clean; one report of misleading location due to relocation	Issues with Saturday hours	-	Free Wi-Fi; limited power outlets
Muntinlupa City Public Library	-	A lot of helpful books	-	Schedule issues (Saturday closures and school conflicts)	-	-
Parañaque City Public Library	Staff described positively	Good research references; well-organized; active in book donations	Very clean; fully air-conditioned 5 floors; playroom and game boards for kids	-	-	Free internet service
Pasig City Library	Staff described positively	Wide variety of books; had what user needed	Lacks air conditioning; closed indefinitely for construction	Temporarily closed; lack of updated online info	-	Children's section; reading programs; mobile library (BasaMuna)
Valenzuela City Library	Staff described positively; noise management suggested	-	Comfortable study areas; ultra-modern; daycare-like kids' room; notable 6th floor design	Very accessible; one confused review asking if the library still exists	-	-

Libraries such as the Manila City Library (7 reviews), Parañaque City Public Library (4 reviews), and Pasig City Library (7 reviews) exhibit moderately positive average polarities, ranging from 0.238 to 0.294. Their mid-range subjectivity scores, from 0.364 to 0.481, suggest feedback that is generally positive but perhaps less intensely emotional or more descriptive in nature. In contrast, the Marikina City Library, despite having a notable 10 reviews, presents a much lower average polarity of 0.076, indicating that its reviews are, on average, closer to a neutral sentiment. Its subjectivity score of 0.372 falls into the mid-range, suggesting a mix of factual statements and personal opinions that do not, on average, lean strongly positive.

The Taguig City Public Library, with only 3 reviews, is a distinct outlier with an average polarity of 0.000. This implies that its reviews are, on average, entirely neutral in emotional tone. Its subjectivity score of 0.333 suggests that while there may be some personal opinion expressed, these opinions do not consistently carry a strong positive or negative emotional charge in the collected comments.

Overall, the sentiment analysis reveals that public libraries in Metro Manila generally receive positive user feedback, with the intensity and subjectivity of these opinions varying by institution. Libraries like Muntinlupa, Valenzuela, and Caloocan tend to inspire more decisively positive and opinionated comments. Meanwhile, others, such as Marikina and Taguig, receive feedback that is, on average, more neutral or balanced. These insights are valuable for library management to understand specific areas of strong user appreciation and to identify where feedback might be more mixed or less overtly emotional.

Table 4
Sentiment Analysis by Library

Library	Review Count (with comments)	Average Polarity	Average Subjectivity
Caloocan City Public Library	4	0.438	0.525
Manila City Library	7	0.294	0.364
Marikina City Library	10	0.076	0.372
Muntinlupa City Public Library	3	0.700	0.800
Parañaque City Public Library	4	0.238	0.479
Pasig City Library	7	0.279	0.481
Taguig City Public Library	3	0.000	0.333
Valenzuela City Library	9	0.479	0.556

DISCUSSION

The analysis of Google Maps reviews across nine city public libraries in Metro Manila reveals a complex portrait of user satisfaction shaped by service delivery, infrastructure, collections, programming, and digital access. A recurring point of strength identified in the reviews was the consistent commendation of library staff. Patrons frequently described staff members as courteous, helpful, and accommodating. These reviews reflect platform-mediated user experiences, capturing subjective perceptions shaped by individual expectations, emotions, and situational encounters rather than standardized service metrics. This suggests that positive interpersonal interactions play a critical role in shaping public perceptions of library service quality, supporting earlier arguments by Chen and Chang (2024) that user-centered evaluation approaches reveal aspects of satisfaction, such as staff engagement and empathy, not always captured by structured assessment tools. In several cases, such favorable comments were recorded even when other aspects of the library infrastructure were limited or underdeveloped. Nonetheless, service quality was not uniformly experienced. While most city public libraries received commendations for staff demeanor, some criticisms emerged. At Manila City Library, for example, users reported instances of staff-generated noise and expressed concern over strict dress codes, which were perceived as exclusionary. Viewed through a UX-oriented and platform-mediated perspective, these reviews help explain how such perceptions emerge and how they complement formal service quality frameworks. These findings affirm Campana et al. (2022) and de Oliveira Silva et al. (2025), who emphasized that public libraries' social inclusion goals depend not only on access to materials but also on the creation of welcoming and equitable service environments.

Library facilities and physical environments were also central to user feedback. Cleanliness, air conditioning, and the availability of quiet and comfortable reading areas were frequently cited as positive attributes. City public libraries such as Parañaque and Valenzuela were particularly noted for their modern and inviting spaces, including areas specifically designed for children. Conversely, users reported dissatisfaction with inadequate temperature control, limited seating, and temporary closures, notably in Pasig and Marikina. The impact of ongoing renovations or unclear relocation information further complicated user access. These findings underscore Borrego and Comalat Navarra's (2021) observation that perceptions of library quality are increasingly tied to user experience design and environmental comfort—factors that can strongly influence satisfaction even in the presence of resource limitations.

Comments on library collections focused primarily on accessibility, relevance, and organization. Manila City Library was appreciated for its preserved historical documents and broad selection of reading materials. Similarly, users praised the well-organized collections in Parañaque and the availability of academic references in Muntinlupa and Pasig. These city public libraries were seen as valuable resources for students and general readers alike. The mention of ongoing book donations in some locations reflects active efforts to expand holdings, which may further enhance user engagement. This aligns with Khan and Loan (2022), who noted that users often equate collection accessibility and topical relevance with overall service quality, even in informal online review settings.

In terms of digital and technological infrastructure, reviews pointed to uneven levels of support. While some city public libraries offered free Wi-Fi and internet access, the availability

of functional computers and sufficient electrical outlets was inconsistent. For example, while Marikina City Library provided Wi-Fi, it lacked adequate power sources. Such limitations can hinder the effective use of digital tools, which are increasingly essential in library use, particularly for students and jobseekers. These results mirror Fagyan et al. (2023), who found that inconsistent technological support remains a common barrier in local libraries' digital transformation initiatives.

Library programming was mentioned less frequently, though when present, it contributed positively to the overall user experience. The Pasig City Library was particularly recognized for its reading programs, storytelling sessions, and mobile library initiative. The relative scarcity of program-related comments in other city public libraries may indicate either limited offerings or insufficient promotion. Expanding and publicizing library programs could enhance community engagement and position city public libraries as dynamic learning hubs. This observation resonates with Bongo and Acosta (2023), who highlighted program visibility and community participation as key indicators of a library's social impact.

Accessibility, both in terms of location and operating hours, emerged as another crucial factor. City public libraries situated in central locations or described as easy to locate received favorable reviews. However, several comments underscored difficulties related to limited or irregular operating hours, particularly in Marikina and Muntinlupa. Issues such as weekend closures or lack of updated online information also contributed to user confusion, especially in libraries undergoing renovations or relocations. These concerns underline the necessity of maintaining clear, timely communication and ensuring consistent access to services, consistent with Tuble and Bayoneta (2020), who emphasized operational consistency and visibility as critical components of public library effectiveness.

While the empirical setting of this study is city public libraries, the implications extend to academic and research libraries that likewise operate in digital and platform-mediated environments. Online reviews provide a complementary source of user feedback that can augment traditional evaluation tools, offering insights into user experience, visibility, and service perception that are relevant across different library sectors.

CONCLUSION AND RECOMMENDATIONS

This study shows that Google Maps reviews provide a valuable, user-centered lens for understanding how city public libraries are perceived in digital environments. By capturing spontaneous and publicly visible expressions of user experience, these reviews complement traditional evaluation tools and offer actionable insights into service quality, accessibility, and digital visibility. For library managers and policymakers, platform-based feedback can inform decisions on staffing, operating hours, facilities, and digital engagement strategies. For future research in library and information science, digital review platforms represent a rich and underutilized data source for examining user experience, institutional visibility, and evolving community expectations.

This study addressed its research questions through a systematic analysis of Google Maps reviews. First, the findings showed that most city public libraries in Metro Manila have

presence on Google Maps, although user engagement and review volume varied across institutions. Second, thematic analysis revealed recurring concerns related to staff interaction, facilities, collections, accessibility, programs, and digital infrastructure. Third, sentiment analysis indicated that overall user perception was generally positive, with staff commendations driving satisfaction despite reported gaps in infrastructure and digital support.

In summary, while the reviews reflect a generally positive perception of city public libraries in Metro Manila, they also expose several operational and infrastructural challenges. Strong service orientation and well-maintained facilities appear to correlate with higher user satisfaction. However, gaps in technological resources, program visibility, and operational clarity suggest areas where strategic investment and improved communication are needed. These insights reinforce the broader arguments of Khan and Loan (2022) and Chen and Chang (2024) that digital feedback mechanisms can supplement traditional surveys by revealing nuanced, experience-based perceptions of library performance. By addressing these issues, city public libraries in Metro Manila can further strengthen their role as inclusive, relevant, and responsive community institutions.

Based on the analysis of user-generated reviews from Google Maps, several practical and research-oriented recommendations emerge for enhancing the quality and assessment of city public libraries in Metro Manila. City governments and library administrators are encouraged to adopt online review platforms as complementary tools for ongoing assessment. User comments on Google Maps provide spontaneous, experience-based feedback that can offer valuable insights into service delivery, facilities, accessibility, and emerging user expectations. Regular monitoring and analysis of these reviews can support data-informed decision-making, helping libraries identify strengths and address persistent issues more responsively. Integrating this form of sentiment analysis into routine evaluation practices can serve as an accessible alternative to more resource-intensive surveys, especially in contexts where structured user feedback is limited.

There is also a clear need for a more consistent digital presence among city public libraries. Several libraries included in the study had neither an official website nor an active social media account, making it difficult for users to access timely information on operating hours, programs, and service updates. Establishing and maintaining an updated digital footprint can help mitigate user confusion, particularly during construction periods or changes in service delivery. Moreover, promoting library programs online can strengthen community outreach and increase participation, particularly among youth and marginalized populations. While most reviews were positive, the reliance on self-selected online feedback may not fully represent general user populations. Libraries with fewer reviews may also reflect limited digital engagement rather than service quality, an issue also noted by Schoenmueller et al. (2020) and Husain et al. (2023) in their discussions of online feedback bias.

These findings have direct implications for local government and library policy. Patterns observed in user reviews can guide city investment priorities, particularly in improving digital infrastructure, staffing support, and program visibility. By using platform-based feedback as a supplementary decision-making tool, city administrators and library managers can more responsively align services with user needs and expectations. Future research may explore the perspectives of library administrators to complement the user-centered insights

provided by online reviews. A comparative study between patron feedback and institutional objectives could help identify alignment or gaps in service expectations. Additionally, expanding the dataset to include more cities or tracking changes over time could offer a longitudinal view of how public perceptions evolve in response to policy shifts, facility upgrades, or program innovations. Scholars may also consider integrating qualitative methods, such as interviews or focus groups, with sentiment analysis to deepen the interpretation of user experiences. Understanding the motivations behind user ratings and comments could reveal latent needs not readily captured in brief reviews. Finally, examining the use of other review platforms, such as Facebook or local community forums, may further enrich assessments of public library performance across diverse user populations. By adopting user-generated content as a legitimate source of evaluative data and by committing to greater transparency and responsiveness, city public libraries can position themselves as more adaptive, inclusive, and community-driven institutions.

Author Declaration on the Use of AI Tools

The authors disclose that AI-based tools were used only for grammar checking and language refinement during the preparation of this manuscript. All research design, data collection, analysis, interpretation, and writing of the content were performed by the authors.

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From Research Made Easy to TALASIK: A Mixed-Methods Assessment of the UP Diliman Main Library Instruction Program

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ABSTRACT

The educational landscape experienced shifts during the pandemic and the new normal from face-to-face towards online and hybrid modes of delivery. Libraries consequently sought to enhance their collections and services in response to the changing needs of library users. In the case of the University of the Philippines (UP) Diliman Main Library's instruction program, the Research Made Easy @ Your Library (RME) has been revamped to 'TALASIK' in the Academic Year 2024-2025 following the directive from the library administration. The program was redesigned based on the feedback from students in recent years. The purpose of this study is to assess perceptions of faculty and students on the enhanced library instruction program (TALASIK) compared to the previous program (RME).

A case study mixed methods research (CS-MMR) design was used to assess the first implementation of TALASIK (AY 2024-2025) in comparison with the last iteration of RME (AY 2023-2024). Quantitative method was used to analyze data from student feedback gathered from the evaluation forms, which contain the same Likert scale questions about the usefulness and organization of RME and TALASIK. Descriptive statistics were used to summarize the data, and an independent samples t-test was utilized to determine whether there were statistically significant differences between the two groups' ratings. Meanwhile, semi-structured interviews were conducted with six instructors who were selected through purposive sampling. Faculty participants should have requested both RME and TALASIK during the period covered and personally attended both programs. Interview transcripts were manually coded, and emerging themes were subsequently identified. Analysis was constrained using pre-existing survey data, which only assessed aspects of the programs in exactly the same manner. The number of respondents relied on faculty responsiveness and whether they met the criteria of having attended both programs to adequately provide their feedback.

Results of the study revealed that students rated TALASIK similarly to RME in terms of usefulness but higher in terms of flow and organization. The instructors shared their insights regarding the library instruction sessions on the following themes: (1) perspectives on student experience, (2) perspectives on program content, (3) perspectives on faculty experience, and (4) perspectives on program limitations. All faculty members noted that the customizability of TALASIK is a major improvement they all appreciated because it allows them to choose tools or databases to be given the spotlight during the demonstration portion.

The findings of this study may be used to further develop the UP Diliman Main Library's instruction program. This contributes to the field by providing valuable insights for other academic libraries that are looking into providing customized library instruction services. While literature argues against the use of one-shot library instruction sessions, various constraints make it difficult to do otherwise. Thus, this study sparks the discussion on how libraries can make

the most out of the one-shot session within their institutional context and while ensuring its relevance for the class.

Keywords: *library instruction program; library orientation; information literacy*

INTRODUCTION

The enhancement of library services is regularly done to continuously improve and keep pace with the latest trends in the field. Changes came in big strides during the pandemic because of the sudden shift from face-to-face learning to remote learning. Libraries around the world had to adapt by offering services online, including library instruction in academic libraries (Abrigo et al., 2023; Esposo-Betan & Fresnido, 2022; Ibacache et al., 2021; Lierman et al., 2022; Martzoukou, 2020; Norton et al., 2023). In addition to the changing educational environment, changing user needs must also be taken into account, given the characteristics of the current generation of students. Generation Z students are technologically exposed at a young age compared to other generations, which changed the way they use libraries (Kumar & T.A., 2025). They tend to prefer online resources (Salubi et al., 2018). Hence, libraries must rethink the way their services are offered.

These aforementioned considerations were reflected in how the UP Diliman Main Library restructured its library instruction program. Prior to the pandemic, the Main Library's library instruction program was known as Research Made Easy @ Your Library (RME). First implemented in 2010, the program was designed to familiarize library users with the Main Library's resources and services through a one-shot session. Faculty members could avail this program for their students. However, when libraries abruptly closed due to public health restrictions during the pandemic, the Main Library transformed RME into an online format where orientations took place remotely via Zoom teleconference. Hodges et al. (2020) called this "emergency remote teaching," where traditional instructional methods suddenly shifted to online in the early months of the pandemic. This eventually became the standard mode of operation for an extended period until the "new normal," in which libraries transitioned to hybrid models that extensively utilized digital and information technologies (Cibaroğlu & Yalçınkaya, 2022; Dobreva & Anghelescu, 2022).

In the Academic Year (AY) 2022-2023, on-site classes were resumed for higher education institutions (HEIs) as per Commission on Higher Education (CHED) Memorandum Order no. 04, series of 2023. The memo contains guidelines for the implementation of flexible learning. The Main Library aligned its services by applying a blended approach and offered RME through both on-site and online sessions, coinciding with the gradual resumption of face-to-face classes. This allowed faculty to choose which modality fits best with their class schedule.

Nguyen and Suthiprapa (2024) found that university libraries in Vietnam and Thailand during this period focused on evaluation and recovery activities. This shows that libraries continuously evaluate feedback from stakeholders to ensure that services are up-to-date and responsive to the changing needs of library users. In the Philippines, librarians envisioned that the changes to collections and services are bound to stay as well as the acknowledgment of the blended librarianship role once face-to-face services resume (Esposo-Betan & Fresnido, 2022).

In UP Diliman, this period was when the Information Services and Instruction Section (ISAIS) of the Main Library undertook a program improvement assessment using existing feedback data to redesign its library instruction program amidst its temporary displacement following a top-down directive from the library administration.

The proponents identified recurring feedback from students and faculty from recent years, among which are information overload in library sessions, short attention spans, lack of flexibility, and preference for targeted discussions. Alongside these, the proponents considered factors such as the lack of human and financial resources, institutional constraints, as well as the relocation of the library to a temporary location, in the revamp process. By seeking to address students' current information needs, aligning the program with course-specific requirements, and strengthening collaboration with faculty, the RME program was eventually rebranded as 'TALASIK'.

Research Made Easy @ Your Library (RME)

RME was designed to familiarize library users with the Main Library's wide range of resources and services. It has two modes: the General Library Orientation and the Specific Library Orientation. The General Library Orientation provides a brief but comprehensive introduction to the library's operations, resources, and services. The Specific Library Instruction offers in-depth sessions on using online subscriptions and research tools. Originally, RME also included a Library Tour, which is a guided walk-through of the Main Library's collections and services. This service has been suspended since 2020 due to the ongoing renovation of the Main Library building. With the resumption of face-to-face classes, the on-site option for RME has been made available at the Main Library's temporary location.

TALASIK

'TALASIK' is a contraction of the Filipino terms 'talas' (keenness) and 'saliksik' (research or exploration), encapsulating the program's objective with the phrase "sharpened research". TALASIK departs from RME by dividing it into two digestible components: TALAS and SALIKSIK. Either or both can be requested by faculty members, depending on the users' needs.

TALAS is a thirty-minute orientation designed to introduce library users to the services, spaces, and resources of the Main Library and its unit libraries. It merely seeks to inform users about the various offerings available to them for their academic and research needs. Meanwhile, SALIKSIK is a one-hour-long customizable instruction session designed to provide users with in-depth knowledge of the library's specific resources, tailored to the needs of a course. It has two parts. In the first, participants may choose from modules on local databases, online subscriptions, digital tools, and microfilm services. In the second, faculty may request instruction on a specific database (e.g., Digital Archives @ UP Diliman, JSTOR), a tool (e.g., Mendeley, Turnitin), or any of the modules offered in the first part.

As an introduction, the facilitator navigates through the Main Library's website to make students aware that any library-related information may be found on the website, including

information on any of the topics under Module 1. For local databases, the webpage with the list and pertinent links is shown to students, followed by a short preview for each database. Similarly, the discussion on online subscriptions highlights the webpage with the list of subscriptions, the description of the subscription coverage, and the database content. For digital tools, the available tools are demonstrated. A more in-depth navigation is provided for the selected specific resource under Module 2. At the end of the session, facilitators conduct a gamified quiz through Quizizz (now Wayground) and a question-and-answer segment.

Table 1
RME and TALASIK Features

Components	Research Made Easy	TALASIK
Available Sessions (Time Allotment)	• General Library Orientation (1.5 hours) • Specific Library Orientation (2-3 hours)	• TALAS: Library Orientation (30 minutes) • SALIKSIK: Customizable Library Instruction (1 hour)
Content	General Library Orientation • Library resources and services • Introduction to the physical layout of the library • Functions of the Main Library website • Catalog searching using the iLib • Database searching • Researching ethically	TALAS: General overview on library services and resources SALIKSIK • Brief introduction • Module 1 (options: local database, online subscription, digital tools, or microfilm) • Module 2 (options: specific local database, specific online subscription, specific digital tool, or microfilm)
Mode of Request	Email, Telephone, In-person	Email, Google Form

Given the transition from RME to TALASIK, it is essential to assess whether the enhancements introduced in the latter have led to improved user experiences and perceptions. The purpose of this study was to assess perceptions of TALASIK compared to RME. It identified perceived improvements and limitations by comparing the last iteration of RME in A.Y. 2023-2024 and the first implementation of TALASIK in A.Y. 2024-2025. To guide this inquiry, this study sought to answer the following research questions:

1. How do students perceive the usefulness and organization of the TALASIK program compared to the RME program?
2. Is there a significant difference in students' perceptions of the usefulness and organization of the TALASIK program compared to the RME program?
3. What specific aspects of TALASIK are perceived by faculty members as improvements or limitations relative to the RME program?

The authors are both employed at ISAIS, which implemented the programs. Through this undertaking, the authors ultimately intend to make recommendations to further enhance TALASIK. In addition, the study contributes to the field by providing valuable insights for other academic libraries that are looking into providing customized library instruction services. Existing literature argued on the limitations of one-shot library sessions; however, various constraints resulted in the continuous provision of one-shots. It sparks the discussion on how libraries can make the most out of the one-shot session.

LITERATURE REVIEW

Library instruction programs have undergone significant evolution over the years, yet several challenges remain, such as passive attitudes towards library orientations, limited faculty collaboration to integrate library services, information overload, limited human resources, time constraints, and technological challenges (Anna et al., 2023; Peacock, 2025). Alongside these challenges, Peacock's (2025) study reveals a common sentiment that library instruction is often undervalued within the campus community. It is perceived as an optional add-on rather than a "core support service", with both faculty and student attitudes shaped by the degree of faculty support and the extent to which the instruction is meaningfully integrated into the overall learning experience. Librarian-faculty collaboration can be difficult to establish as the latter often view information literacy as already part of their own disciplinary teaching and see librarians more as service providers than as educators (Arendt & Lotts, 2012; Becker et al., 2022; Cope & Sanabria, 2014; Pagowsky, 2021). Dawes (2017) notes that faculty tend to underestimate students' need for information literacy support or fail to provide adequate opportunities to apply what they have learned.

Taken together, these studies suggest that, as Lacy and Hamlett (2021) emphasized, it is no surprise that library instruction is often reduced to a traditional one-shot session. Yet another layer of challenge in one-shots is the difficulty in covering extensive content within a limited time. Mulraine-Campbell and Quintero (2023) state that "presentations risk causing library anxiety because of overwhelming content disseminated at once" (p. 14). Relatedly, younger individuals tend to struggle to process large amounts of information compared to older generations due to their low information literacy skills amidst active use of information technology (Benselin & Ragsdell, 2016), where they constantly absorb information (York & Clymer, 2025). It is in this sense that librarians must provide effective ways for information users to access information efficiently amidst the challenges of information overload.

Building on this role, library instruction is a crucial program carried out by librarians to ensure effective search and use of libraries and information in general. It is worth noting that students across various disciplines have distinct research needs, and library instruction programs should take these into account (Dotson & Diaz, 2008; Grafstein, 2002). Multiple studies show that students learn the research process more effectively when needed skills are taught within the context of a specific course or discipline (Bury, 2016; DaCosta, 2010; Dawes, 2017; Dubicki, 2013; Saunders, 2012). Furthermore, Borrelli et al. (2010) state that nearly all library instruction efforts can be placed on a continuum. At one end, general "canned" instruction sessions have the advantage of scalability, but students often do not understand their relevance because of a lack of context. At the other end are credit-bearing library instruction courses,

though this also falls short in terms of scalability and feasibility, and poses challenges in terms of manpower. Customizability attempts to address these gaps by leveraging the advantages of both ends and adapting them based on the specific needs of a course, which would place hybrid customizable one-shot sessions like TALASIK in the middle. Yet, there have been only a few studies assessing the viability and effectiveness of customizable one-shot library instruction programs.

Literature often discusses customizable multi-shot sessions (Bean & Thomas, 2010; Borrelli et al., 2010; Hansen, 2022; Junisbai et al., 2016). For instance, in Borrelli et al. (2010), a flexible online learning environment for information literacy (IL) instruction targeted to the needs of specific research assignments was developed to provide contextualized IL instruction to a sizable student body. For each course, customized online class pages are crafted, which provide assignment-specific guidance, relevant online tutorials, and assessments, including multiple-choice quizzes and short essay questions to evaluate learning. However, given the challenges of full implementation, such as resource limitations, the concept of customization may be applied to one-shot instruction as a viable alternative. Thus, this study seeks to assess the effects of customization in comparison to the traditional one-shot session.

On another note, the aforementioned studies mostly use quantitative means of assessment through surveys and grading of student outputs. They also focus on sharing how they developed their customizable multi-shot instruction program. Meanwhile, this study uses a case study mixed-methods approach in order to thoroughly identify perceived improvements that may have been brought about by customizing the one-shot session.

METHODOLOGY

A case study mixed methods research (CS-MMR) design was used to assess the perceived improvements and limitations of TALASIK as compared to RME. In CS-MMR, the researcher plans from the outset to conduct case study research that integrates both quantitative and qualitative approaches (Cook & Kamalodeen, 2023). The two different methods were used to address the different objectives of the study (Bryman, 2012). Grandy (2010), as cited in Cook and Kamalodeen (2023), stated that an intrinsic case study is typically exploratory, with the researchers guided by their interest in the case itself rather than theory building or generalizing across cases. Here, the researchers ultimately sought to examine the effects of customization in library instruction programs, and adopting intrinsic CS-MMR enabled a more in-depth understanding of the library programs under investigation by utilizing existing student data and then extending the analysis to a smaller group of faculty members. Meanwhile, the mixed methods approach would allow the researchers to obtain quantitative data from a broader sample, followed by qualitative insights from a few individuals to help explain the results in depth (Creswell, 2009). Moreover, it is commonly adopted to develop and evaluate a particular program (Creswell & Plano Clarke, 2018), which in this case is TALASIK, for further enhancement.

On the one hand, the quantitative method was employed to assess TALASIK in comparison to RME. The study particularly used pre-existing survey data collected through feedback forms answered by students who attended either of the programs during A.Y. 2023–2024 (when the last hybrid RME session was offered) and A.Y. 2024–2025 (when TALASIK was

first implemented). Using the IBM SPSS Statistics Software, the mean scores were computed for each sample group per question to give an overview of how students generally perceived the usefulness and organization of each program. Since the feedback forms were answered by two different sets of students, the researchers conducted an independent samples t-test to determine whether there were statistically significant differences in the students' perceptions of the two programs. An independent samples t-test is appropriate when comparing the means of two unrelated groups (Stone, 2022). Here, it was used to assess whether the differences in students' ratings between RME and TALASIK were due to chance or represented a significant difference in their experiences.

On the other hand, the qualitative method was employed to gather insights on both programs. The researchers specifically conducted semi-structured interviews (see Appendix) with the concerned UP Diliman faculty members. Purposive sampling was used to deliberately select faculty members who requested for RME and TALASIK sessions during the period covered. This method is a valuable tool for collecting in-depth, context-specific data in mixed-methods research and is especially useful in extracting nuanced insights into specific phenomena (Tajik et al., 2024). Thus, among a total of 18 faculty members who requested for RME, and 30 faculty members requested for TALASIK, the invitation was sent to 13 who requested for both. In addition, the invitation indicated that interested respondents should have personally experienced both versions of the library program to adequately provide their insights. Six faculty members were then interviewed. According to Subedi (2021), this sample size is enough to conduct a case study using a qualitative method.

To ensure the ethical conduct of this study, the participants' informed consent was obtained through consent forms, and the participants were de-identified to ensure anonymity and confidentiality. Formal approval from the UP Diliman Research Ethics Board (UPD REB) was not sought, as the study was conducted in the first half of 2025, prior to the Board's accreditation by the Philippine Health Research Ethics Board, effective 03 October 2025. Moreover, official notice of the UPD REB's operational status was only disseminated to the UP community through Memorandum No. CMFO 25-071, issued by the Office of the Vice Chancellor for Research and Development on 11 December 2025. Consequently, this paper was not submitted for ethics review.

Thematic analysis was employed to analyze qualitative data gathered from the interviews with faculty. Verbatim responses from the interviews were initially transcribed. Researchers then independently and manually coded the transcripts through an inductive approach, where they identified recurring patterns in the data and analyzed the keywords used by participants to interpret their underlying significance (Braun & Clarke, 2006). The codes and the coded extracts that the researchers created from the interview transcripts were compared and reviewed against each other. Subsequently, the researchers collaborated to define and name the themes based on the comparison.

Member checking, also known as participant validation, was used to validate the trustworthiness of the qualitative results. Birt et. al. (2016) state that when the purpose of member checking is to determine whether the findings align with participants' experiences, it may be appropriate to conduct the process using the analyzed data derived from the whole sample. Hence, the researchers returned the synthesized interview notes to the participants to verify

their accuracy and resonance with lived experiences. Each participant received their respective set of synthesized notes in a separate file, which they subsequently reviewed to confirm or correct the researchers' interpretations. The researchers then proceeded to write the report, as included in this paper, based on the validation of the faculty respondents.

Limitations

The study encountered several limitations during the conduct of the study and the data analysis. Utilizing pre-test and post-test assessments facilitates the assessment and development of a one-shot library session and its corresponding learning outcomes (Brooks, 2013; Byerly et al., 2006; Cohen et al., 2016; Katz & Godfrey, 2021; Wang, 2016). The lack thereof limits the study's assessment of RME and TALASIK. Data collection relied only on pre-made evaluation forms that were used in RME and TALASIK. Moreover, only two survey questions overlapped between the two programs, restricting the usefulness of the data for comparison and limiting the scope of the findings. This constrained the researchers from drawing firm conclusions about improvements in the programs. Relatedly, students were only able to experience either RME or TALASIK and thus could not directly compare experiences in both programs.

Second, the faculty sample was smaller than the desired size, which can be attributed to different factors. The criterion for this study was that faculty must have attended both RME and TALASIK. However, not all faculty members who requested a library session attended them, and only a few were able to participate in both programs. Some were thus unable to join because they did not meet the criteria or, unfortunately, had scheduling conflicts. Notably, faculty attendance in sessions was not formally recorded, making it difficult to identify participants. As a result, the responses depended heavily on availability, reducing the representativeness of the sample. While the sample was sufficient for case study depth, it limited generalizability.

Finally, because the researchers themselves were involved in the design and implementation of the programs, the possibility of bias cannot be entirely ruled out. This may have influenced both data interpretation and the overall conclusions of the study.

RESULTS AND DISCUSSIONS

Quantitative Findings

Library Sessions Requested

All library session requests from both A.Y. 2023-2024 and A.Y. 2024-2025 were collected. Requests for RME are encoded in Google Sheets by librarians who received the request. On the other hand, TALASIK requests were recorded via Google Sheets through Google Forms that faculty members fill out to schedule the session. Cancelled requests due to various reasons were removed. There is a total of 75 RME sessions and 87 TALASIK sessions. The number of requests received in A.Y. 2024-2025 is slightly higher. Table 2 shows the number of sessions requested for the respective programs. For RME, only 5.33% of instructors requested for Specific Library Instruction. Instructors typically only send an email to request a session with the library without any additional specifications. This is also observed based of

the library's email communication with various instructors, especially during and after the pandemic. On the other hand, instructors mostly request SALIKSIK over TALAS.

Table 2
Summary of RME and TALASIK Sessions Requested

RME Sessions	n	%	TALASIK Sessions	n	%
General Library Orientation (1.5 hours)	71	94.67	TALAS (30 minutes)	15	17.24
Specific Library Instruction (2-3 hours)	4	5.33	SALIKSIK (1 hour)	72	82.76
Total	75	100	Total	87	100

As shown in Table 3, the courses that requested for a session during both A.Y. 2023-2024 and A.Y. 2024-2025 are the following: ENG 13 (Writing as Thinking), Psych 105 (Introduction to Research in Psychology), KAS 1 (Kasaysayan ng Pilipinas), and Italian 61 (Academic Writing in Italian). The request from the SLIS Library is the only one for library staff, while the rest are all for students, specifically as part of their course. More than 70% of the requests are for ENG 13, which is a required general education course that introduces students to research writing. Apart from ENG 13, the courses are usually related to research, except for LIS courses that are taken by Library and Information Science students, and the KAS courses that are general education courses on Kasaysayan or History. This indicates that most of the classes that request for library sessions are research courses.

Table 3
Summary of Library Sessions Requests per Course

Course Code	Course Title	RME AY 2023-2024		TALASIK AY 2024-2025	
		n	%	n	%
ENG 13	Writing as Thinking	53	70.67	69	79.30
Psych 105	Introduction to Research in Psychology	2	2.67	5	5.75
KAS 1	Kasaysayan ng Pilipinas	4	5.34	3	3.45
FS 199	Research Methods in Food Science and Technology	4	5.34	0	0
GEOG 199	Seminar (Methods, techniques and problems of research.)	0	0	3	3.45
LIS 71	Information Resources and Services I	2	2.67	0	0
CQ 199	Research (Creative Writing)	0	0	2	2.3
Soc Sci 2	Social, Economic and Political Thought	1	1.33	1	1.15
Italian 61	Academic Writing in Italian	0	0	2	2.3
KAS 10	Introduction to History	0	0	1	1.15
KAS 195	Historical Methods	1	1.33	0	0
ENG 1	Basic College English	1	1.33	0	0
SLIS-Library	N/A	1	1.33	0	0
LIS 255	Public Relations and Libraries	1	1.33	0	0

HRIM 199	Research Methods in Hotels, Restaurants and Related Institutions	1	1.33	0	0
HRIM 299	Research Methods in Hotels, Restaurants and Related Institutions	1	1.33	0	0
EL 199	Research Methods (European Languages)	1	1.33	0	0
FFN 146	Community Nutrition in Practice	1	1.33	0	0
ID 299	Research Methods in Interior Design	1	1.33	0	0
Total		**75**	**100**	**87**	**100**

Among the 72 requests for SALIKSIK sessions, online subscription comprises 65.28% of requests for Module 1, as illustrated in Table 4. The most requested type of combination of module topics is online subscriptions and a specific digital tool. The most requested topic for Module 2 is the specific digital tool, with 44.45% of requests (see also Table 5). On the other hand, digital tools are the least requested Module 1 topic, which could possibly be due to the instructors' preference to have it for Module 2 for an extensive demonstration. The least requested Module 2 topic is the microfilm, since it is only requested for KAS 1 specifically due to the required microfilm class activity.

Table 4

Module Combinations Requested for SALIKSIK Sessions

Module 1	Module 2	n	%
Online Subscriptions	Microfilm	2	2.78
Online Subscriptions	Specific Digital Tool	22	30.55
Online Subscriptions	Specific Local Database	14	19.44
Online Subscriptions	Specific Online Subscription	9	12.5
Local Databases	Microfilm	1	1.39
Local Databases	Specific Digital Tool	8	11.11
Local Databases	Specific Local Database	2	2.78
Local Databases	Specific Online Subscription	10	13.89
Digital Tools	Specific Digital Tool	2	2.78
Digital Tools	Specific Online Subscription	2	2.78
Total		**72**	**100**

Out of all the available options under Module 2, Mendeley is the most requested specific resource, followed by Turnitin, as evident in Table 5. Mendeley is a tool used for reference management, while the Turnitin Draft Coach can be used for similarity, citation, and grammar checks. These tools are both beneficial for research writing, which might be the reason for getting the most demand, since the majority of the sessions come from research-related courses. Meanwhile, the top requested local database is Tuklas, which is the resource discovery tool of the University. JSTOR, an international and interdisciplinary database, is the top-requested online subscription.

Student Satisfaction

To assess if there is a significant difference in students' perceptions of the usefulness and organization of the TALASIK program compared to the RME program, the following hypotheses were formulated:

1. Null Hypothesis (H_0): There is no significant difference in students' perceptions between the TALASIK and RME programs in terms of:
   a. Usefulness; and
   b. Organization.
2. Alternative Hypothesis (H_1): There is a significant difference in students' perceptions between the TALASIK and RME programs in terms of:
   a. Usefulness; and
   b. Organization.

Under usefulness, the students who took RME rated the instruction program similarly (M = 4.83, SD = .47) to those who took TALASIK (M = 4.83, SD = .41), t (1974) = -0.47, p = .96. The t-test showed that the difference in ratings between the two groups was not significant. Under organization, students who took RME rated the program slightly lower (M = 4.75, SD = .54) than those who took TALASIK (M = 4.79, SD = .46), t (1974) = -2.00, p = .045. The t-test showed that the difference in ratings between the two groups was significant, although it was relatively small in magnitude. This suggests that while there is statistical evidence of a difference in perceptions, the practical significance of this effect may be limited.

Table 6
Student Ratings on the Usefulness and Organization of RME and TALASIK

Attributes	Orientation	N	M	SD
Usefulness	RME	783	4.83	.47
	TALASIK	1193	4.83	.41
Organization	RME	783	4.75	.54
	TALASIK	1193	4.80	.46

Table 7

Comparison of RME and TALASIK on Usefulness and Organization Using Independent \Samples t-Test

				t-test for Equality of Means				95% Confidence	
				Significance					
		t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Usefulness	Equal variances assumed	-0.47	1974	.481	.963	-.00094	.02008	-.04032	.03844
	Equal variances not assumed	-.045	1513.632	.482	.964	-.00094	.02064	-.04143	.03955
Organization	Equal variances assumed	-2.008	1974	.022	.045	-.04535	.02258	-.08964	-.00106

Discussion

The results show that students perceived both programs to be highly useful. This suggests that, at a fundamental level, both programs were successful in delivering instructional value and meeting student needs. The small but statistically significant difference under organization, however, points to a subtle variation in how students experienced the structure and flow of the two programs.

The implications of these results are thus two-fold: first, it strengthens the conclusion that both programs achieved their instructional purpose, which is to ensure and encourage the informed use of library resources, to an extent; and second, the minor difference in organization highlights the importance of continuous refinement in program delivery. The first aligns with findings that library instruction significantly improved students' understanding of the library and even enhanced students' use of library resources (Adebayo et al., 2023; Adjei et al., 2021; Lasig, 2021; Ogbomo, 2023; Spievak & Hayes-Bohanan, 2013). Meanwhile, the improvement of program delivery remains a significant undertaking to ensure responsiveness to the needs of students and faculty. When viewed alongside the qualitative findings, these patterns become clearer.

Qualitative Findings

Profile of Respondents

The six respondents confirmed that they were able to personally attend both RME and TALASIK sessions, whether the session/s are conducted via Zoom or on-site. There were a few faculty members who signified interest in participating in the study, but they were unfortunately not present during the sessions and were unable to provide feedback. All faculty respondents indicated that they learned about RME through their colleagues. Additionally, Respondents C and D noted that it was also included in the sample syllabus. Instructors A and F also learned about it from the Main Library staff. All the required outputs involve research; however, the requirement for Instructor A differs from the others. He challenges students to think of what sort of creative output they would like to do, such as a video or a booklet, as long as the historical content to be presented is well researched. All of them have requested for SALIKSIK, while only Respondents D and F have requested for TALAS.

Table 8
Profile of Respondents

Respondent	Sex	Courses Handled	First Request	Course Requirement
A	Male	KAS 1	AY 2023-2024, 2nd Sem	Creative output
B	Female	ITALIAN 6	AY 2023-2024, 2nd Sem	Research paper
C	Male	ENG 13	AY 2023-2024, 2nd Sem	Research paper
D	Female	ENG 13* and CW 199	est. 7-8 years ago	Research paper
E	Female	ENG 13	AY 2022-2023, Midyear	Research paper
F	Male	ENG 13*	est. 9 years ago	Research paper

Note. Refer to Table 3 for the course titles
*Instructors used to request a session for ENG 10, which is the previous course code of ENG 13.

Faculty members highlighted the various aspects of RME and TALASIK that they found beneficial for their students. They also took note of the differences between the two based on their experiences. The following main themes emerged from their responses: (1) perspectives on student experience; (2) perspectives on program content; (3) perspectives on faculty experience; and (4) perspectives on program limitations.

Perspectives on Student Experience

One theme that emerged centered on student experience. Consistent with the quantitative survey results, the interview participants highlighted the usefulness of both programs to students. From the faculty's standpoint, both RME and TALASIK generally promote resource

awareness and utilization among students and foster engaging, experiential learning. TALASIK is indicated as more efficient. Three sub-themes were identified, which are: resource awareness and utilization, learning efficiency, and student engagement.

Resource Awareness and Utilization

Faculty members have indicated that the RME and TALASIK sessions allow students to be exposed to the library's available resources. Students grow more aware of the availability of scholarly databases through the subscriptions. All of them shared various anecdotes from their respective classes that narrated how students appreciated having RME or TALASIK and found it helpful for their course. Freshmen were mentioned to have benefited a lot from the introduction that the session provides to the vast library resources and services.

This aligns with the finding that students perceived both programs to be highly useful, as discussed in the quantitative portion. In particular, students were observed to incorporate accessible subscribed online journal articles into their papers. Instructor E shared that the quality of sources that students use for their papers helps with the overall quality of their research paper. Instructor A noted that students from his sections with either an RME or TALASIK session utilized more library resources compared to the sections for which he was unable to request a session. Instructor F opined that the modules in SALIKSIK encourage students to utilize the library's resources in doing their research. However, while all instructors agreed that both RME and TALASIK helped increase student utilization of library resources in class requirements, they stated that one is not necessarily better than the other in terms of improving utilization, as there are other factors that could also affect the research process of students, such as the instructor's adjustments to the course syllabi.

This is aligned with existing literature that library orientations in general significantly enhance students' awareness and utilization of information sources, making it easier for them to locate preferred resources (Adebayo et al., 2023; Adjei et al., 2021; Lasig, 2021; Ogbomo, 2023; Spievak & Hayes-Bohanan, 2013). The findings of another study have shown that despite the exposure of the "Google generation" to the Internet, students were discovered to be less aware of the library's electronic resources compared to print resources, which emphasizes the need to conduct instruction sessions to raise awareness (Chohda & Kumar, 2025). However, it is not made clear whether the perceived improved resource awareness and utilization can be attributed to the new program's features, since the respondents mentioned that students seem to equally gain awareness from both programs.

Learning Efficiency

Instructor A mentioned that in TALASIK, there is more time given to discussing the selected modules, and students' questions are also centered on the presented topics. Hence, students are less likely to be overwhelmed. He added that this allows students room to think about how the discussion is related to their class. This aligns with the finding that TALASIK, as compared to RME, was rated a little bit higher in terms of organization.

Both TALASIK and RME are one-shot sessions, but the modular nature of TALASIK addresses the limits of the general approach used in RME. Instructor F described the customizability of TALASIK as "immediate" in the sense that students precisely receive the information they seek. He expounded that a general orientation may increase the tendency for certain students to be impatient. With the ability to choose which modules are tackled, instructors are able to redirect the discussion towards its relevance for their class.

Research found that students often overestimate their information literacy skills, so it is challenging to gain their attention, demonstrate relevance, and provide satisfaction (Blackwell-Starnes, 2016; Gross & Latham, 2012; Latham & Gross, 2013). They would attend sessions if required or incentivized, but would skip those they felt they already knew or were of no personal relevance (Latham & Gross, 2013). The participants here narrated similar observations. However, they implied that customization may have the effect of not only minimizing information overload while maximizing knowledge gained and the use of limited time, but also ensuring student attention and motivation. This relates to York and Clymer's (2025) study, which found that a pared-down approach to providing information allows them to build more meaningful connections with students.

Student Engagement

The responses are consistent with existing literature on how gamified quizzes can make learning more engaging for students (Barba, 2021; Humairoh & Hakiki, 2022; Maraza-Quispe et al., 2024; Zainuddin et al., 2020). Quizizz, now Wayground, is one of the gamification tools mentioned in the literature, which is the tool used for the SALIKSIK sessions. Instructor A particularly described the use of the gamified quiz as "very interactive." He observed that this approach has been consistent since RME and the prizes provided by the library made students much more inclined to participate.

Apart from the gamified quiz, instructors also appreciated the integration of demonstrations, which is present in both programs. Instructor D found it helpful when the facilitators actually showed the steps on how to do certain processes, especially since navigating different platforms can often be challenging and counterintuitive. She observed that during remote sessions, the facilitator would open the site and demonstrate where to click, what to type, and what actions to take. Instructor B shared similar insights. However, demonstrations in TALASIK, specifically SALIKSIK sessions, are more targeted, given that facilitators focus on the specific databases or tools selected by the faculty members. In contrast, demonstrations in RME primarily feature the Main Library website to provide a general overview to students, unless the exploration of certain databases is requested prior to the session.

Perspectives on Program Content

All the participants expressed positive reception to the introduction of TALASIK. They highlighted how the program enables better alignment with course needs through its flexible instructional design and how targeted discussion enhanced class support. Thus, another theme that emerged pertains to the program content. Alignment with course needs and targeted discussion is identified as the sub-themes.

Alignment with Course Needs

All respondents appreciated the customizability options for TALASIK, which is the feature that stood out the most to them. They expressed a preference for TALASIK over RME since they can choose specific topics that align with the needs of their class. Instructor C remarked that the available options "allow for differentiation." Most of the instructors choose the modules depending on the student composition and the course they handle. In cases when instructors handle a higher level of research course specific to their discipline, they can choose the most suitable database/s for demonstration. Instructors are also able to make further specifications for their TALASIK request, if any. For instance, some requests would indicate that they have freshman students, so the assigned librarian may facilitate the session with that consideration.

Apart from the ability to choose the session and modules to be presented, faculty members also indicated that the session supplements their classroom instruction. Both Instructor C and F shared experiences wherein topics addressed during the TALASIK sessions were used as a springboard for class discussions. The library session sparked ideas for an engaging discourse that supports classroom synergy. The relevance of the library session is reinforced by the instructor through a more in-depth discussion of the topics the librarian presented. The responses indicate that tailored library instruction can be valuable for faculty, especially when it is designed to meet the specific needs of their classes. This illustrates the relevance of the one-shot session to their respective classes.

Targeted Discussion

Faculty members recognized that TALASIK provides a more targeted and varied training, whereas RME is more basic. The general approach of RME, as pointed out by Instructors A and E, possibly results in information overload for students. In contrast, TALASIK facilitates in-depth discussions that focus on what each subject needs. Instructor D particularly highlighted that her students appreciated the helpfulness of the session, although she cautioned that the students may be missing out on something important because they're too focused on one thing.

These affirm Hansen's (2022) study, which shows that implementing a targeted instructional design for a library instruction program significantly contributed to students being more likely to evaluate information sources appropriately and frequently recognizing the library as a valuable resource for academic goals. It also aligns with the student survey results that both programs proved to be useful to students, but the restructured TALASIK provides more organized sessions compared to RME.

Perspectives on Faculty Experience

The customizability of TALASIK is the primary feature that distinguishes it from RME. The responses indicate favorable feedback on the program's flexibility and ease of access. The Google Form implemented for scheduling appointments clearly details the structure of the new program and showcases the available options for each module. Faculty members found this booking procedure user-friendly. Instructor C mentioned that this is an improvement compared to RME, when they tend to simply choose the most basic and general option due to a lack of clear alternatives.

While the majority of the faculty members liked the variety of options available, Instructor D commented that the drawback is the difficulty of choosing among the many options available. She felt overwhelmed by the number of options and let her students vote on which topics they preferred instead. Regardless, instructors noted that the advantage of the new format of TALASIK is the visibility of the library's resources through the reservation form. The form effectively informed faculty members of the new program implemented together with the options they could avail.

On another note, Instructor F indicated that TALASIK's branding aligns with "Tatak UP" (The UP Brand) and particularly coincides with the general direction of the library to brand its services in Filipino, as seen in other services such as "Tuklas," "Saliktroniko," and "Aklat-taan." He stated that the shift in labels and module names, such as having TALAS and SALIKSIK are certainly more memorable than the generic "Research Made Easy" name. Studies show that effectively branding the library can create a positive impression by engraving a desirable image in the minds of users, raise awareness of the library and its functions, and ensure the library's continued relevance (Priyadarshani, 2023; Sahli et al., 2023).

Perspectives on Program Limitations

The responses also revealed the revamped program's limitations, which include reservation constraints, disparities in experience, and temporary displacement due to the library building's renovation. These limitations may explain why TALASIK scored only slightly higher in student ratings. Apart from the limitations, faculty members also offered suggestions to address some of their concerns.

Instructor A narrated that the current format of the session only allows for a brief general orientation and two selected topics, noting that another day would be needed for other topics that they wish to explore. Instructor C similarly suggested that the reservation form should allow the selection of more than one module per level, rather than limiting it to just one per level, if time permits, as that would be helpful for students. In the case of Instructor D, who lets students vote on which topics they prefer, the current format is somewhat limiting. She made a similar suggestion to allow the selection of multiple topics per module within the same session, as her students often struggle to choose between equally important options. These all indicate reservation constraints attributable to the time allotted for a session.

Meanwhile, Instructor B mentioned the lack of hands-on demonstrations for some sessions in TALASIK, while Instructor D appreciated the demonstrations for the sessions she attended, revealing disparities in experience. It is similar to the observation made by Instructor C when he mentioned how predatory journals were discussed in one class but not in another. This points to the implication that while TALASIK covers the modules requested by a faculty, librarian-facilitators distinctly handle each session according to their own instructional styles and interact differently with certain groups of students, leading to varying experiences.

Other responses also delved into the impact of the temporary displacement of the library. Respondent A explained that the students who attended onsite sessions had difficulties finding the temporary location of the library. He hopes that the library will return to its original location

(i.e., Gonzales Hall) to enhance its visibility and accessibility. Instructor F also noted that TALASIK may face challenges in improvement and integration due to the displacement. He stated that:

> The difficulty with TALASIK is that if there's meant to be some kind of room for improvement or a kind of integration, it can't fully do that right now until everything is back in Gonzalez Hall. So, for TALASIK, I think that's a challenge for whoever is presenting it because you don't have that kind of experience. And you're even at a disadvantage because there's a sense of displacement now.

CONCLUSION

This study has identified the perceived improvements and limitations of TALASIK as compared to RME using CS-MMR design. Considering faculty perspectives alongside student feedback provided a clearer assessment of the new program. Findings reveal that both programs are useful, with TALASIK offering modest organizational improvements. However, from the perspective of faculty members, TALASIK's customizability allows for course alignment, targeted discussion, flexibility, ease of access, learning efficiency, and increased resource awareness and utilization. Similar to RME, it encourages student engagement and learning.

The ultimate goal of this study was to evaluate the practicality of customizable one-shot sessions. This study shows that one-shots can be modified or enhanced to increase their usefulness, efficiency, and relevance amidst time, resource, and institutional constraints that limit the implementation of alternative programs, such as credit-bearing courses or multi-shot sessions. In this manner, one-shot programs may be modified and improved to cater to the specific needs and resources of an institution.

However, a significant limitation of this study pertains to the lack of a valid assessment tool to effectively evaluate the program itself and its learning outcomes. Another pertains to the faculty sample, which was smaller than the desired size. Regardless, while the resulting research is not in itself generalizable, it could serve as a guide for other institutions that are looking into revamping their library instruction programs. Further, the number of students participating in library sessions represents only a small fraction of the total student population at UP Diliman. This research recommends future studies to explore ways to increase awareness of TALASIK, such as possible integration into syllabi, other forms of collaboration with faculty, and reinforced digital promotion to reach a broader audience and effectively provide support to a larger population. This, in turn, would facilitate more comprehensive assessments and contribute to the improvement of the program. It is also recommended that the suggestions of faculty members be considered for the further development of TALASIK.

Finally, this study demonstrates that one-shot programs, though limited, can be strategically modified to remain relevant and responsive in resource-constrained academic environments. It encourages the exploration and examination of other modifications to one-shot sessions, especially for institutions facing practical constraints.

Author Declaration on the Use of AI Tools

During the drafting of this work, the authors utilized Turnitin Draft Coach and ChatGPT solely for grammar correction and stylistic editing. The intellectual content, data analysis, and conclusions remain entirely the work of the authors.

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