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User Activity-Based Design Criteria for Contemporary Libraries

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ABSTRACT

Public libraries have experienced significant transformation from information repositories into contemporary public spaces that accommodate diverse user activities. In addition to reading, libraries are increasingly used for studying, working, collaborative discussions, community events, and informal social interaction. However, previous studies have primarily focused on evaluating spatial quality, user satisfaction, or the transformation of library functions, while limited attention has been given to developing practical architectural design criteria based on actual user activities. Therefore, this study aims to formulate design criteria for contemporary libraries based on user activities through a case study of Jakarta Public Library at Taman Ismail Marzuki. This research employed a descriptive qualitative approach using a case study method. Data were collected through field observations, documentation, semi-structured interviews with library managers and users, and questionnaires distributed to fifty respondents. The collected data were analyzed by identifying the relationship between spatial functions and user activities, followed by a synthesis process to formulate design criteria. The findings indicate that the library has evolved beyond its traditional role as a reading facility into a multifunctional public space supporting learning, working, collaboration, recreation, and community engagement. Based on these findings, five design criteria were formulated, including communal reading areas, coworking spaces, discussion rooms, reading lounges, and flexible event spaces. These criteria provide practical guidance for developing contemporary public libraries that

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are more adaptive, flexible, user-oriented, and capable of responding to evolving patterns of community activities.

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1. INTRODUCTION

Public libraries are essential social infrastructure that supports education, literacy, information access, and public knowledge. Advances in information technology and the digitization of information have transformed libraries from collection-centered institutions into user-centered public spaces that facilitate learning, work, collaboration, discussion, and community activities. Modern libraries are therefore expected to provide flexible, inclusive, and adaptable environments that address users' educational, social, cultural, and recreational needs (Ann & Belotindos, 2024; Flores et al., 2021; Wakeling et al., 2026).

This transformation reflects the shift from libraries as information providers to the concept of the library as place, where spatial quality distinguishes physical libraries from digital information services. (Kawamoto & Koizumi, 2022) emphasize that contemporary libraries must offer comfortable, accessible, and flexible environments capable of accommodating diverse user activities. Likewise, (Wakeling et al., 2026) highlight that multifunctional spaces, spatial flexibility, visual openness, and integrated facilities have become key characteristics of modern public libraries. These developments demonstrate that spatial quality plays a fundamental role in maintaining the relevance of libraries as contemporary public spaces (Flores et al., 2021; Kawamoto & Koizumi, 2022; Wakeling et al., 2026).

The growing emphasis on spatial quality has encouraged the adoption of a user-centered library approach, which prioritizes user activities and experiences over collection storage. According to (Flores et al., 2021), library spaces should accommodate diverse activities—including reading, independent study, collaboration, discussions, and community events—within an integrated spatial system. Consequently, the success of contemporary libraries depends not only on the size of their collections but also on their ability to create comfortable, inclusive, and adaptable environments that respond to changing user needs.

The evolution of libraries has also expanded their role as public spaces that support lifelong learning and community development. Contemporary libraries now provide facilities such as communal reading areas, discussion rooms, coworking spaces, makerspaces, creative studios, and community rooms to encourage collaboration and social interaction. This transformation reflects a shift in design priorities from collection storage to spatial quality, functional flexibility, and user-oriented facilities.

These developments are closely related to the third place concept, which positions libraries as neutral spaces outside the home and workplace where people can learn, work, socialize, and participate in community activities. (Wyatt & Leorke, 2024) explain that contemporary libraries strengthen social connections through collaborative programs, cultural events, informal learning, and community engagement. Similarly, (Rahima et al., 2026) demonstrate that communal spaces integrated with supporting facilities, such as cafés and discussion rooms, enhance user participation and reinforce the library's role as an inclusive public space.

The transformation of libraries into community-oriented spaces has also strengthened the concept of libraries as social infrastructure. Rather than serving solely as providers of information, libraries facilitate social interaction by offering accessible and inclusive environments for diverse communities. (Carreón & García-Quismondo, 2026) argue that the degree of a library's publicness depends on spatial quality, accessibility, facility management, and its capacity to support community activities. Likewise, (Chepurna et al., 2025) emphasize that modern libraries integrate educational, cultural, and social functions, contributing to stronger community cohesion.

Changing learning patterns have further promoted the concept of flexible learning spaces. Contemporary libraries are designed to support both individual and collaborative learning through movable furniture, multifunctional spaces, digital technologies, and discussion areas. (Christoffersen et al., 2021) state that effective learning spaces should satisfy user needs related to comfort, flexibility, technology integration, and collaboration, while (Keisling & Fox Jr., 2021) argue that flexible environments improve user engagement and learning experiences.

In addition to flexibility, user experience has become a key indicator of successful library design. Factors such as spatial organization, natural lighting, furniture comfort, accessibility, wayfinding, and environmental quality significantly influence user satisfaction. (Reilly, 2023) explains that effective spatial organization improves orientation and overall user experience, whereas (Ann & Belotindos, 2024) and (Wakeling et al., 2026) demonstrate that flexible, open, and user-oriented environments increase engagement and strengthen the relevance of libraries in the digital era.

Previous studies have investigated contemporary libraries from the perspectives of spatial design, user experience, and social functions. (Wakeling et al., 2026) proposed the Library Space Design Framework, emphasizing spatial flexibility to support reading, learning, working, and collaborative activities. Similarly, (Utley & Barker-cummings, 2020) and (Christoffersen et al., 2021) found that flexible learning spaces and collaborative environments improve learning effectiveness, user comfort, and engagement.

Other studies have examined the relationship between spatial quality and user behavior. (Ann & Belotindos, 2024) demonstrated that spatial layout, lighting, furniture comfort, and collaborative facilities significantly influence user engagement. (Reilly, 2023) highlighted spatial organization, accessibility, wayfinding, and environmental quality as key determinants of user experience, while (Wakeling et al., 2026) emphasized flexible and adaptable spaces as essential characteristics of contemporary public libraries.

Recent research has also explored libraries as public spaces. (Wyatt & Leorke, 2024) described libraries as third places that promote social interaction, collaborative learning, and community engagement. Likewise, (Carreón & García-Quismondo, 2026) emphasized the concept of publicness, whereas (Chepurna et al., 2025) and (Rahima et al., 2026) demonstrated that integrating educational, cultural, and social functions strengthens community participation. (Kawamoto & Koizumi, 2022) further argued that modern libraries have shifted from collection-oriented institutions to library as place, prioritizing user experience, spatial flexibility, and environmental quality.

Although previous studies have examined spatial quality, user experience, and the social role of libraries, most focus on evaluating user perceptions or existing spatial conditions. Limited research has translated these findings into architectural design criteria that integrate spatial functions, user activities, and spatial requirements for contemporary public libraries. This gap highlights the need for design guidelines that respond directly to changing user activities and spatial demands.

This study addresses that gap by formulating user activity-based design criteria for contemporary libraries through a case study of the Jakarta Library at Taman Ismail Marzuki. Unlike previous studies, which primarily evaluated spatial quality or user experience, this research integrates field observations, interviews, questionnaires, and documentation to produce architectural design recommendations linking user activities with spatial requirements.

The findings are expected to contribute to the development of contemporary public library design by providing practical guidelines for architects, library managers, and

policymakers in creating public libraries that are flexible, inclusive, and responsive to evolving community needs.

2. RESEARCH METHODOLOGY

This study employs a qualitative descriptive approach utilizing a case study method. The qualitative descriptive approach was selected because the research aims to gain an in-depth understanding of the relationship between spatial functions and user activities within real-world conditions, while the case study method is used to obtain a comprehensive understanding of the phenomena occurring at the research site within a real-life context (Creswell & Poth, 2017). This approach enables the researcher to identify spatial characteristics, user behaviors, and the interplay between spatial functions and user activities, serving as a foundation for formulating design criteria for contemporary libraries.

The subject of this study is the Jakarta Library, located at Taman Ismail Marzuki in Central Jakarta. The site was selected using purposive sampling, based on the fact that the library has implemented a contemporary library concept by providing diverse spatial functions such as communal reading areas, discussion rooms, coworking spaces, community rooms, podcast studios, and public activity areas. This diversity of spatial functions makes the Jakarta Library a representative case for examining the relationship between spatial functions and user activities, thereby establishing a basis for developing design criteria for contemporary libraries.

Data collection was conducted through field observations, semi-structured interviews, documentation, and the distribution of questionnaires. Direct observations were carried out in the research area encompassing the 4th, 5th, and 6th floors to identify spatial characteristics, functions, facilities, circulation patterns, and user activities. The observation phase began with a Grand Tour Observation approach to gain a general overview of spatial conditions and user activity patterns prior to more focused observation. Subsequently, semi-structured interviews were conducted with library management and visitors to gather information regarding spatial functions, user needs, and perceptions of available facilities. Documentation involved photographing existing conditions, collecting building floor plans, and documenting library activities to serve as supporting data for the analysis.

Additionally, questionnaires were distributed to 50 respondents users of the Jakarta Library to assess their perceptions regarding the alignment of spatial functions with activities, the level of spatial comfort, and the need for facility improvements. The research instrument employed a five-point Likert scale to measure the degree of respondent agreement with each research indicator, as this scale is considered effective for measuring user perceptions and experiences regarding a research subject (Jebb et al., 2021).

Data obtained from observations, interviews, documentation, and questionnaires were analyzed using a descriptive-qualitative approach—involving data categorization, interpretation, and synthesis—to identify the relationships between spatial functions, user activities, and spatial requirements. Subsequently, the analysis results were used to formulate design criteria for contemporary libraries based on user activities, serving as the study's primary output.

Table 1. Data collection technique

Technique	Data source	Objective
Observation	Library area	Identifying spatial functions, facilities, and user activities.
Interview	Managers and visitors	Identifying spatial needs and user perceptions.

Technique	Data source	Objective
Documentation	Library photos, floor plans, and activities	Supports the analysis of existing conditions.
Questionnaire	50 respondents	Identifying user perceptions of spatial functions.

Source: Author's analysis, 2026

Data analysis was conducted using a descriptive-qualitative approach across four stages. The first stage involved identifying spatial functions based on observations and documentation. The second stage entailed identifying user activities through observations, interviews, and questionnaires. The third stage involved analyzing the alignment between spatial functions and user activities to assess the space's capacity to accommodate user needs. The final stage consisted of synthesizing all research findings into design criteria for a contemporary, user-activity-based library, which were then translated into spatial development proposals comprising communal reading areas, coworking spaces, discussion rooms, reading lounges, and flexible event spaces.

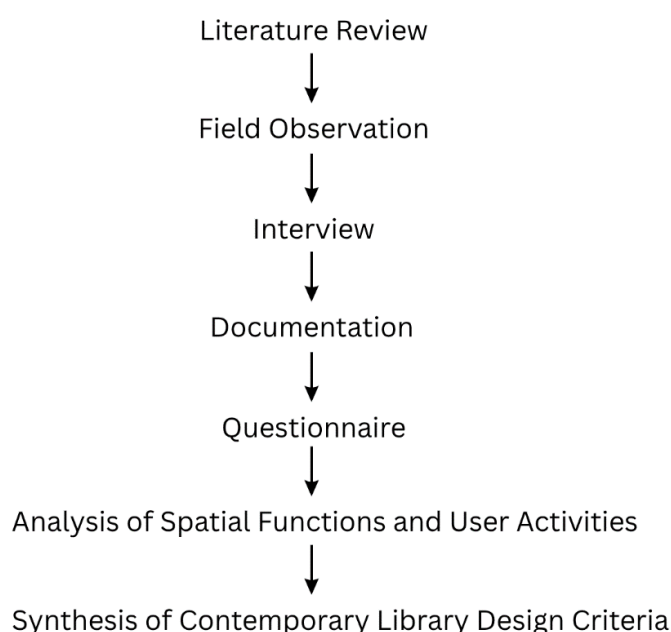


Figure 1. Research Stages

(Source: Author's analysis, 2017)

3. RESULTS AND DISCUSSION

3.1 General Overview of the Research Object

The Jakarta Library is a public library located within the Taman Ismail Marzuki (TIM) complex in Central Jakarta. It was reopened in 2022 as part of the TIM revitalization program, which aims to develop facilities for education, the arts, culture, and literacy. Through this revitalization, the Jakarta Library adopted a contemporary library concept, offering spaces that are more open, flexible, and oriented toward user needs.

The research focuses on the library's third, fourth, fifth, and sixth floors, which serve as the primary areas for user activity. Each floor features distinct spatial functions, including service and information areas, collection zones, reading areas, discussion rooms, podcast studios, inclusive spaces, and multipurpose rooms for various literacy and community activities. This spatial layout is designed to support a wide range of user activities, from reading, studying, working, and discussing to community engagement.

The library's diverse spatial characteristics make it a representative subject for analyzing the relationship between spatial function and user activity. The findings from this analysis serve as the basis for formulating design criteria for contemporary libraries centered on user activity.

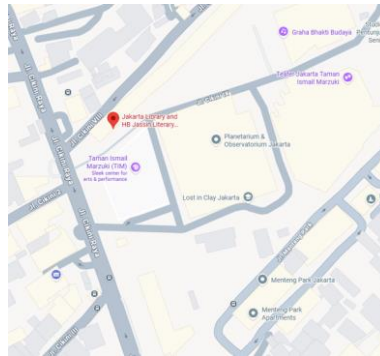


Figure 2. Location of the Jakarta Library within the Taman Ismail Marzuki complex
Source: Google Maps, processed by the author (2026)

The Jakarta Library occupies several floors of the main building at Taman Ismail Marzuki. This study focuses on the 3rd, 4th, 5th, and 6th floors, as these constitute the primary areas accommodating various user activities. Each floor features distinct spatial functions, creating a complementary spatial organization that supports the concept of a contemporary library.



Figure 3. Spatial Function Plan of the 3rd Floor of the Jakarta Library
(Source: Author's own processing, 2026)

The third floor serves as a reception area, acting as a transitional space for visitors before they enter the library's main areas. This floor houses a lobby, an information desk, a membership office, and various supporting facilities designed to assist with visitor orientation. These spaces facilitate easy access while establishing a clear circulation path leading to the library's main floors.



Figure 4. Functional Layout of the 4th Floor, Jakarta Library
(Source: Author's own processing, 2026)

The fourth floor is primarily dedicated to spaces that support literacy and learning activities. This level features a collection area, a communal reading space, study desks, and informal seating areas where visitors can read, study, and work independently. The open layout offers users the flexibility to choose a spot that best suits their specific needs.

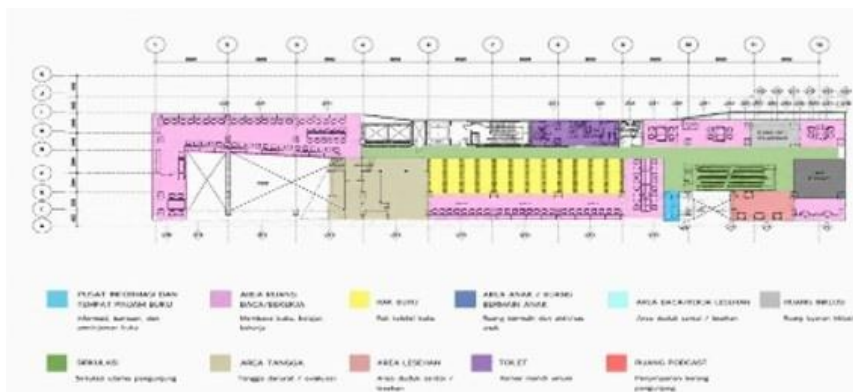


Figure 5. Spatial Function Plan of the 5th Floor, Jakarta Library
(Source: Author's own processing, 2026)

The fifth floor features a more collaborative atmosphere, offering a coworking space, podcast room, community room, and shared work areas. The spatial layout is designed to facilitate discussion, collaboration, and community development, thereby providing greater flexibility compared to other areas.



Figure 6. Spatial Function Plan of the 6th Floor, Jakarta Library
(Source: Author's own work, 2026)

The sixth floor is a multifunctional area used for various public activities, such as seminars, book discussions, workshops, forums, exhibitions, and community events. Additionally, this floor offers reading and seating areas available to visitors outside of scheduled events. The spatial flexibility of this floor demonstrates that the library serves not merely as an information hub but also as a public space capable of accommodating educational, social, and cultural activities.

Based on this spatial organization, it is evident that each floor possesses distinct characteristics and functions, yet they are integrated to support a wide range of user activities. This spatial zoning serves as the basis for analyzing the alignment between spatial functions and user activities—a topic addressed in the subsequent subsection. This analysis subsequently informs the formulation of design criteria for a contemporary, user-activity-based library.

3.2 Spatial Function Analysis

Based on field observations, the Jakarta Library employs a spatial organization structured around the characteristics of user activities. Each floor serves a distinct function yet remains integrated, supporting the contemporary library concept of functioning simultaneously as a space for literacy and a public space. This functional zoning allows users to select areas suited to their specific needs—whether for reading, studying, working, discussing, or participating in community activities. (Panigrahi & Sangal, 2023) explain that libraries in the digital era need to develop flexible spatial organizations by providing diverse activity zones capable of accommodating changing user behaviors and needs. Consequently, the analysis of spatial functions in this study focuses on the 3rd, 4th, 5th, and 6th floors, which serve as the primary areas for user activity.

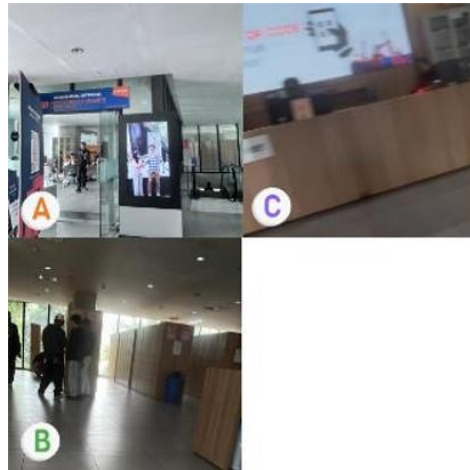


Figure 7. Existing spatial function of the 3rd floor
(Source: Author's documentation, 2026)

Based on the observations in Figure 7A, the third floor serves as the entrance area and the primary access point to the Jakarta Library. This area acts as the initial arrival point for visitors before they enter the library's main spaces. Furthermore, Figure 7B shows the locker area provided for visitor storage, while Figure 7C displays the information desk, QR access point, and circulation zone; this area functions as a service hub handling membership registration, information inquiries, and the borrowing and returning of collection items. The spatial organization of this floor establishes a clear circulation flow, facilitating visitor orientation before they proceed to the next level. Thus, the third floor acts as a transitional space that supports efficient service delivery and the distribution of visitors toward the library's main areas.



Figure 8. Existing spatial function on the 4th floor
(Source: Author's documentation, 2026)

Figure 8 illustrates the spaces on the fourth floor, which include an information and book-lending center, a book-stack area, reading and work zones, a floor-seating reading area, a children's play area, a children's reading area, a QR scanning zone, a locker area, and a dining area. The diversity of these functions indicates that the fourth floor is designed as a hub for literacy activities, featuring facilities capable of serving various user groups.

Observations reveal that the reading and work zones are the areas most frequently utilized by visitors for reading, studying, completing assignments, and working on computers. The inclusion of a play area and a children's reading area expands the library's function into a space for family literacy, while the dining and locker areas enhance user comfort during their time at the library. (Peng et al., 2022) explain that providing diverse, comfortable, and flexible study spaces can improve the user learning experience and encourage more optimal space utilization. However, the increase in visitor numbers at certain times places constraints on reading area capacity, highlighting the need for more flexible study spaces.

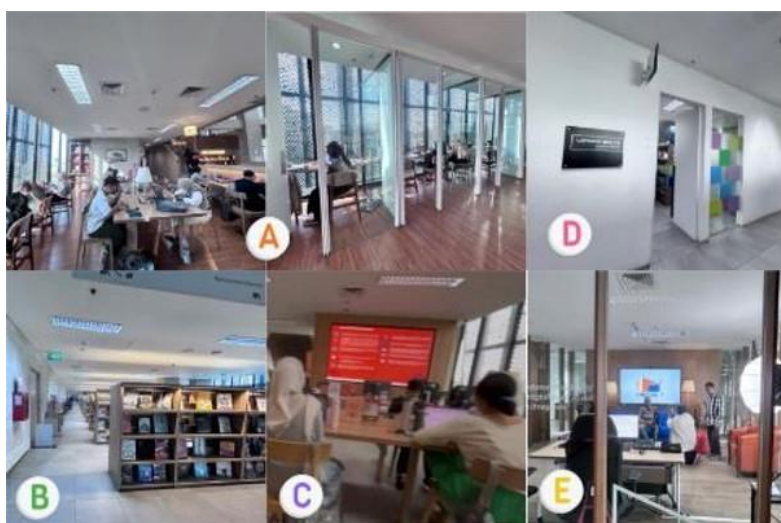


Figure 9. Existing spatial function of the 5th floor
(Source: Author's documentation, 2026)

Figure 9 illustrates the spaces on the fifth floor, comprising reading and work areas, a bookshelf area, an information and book-lending center, an inclusion room, and a podcast room. The functions of the spaces on this floor demonstrate a development of facilities that support not only reading activities but also collaborative and inclusive activities.

Observations indicate that reading and workspaces remain areas of high utilization, while podcast and inclusion rooms cater to users with more specific activity needs. The provision of these spaces demonstrates that the library has evolved into an environment that fosters creativity, collaboration, and accessibility for all users. These findings suggest that the library no longer functions merely as a place for reading but also as a space that supports collaborative activities and learning. This aligns with (Cox, 2023), who explains that the evolution of modern libraries is driven by shifts in pedagogy, the growing demand for collaborative learning spaces, and the importance of providing flexible areas to accommodate diverse user activities.

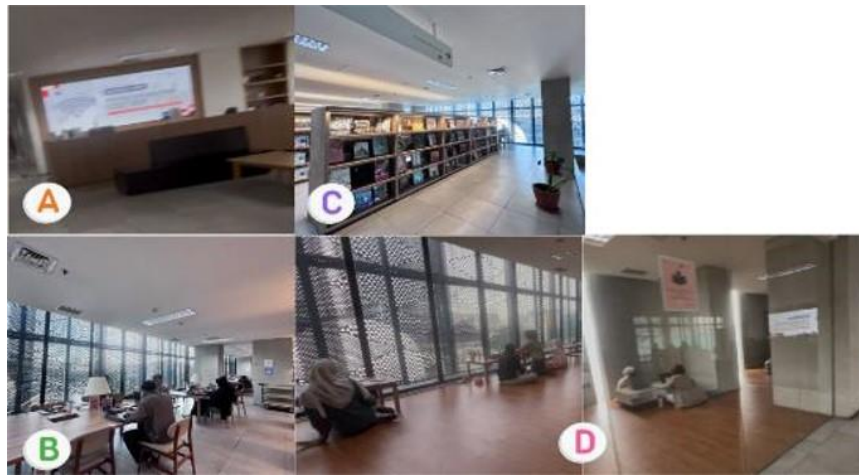


Figure 10. Existing spatial function of the 6th floor
(Source: Author's documentation, 2026)

Figure 10 illustrates the spaces on the 6th floor, comprising an information and book-lending center, reading and work areas, a book-stack area, and a floor-seating reading and work area. The spatial organization on this floor is simpler than on other floors, yet it offers a high degree of flexibility to support diverse user activities.

Observations indicate that the reading areas are situated near building openings, thereby utilizing natural light and providing visual comfort for users. The floor-seating area is also frequently used for informal study or work. The flexibility of space usage on the 6th floor allows the same area to accommodate various activities, such as reading, discussions, and community events. These conditions demonstrate that the spatial organization supports a contemporary library concept that adapts to the changing needs of user activities.

Table 2. Analysis Results of the Jakarta Library's Spatial Functions

Floor	Spatial Function	Activity	Findings
4	Literacy	Reading, learning, working	The reading area experiences the highest level of usage, yet its capacity remains limited at certain times.
5	Collaborative	Discussions, podcasts, inclusive learning	It supports collaborative activities, but spaces for discussion and working together remain limited.
6	Multifunctional	Reading, studying, working, discussing	The space offers high flexibility and is capable of accommodating a wide range of user activities.

Source: Author's analysis, 2026

An analysis of spatial functions reveals that the Jakarta Library embodies the characteristics of a contemporary library by providing spaces that serve not only as reading areas but also support learning, work, collaboration, and social interaction. However, certain spatial needs remain not fully accommodated, particularly regarding the capacity of coworking and discussion areas. These findings indicate that the spatial layout has adapted to changing user needs by offering spaces with diverse and flexible functions. Nevertheless, there is still a need to increase the capacity of coworking and discussion areas to accommodate surges in user numbers during peak periods.

3.3 User Activity Analysis

User activities are a key factor in identifying spatial requirements for contemporary libraries. Findings from field observations, interviews, and questionnaires indicate that the

Jakarta Library is no longer used solely for reading but also serves as a space for studying, working, discussing, collaborating, and hosting various public events. This diversity of activities reflects a shift in library usage patterns, necessitating the provision of spaces with distinct characteristics tailored to user needs. (Kim & Yang, 2022) explain that modern library users do not utilize libraries merely for individual study but also engage in collaborative work, socializing, and community activities. Consequently, library spaces must provide physical and functional environments capable of supporting these diverse activity patterns.

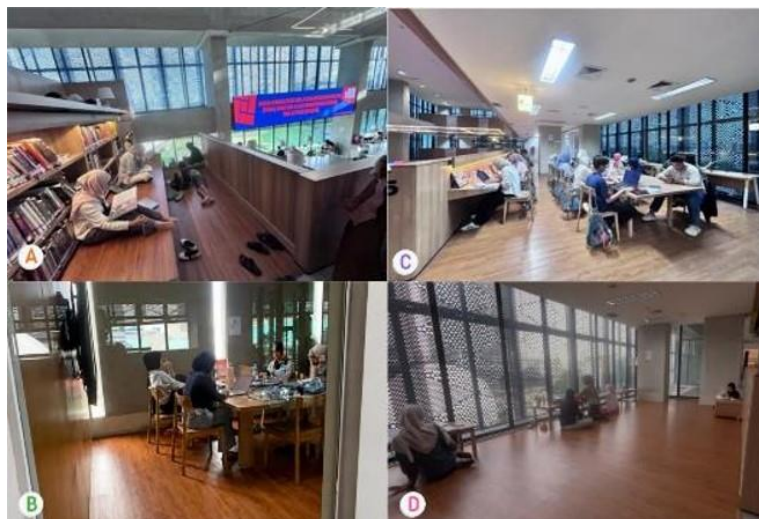


Figure 11. User activities in the literacy and learning area
(Source: Author's documentation, 2026)

Figure 9A illustrates how some users utilize the floor-seating reading area for individual reading in a more relaxed atmosphere. Figure 9B shows group discussions taking place in enclosed discussion rooms, while Figure 9C depicts the communal reading area being used for collaborative study and computer-based work. In Figure 9D, the floor-seating reading area along the building's façade serves as an individual study space that takes advantage of natural lighting.

Observational findings indicate that while reading remains the library's primary function, its role has expanded to encompass study and work activities. Users tend to prefer spaces that offer visual comfort, access to power outlets and the internet, and a quiet atmosphere. This variety of spatial options demonstrates that users require a flexible learning environment suited to the specific characteristics of their activities.



Figure 12. Community Activities and Public Events at the Jakarta Library
(Source: Author's documentation, 2026)

As shown in Figures 10A–C, the Jakarta Library regularly hosts various public events—such as seminars, discussions, book reviews, and literacy forums—that involve the general public. Meanwhile, Figure 10D depicts group study activities; Figure 10E shows art performances held as part of community programs; Figure 10F illustrates interactive literacy activities; and Figure 10G shows children reading in the dedicated children's area.

The provision of spaces capable of accommodating such diverse activities is a key characteristic of contemporary, user-centered libraries. This finding aligns with (Agyekum, 2022), who states that public libraries serve as venues for lifelong learning and community development by hosting various literacy, educational, and social programs that engage the public.

These findings indicate that user needs regarding space are becoming increasingly diverse; consequently, library design must prioritize flexibility, comfort, and the capacity to support multiple types of activities simultaneously. This is further supported by (Liu & Su, 2022), who explain that public library users regard spatial flexibility, comfort, environmental quality, and the ability of the space to support community activities as primary factors influencing the quality of their library experience.

Table 3. User Activity Analysis Results

User Activity	Space Used	Implications for Design
Reading	Communal reading area, floor-seating area	Requires a quiet space with lighting and comfortable furniture.
Studying	Reading area, discussion room	Requires a workspace, access to electricity, and an adequate internet connection.
Working	Coworking area and reading area	Requires a flexible and ergonomic workspace.
Discussion	Discussion room	Requires a semi-private space with adequate capacity.
Community activities	Multifunctional area	Requires space that can be easily changed according to the type of activity.
Children's literacy	Children's area	Requires a space that is safe, educational, and suited to the characteristics of child users.

Source: Author's analysis, 2026

3.4 Analysis of Spatial Function Suitability for User Activities

An analysis of spatial function suitability was conducted to determine the extent to which the spaces available at the Jakarta Library accommodate user activities. This analysis is based on field observations, interviews with management and visitors, and questionnaire results detailing the characteristics of user activities in each area of the library.

The analysis indicates that most spatial functions align well with the activities taking place. The communal reading area on the fourth floor exhibits the highest level of utilization, as it accommodates reading, studying, and working—whether individually or in small groups. The open spatial layout, complemented by natural lighting and work tables and chairs, provides a high level of comfort for users.

On the fifth floor, the provision of discussion rooms, a podcast studio, and an inclusive space demonstrates the library's evolving role as a collaborative hub. These spaces support a range of activities, from group discussions, community events, and digital content creation to collaborative learning. This shift reflects how spatial functions have adapted to changing user needs, moving beyond a focus solely on reading.

Meanwhile, the sixth floor offers greater spatial flexibility, accommodating diverse activities such as reading, seminars, book discussions, workshops, and community gatherings.

This versatility demonstrates that a single space can support multiple types of activities without compromising its primary function as a literacy-focused environment.

However, observations reveal some mismatches between spatial functions and actual user activities. The rise in computer-based work has led to parts of the reading area being used as informal workspaces. Furthermore, the capacity of existing discussion rooms falls short of meeting high user demand, particularly on weekends or during community events. Consequently, discussion activities often spill over into the reading area, potentially diminishing the comfort of other users.

These findings are corroborated by questionnaire results, which indicate that the majority of respondents desire the addition of coworking spaces, larger-capacity discussion rooms, and more flexible reading areas. Additionally, respondents identified ergonomic furniture, widespread access to power outlets, and adaptable spatial layouts as key factors in enhancing the library experience.

Table 4. Analysis of Spatial Function Suitability for User Activities

Spatial Function	User Activity	Existing Conditions	Hasil Analisis
Communal reading area	Reading, learning, working	Intensively utilized	It is suitable, but the room capacity needs to be increased.
Discussion room workspace	Group discussion	Limited capacity	It does not yet fully meet user needs.
	Working on a laptop	Not yet specifically available	There is a need to develop co-working spaces.
Multifunctional area	Seminars, workshops, communities	Flexible	It has supported various public activities.
Children's area	Children's literacy	Actively used	Supports family literacy activities.
Service area	Information and circulation	Works fine	Supports visitor orientation and services.

Source: Author's analysis, 2026

Based on the analysis, it can be concluded that the Jakarta Library has successfully implemented the contemporary library concept by providing spaces that support a variety of user activities. However, changing patterns of library usage indicate a need for more flexible spaces, particularly for work, collaboration, and discussion. Therefore, future library design development should focus on creating spaces that adapt to evolving user needs, ensuring optimal utilization of the available areas.

3.5 Formulation of Design Criteria for Contemporary Libraries Based on User Activities

An analysis of spatial functions and user activities indicates that the Jakarta Library accommodates a range of literacy, learning, collaborative, and public activities. However, shifting patterns of space utilization have created a need for spaces that are more flexible and comfortable, and capable of adapting to the diverse characteristics of user activities. Based on observations, interviews, and questionnaires, several design criteria have been formulated to guide the development of a contemporary, user-activity-based library.

A. Co-working Area

Computer-based work was one of the most frequently observed activities. Most users utilized the reading area for work because there was no dedicated co-working space available. This situation resulted in an overlap of functions between the reading and working areas, potentially compromising user comfort.

To address this, a co-working area was designed to support both individual and small-group work. The design prioritizes modular desks with low partitions, ensuring privacy while maintaining visual interaction among users. Each desk is equipped with power

outlets, internet access, and an ergonomic chair to facilitate extended work sessions. Positioning the co-working area near building openings allows for the use of natural light, thereby enhancing visual comfort and energy efficiency.

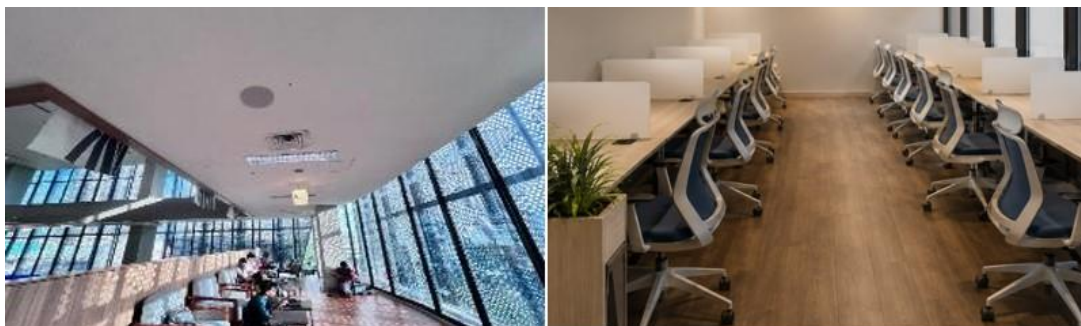


Figure 13. Existing Condition (Left) and Proposed Coworking Area Design (Right)
(Source: Author's documentation and visualization, 2026)

B. Reading Area

The reading area is the most heavily used space within the Jakarta Library. Observations indicate that users prefer spaces featuring natural light, a quiet atmosphere, and comfortable furniture. However, the rise in study and work activities has led to certain reading areas serving multiple simultaneous functions, thereby reducing the space available for reading.

The proposed design for the reading area focuses on enhancing comfort by providing a variety of seating options, such as individual desks, communal tables, and floor-seating areas. Furthermore, the furniture layout is designed to maintain good circulation and ensure adequate spacing between users, thereby improving comfort while reading. Wood materials, neutral colors, and natural lighting are retained as key elements to create a warm and conducive atmosphere.

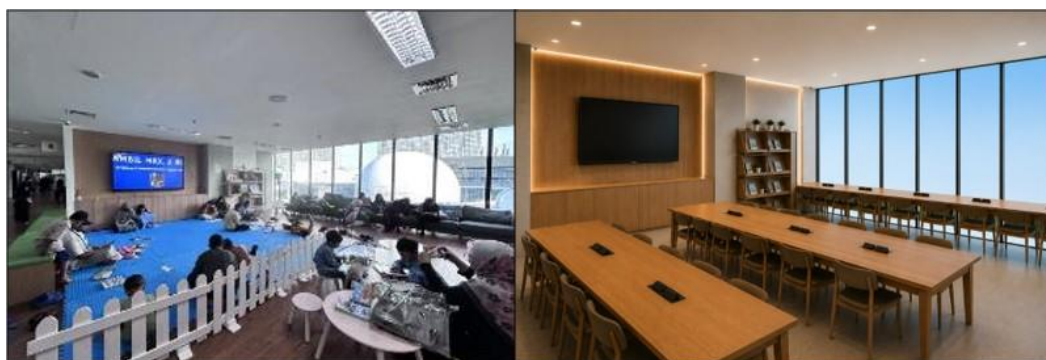


Figure 14. Existing condition (left) and proposed reading area design (right)
(Source: Author's documentation and visualization, 2026)

C. Reading Lounge Area

Observations indicate that the Jakarta Library currently lacks a casual area specifically designed to support informal reading and social interaction. While some visitors use open spaces to rest, wait, or engage in casual discussions, these areas lack the appropriate furniture and atmosphere to suit such activities. This highlights the need for a more comfortable and flexible space to complement the formal reading areas.

To address this need, the development of a reading lounge is proposed—a relaxed space designed to support reading, informal discussion, and resting. The design employs a warm and cozy concept, featuring bean bags, low tables, bookshelves, warm lighting, and wood elements to create a relaxing ambiance. The furniture is arranged flexibly, allowing

the space to be used by individuals or small groups without compromising the comfort of other users.

The reading lounge is intended to serve as a transitional space between the formal reading area and the public activity zone, thereby accommodating users who prefer a more relaxed reading environment. Beyond enhancing comfort, this space has the potential to foster social interaction and reinforce the library's role as an inclusive, user-oriented public space.



Figure 15. Existing condition (left) and proposed design for the reading lounge area (right)
(Source: Author's documentation and visualization, 2026)

Table 5. Design Criteria for Contemporary Libraries Based on User Activities

Design Criteria	Issues	Proposed Design
Coworking Area	The reading area is used for working	Provision of a coworking space featuring modular desks, ergonomic chairs, power outlets, and internet access.
Reading Area	Reading room capacity and variety are limited	Development of a reading area featuring natural lighting, ergonomic furniture, and a variety of seating options.
Reading Lounge Area	A casual reading area is not yet available	Provision of a relaxation area featuring bean bags, low tables, bookshelves, and a more comfortable atmosphere for casual reading.

Source: Author's analysis, 2026

4. CONCLUSION

This study aims to formulate user activity-based design criteria for contemporary libraries through a case study of the Jakarta Library at Taman Ismail Marzuki. The findings indicate that the Jakarta Library has evolved from an information provider into a public space that accommodates diverse activities, including reading, studying, working, discussion, and community engagement. The spatial organization across different floors reflects the characteristics of user activities and supports a more diverse user experience.

Field observations, interviews, and questionnaires reveal that library use is no longer dominated by reading but also includes working with laptops, group discussions, collaboration, and participation in literacy and community activities. These findings suggest that contemporary libraries require flexible, comfortable, and adaptable spaces to respond to changing user needs.

The study identifies three main design criteria for contemporary libraries: (1) coworking areas, (2) enhanced reading areas, and (3) reading lounges. The findings demonstrate that aligning spatial functions with user activities is essential for improving the effectiveness of library spaces. Therefore, future library development should adopt a user activity-based

design approach by providing flexible, adaptable, and user-centered spaces that support literacy, learning, collaboration, and social interaction.

This study is limited to a single case study, the Jakarta Library at Taman Ismail Marzuki. Future research should examine a wider range of public libraries with different characteristics to validate and refine the proposed design criteria into more comprehensive design guidelines for contemporary libraries.

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