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Interactive Concept in the Interior Design of the Rasulullah SAW Al-Jabbar Gallery Bandung

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ABSTRACTS

Facilities like galleries or museums generally only offer passive experiences to visitors through images, texts, and exhibition objects. However, with the development of technology and changes in educational paradigms, the importance of interactive interior design concepts is increasingly growing. This research aims to depict the crucial role of interactive concepts in gallery interior design in enhancing visitor appeal. This study reviews the positive impacts of implementing interactive concepts in interior design through a descriptive-exploratory approach. Visitors' attraction to interactive concepts in interior design, particularly at the Rasulullah SAW Al-Jabbar Gallery facility in Bandung, is influenced by unique experiences, technological integration, and emotional connections with the space. These concepts create visual impressions within the interior and invite active participation and exploration in spatial experiences. By applying interactive principles, interior design can generate stronger appeal for visitors and result in impactful interactions. Therefore, an interior design for a gallery that integrates interactive concepts has the potential to create visually appealing spaces, arouse curiosity, inspire exploration, and encourage active engagement with visitors.

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1. INTRODUCTION

Art galleries and artworks are inherently connected, as many art pieces are generally exhibited within galleries. A gallery is a facility or area intended for the display of art. In addition to conventional art forms like paintings, sculptures, decorative arts, furniture, textiles, costumes, and photography, galleries can function as venues for diverse artistic expressions. The primary function of an art gallery is to exhibit artworks, although it may also serve as a venue for activities like art performances or poetry readings. Art galleries are also referred to as fine arts museums (Fitrina & Adriyana, 2017).

Typically, gallery-like environments provide visitors with a passive experience by conveying information through images, texts, and exhibited objects. Nonetheless, due to technological advancements and changes in educational paradigms, the notion of interactive interior design has gained considerable importance (Cantoni et al., 2004). The integration of interactive concepts in gallery interior design has gained considerable attention within this dynamic landscape. The incorporation of multimedia technology, motion sensors, and other interactive elements is an increasingly vital strategy for creating spaces that are not only informative but also provide a comprehensive sensory and emotional experience for visitors. As a result, gallery interiors are no longer merely spaces for conveying information but have evolved into engaging and interactive learning environments.

Numerous studies have previously examined the concept of interactive design in museums. A paper investigates how storytelling and its medium influence interactive design in museum settings. The research's conclusions suggest that the museum's story is crucial in providing visitors with an experience they will not soon forget (Chronis, A., 2012). Visitors gain a clearer, more methodical understanding of history due to the narrative. Two-dimensional images, dioramas, and digital media are examples of media that can convey the information intended to be communicated and support the storytelling concept. To investigate how interactive technology (IT) can improve learning and engagement in museum settings, conducted a study. Visitors are more likely to participate fully in an enhanced learning experience when they find technology user-friendly and interactive (kuflik et al., 2011). With a focus on emotional engagement and user-friendly technology design, this study highlights the critical role that interactive technology plays in improving museum learning experiences. Museums have changed from static exhibits to interactive and dynamic experiences. The need to actively engage tourists and attend to their changing cultural and spiritual needs drives this change. The idea behind museum design has changed from "object-oriented" to "people-oriented." This implies that visitors' needs and experiences are now the focus of museums explore a novel method for creating museum experiences that emphasizes the use of contemporary

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technology to improve narratives in contexts involving cultural heritage (Dal Falco and Vassos, 2017). To produce captivating visitor experiences, they strongly emphasize combining artificial intelligence, interactive storytelling, and interaction design. According to them, digital tools can help visitors and museum artifacts have more interactive conversations, going beyond simple observation to more immersive experiences (Carrozzino, M., & Bergamasco, M., 2010). In their journal article, explore how different technologies, especially virtual reality (VR) and augmented reality (AR), can improve the experience of museum visitors. To enhance visitors' overall experience, the study highlights how crucial it is to comprehend how they interact with these technologies. According to visitors, AR and VR technologies improved their comprehension and enjoyment of the museum experience. They valued the immersive elements that enhanced the visit's interest and memorability, such as seeing monuments in their natural settings and colors. Museum visitors are often treated more like passive consumers than active participants. The authors advocate for a shift to more participatory experiences that allow visitors to share their thoughts and expertise (Voase, R, 2002). Interactive museums actively engage their visitors rather than treating them as passive consumers. This suggests that, rather than merely viewing exhibits, visitors are encouraged to engage with and experience the content in a participatory manner. In their research discuss the implementation of smart replicas as an information medium in museums. The focus of this study is to observe how these replicas can enhance visitor interaction and engagement (Elhalem et al., 2019). The findings indicate that these replicas can significantly improve the visitor experience by presenting interactive narrative content. Such media provide visitors with the opportunity to engage with the information presented in the museum, such as history and culture, in a more meaningful and memorable way.

This study aims to elucidate the critical role of interactive concepts in gallery desi gn in enhancing visitor engagement. Through a literature review approach, this research will examine the positive impacts of implementing interactive concepts in interior design.

2. METHOD

This study utilizes a descriptive-analytic method combined with a literature review approach. The descriptive method systematically illustrates the function of interactive concepts in the design of the Al-Jabbar Prophet Muhammad SAW Gallery to enhance visitor attraction. The exploratory approach examines and analyses multiple facets and effects associated with the implementation of interactive concepts in interior design. Data collection is performed via a literature review of diverse pertinent sources. The acquired information is examined to discern trends, concepts, technologies, and principles pertinent to the application of interactive elements in gallery interior design. The research process involves identifying interactive concepts, analysing the beneficial effects noted in the Gallery's interior design, and elucidating how interactivity can

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augment the visitor experience and improve learning efficacy.

3. RESULTS AND DISCUSSION

According to the Kamus Besar Bahasa Indonesia, "interactive" refers to the active involvement or reciprocal relationship between the user and the space (Saputra et al., 2023). This results in reactions from both, which emerge as a consequence of actions performed by the user or the space itself. For instance, the space may respond with a change in shape when touched by the user, or the user may react with surprise when there is movement within the space. This concept creates a dialogue or relationship between the user and their environment, where both influence each other and experience mutual reactions. The application of interactive concepts in interior design holds significant potential for implementation in exhibition spaces and lobbies, particularly in facilities such as museums or galleries. This application aims to provide entertainment and capture visitors' attention by actively engaging them in the spatial experience. There are six principles or interactive concepts in interior design, as cited in (Wijaya, 2022), which include:

1. Kinetic Frontier

The term "kinetic" refers to anything related to motion (Elkhayat, Y., 2014). The motion in question can be perceived through the senses and has the potential to create interactions between individuals within space and the space itself. The motion that occurs can be driven by natural forces or human activity. Natural motion may arise from elements of nature, while artificial motion can occur through automated machinery or human intervention.

2. Unfolding Transience

There are various ways to achieve beauty in the field of interior design. One of them is by creating unique and distinct forms through folding techniques. This folding principal shares similarities with the fundamental concept in origami art. A design approach utilizing this technique can enhance an interior's beauty while optimizing its functionality.

3. Spatial Dynamics

Spatial Dynamics refers to the dynamic arrangement of spatial boundaries. Three methods include:

a. Flexible Skin: One of the methods employed involves arranging building cladding elements or other interior components, such as walls and ceilings. The building envelope is the first aspect perceived by the sense of sight. Like human skin, these elements surround their environment, interacting with external and internal variables (Kumar, G., & Raheja, G., 2016).

b. Redefining boundary: Space dividers, in general, are often perceived as tangible and solid structures. However, there is a method that makes these dividers less visible. Within a space, the divider can be defined by the distance at which sound can be heard or by visible objects, and it may also be physically accessible. In an interactive context, the physical walls that originally define a space can be transformed into something less perceptible, such as walls that emit sound and light, thus expanding the boundaries of the space. This effect can also encourage users to approach it, drawing them closer and enhancing their engagement with the environment.

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c. Mixed Reality Surface: Technological advancements continue to evolve, creating a new reality. One of the technologies utilized is the application of Augmented Reality (AR) (Flavián et al., 2019). This technology enables creating immersive environments where "space is no longer confined to a specific location or dimension."

d. Building Perceptions: With the advancement of sensing technology, interior designers now could connect more personally, convincingly, and meaningfully with users. This is achieved through direct perception, allowing a deeper connection with users. The human sensory system can detect touch, pain, position, temperature, motion, balance, aroma, taste, sound, and vision. Interior designers play a crucial role in integrating all these sensory stimuli to shape perception, ultimately creating an environment where these stimuli are harmoniously arranged to leave a lasting impression.

e. Nano Possibilities: "Nano Possibilities" refers to the potential associated with nanometres-scale technology. It encompasses the possibilities for designing, controlling, and manipulating materials at the nanometer scale, where the measurement unit is one billionth of a meter. Nanometre technology profoundly impacts various fields, including material science, medicine, electronics, energy, etc. It enables the creation of new materials with unique properties, opening a world of innovative applications.

f. Integrating Natures: The natural environment or atmosphere has a positive impact on its users. Research has shown that patients with a view of trees tend to recover more quickly and experience less pain than those who only see a blank wall. Patients are more likely to recover faster when these benefits are integrated into environmental designs, such as healthcare settings. In this way, nature can have an interactive effect within space.

The following is a study of interactive concepts in a museum-like facility, specifically the Rasulullah SAW Gallery at Al-Jabbar Mosque:

1. Kinetic Frontier

This concept is realized through the presentation of interactive wall screen exhibitions in several rooms of the Rasulullah SAW Gallery at Al-Jabbar Mosque Bandung. The use of technology such as wall screens allows visitors to experience movement and unique interactions within the historical and cultural context associated with the Rasulullah SAW Gallery. Referring to Figure 1, the application of Kinetic Frontiers in the Rasulullah SAW Gallery at Al-Jabbar Mosque is depicted.

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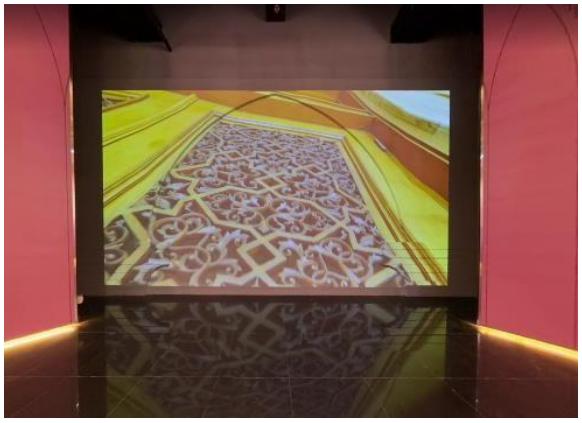

Fig. 1. Application of the Kinetics Concept

Source: https://masjidraya-aljabbar.jabarprov.go.id/virtual

2. This concept involves folding techniques in design, which can significantly influence both the aesthetics and functionality of a building, including the Rasulullah SAW Al-Jabbar Gallery in Bandung. The principle focuses on creating unique and captivating forms through folding, akin to the art of origami. The application of this folding concept can produce visually striking effects (Jamil et al., 2023). In Figure 2, which showcases the folding concept at the Rasulullah SAW

Al-Jabbar Gallery, the folds are incorporated into the building's interior elements. The geometric shapes formed by these folds offer a distinctive and appealing visual experience. The aesthetics of these folds contribute a unique character to the gallery, setting it apart from other buildings and creating a strong visual attraction.

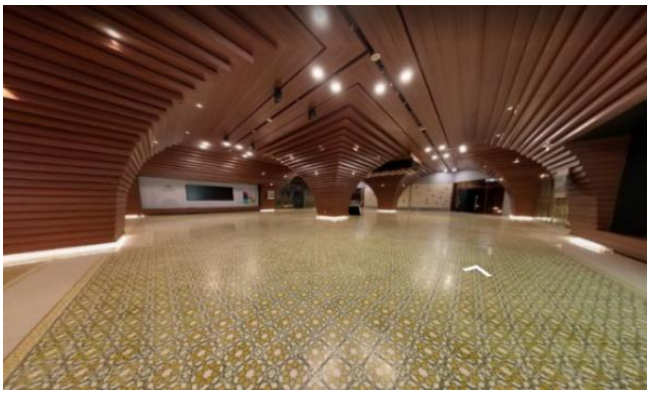

Fig. 2. Application of the Unfolding Transience Concept Source: https://masjidraya-aljabbar.jabarprov.go.id/virtual

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3. In Figure 3 and 4, the concept of Spatial Dynamics, with the application of mixed reality surfaces, can offer an amazing and interactive experience for visitors to the Rasulullah SAW Gallery Al-Jabbar in Bandung. Mixed reality surfaces blend the physical reality with augmented reality elements, creating an immersive and multidimensional environment. The implementation of mixed reality surfaces at the Rasulullah SAW Gallery provides a captivating effect for visitors. One example is when visitors interact with the physical reality or a miniature room, which has the ability to display augmented reality content. The visual effects generated by the mixed reality surface provide an extraordinary experience, making visitors feel as though they are part of the historical events being presented, and giving them the sensation of being physically present in that moment. This visual experience can also bring to life significant historical moments that might otherwise be difficult to grasp through static information alone.

Fig. 3. The Concept of Spatial Dynamics with the Application of Mixed Reality Surface

Source:https://www.pojoksatu.id/nasional/1081762843/cara-kunjungi-galeri-rasulullah-di-masjid-aljabbar-cocok-untuk-liburan-sekolah

Fig. 4. The Concept of Spatial Dynamics with the Application of Mixed Reality Surface

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4. The application of the Building Perceptions concept at the Rasulullah SAW Gallery Al-Jabbar is carried out through a visual approach that depicts the ambiance of the Hira Cave, aiming to influence visitors' perception and create profound experience. Interior design and visual elements are strategically selected to stimulate the visitors' senses, foster emotional connections, and evoke deep perceptions. One example of this concept's application is the use of detailed illustrations representing the atmosphere of the Hira Cave, a place of historical and religious significance in Islam. These illustrations are placed on walls or dedicated panels within the gallery, allowing visitors to feel as if they are inside the Hira Cave through the accurately depicted atmosphere, lighting, and environmental details. The effect of applying Building Perceptions, as shown in Figure 4, can create a more profound and personal experience for visitors. They will emotionally and spiritually connect with the Hira Cave's ambiance, as this visual experience enables them to imagine themselves in that location. This sense of engagement can enhance visitors' appreciation of the historical and religious values associated with the Rasulullah SAW Gallery Al-Jabbar.

Fig. 4. Building Perceptions Concept at Hira Cave Model

5. Integrating nature

Integrating Nature is manifested through the creation of an exhibition space that incorporates elements of nature. In Figure 5, it appears as a miniature garden with plants that hold significant historical value in Islam, which are then integrated into the space. This allows visitors to experience and observe the natural elements present. This multi-sensory experience enhances visitors' interaction with their environment, creating a deeper and more memorable experience.

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Fig. 5. Concept of Integrating Nature
Source: https://masjidraya-aljabbar.jabarprov.go.id/virtual

Overall, visitors' interest in interactive concepts within interior design, particularly in gallery facilities, is influenced by unique experiences, technology integration, and the potential to foster an emotional connection with the space. These concepts not only offer a visual impression of the interior but also encourage active participation and exploration within the spatial experience. By effectively utilizing these principles, interior design can create greater appeal for visitors and result in meaningful interactions.

Table 1. The Positive Impact of the Interactive Concept in Gallery

No.	Interactive Concept	Positive Impact
1.	Kinetic Frontier	Presenting A Movement That Can Be Perceived By Visitors, Thereby Enhancing Interaction Within The Room And Its Surroundings.
2.	Unfolding Trancience	Create Unique Forms, Enhance Beauty, And Optimize Functionality.
3.	Spatial Dynamics	• Flexible Skins: Optimizing Building Cladding Elements For Visual Interaction. • Redefining Boundary: Transforming Room Partitions To Be Less Visible, Thereby Creating A Sense Of Expansive Space. • Mixed Reality Surfaces: Integrating Physical Reality And

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No.	Interactive Concept	Positive Impact
		Augmented Reality To Create Immersive Environments
4.	Building Perception	Utilizing Human Senses To Create Profound Perceptions, Thereby Generating Impactful Interactions
5.	Nano Possibilities	Capable Of Responding To Touch Or Environmental Changes, Thereby Providing A Sense Of Engagement To Visitors.
6.	Integrating Nature	Enhances Visitor Experiences By Creating A Calming And Aesthetically Pleasing Atmosphere, Reducing Stress, And Fostering Better Learning And Engagement.

The use of interactive learning can result in practical and effective teaching methods. Interactive-based learning methods can be applied as tools in the learning process, significantly enhancing material comprehension and creating learning tools that integrate interaction. Interactive media has been proven effective in maximizing the learning experience, where users can directly participate. Interactive media in education not only serves as a support tool but has also proven to be practical in its implementation. Its use in learning environments has yielded positive results in facilitating the understanding of complex concepts, encouraging active engagement, and enhancing learning motivation.

The application of interactive concepts in facilities such as galleries or museums can have a positive impact on visitors (Kung. C., 2024) Visitors are able to experience direct interaction, which facilitates their access to collections and various activities related to those collections. Furthermore, spaces related to simulations within these facilities allow visitors to enhance their knowledge of various aspects. Therefore, it can be concluded that the use of interactive media is highly relevant to be implemented in museums or gallery facilities. This approach would make the facility both an educational and entertaining place for visitors, preventing boredom and instead increasing their interest in returning to the facility. The following analysis illustrates the aspects that can influence the appeal of visitors to each concept at the Rasulullah SAW Gallery Al-Jabbar Mosque Bandung:

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1. **Kinetic Frontiers**: This concept offers an experience of movement that can be perceived by visitors. The attraction to this movement arises due to the inherent human tendency to be drawn to things that are in motion and can be interacted with. The transformation of form and the room's response to the actions of visitors create surprise and curiosity, thereby encouraging further interaction.
2. **Unfolding Transience**: The concept of folds or unique forms within a space creates visual interest and curiosity among visitors. These forms uniquely explore space in unconventional ways. The attraction to unique forms can encourage visitors to gain an experience or a deeper understanding of how these forms can be applied to both the function and aesthetics of the space.
3. **Spatial Dynamics**: This concept offers variations in the arrangement and boundaries of a space. The visual and physical flexibility provided by this concept generates interest through unexpected shifts in visitors' perceptions of the space. The use of technologies such as mixed reality can enhance interactive and immersive experiences.
4. **Building Perceptions**: This concept utilizes human senses to create profound perceptions. Interest arises from enhanced sensory experiences, such as touch, sound, smell, and visuals, which are well-integrated. Visitors feel personally engaged in the space, fostering more meaningful interactions while stimulating imagination, perception, and emotional connections between users and their environment (Kezia & Lukman, 2020).
5. **Integrating Nature**: The attraction to this concept arises from the positive impact of nature or greenery on the environment, which can positively influence human well-being. The incorporation of natural elements in interior design creates spaces that contribute to improving human physical and mental well-being. Visitors are drawn to spaces that can have a positive effect on their thoughts and emotions through sensory stimuli (Azhar, 2021).

Overall, interactive concepts in gallery interior design, such as Kinetic Frontiers, Unfolding Transience, Spatial Dynamics, Building Perceptions, and Integrating Nature, have great potential to enhance visitors' attraction to a space and create a unique experience.

4. CONCLUSION

The concept of interactivity in interior design has a significant impact on visitors' interest in a space and the experiences it offers. Through principles or the application of interactive concepts such as Kinetic Frontiers, Unfolding Transience, Spatial Dynamics, Building Perceptions, Nano Possibilities, and Integrating Nature, gallery interior design can create spaces that are more engaging and interactive with visitors. These concepts not only create visual

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impressions but also invite active participation, exploration, and emotional reactions from visitors. In conclusion, it can be said that the interactive concept is not just about the visual aspect, but also about creating a deeper experience that can attract visitors' attention to the facility and hold meaning for them. The use of technology, transformation of forms, and integration of natural elements all have the potential to foster strong interactions between humans and their environment. Therefore, gallery interior design that integrates interactivity can create spaces that are not only visually beautiful but also stimulate curiosity, exploration, and active engagement from visitors.

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