
Learning Experience Concept at Museum Gedung Juang 45 Bekasi Regency as a Digital Museum

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Article Info

Submitted 5 April 2023

Revised 20 September 2023

Accepted 1 October 2023

Keywords:

Digital Museum;

Learning Experience;

Kata Kunci:

Museum Digital;

Pengalaman Belajar;

Abstract

This study elucidates the digital museum concept and discovers visitors' learning experiences at Gedung Juang 45 museum, Bekasi district. The method used in this research is descriptive qualitative with a learning process and learning outcome approach to obtain the phenomena' in-depth results. This study aims to show various efforts by museum managers to provide the learning process through interesting and engaging museum activities and various technology provided in the form of, the Digital Map, Interactive Book, Air Wall of the Ancient Sundanese Kingdom, and various interactive media. Moreover, the learning experiences outcomes obtained by visitors are the technology used to produce new knowledge and new abilities in using technology so that they could engage in the learning process. Although it's not too significant in changing behavior, this museum can be a good reference for the learning process for the community so that the purpose of the museum being an engaging educational center can increase knowledge for visitors to become one of the alternative educational tours for Bekasi District.

Abstrak

Penelitian ini mendeskripsikan konsep museum digital dan menemukan pengalaman belajar pengunjung di museum Gedung Juang 45, Kabupaten Bekasi. Metode yang digunakan dalam penelitian ini adalah deskriptif kualitatif dengan pendekatan proses pembelajaran dan hasil belajar untuk mendapatkan hasil fenomena yang mendalam. Kajian ini bertujuan untuk menunjukkan berbagai upaya pengelola museum dalam menyediakan proses pembelajaran melalui kegiatan museum yang menarik dan menarik serta berbagai teknologi yang disediakan dalam bentuk, Peta Digital, Buku Interaktif, Tembok Udara Kerajaan Sunda Kuno, dan berbagai media interaktif. Selain itu, hasil belajar yang diperoleh pengunjung berupa teknologi yang digunakan untuk menghasilkan pengetahuan baru dan kemampuan baru dalam menggunakan teknologi sehingga dapat terlibat dalam proses pembelajaran. Walaupun tidak terlalu signifikan dalam mengubah perilaku, museum ini dapat menjadi referensi yang baik untuk proses pembelajaran bagi masyarakat sehingga tujuan museum sebagai pusat pendidikan yang menarik dapat menambah pengetahuan bagi pengunjung untuk menjadi salah satu wisata edukasi alternatif bagi daerah Bekasi.

D.O.I :

<https://doi.org/10.17509/jithor.v6i2.55806>

INTRODUCTION

The museum is a man-made attraction that could become a tourist destination for both domestic and international visitors of various ages. A dedicated place to preserving and interpreting the primary tangible evidence of humankind and the environment which begin to be left behind notably among the millennial generation. As reported by [kompasiana.com](#) that the interest of tourists to visit the museum is highly decreased, especially in the millennial generation. As for the function of the Museum as a documentation center, disseminating knowledge and information, tourist visits, media in educational development and as a reminder of natural, human and cultural history ([Umayra, 2023](#)), Museum is also a place that is used as a reminder of the past for people who visit the museum.

Entering the tourism industry 4.0, several museums in big cities have used sophisticated technology in interpreting their products which are mostly known as digital museums. The digital museum, visitor experience shows more satisfactory results in terms of memories and behavioral intentions ([Elgammal, et al, 2020](#)), this provides a positive opportunity for the tourism industry, especially innovation in digital and smart museums to attract visitors. Recently, the nature of museums has undergone a paradigm shift from "object-centeredness" to visitor experience ([Wu et al.,2021](#)). The concept of digital museums provides a learning experience both in understanding the information received and how visitors use digital technology. Nonetheless, according to research conducted by [Parry \(2005\)](#) digital heritage and the rise of theory in museum computing that involves intellectuals, professionals, government, and physical buildings is a new concern that must be well considered in adopting museum technology [Riyanto et al, \(2023\)](#) to minimize information biased caused by visitor prior knowledge. Therefore, the transition between traditional museums and museums that have

implemented digital concepts needs to be studied that aim to maintain the essence and originality of the history or stories that will be interpreted by the visitor through the technology provided.

Besides being useful for attracting visitors to come to the museum, the concept of a digital museum is something new for visitors in getting a learning experience, Findings reveal that the participatory of visitors in engaging exhibits will make them purposefulness (they feel involved), next motivate meaningful results for visitors' 'learning outcomes'. This benefits museum management is a set of very practical strategies and tools for designing exhibits for sustainable lifelong learning in museums ([Ahmad et al., 2018](#)). This becomes very interesting for the development of the museum in providing education to visitors on an ongoing basis or continuously in the future. In addition, tourist satisfaction in visiting the Museum also depends on what is provided by each museum and will form a good experience to be conveyed to others ([Juwita et al., 2020](#)), there are strategies that are also applied in museum marketing such as previous research by [Melyanti et al, \(2016\)](#) with the title The Effect of Museum Experience on Visiting Decisions in which the research resulted in 3 elements of the strategy applied in increasing tourist visits from, hospitality, learning experience, celebrative experience which is supported by the dimensions of product selection, brand selection, distribution channel selection, decisions time of visit, and payment method used. Therefore, the focus of this study is to discover the digital museum concept carried out by the Museum Gedung Juang 45 Bekasi District in providing learning experiences and the learning experience obtained by visitors.

LITERATURE REVIEW

Digital Museum

A museum is a public entertainment that requires an attractive atmosphere in enticing people to visit museums as educational

centers. This time the smart museum concept has become a concern for various museums to make educational activities more interesting and engaging with the use of technology. The rapid use of technology has now become objective in its application in museums by documenting, preserving, and displaying cultural heritage. Previously museums only applied technology that was limited to recording, to tracking a work but nowadays the technology is used as a way for museums to communicate and shape a new experience for the visitor (Mamur et al., 2020).

The IoT-based Smart Museum concept relies on a wearable device that acts as a museum guide (Radder & Han, 2015). Smart Museum is an IoT-based museum with a collection of information from servers and the cloud then converted into audio and can also be accessed via smartphones to guide visitors in getting information other than that can also help visitors enjoy the provided artworks. (Wang, 2021) also said that the Infrastructure Display and digital information provided by the Museum to the public support the creation of smart museum concepts such as smart navigation, facial recognition and image recognition, smart search, smart maps, machine translation, etc. that combine all the activities into the system.

There is also a study written by Aynur Chang in the title of their research, *Development and behavioral pattern analysis of a mobile guide system with augmented reality for painting appreciation instruction in an art museum that is used to provide a meaningful learning experience through the information and communication technology in the educational environment* (Chang et al., 2014). He found that face-to-face and blended learning did not differ in terms of attitude and success in several studies where the effect of various blended learning application formats on student satisfaction, and success was examined.

The research that was conducted in 2012 focuses on students' perceptions of the planned course with a combination of faces facing learning methods and e-learning with

qualitative methods with 67 new students participating in the study. The result shows with Blended learning, the learning process is more effective which is influenced by motivation, and the student preferences in existing courses.

Learning Experience

Experiential learning focuses on the totality of a human learning process, in which the experience becomes the basis for four learning models that consist of feeling, reflecting, thinking, and doing. Experiential learning strongly emphasizes that experience plays a vital role in the learning process (Barida, 2018).

Meanwhile, according to David Kolb in (Pamungkas et al., 2019), the learning procedure in experiential learning is divided into 4 stages as follows: 1. Stage of concrete experience as the beginning of learning where students are able to think openly and adapt to a systematic approach to problem situations. 2. Reflective observation stages where students observe a simple demonstration by displaying virtual visualization and trying to express or express opinions on why and how something happened. 3. Abstract conception stage that emphasizes students' understanding of concepts in general and requires students to use logical thinking to understand problems. 4. Active experimental stage where students can use the theories they get during the abstract concept stage to make predictions.

Expectations in the Learning Experience are meaningful learning, where visitors to this museum can understand the concept of the museum and are able to participate in the learning process. This study examined 2 dimensions that consist of the process dimension and the outcome dimension in the learning process. The learning process contributes to producing a learning outcome process that can be understood by visitors. Certain points that contribute to an interesting learning process include engagement, services, support services, and activities for the learning community refer to Lin et al, (2012) who developed a Generic Learning

Outcomes framework to assess that museum visitors can understand the learning process that will produce an experience with the essential knowledge and understanding in the presentation of the museum in terms of knowing something new, being able to explain in-depth details learned during the visit. Skill development is the improvement of the ability to develop soft skills, from developing social, emotional, and communication skills to museum management skills, using the information or communication tools available in the museum. It's like a self-image when interacting with people. Meanwhile, it draws value from the museum that changes its attitude in a more positive way, enjoys inspiration and creativity, makes the visitor feel happy, and surprises the visitor with the science and technology used in the museums. Creative ideas after visiting the museum and going to the museum as one of the inspirations for the next life, and finally, activity behavior like activities in the museum bring about a positive change in attitude and encourage further development (Pallud, 2017).



Picture 1. Generic Learning Outcomes

RESEARCH METHOD

The research method used in this study is a qualitative descriptive method. The analytical descriptive research method is a method for acquiring in-depth data that contains meaning and can significantly affect the substance of the research. This means that this method directly represents the nature of the relationship between the researcher and the participant, or the object and the research

subject. This method also attempts to analyze the subject of investigation in order to obtain detailed data. This study was conducted at the Museum Gedung Juang 45, Bekasi district by conducting structured interviews with the management and visitor.

RESULTS AND DISCUSSIONS

1. How is the digital museum concept carried out by the Museum *Gedung Juang 45*, Bekasi district in providing a learning experience

Museum *Gedung Juang 45* located on Jl. Sultan Hasanudin No.39, Setiadarma, West Java is one of the history museums that implement a museum digital concept which is shown through its collections that use digital technology such as

Picture 2. *Museum Gedung Juang 45* Digital Maps



Source: Researcher Documentation

The digital maps are available at the museum entrance gate with a location search touch-screen device. This digital map provides a 360-degree view and can even invite visitors to a short virtual tour of the museum. This is also a strategic endeavor in that the museum is full and visitors can see it in advance before entering the main area.

Picture 3. Interactive Book at Taruma
Negara Hall



Source: Researcher Documentation

The museum provides an interactive book that presents stories through audio-visual media where the sound and moving images can stimulate visitors to have a better understanding and experience of the storyline. The technology used also can follow the storyline towards the book page's movement.

Picture

4. Air Wall Ancient Sundanese Kingdom



Source: Researcher Documentation

One of the efforts in learning carried out by the museum is the interaction of technology with visitors, including this ancient Sundanese Kingdom on the wall. The activity is done in the form of a video where visitors could stand at the store manager's landmark and entering the story while acting like the King of Siliwangi fighting to protect his sovereignty. It was even more exciting when the historical story is displayed.

Picture 5. *Entong Tolo* Hall



Source: Researcher Documentation

Entong Tolo Hall is an interactive screen that conveys Bekasi's folklore where visitors can press a button to hear the available stories. Distinguished from most stories which are usually presented in a linear way, if the visitor wants to enjoy part of the story, just press a button as needed.

Picture 6. *Museum Gedung Juang 45* Mini
Theatre



Source: Researcher Documentation

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A Mini theatre could accommodate approximately 50 people to do various activities. Thus theatre presents information about the history of the founding of Bekasi, the formation of Bekasi City, and the Bekasi District that is equipped with the audio and air-conditioned rooms, the duration of the film is about 20 minutes.

At the end of the *Museum Gedung Juang 45 Bekasi District* tour visitors are offered a digital photo spot where visitors can have a self-capture moment by pressing the provided button and many other spots that display a lot of sounds and moving visuals, such as the information booth that displays programs owned by the museum.

Picture 7. Immersive Hall



Source: Researcher Documentation

Similar to the function of other rooms, this room features a historical story that is displayed or fully interpreted in the room. The audio with a projected mapping display produces an immersive atmosphere for the visitors even more, in addition to the storyline displayed, the visitors often eternalized this room to take pictures.

Picture 9. Interactive Screen.



Source: Researcher Documentation

Picture 10. Museum Gedung *Juang 45*
Bekasi District Instagram



Source: Screen capture of Museum
Gedung Juang 45 Bekasi District Instagram

Picture 8. Immersive Hall Digital Photo
Room



Source: Researcher Documentation

Museum Gedung Juang 45 Bekasi District has a social media Instagram account to promote the museum's activities and collections to the public. According to the interview with the museum manager, he stated that there is no specific concept in digital museums. The Digital Museum aims to attract visitors from various circles and make everyone interested in a museum visit. However, *Museum Gedung Juang 45* already implements some strategies as follows:

- a. Digital technology attracts visitors directly
- b. Visitors are directly involved in the knowledge gained such as storytelling and historical heritage.
- c. The museum provides museum guide facilities and tour guides in collaboration with visitors
- d. Museum visitor experiences can be shared through other digital media like social media.

The main objective of *Museum Gedung Juang 45* Bekasi District is to give a good museum visit experience through engaging and easy-to-understand content so that visitors can retell what was obtained, dive deeper into the conditions of Indonesian civilization in the past, and become well educated through the use of digital technology. Museum Gedung Juang 45 Bekasi District tent to develop innovations by applying the concept of a cultural museum in collaboration with the community in Bekasi.

2. Learning Experience obtained by Museum Gedung Juang 45, Bekasi district visitor

An in-depth interview with random sampling was conducted with 11 visitors to the Museum. Of the 11 correspondents, 9 of whom were still studying and 2 of them were workers, with an average of 1 visit and spending about 1 hour enjoying the museum.

Table 1. Respondent profile

Age	Gender	Occu- pation	Visits Frequency	Museum Visit Duration
19	Male	University Student	1	2 hours
19	Female	University Student	2	1 hour
20	Female	University Student	1	1 hour
21	Male	University Student	1	1 hour
28	Male	Worker	1	30 minutes
27	Male	Worker	> 3	1 hour
19	Male	Student	5	1 hour
18	Female	Student	1	1 hour
16	Female	Student	1	30 minutes
18	Female	Student	1	30 minutes
16	Female	Student	1	1 hour

a. Knowledge and Understanding

The purpose of the museum's existence is to deepen its knowledge and understanding of both history, natural science, and previous relics. A museum becomes a place or place where information and knowledge are shared for visitors through interesting and different interpretations. Based on the results of interviews with visitors of *Museum Gedung Juang 45* Bekasi District, a visit to the museum provides new knowledge and understanding of history that allows them to reiterate what they have learned. The understanding they gain is like the history of the city of Bekasi, the establishment of the *Museum Gedung Juang 45* itself, and historical objects ranging from war tools to crafts. It would be very good if the visitor had the proper knowledge and understanding of the purpose of the museum.

b. Skills

A phenomenon of digitalization is increasingly becoming a role model for all business areas. What was previously used, including the museum, has been digitized. The museum, a place of knowledge and experience for visitors, becomes more

interesting through the use of digital technology that needs to be balanced with the individual's ability to use the latest technology. *Museum Gedung Juang 45* Bekasi District is one of the museums that implemented the museum with a digital concept. They interpret the collection with advanced technology and provide visitors with an interesting experience. According to the results of interviews with the visitors.

c. Attitudes and Values

The museum as a forum for history education through storytelling should change the behavior of visitors. Based on interviews with visitors, the presence of digital museums can change the behavior of visitors in order to use the technology properly. The digital concept allows visitors to be trained to work with museum collections using advanced technology. In essence, the technique has allowed visitors to better understand the stories and collections on display in the museum, eliminating the need for visitors to read the long texts of each collection, but now they can listen to historical stories with audio-visual media, which is convenient.

d. Enjoyment, Inspiration, and Creativity

The view of museums as a serious and boring places is not currently seen in digital museums, so management is trying different ways to make them more interactive and interesting. Reproduced through the newly refurbished museum, Parabusirwangi, by getting a technical facility in the form of a more creative and happier, book exhibit that allows visitors to move based on sound and motion sensors. The museum said there were some non-functional technical facilities, but one of the visitors said it was still in the maintenance process. Overall, interviewing visitors gives the feeling that they enjoy working with technology.

e. Action, Behavior, and Progression

The learning process needs results that can change behaviors better and think positively. During the course of the interview, there were two informants who reported that their behavior had not changed significantly after visiting the Combat Museum. Museums

are the knowledge they need without changing their daily behavior, but other sources are interested in visiting other museums to learn more about Indonesian history, with changes and more. Thanks to the heroes who fought a lot and said that visitors also feel. Using technology will change the way we learn and make it easier to understand.

CONCLUSION

This study describes the learning experience process as a powerful concept in museums as a learning medium. The *Museum Gedung Juang 45* Bekasi District uses many digital technologies that directly involve museum visitors. Lessons learned at the museum can take the form of storytelling, historical relics, and more. The purpose of the *Museum Gedung Juang 45* Bekasi District is to provide visitors to help them understand the content provided by the museum. Visitors can see what is stored in the museum and they can get deeper into the immersive state of Indonesian civilization. You can educate yourself in the past, and visitors well through the use of digital technology. The behavior of the Museum of Technology hasn't changed much, but the museum's efforts make visitors happy after visiting the museum by exhibiting a variety of activities. Visitors find technology to be a great tool in the learning process. Museums and governments can educate more people about museums as interactive learning centers. In addition, there is a need to form a learning community and work with diverse stakeholders to improve efforts to increase learning activities at the museum.

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