DEVELOPING A GAME-ENRICHED GUIDEBOOK FOR MUSEUM GANESYA

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ABSTRACT

The product result of the current study was an English game-enriched guidebook for Museum Ganesya. The guidebook was paper-based. The guidebook contained the museum's rules, map, tour's route, contact information, and also brief descriptions and photos on each section in the museum. A QR-code that would forward the users to the museum's collections' detailed descriptions was provided. A game called 'Treasure Hunt' was also provided in order to make the guidebook more interactive and attract younger generation interest. The game was a mission to search for answers to the questions related to the museum or the collections. The answers can be answered by writing down the answers on the provided crossword tiles or in Indonesian "kolom TTS."

Keywords: museum guidebook, game-enriched, QR code

INTRODUCTION

Museum Ganesya East Java, Indonesia, is considerably new; it has no other facilities to guide tourists around, aside from a few local tour guides and short descriptions on the displays which were in Bahasa Indonesia. At the same time, the museum is also a favorite tourist attraction for international visitors. From interviews conducted on Thursday, March 19 of 2020, with the management team of Museum Ganesya, it was identified that 60% of the visitors were international tourists, mostly from the United States of America, Australia, Japan, China, Malaysia, and Singapore.

This condition made the museum faced several problems, one of which was the communication problem with those international tourists. It became the museum's complicated problem as only a few museum

tour guides can communicate in English very well. The management team of Museum Ganesya specifically stated that five out of seven tour guides in the museum could speak and understand English at a low to average level. In short, one of the severe problems for the museum related to international visitors was verbal communication.

Thus, the problems that occurred in Museum Ganesya were problems related to verbal communication as in a museum, the utilization of verbal communication is preferred. Since there is a lot of information, descriptions, explanations, and history needed to be said to the visitors by the tour guides, a solution to solve this verbal communication was also needed. This could be done by providing detailed descriptions on each main section of the museum. However, this was not possible to do since this would take much space. Moreover, the descriptions may not be

provided in bilingual. Another solution was by developing a guidebook specifically for Museum Ganesya. The guidebook would contain Museum Ganesya's map, exploring route, rules, and the main collection sections' descriptions. The development hopefully would assist the international visitors' understanding while having a tour in the museum.

A guidebook is a book containing directions, advice, and information about a specific area, place, or city that is made by the government, a tour agency, or a specific organization and made for travellers or tourists (Hiransomboon, 2012). Guidebook becomes one of the tourism facilities in several tourism destinations as it becomes a guide for traveling. Guidebooks represent one form of travel literature. Jackson (1980) viewed guidebooks as a media which can be used to interpret and discover something worth to see around. Like brochures, pamphlets, and other advertisements, guidebooks serve both functional and symbolic objectives. However, guidebooks are usually more comprehensive and trustworthy enough to serve accurate information of places. Guidebooks also help to shape the tourism place's image by identifying and popularizing specific sites as tourist attractions (MacCannell, 1976). In short, guidebooks, in this context, are markers of tourist attractions. They locate these tourist attractions through maps and addresses or areas, provided with names, and the reasons why those attractions are significant.

In the current study, a guidebook also can be used as a tour guide in a limited space, for instance, in a museum. The guidebook, especially for a museum, would be the best media for tourists as everything written there is reliable and able to help the visitors to understand the museum collection better, especially for international visitors. Therefore, hopefully, this guidebook development as the museum's new facility could help international visitors get more understandable information on the museum's collections as well as to lessen the museum tour guides burden in describing the collections' information in detail. In the process, this development hopefully could also

help Museum Ganesya increase visitors' visits and satisfaction rates.

The main objective of the current study was to `develop a game-enriched guidebook for international visitors at Museum Ganesya.

REVIEW OF RELATED LITERATURE

A guidebook is a book containing directions, advice, and information about a specific area, place, or city that is made by the government, a tour agency, or a specific organization and made for travellers or tourists. A guidebook can also be seen as a tool to make independent tourists feel safe and convinced to find advice and information worth-knowing about places, attractions, accommodation, transport, eating out, and so forth (Bender, Gidlow, & Fisher, 2013). Guidebooks may influence individual travel decisions either positively or negatively as it provides brief images of a destination and what is worth seeing and experiencing from that. Guidebooks provide a perspective on important aspects of a destination, whether it is interesting or not, and directing tourists to select from the available destination or object options. Thus, whether the tourists accept the guidebook perspective of those tourist attractions depends upon individual travel interests and needs (Lew, 1991).

In this context, as the name is 'papera paper-based guidebook is a based,' guidebook that provides written information on papers or in the form of a book. In this digital era, a paper-based guidebook is getting rare as nowadays, people mostly use a mobile-based guidebook that only needs an internet connection to connect and achieve the information data. However, in the current study, a paper-based guidebook is preferred as the results of several studies said that a paperbased guidebook has its advantages. The first advantage of having a paper-based guidebook rather than a mobile-based guidebook, as claimed by Ishikawa, Murasawa, and Okabe (2009), is that mobile-based users made wayfinding errors because of difficulties in understanding navigational directions provided by the system. In contrast, guidebook users made errors because of difficulties in locating

their positions on maps, especially when they moved between floors. However, in terms of the map sketching, a mobile-based guidebook was better than a paper-based guidebook. The errors found by the paper-based users were because they have difficulties in finding artworks on incorrect floors. Regarding scene acknowledgment, mobile and paper-based users performed similarly, showing that they obtained proportionate degrees of landmark information. However, in memorization, mobile-based users would, in general, have forgotten the visited works of art as time passed. Mobile and paper-based users did not vary in the assessment of artworks but contrasted in the review of offered content. Mobile-based users, particularly those with low enthusiasm for artworks, tended not to see the content offered, while paper-based users saw all contents in the paper-based guidebook.

It can be seen from those studies' results above that both mobile-based guidebook and paper-based guidebook have their advantages and disadvantages even in this digital era. That is why, in this study, both traditionally paper-based and mobile-based guidebooks were used in the research product. The guidebook was a paper-based, but with a shorter content as the contents did not describe all of the museum's collections in detail, so in exchange, a QR code that would forward the scanner to the detailed collections' descriptions was attached in the guidebook.

There are undoubtedly other studies that are related to the current study. A study conducted by Gabriela Intani Putri and Ike Janita Dewi (2014) entitled 'The Use of Travel Guidebooks by Tourist Visiting Yogyakarta,' aimed to know to what extent tourists used travel guidebooks for their visit to Yogyakarta, a city in Indonesia. The study only focused on knowing tourists' purpose and reason for using guidebooks in Yogyakarta as they were using non-experimental research design. That study gives an insight into how this guidebook works in the field of this study. As the focus of their study is to know to what extent foreign tourists depend on guidebooks, the main results of their study were foreign tourists do need a guidebook to obtain an overview of the destination and to select the to-be-visited sites.

From the result, it can be seen that a guidebook is essential for tourists to have an overview and help them to choose which section they are interested in visiting the most. That is why, in the development of the current study, the guidebook was packed with a helpful guide such as a map and a brief description of the charms of every section.

The second previous study that was almost the same as this study, but was developed mainly for promotion, was a thesis done by Noor (2018), entitled 'The Design of Travel Guidebook for Four Priority of Tourism Destination of Central Sulawesi as a Media Promotion Tool for Department of Central Sulawesi Tourism.' According to Syamsudin, head of Department of Central Sulawesi Tourism, which had been interviewed by the writer, there are several reasons why a guidebook is way preferred to any other media in guiding tourists or travelers and as the media to promote Central Sulawesi tourism. First, television is a great media in promoting as it uses audiovisual media, but the scope in using television is too big. Second, newspapers and magazines are also a great idea since it can be updated periodically, but they have a limitation in putting numbers of pictures. Thus, flyers and guidebooks are the best choices in promoting Central Sulawesi Tourism. However, a guidebook is preferred as it is more informative and cannot be easily lost as it has more pages as well as spaces in one guidebook than a flyer that only has one page (Noor, 2018). The result of his study strengthens the decision of this study to choose a paper-based guidebook that will be used at Museum Ganesya as the setting of the current study is also in an art gallery that is, generally in terms of collection placement, almost the same as history museum such as Museum Ganesya.

The third previous study that became one of the references in conducting this research was a study done by Faiha and Sugiat (2016) entitled 'Tourism Guidebook as a Media Information of Padang and Bukittinggi West Sumatra.' Their focus in developing a guidebook is to inform tourists about the tourism in Padang and Bukittinggi in West Sumatra. Therefore, they focused on describing tourism places in Padang and Bukittinggi in

West Sumatra as informative as possible, and they also gave a route that could be followed by the tourists as the route has landmarks in order to make the tourists travel more efficiently.

RESEARCH METHODOLOGY

The research design used in the current study was adapted from Design and Development Research (DDR). This research is a type of inquiry unique to the Instructional Design and Technology (IDT) field that is purposefully made to create new knowledge and to validate another existing practice (R. C. Richey & Klein, 2013).

Qualitatively, the instruments of data collection used were interviews and direct observation. Quantitatively, the instrument of data collection used was a questionnaire.

DEVELOPMENT RESULT AND DISCUSSION

In the current study, there were five procedures in developing a game-enriched guidebook for Museum Ganesya. The procedures were analysis, design, development, evaluation, and revision.

Analysis

Through direct observation, it could be identified that the museum was in one building with Hawai Waterpark. Hawai Waterpark itself is the biggest waterpark in East Java and located in an elite residence called Graha Kencana in Kabupaten Malang. From the residence's gate, the visitors can go straight, and eventually, the destination can be found at the end of the street. On the left side of the main entrance of the waterpark, there is a lift for the museum entrance. The visitors can either book tickets or buy them there as the ticket counter is on the right side of the building.

The first interview was carried out along with the second direct observation. However, the first interview was not official as the interview was only asking questions out of curiosity and was not recorded. In the second interview, several interviews were carried out with three out of seven Museum Ganesya's tour guides and a Marketing and Relation

Manager as a representative of the management team of the museum.

From the second interview, it can be concluded that international tourists were the management main target customer. Fortunately, they could reach their target as 60% of the visitor were international tourists. However, although international tourists were the main target customer, communication issue was still the museum's most significant issue. Since the museum's tour guides did not have specifically English formal educational background, they sometimes understood what the tourists said, but they could not answer the questions well. An interesting finding from the interview was also found: several international tourists brought their own translators. However, there were also several international tourists who did not bring their own translators and could not speak English. The full transcription of the second interview is attached in Appendix 1.

Design

In the fourth week of March 2020, a guidebook design had been chosen and the content had also been planned together with Operations Manager. However, in the third week of April 2020, the museum's Marketing and Relation Manager and the Operations Manager had changed their mind and asked for a different design. Finally, a simple-folded guidebook with the Javanese tradition theme was decided. In addition, the Marketing and Relation Manager asked to add a game that can be played in the museum. Thus, the game 'Treasure Hunt' was chosen.

Development

The development for the current study included the process of translating the descriptions, designing the guidebook, and making of other contents (the museum map and the Treasure Hunt game). However, the development process was postponed because of the COVID-19 outbreaks in Malang and the museum was closed. The guidebook content, such as the description and photos, could not be obtained on time. Finally, on May 4, 2020, the Marketing and Relation Manager sent the guidebook's requested content. The

descriptions received from the museum were in Indonesian and consisted of fifteen sections' descriptions *Expert Validation*.

On July 2, 2020, three validation sheets were sent to the experts. The validation sheets were shared via an online questionnaire form, Google Forms. The design's soft file in PDF format and how to use the guidebook in .PNG format were also attached in each validation sheet. The visual designer focused on validating guidebook's design. The English communication expert focused on validating guidebook's design, contents, and language. The validators from the museum focused on validating whether the guidebook's design and contents meet their expectations or not.

The four first points about the guidebook paper, color combination, and theme could be considered "quite good." However, the rest points got four or a "good" mark—these points related to the guidebook's design, content's design, and graphic quality. In addition to the given suggestions, it could be concluded that an average revision for the guidebook and content designs were needed.

According to the English communication expert, in terms of the design, overall, the guidebook and content designs were "quite good." However, several text's fonts were hard to read and several folds cut through several pictures that damage the quality of the pictures as resulted from points two, seven, and eight. Thus, an average revision to the issued font and pictures were needed. In terms of the language, the result of overall questions is "quite good" that there might be no need for revision for the content's language. It could be concluded that the pictures placement, pictures size, font, and the color combination needed a major revision. A major revision was needed as most experts for the current study commented on the same thing-notably, the pictures placement and the font.

After knowing all the responses from the experts, a revision was seriously needed. In revising the placement of the pictures, the researcher resized the paper and redesigned the guidebook design. Therefore, a total revision in paper size and form was carried out. The researcher chose to make the

guidebook into a booklet form instead of a folded form. It was because there were too many descriptions and photos for a folded guidebook. While if the folded guidebook size was enlarged, children might find it difficult to use the guidebook.

The revised guidebook consisted of six pages with four different sizes of paper. The first page was the front cover. The size was 5cm x 21.5cm. The front cover consisted of a vertical logo and the museum's name with black as the background. The second page was smaller, with the size of 8cm x 12cm. The inner page consisted of the museum rules with a black background, while the outer page was pure gold colored. The third page size is 12.5cm x 21.5cm.

The third page's outer side was decorated with Batik and consisted of a QR-code for the museum's collections on the museum's website. The third page's inner side and the outer side of the fourth page consisted of the museum's second floor's sections' descriptions. The background was green with a yellow map and exploring route. An 'FYI' box was also included on the outer side of the fourth page. The fourth page size was 13.5cm x 21.5cm. The inner side of the fourth page and the outer side of the sixth page consisted of the museum's third floor's sections' descriptions. The fifth page, with the size of 8cm x 12cm, was placed between the fourth and sixth pages. The fifth page consisted of the third floor map as well as the exploring route. The page's background was black. The outer side of the sixth page was the back cover. It consisted of the Treasure Hunt game, Museum Ganesya's website address, telephone number, Facebook, and Instagram account as well as the museum's address

Evaluation.

In the evaluation procedure of the current study, there were field testing and revision. The validated and revised guidebook was shown to potential international visitors and asked for an opinion in the form of a questionnaire as the field testing. Then, if the field testing result is rather not satisfying, a revision is needed. Because of the COVID-19 outbreak, the field testing was not carried out directly in the

Museum Ganesya as there was still no international visitor visiting the museum, although the museum had been opened. Thus, online field testing was considered. The field testing was carried out via *Google Forms*. In exchange for the international visitors, the international students of State Polytechnic of Malang and foreigners were chosen as the respondents.

In the field testing, a video of the Museum's Ganesya tour was provided as a virtual tour. The video hopefully could help the respondents to know what is inside of the museum exactly. A video about how to use and read the guidebook was also provided. The video would help the respondents understand how to read the guidebook soft file, which they need to download first.

Ten respondents filled the questionnaire for the field testing. These respondents were asked to answer the questions, which divided into fifteen aspects. The first aspect is how important is a guidebook for visiting a foreign museum. The result was vital as it would answer whether the development of the current study was needed or not. The result of the first aspect was a guidebook is quite essential for foreigners as the value was 5.7 out of 6 (Likert-scale). The second aspect is the attractiveness of the guidebook design. The value result is 5.2 out of 6 (Likert-scale). The value has resulted from six people who chose "strongly agree," two people chose "agree," and the other two chose quite "agree" and "disagree.

Discussion

Following the previous study conducted by Putri and Dewi (2014), entitled 'The Use of Travel Guidebooks by Tourist Visiting Yogyakarta,' the current study result was in line with this research and also strengthened the idea of the essentiality of guidebook in a tourism object. Both research, the current's research and Putri and Dewi's confirmed tourists' dependence on the guidebook. Further, Putri and Dewi also showed that tourists depended on a guidebook to have an overview of what destination and site do they want to visit in Yogyakarta. Thus, through the current study, a guidebook was also essential

for foreigners in visiting a museum as they need overviews on what section they would pass and see an overview of what a section has inside. These overviews would help tourists to understand a museum's sections and collections.

Following another study conducted by Ceipidor et al. (2009), entitled 'A Museum Mobile Game for Children Using QR-Codes,' the current study shows the advantage of the non-mobile-based game. Both studies have almost the same development product; both studies used a game that can be played in a museum to make the tour more fun and interactive. The games also had the same name, Treasure Hunt. In their study, Ceipidor et al. developed a mobile-based Treasure Hunt, while in the current study, the game was played in the guidebook.

The use of guidebook as the media for the Treasure Hunt game in the current study offered more advantages as compared to the online mobile-based game developed by Ceipidor et al. (2009). The guidebook does not need an internet connection, which also means a lower cost. Using the guidebook, the guidebook's users also would not depend on their gadgets when playing the game. By utilizing the guidebook, the players, especially children, would be more independent to solve problems they were facing. They would try to communicate with others and wandered around the museum to find the answers. This finding is related to another study conducted by Fleck et al. (2002), which also supports the importance of communicating and helping each other in finding the answers; this would form a more fun interaction between the players and the museum or an exhibit.

CONCLUSION AND SUGGESTIONS

The current study focused on developing a guidebook for Museum Ganesya. The final product of the study was an English gameenriched guidebook for Museum Ganesya. The guidebook consisted of Museum Ganesya's contact information, address, map, exploring route, rules, Treasure Hunt game, every section's description with the photos, a QR code for the collections' descriptions, and

interesting facts about several collections. The purpose of the development was to help international visitors understand the Museum Ganesaya's sections and collections.

In the analysis procedure, from the conducted direct observation and interviews, it can be concluded that the Ganesya Museum's severe and urgent issue was the verbal communication between the staff and the international visitors. Thus, a guidebook might be one of the solutions to solve this verbal communication issue. From the interviews, the design and the contents of the guidebook were also decided. The design was requested directly from the Marketing and Relation Manager of Museum Ganesya. The design should portray Javanese's traditional tradition's colors. Therefore, a combination of black, white, yellow (gold), red, and green.

After the museum's management had decided everything, the guidebook was developed. The developed product was validated by the experts (visual designer, English communication expert, and the museum's management team). From the validation, a better product was developed. Then, the revised guidebook was applied in field testing. The result of the current study was a guidebook that was surely essential, and the developed guidebook, fortunately, satisfy the respondents' curiosity on the museum's collections.

In the process of carrying out the current study, the researcher discovered that a combination of a paper-based guidebook and a mobile-based guidebook would be great. For example, just like one of the suggestions from the respondents, a real-time map might help the tourists to know where they are standing now and where to go easily. Especially for a museum that has limited space and has a shorter route so that the user's real-time position can be found easily. The real-time map can also be accessed through a QR-code, which will save more space in the guidebook. By using a real-time map, future researchers will be able to save more space in their guidebook as there is no need to attach a map in their guidebook.

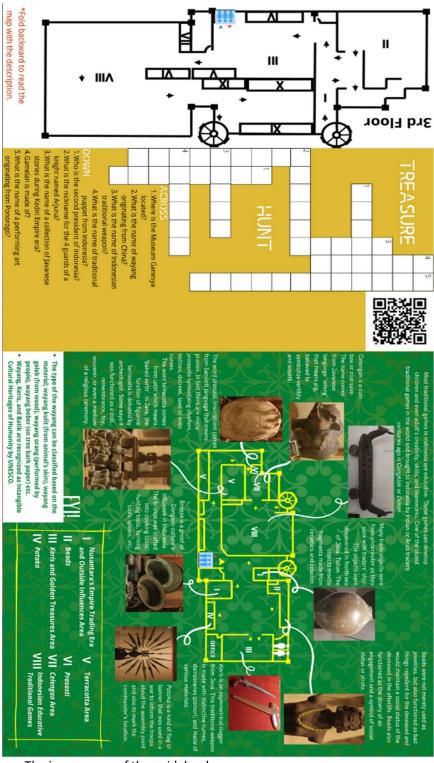
Another suggestion for future researchers is to develop more guidebooks for museums in Indonesia. Since, as far as the researcher knows, especially museums in East Java do not have guidebooks that are explicitly made for them. For instance, Museum Brawijaya and Museum Majapahit that do not have a guidebook, the visitors would not know the touring route and what a section or room has inside. Moreover, if the museum is large, then the visitors would just wander around mindlessly to see the collections. Thus, a guidebook is quite essential for visitors, especially international visitors, who are unfamiliar with the museum's surrounding.

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The inner pages of the guidebook



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