

DESIGN INTERACTIVE MULTIMEDIA BOOK SANGGAR DOKA TAWA TANA USING THE DESIGN SPRINT METHOD

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Abstract

Tourism is a journey from one place to another carried out by a group of people or individual for a certain period of time with the aim of traveling that requires planning previously. This is supported by current technological advances, one of which is multimedia technology including information technology. This multimedia technology has made a significant contribution to the tourism sector by generating the ability to promote and develop tourist objects in any location with greater ease, less cost, and more flexibility. One of the attractions that is developing at the time of current technological advances, namely the Sanggar Doka Tawa Tana. This studio is one of the leading tourist attractions in the province of NTT that can attract tourists to visit. However Due to the Covid-19 outbreak, the number of tourists visiting has decreased drastically. But in 2021 the number of tourists visiting began to increase. So in this research development of EPUB-based interactive multimedia books to promote and provide the latest information for potential tourists related to the Sanggar Doka Tawa Tana. On book design interactive multimedia of Sanggar Doka Tawa Tana, the method used is the design sprint method where In the method there are 5 frameworks, namely understand, diverge, decide, prototype and validate.

Keywords: *Interactive Multimedia; Design Sprint; Sanggar Doka Tawa Tana; EPUB.*

I. Introduction

Tourism or sightseeing is a trip from one place to another carried out by a group of people or individuals at a certain period of time with the aim of traveling or fulfilling certain interests that require prior planning. Tourism activities are currently running smoothly, with the potential to affect thousands, maybe even hundreds of thousands of people, both from government ranks and ordinary citizens. In this sector, tourism growth can be seen from the changing patterns, forms of activities, and the nature

of the activities themselves. This can benefit various stakeholders, including the general public, tourism sector managers, and also the government, both local and central governments [1].

Technology has developed into an important factor in human life. One of the technological advances that stands out and is widely used in the digital era is multimedia technology which is included in information technology. Agriculture, industry, trade, and tourism are some of the fields that can take full advantage of information technology. Technology has also made a significant contribution to the tourism sector. This results in the ability to promote and develop tourist attractions in any location more easily, at less cost, and more flexibly [2].

NTT Province has many tourist destinations that become tourist destinations, one of which is favored, namely the Sanggar Doka Tawa Tana which is located in Bola District, Sikka Regency or more precisely in Dokar Village, Uma Uta Village. This studio was founded in 1980 which has a unique tradition, culture and local craft, namely Sikka ikat weaving. For access to the Sanggar Doka Tawa Tana, tourists are also treated to several tourist destinations such as beaches, mountains and several artificial tourist attractions. According to Cletus, as the head of the studio, he stated that before the Covid-19 pandemic several tour groups from textile companies visited the Sanggar Doka Tawa Tana every day and a lot of tourist visits occurred from April to mid-November. However, during the COVID-19 pandemic, the number of tourists visiting the Sanggar Doka Tawa Tana experienced a very drastic decline [3]. Based on data submitted by the Head of the Tourism and Culture Office of Sikka Regency, it was stated that the number of tourists visiting Sikka Regency in 2018 reached 50,212 people with an average length of visit of 2.16 days. In 2020 the number of tourist visits fell to 20,986 people with an average length of visit of 1.27 days. And in 2021 the number of tourist visits began to rise again to 25,933 people with an average length of visit of 1.49 days [4].

Based on these problems, a solution was found, namely making a prototype in the form of an interactive multimedia book. Where the research conducted by Hamadtoh and Gohar in 2017 shows that interactive multimedia books can increase user interest in reading them [5]. So that in this research an interactive multimedia book will be designed for the Sanggar Doka Tawa Tana which can promote and introduce the Sanggar Doka Tawa Tana to the wider community. In addition, this interactive multimedia book can also help potential tourists to obtain or obtain information related to Sanggar Doka Tawa Tana in a form that is more complete, more interesting and interactive than the information provided by other electronic media. And later on, potential tourists can plan their trip carefully when they go to Sanggar Doka Tawa Tana. In addition to helping this book can be a form of education in the introduction of tourism to the public.

At this stage the prototype is made based on the results of the best solution that has been determined at the stage previously. The steps that will be carried out at this stage are the first to make a design initial prototype design. The next step is evaluation and review from related parties regarding the design initial prototype design. In the third step, the prototype design design will begin to be implemented become a prototype in EPUB format using Adobe inDesign software. The last step is re-evaluating the prototype that has been made until it is feasible to be tested at the next stage.

e. Validate

The finished prototype will be tested using the black box method and System Usability Scale (SUS). To test the functionality of the prototype that has been made using the black box method [8]. While testing the prototype to the target user, namely prospective tourists using the System Usability Scale (SUS) method [9].

III. Results and Discussion

The following are the stages of the research carried out:

a. Understand

The survey results from the distributed questionnaires found that 100% of the target users had done Tour. 99% of target users have traveled domestically. 96% of target users are interested take a cultural tour. 66% of target users often find it difficult to find information where they are going to go. And based on the highest results obtained, namely as much as 43% The target user's response stated that the information they got was incomplete. As for the target user's interest in the information presented, the highest results are obtained namely 37% where the target user stated that the information presented was less interesting. Next related to the information that the target user is looking for before traveling, namely information 95% of tourist destinations. Access to transportation routes to tourist destinations of 82%. Lodging around tourism by 60%. Equipment needed when traveling by 53%. By the typical tourist destination of 63%. Information about tourist objects that are passed by 60%. Based on this information, 100% of the responses from the target user stated that This information can help prospective tourists in planning their travel trips effectively ripe. Furthermore, as many as 82% of target users have never used physical books to search for information about the tourist attractions they go to with an average of the reasons given, namely the appearance is not interesting, incomplete information, and lack of update of the information presented. And as much as 100% the target user states that he agrees if there is a digital book that provides travel information complete, interesting and interactive tour to assist potential tourists in planning thorough travel.

b. Diverge



Figure 4. Storyboard of one of the crazy 8 ideas

c. Decide

This stage is the selection of the best solution from the list of solutions obtained from the previous stage. The best solution is obtained from voting using the zen vote technique to 10 potential tourists and 1 expert with each respondent having 1 voting right. Table 3.1 shows the results of voting using the Zenvote technique.

Table 1.

Zen vote results from the storyboard list

Respondent	Storyboard							
	1	2	3	4	5	6	7	8
Expert	-	-	-	-	-	-	1	-
Prospective Tourists	-	-	-	-	3	1	6	-

Based on the results in table 1 the seventh storyboard is the best solution in solving the problems raised. After getting the storyboard that was chosen to be the best solution, it will be implemented into a prototype.

d. Prototype

At this prototype stage, the storyboard that was chosen to be the best solution in the previous stage will be implemented into a prototype in EPUB format using Adobe InDesign software. The stages that will be carried out at this stage are :

1. The first step, the selected storyboard will be designed to be more detailed starting from the design of the content of each page, the layout of each page, the typeface, the form of writing, and the colors used. Figure 5 is the result of the initial prototype design which will later be reviewed by related parties.



Figure 5. Initial Prototype Design

2. In the second stage, several suggestions and inputs were found based on reviews by related parties. The following are suggestions and inputs obtained:
 - The deletion of several illustrations with religious themes.
 - It is necessary to add some illustrations such as traditional clothes, traditional dances and activities at the Sanggar Doka Tawa Tana.
 - Elimination of religious-themed tourist destinations and replacing them with other tourist destinations.
 - After finding some input and suggestions, it is necessary to make improvements to the initial prototype design which will later be implemented into a prototype. Figure 6 is a prototype design that has been improved.



Figure 6. Improved Prototype Design

3. The revised prototype design will begin to be implemented into an EPUB format prototype using Adobe InDesign software. The following are pictures of the prototypes that have been made.

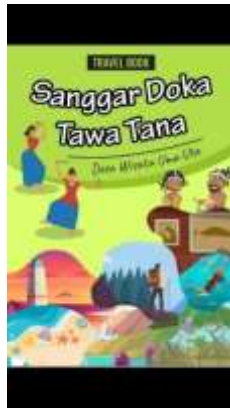


Figure 7. Prototype First Page

On the first page, the prototype displays the title, some illustrations of activities at the Sanggar Doka Tawa Tana and illustrations of several tourist destinations around.

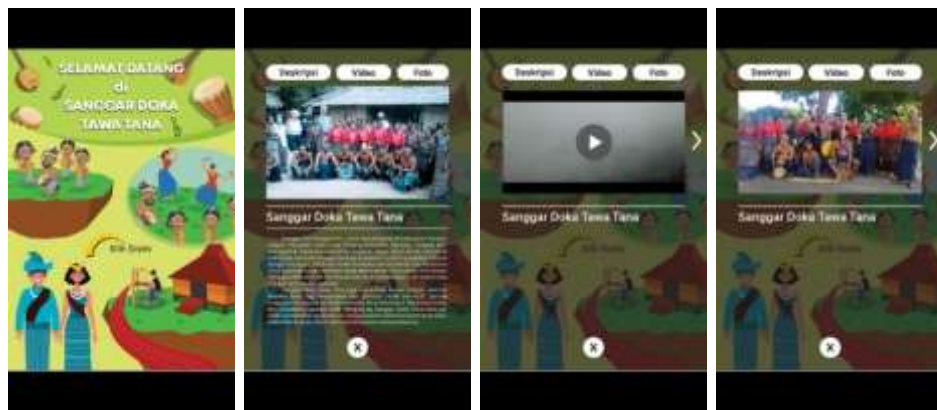


Figure 8. Second Page Prototype

On the second page, the prototype displays illustrations of people wearing traditional clothes, traditional houses, traditional dances and activities at the Sanggar Doka Tawa Tana. In the picture above is an image before and after the interaction made by the user. The interactions displayed are information about the Sanggar Doka Tawa Tana in the form of descriptions, videos and pictures.

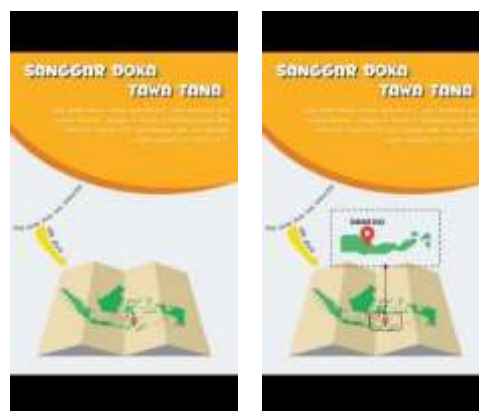


Figure 9. Third Page Prototype

On the third page, the prototype displays an illustration to show the location of the Sanggar Doka Tawa Tana. In the picture above is an image before and after the interaction made by the user. The

interaction displayed is in the form of a detailed location info tab on the map which when clicked will be directed to the url address of the Sanggar Doka Tawa Tana location on google maps.

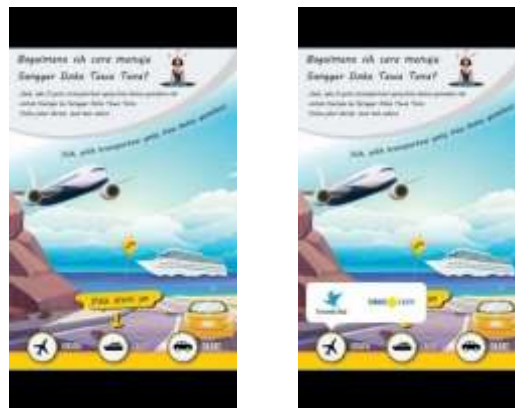


Figure 10. Fourth Page Prototype

On the fourth page, the prototype displays illustrations of transportation routes that can be passed if you want to go to the Sanggar Doka Tawa Tana. In the picture above is an image before and after the interaction made by the user. The interaction that occurs when the air route button is clicked will display the logos of the airline ticket service provider company.

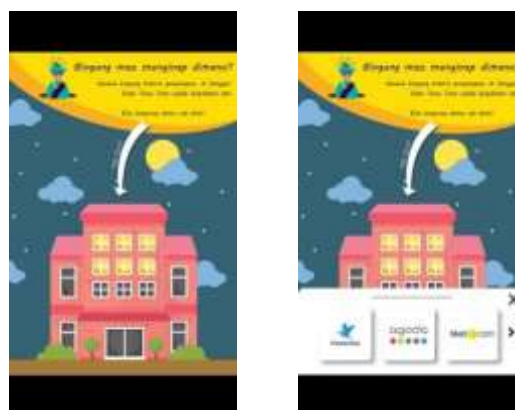


Figure 11. Fifth Page Prototype

On the fifth page, the prototype displays an illustration of lodging around the Sanggar Doka Tawa Tana. In the picture above is an image before and after the interaction made by the user. Interactions that occur when the hotel illustration is clicked will display several company logos that provide hotel messaging services.



Figure 12. Sixth Page Prototype

On the sixth page, the prototype displays illustrations of items that need to be prepared before going on a trip. In the picture above is an image before and after the interaction made by the user. The interaction that occurs when the closet illustration is clicked will display several photos of the item which the user can then click on the item to buy it.



Figure 13. Seventh Page Prototype

On the seventh page, the prototype displays illustrations of weaving activities that are usually carried out at the Sanggar Doka Tawa Tana. In the picture above is an image before and after the interaction made by the user. The interaction that occurs when the woven fabric illustration is clicked, several woven fabric products typical of Sanggar Doka Tawa Tana are sold and when clicked, they will be directed to the order url address.



Figure 14. Eighth Page Prototype

On the eighth page, the prototype displays an illustration of a list of tourist destinations around the Sanggar Doka Tawa Tana. In the picture above is an image before and after the interaction made by the user. The interaction that occurs when the map illustration is clicked will display a list of tourist destinations and if the image of one of the tourist destinations is clicked it will be redirected to the selected tourist destination page.



Figure 15. Ninth Page Prototype

On the ninth page, the prototype displays illustrations of people in NTT traditional clothes who invite tourists to go on tours around the area. The interaction on this page is in the form of audio dubbing an invitation to tour around Sanggar Doka Tawa Tana.

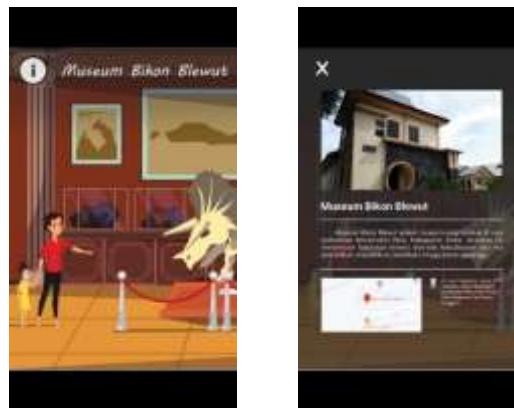


Figure 16. Tenth Page Prototype

This page shows an illustration of one of the tours around Sanggar Doka Tawa Tana. In the picture above is an image before and after the interaction made by the user. Interaction on this page if the info icon is clicked it will display the tourist information starting from the tourist description, location on google maps, and tourist address.



Figure 17. Last Page Prototype

On the last page, the prototype displays an illustration of a farewell speech. The interaction on this page is in the form of audio dubbing greetings, see you at the Sanggar Doka Tawa Tana.

4. The last step is to re-evaluate the prototype that has been made. If a problem is found when running, it needs to be reworked until the prototype is feasible to be tested on the target user.
- e. Validate

At this stage the finished prototype will be tested. For testing the functionality of the prototype that has been made using the black box method. The results of the black box testing that have been made are stated that the prototype can run smoothly. Meanwhile, for testing the prototype to the target user, namely prospective tourists, using the System Usability Scale (SUS) method for 10 potential tourists. After finding the results of the SUS questionnaire from 10 prospective tourists, the SUS score for each prospective tourist will be calculated and will produce an average SUS score. Table 2 presents the results of the System Usability Scale (SUS) for 10 potential tourists after using the prototype.

Table 2.

System Usability Scale (SUS) Results

Responden	Score Result Count										Skor
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	SUS
Responden 1	5	2	5	2	5	2	5	2	5	2	87.5
Responden 2	5	2	5	2	5	3	5	2	5	2	85.0
Responden 3	5	1	4	2	5	1	3	3	4	2	80.0
Responden 4	4	1	5	1	4	2	4	1	4	1	87.5
Responden 5	4	1	5	1	4	2	4	1	4	1	87.5
Responden 6	3	1	5	1	4	1	5	1	3	3	82.5
Responden 7	4	2	4	3	5	1	4	1	5	3	80.0
Responden 8	4	2	5	3	4	2	5	1	4	3	77.5

Responden 9	4	1	5	2	4	2	5	1	4	3	82.5
Responden 10	4	1	5	4	5	1	5	1	5	2	87.5
Average Score											83.8

From the calculation of the System Usability Scale (SUS) for 10 potential tourists, it was found that the average SUS score was 83.8 the average score that has been obtained is in grade A with the description Excellent. However, table 2 shows that the results of the SUS scores of respondents 3, 7 and respondents 8 are quite low. Based on the researcher's analysis, this can happen because in running the prototype of this EPUB format digital book, an application that supports the EPUB format is needed. So it takes direction before running this prototype so that later users will be easy to use.

IV. Conclusion

From the results of the research entitled "Designing Interactive Multimedia Books by Sanggar Doka Tawa Tana Using the Design Sprint Method" the following conclusions can be drawn:

1. The interactive digital book that has been created is called the Sanggar Doka Tawa Tana Travel Book. In designing this digital book using the design sprint method. There are 5 frameworks in the design sprint method in designing this digital book, namely understand, diverge, decide, prototyping, validate.
2. The digital book that has been designed is able to present the information sought by potential tourists regarding the Sanggar Doka Tawa Tana in an interesting, complete and interactive way. This is evidenced by the results of the test using System Usability Scale (SUS) validation with the average result obtained which is 83.8 and is included in grade A with the information Excellent on the SUS rating

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