

Development of Sports Massage Based on BOD Sports Massage Application

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ABSTRACT

This study aims to create an application that can be used to order massage services based on Android called BOD Sports Massage. This type of research uses Research and Development (R&D). The design of this study uses the simplified Borg And Gall design with several stages of research into 1. data collection 2. product design 3. product development 4. validation and revision 5. field trials 6. Product improvement and maintenance. The subjects in this study were members of the Persaudaraan Setia Hati Terate Organization totaling 60 people. The sample was selected using a random sampling technique. The test instrument used in this study used a Likert scale. Based on the trial data of the BOD Sports Massage Application, it shows that the assessment of the feasibility of the contents of this application is 80.30% which is included in the good/feasible category, in terms of appearance 90% and from the usage value of 90.1%, the total of all feasibility assessments of the BOD Sport Massage Application is 87.6% and is included in the Good/Feasible category so that it can be concluded that the product can be used to order massage services for athletes and the general public.

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AUTHORS' CONTRIBUTION

A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
D. Manuscript preparation;
E. Obtaining funding

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INTRODUCTION

Law of the Republic of Indonesia Number 18 of 2002 concerning the System of Research, Development, and Application of Science and Technology, in Article 1 Paragraph 5 it is stated that the development and application of science and technology through the utilization of scientific theories and principles can produce new technology or improve the capabilities, advantages, and application of existing science and technology. This development began with various advances in the utilization of technological applications to meet the demands of sports achievements. The new technology in this study is in the form of software for example Android-based BOD Sport Massage applications. From the results of

the researcher's analysis, there are obstacles to ordering massage services. Looking from the side of massage service users, there are also obstacles to data and information related to massage service providers properly. From a survey conducted by researchers on December 17, 2022, in the PSHT Organization environment, there were 25 athletes and 25 people.

Table 1.
description of research results from observations

Question	Public		Athlete	
	Yes	No	Yes	No
Have you ever experienced a massage service?	18	7	23	2
Have you ever experienced massage services via an application?	0	25	0	25

Source: Based on data collection by researchers

Based on the data from the table above, it can be seen that several objects have experienced massage services and none have ever used online massage services. The researcher identified that there needs to be a system that facilitates communication patterns and information about massage services to increase the economic income of massage therapists and make it easier and faster for clients to obtain massage information. The term "Development of Sports Massage Based on the BOD Sports Massage Application" refers to the researcher's goal of creating an Android-based massage application that will provide information about introducing massage therapists and ordering massage services that are simple, fast, and accurate. As well as introducing the talents of Sports Science students (IKOR) of Singaperbangsa University Karawang (UNSIKA).

METHODS

This type of research uses Research and Development (R&D). The design of this study uses the simplified Borg And Gall design with several stages of research into (1). data collection (2). product design (3) product development (4). validation and revision (5). field trials (6). product improvement and maintenance. The subjects in this study were members of the Persaudaraan Setia Hati Terate Organization totalling 60 people. The sample was selected using a random sampling technique. The test instrument used in this study used a Likert scale.

RESULTS AND DISCUSSION

Result

The description of the data in this research includes several data, namely, validation data from entrepreneurship experts, validation data from IT experts, validation data from material experts, and data from small-scale trials and large-scale trials.

Table 2.
 entrepreneurship expert validation data table

Name	Number of Items	Values obtained	Ideal value	Eligibility Percentage
Entrepreneurship Expert	10	31	50	62%

Source: data was obtained using Likert scale calculations

Entrepreneurship experts who became validators in this study were Mr. Danang Kusnanto S.E.,MM. During the development process of this application from the stage of compiling the application menu format, application logo, and application background that will be made and declared feasible by entrepreneurship experts. From the table above, the results are 62% which indicates that the application is feasible to use

Table 3.
 Material expert validation data table

Name	Number of Items	Values obtained	Ideal value	Eligibility Percentage
Material Expert	10	42	50	82%

Source: data was obtained using Likert scale calculations

The material expert in this study is intended to determine whether the developed application is by the existing rules or not. The material expert assesses aspects in the form of the feasibility of the material in the application to determine the quality of the material that has been poured into the application that was created. In this study, the material test was carried out by Dr. Astri Ayu Irawan S.Pd., M.Pd. The material was tested to determine how feasible the BOD Spoort Massage Application is. From the table above, the results are 82% which indicates that the application is feasible to use

Table 4.
 IT expert validation data table

Name	Number of Items	Values obtained	Ideal value	Eligibility Percentage
IT expert	10	40	50	80%

Source: data was obtained using Likert scale calculations

The material expert in this study is intended to determine whether the application developed is following existing rules or not. The IT expert assesses the aspects of the interface display menu contained in the application, to determine the quality of the application that has been created. In this study, testing was carried out by Aji Primajaya, S.Si., M.Kom, which was carried out to determine how feasible the BOD Spoort Massage Application is. From the table above, the results are 80% which indicates that the application is feasible to use. The following data is the result of a small-scale trial:

Table 5.
 Small-scale trial results

Assessment Aspects	Aspect			Total
	Content Suitability	Appearance	Use	
Score obtained	324	36	165	525
Maximum score	360	40	200	600

Assessment Aspects	Aspect			Total
	Content Suitability	Appearance	Use	
Percentage	90%	90%	82,50%	87,5%
category	Good/Decent	Good/Decent	Good/Decent	Good/Decent

Source: Based on data collection by researchers

The results of the questionnaire assessment by members of the Karawang branch of PSHT regarding the BOD Sports Massage Application showed that the assessment of the feasibility of the contents of this application was 90% which was included in the good/feasible category, in terms of appearance 90% and use of 82.5%, the total of all feasibility assessments of the BOD Sports Massage Application application was 87.5% and entered the Good/Feasible category so that it can be concluded that the product can proceed to the next stage, namely large-scale trials. Here are the results of a large-scale trial.

Table 5.
Large-scale trial results

Assessment Aspects	Aspect			Total
	Content Suitability	Appearance	Use	
Score obtained	1045	234	2133	3419
Maximum score	1300	260	2340	3900
Percentage	80,30%	90%	91,10%	87,6%
category	Good/Decent	Good/Decent	Good/Decent	Good/Decent

Source: Based on data collection by researchers

The results of the questionnaire assessment by members of the Karawang PSHT branch regarding the BOD Sports Massage Application showed that the assessment of the feasibility of the contents of this application was 80.30% which was included in the good/adequate category, in terms of appearance 90% and from the value of use of 90.1%, the total of all feasibility assessments of the BOD Sports Massage Application application was 87.6% and entered the Good/Eligible category so that it can be concluded that the product can be used to order massage services for athletes and the general public.

Discussion

In the early stages of developing the Massage Service Ordering application product which in this study is called BOD Sports Massage Application, the researcher developed an android-based massage application. Which was tested on members of the PSHT Karawang Branch. The BOD Sports Massage Application application menu has several types of massages, including full body massage, injury massage, etc. This application makes it easier for application users to contact therapists to get massage services quickly and easily. The process of developing this application goes through several stages of development procedures, several planning, design and evaluation, after the initial product is produced, it needs to be evaluated by media experts, material experts and IT experts and needs to be tested on application users here, namely PSHT Karawang

Branch, while the research stage is carried out with small-scale trials and large-scale trials. The analysis stage of the assessment uses a questionnaire to determine the shortcomings and weaknesses of an application product. Media testing was conducted on 3, namely, informatics engineering (IT) lecturers, Manual Therapy Course Lecturers and Entrepreneurship Course Lecturers at Singaperbangsa Karawang University (UNSIKA), in the validation process the media expert provided an evaluation to add a product menu, change the application name and add health tips. After media expert validation, validation was immediately carried out by the material expert. In the validation process, changes were made to the massage product menu to add a massage service menu and add references from material experts, after validation by media experts and material experts, validation was carried out to test the application to run well to IT experts. In the validation process, IT experts suggested using a fireplace to store the source data for BOD Sports Massage application users. After completing the validation by media experts, material experts and IT experts, it was stated for testing. The trial was carried out in two stages, namely small-scale trials and large-scale trials. After the final revision, the final product was obtained which was ready to be used by massage service users as a medium for ordering massage services.

CONCLUSION

Based on the results of the research and discussion for the development of the BOD Sports Massage application, several stages of feasibility testing are required, namely media expert testing, material expert testing, IT expert testing, and several Respondent tests. Based on the small-scale trial, the BOD Sport Massage Application application shows that the assessment of the feasibility of the contents of this application is 88% which is included in the good/feasible category, in terms of appearance and use of 86.6%, the total of all feasibility assessments of the BOD Sport Massage Application application is 87.5% and is included in the Good/Feasible category. The results of the large-scale trial regarding the BOD Sport Massage Application application show that the assessment of the feasibility of the contents of this application is 85.6% which is included in the good/feasible category, in terms of appearance and use of 90.1%, the total of all feasibility assessments of the BOD Sport Massage Application application is 87.6% and is included in the Good/Feasible category so that it can be concluded that the product can be used for ordering massage services for Athletes and the General Public.

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