USABILITY ANALYSIS OF INTERNATIONAL PROGRAM INDUSTRIAL ENGINEERING WEBSITE UNIVERSITAS ISLAM INDONESIA USING PERFORMANCE MEASUREMENT

UNDERGRADUATE THESIS

Submitted to the International Undergraduate Program in Industrial Engineering in Partial Fulfilment of Requirement for the Degree of Sarjana Teknik at the Faculty of Industrial Technology Universitas Islam Indonesia

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AUTHENTICITY STATEMENT

For the sake of Allah SWT, I admit this work is the result of my own work, except for the excerpts and summaries from which I have explained the source. If in the future, it turns out that my confession is proven to be untrue and violates the legal regulations in the paper and intellectual property rights. In that case, I am willing to get a diploma that I have received to be withdrawn by Universitas Islam Indonesia.

Yogyakarta, 25th June 2023

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RESEARCH COMPLETION LETTER

SUPERVISOR APPROVAL SHEET

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UNDERGRADUATE THESIS

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DEDICATION PAGE

This final project is presented to God Almighty Allah SWT as a form of worship of the author as His servant, to both parents of the author who continue to provide moral and material support to the author, as well as all parties who have accompanied the author's learning process during his strata-1 education.

MOTIVATION PAGE

"Indeed, with difficulties there is ease [Al-Insyirah/94:6]"

FOREWORD

Bismillahirrahmanirrahim

Assalamualaikum Warahmatullahi Wabarakatuh

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Author,

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ABSTRACT

The role of a university website is not only limited to a medium of information, but it is also one of the size patterns used to measure the quality of the university. A good website is a website that is in great demand by its users as well as convenient to use. ISO 9241-11 describes how to identify information to consider when determining or evaluating the usefulness of a visual interface to achieve specific goals with effectiveness, satisfaction, and efficiency. Based on the results of direct observations made with a preliminary dispersal questionnaire on UII's Industrial Engineering IP website, 30 responses. As for the results of the distribution of questionnaires, it was found that 56% said the website was good, and 44% said the website still needs to be developed because it does not make it easier for users to use it. The purpose of this study is to measure usability and identify what problems will affect the consideration of improving the appearance of the website. Based on this, a usability analysis was carried out using performance measurement and a system usability scale (SUS) questionnaire. It was found that the average effectiveness result was 83%, with 474 results and 96 failures from scenario 7 tasks. The average efficiency results show that the efficiency value is 57% of the 7 task scenarios, with the lowest efficiency value found in task 1, namely the scenario for opening the website. The problems identified on the website are now 7 problems: student feature, academic feature, IPUIITALK feature, website opening, profile feature, mobility feature, and research feature. The satisfaction felt by respondents with the website obtained a score of 60%, namely grade D (Poor). The results showed that the UII Industrial Engineering IP website system is not acceptable in the interpretation of acceptability.

Key Words: Performance Measurement, SUS, Usability, Website.

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CHAPTER I

INTRODUCTION

1.1 Background

Technology in the 4.0 era, which is developing so rapidly, quickly, and massively makes many universities, institutions, or companies that seek to apply technology to their systems (Tyas, E.H., 2019). Information technology in the form of a website is not only limited to an information medium but is also one of the measurement patterns used to measure the quality of the university. A good website is a website that is in great demand by its users and is convenient to use. As an information medium, academic websites play an important role for universities around the world (Mogaji, E., 2016). Website usability is an approach to making the site easy for users to use without having to go through special training. The usability measurement is essential in the development of the University website in order to maintain its existence in the world of education.

The role of a university website is not only limited to a medium of information, but it is also one of the size patterns used to measure the quality of the university. A good website is a website that is in great demand by its users as well as convenient to use. University website needs to get attention for the sake of development and maintaining consistency of its quality so that the university website becomes better in the eyes of users. As an information medium, academic websites play an important role for universities worldwide (Barnawi, 2022). E-learning websites should provide good reusability so that the interaction of the learners can be as natural and spontaneous as possible (Sternaad Zabukovsek et al., 2022). Universities'

prospective student web pages aim to disseminate information about their academic and social opportunities to their stakeholders; therefore, they must be accessible, of high-quality of use, and reliable (Macakoglu, 2022). Websites play an important role in the growth of an organization, in which a website is able to represent the organization's values, communicate the vision and mission of the organization and facilitate the various tasks that the organization needs to perform to its stakeholders (Glee, 2022).

Good usability is very influential for website users, making it easier for users to use the website. To find out whether a system can be used by users effectively, with efficiency, and satisfaction, therefore, evaluation becomes essential in terms of the usability aspect (Ilyas et al., 2022). Products that have good usability will also increase user efficiency and productivity. Based on Jacob Nielsen, usability is a quality attribute that assesses the level of ease of interface used (Nielsen, 1993). All problems found on IT websites are problems related to reusability. Reusability problems may cause this website to become difficult to use (not usable). Some components important in designing a usable website include system design, clear and simple navigation, clear and simple content, and also facilitation feedback from users.

Figure 1.1 Website Interface

The International Program (IP) Industrial Engineering (IE) website, captured in Figure 1.1, is used to convey information from the department to students with the link https://industrial.uii.ac.id/ip/. Especially the International Undergraduate Program majoring in industrial engineering. For this reason, it is important for

academic websites to have good usability to make it easier for users to learn and use the website to find the desired information. The problem of usability can cause this website to be difficult to use, and the information obtained is not in accordance with the needs of users. This encourages research related to website usability to find out the user's condition and whether it is comfortable to use the website.

ISO 9241-11 describes how to identify information to consider when determining or evaluating the usefulness of a visual interface to achieve specific goals with effectiveness, satisfaction, and efficiency. Research conducted by Rusli et al. (2008) regarding the usability measurement of an online news website resulted in the measurement of website usability is important. By knowing the usability level from the perspective of participants, the web developers and designers are able to improve the marketing demand and performance by the user experience on the website. Another research with website objects at universities conducted by Ramadhan et al. (2021) explained the effect of website usability for students, which can make improvements to the university system and facilitate the distribution of information. The purpose of the usability test is to measure how a user operating a website can run effectively, efficiently, safely, comfortably, and easy to learn for users when they first operate it (ISO 9241-11). In usability testing, the type of user interaction with the interface, user performance, time spent completing tasks, and satisfaction.

On the UII website, it is found that some features are still inadequate, in which the language still uses English partially, especially on the upper right corner feature button, content that has not been updated, and the display, if accessed via a smartphone is more complicated than a laptop. The IP industrial Engineering students use this website for various purposes such as internship, academic, scholarship, research, and others that will be variables in this study. Respondents also stated that there were still features that did not work well, from the results of the evaluation with 30 students. As for the results of the distribution of questionnaires, it was found that 44% said the website was good, and 56% said the website still needs to be developed because it does not make it easier for users to use it. Some important components in website design are usable: a clear and simple navigation system design, clear content, and available feedback facilities from users.

Based on the results of direct observations made with a preliminary dispersal questionnaire on UII's Industrial Engineering IP website, obtained 30 responses from 30 respondents who were students originatedfrom the Industrial Engineering UII International Program, with male respondents with a total of 24 respondents and 6 female respondents. The purpose of the website is to reach as many as 5 respondents who are looking for an internship program, need to download an academic calendar as many as 14 respondents, to find scholarships as many as 2 respondents, to find research as many as 4 respondents, and for other purposes as many as 5 respondents.

Based on usability problems contained on the UII's Industrial Engineering IP website and the results of questionnaires that were obtained from 30 responses, all of them, or 56%, expect website development to be the reason for website development. This study also used a useberry questionnaire and found that font, color, style, and navigation features need to be updated. Website development aims to make this website provide convenience for users in obtaining information that is desired. The International Program (IP) Industrial Engineering (IE) website was chosen as research material for minimizing errors made by researcher.

In order to make the website design fits with the expectations of Industrial Engineering IP UII website users, it should give users the easiness of access, both from a computer or gadgets. It is explored to find out the user's understanding of the content/features on UII's Industrial Engineering IP website, as well as facilitate the use of the web in the future. These problems or obstacles will certainly hinder users from operating the website. Therefore, to find out these problems further, it is necessary to test an approach with users so that these problems can be resolved appropriately by applying in accordance with the approach using the method of usability.

For this to be obtained, it is necessary to do an evaluation with the intention of identifying the level of efficiency and effectiveness by using the performance measurement method, where the user will be given some tasks that must be carried out according to the procedure. Performance results measurement can show the need

for task completion time and success for the user in completing all tasks as a representation of the efficiency attribute and effectiveness. As well as satisfaction from respondents with the interview method and collection of satisfaction values with a Likert scale obtained from the results of the questionnaire demographics found some complaints from users where the website page is difficult to find with web search engines.

Performance measurement techniques are used to obtain quantitative data About test takers' performance when they perform tasks during usability testing (Main, 2011). Selection of System Usability Scale (SUS) questionnaires for components Satisfaction in this study is because the costs incurred are not expensive, but effective tools to assess the usability of products, including websites, mobile phones, interactive voice response systems, TV applications, and more (Bangor, 2009). By using the System Usability Scale (SUS), it can be known the level of satisfaction that is perceived by users. Based on this, a usability analysis was carried out using performance measurement and a system usability scale (SUS) questionnaire. The purpose of using the performance measurement method is to determine the level of efficiency and effectiveness of work on the website (Vatansever, K., 2018). The system Usability Scale (SUS) will provide results of the level of satisfaction obtained by users. The results of this study are expected to be recommendations for improvement and can optimize the use of university websites.

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1.2 Problem Formulation

Then, as depicted from the background, the following problems can be formulated, as follows:

1. What are the results of the percentage of effectiveness, efficiency, and satisfaction obtained from the IP Industrial Engineering UII website?
2. What are the problems on the IP Industrial Engineering UII website?
3. What are the recommendations that can be given for the improvement of the IP Industrial Engineering UII website?

1.3 Research Objectives

Based on the formulation of the problem above, the goals set by the researcher are:

1. T o measure the result of the percentage of effectiveness, efficiency, and satisfaction obtained from the IP Industrial Engineering UII website.
2. To describe the problems on the IP Industrial Engineering UII website.
3. To give the recommendations that can be given for the improvement of the IP Industrial Engineering UII website.

1.4 Research Limitations

The limitations of the research, based on the formulation of the problem, are described as follows:

1. This research uses performance measurement methods and questionnaires system usability scale (SUS) in carrying out data collection and data processing.
2. Respondents in this study were students who had accessed the IP Industrial Engineering UII.
3. This research was conducted only to provide input on the design of the IP Industrial Engineering UII website from the results of data processing.

1.5 Research Benefits

The benefits that will be achieved based on the research objectives that have been described are as follows:

1. Make it easier for website users to use the IP Industrial Engineering UII website.
2. Assist in the development of the IP Industrial Engineering UII website based on usability criteria.
3. The results of this study are expected to be used as a reference for the next study.

1.6 Writing Systematics

The systematics of writing this final project report is compiled systematically and consists of six chapters, and each chapter will be described as follows:

CHAPTER I INTRODUCTION

The introductory chapter discusses the research background, problem formulation, problem limitations, objectives, benefits, and systematics of the research. The background contains the reasons for the research to be carried out, the formulation of the problem contains the things that the research will do, the limitations of the problem related to the scope of the research discussion, the purpose of the research carried out, the benefits that can be achieved from the research, and the systematics of writing used for making research reports.

CHAPTER II LITERATURE REVIEW

The theoretical foundation chapter contains theoretical explanations and literature reviews according to the topic of research discussion, namely matters related to the usability of the website used as the basis for research.

CHAPTER III RESEARCH METHODS

The research methods chapter contains an explanation of the stages of research carried out from the beginning, namely the methods used in the research, the methods of analysis and design, to the stages that must be carried out until the end of the research.

CHAPTER IV DATA COLLECTION & PROCESSING

The collection & processing chapter contains an explanation of the phases of data collection, such as the attributes and methods used when conducting research to carry out related data processing to solve problems.

CHAPTER V DISCUSSION

The discussion chapter contains an explanation of the analysis of the results of data processing, which refers to the theoretical basis as a support for research.

CHAPTER VI CONCLUSIONS &S ADVICE

The conclusion & suggestions chapter explains the conclusions of the research results based on discussion and answering problem formulations and providing suggestions for improvement for further research.

BIBLIOGRAPHY

APPENDIX

CHAPTER II

LITERATURE REVIEW

2.1 Inductive Studies

This research uses inductive studies derived from books, journals, and previous research in accordance with the title of the study. In this study, there have been many researchers who have tested using the same method. The role and contribution of previous research are very important to provide references to current research and become a benchmark and comparison for each researcher in conducting research. The following are previous studies used by researchers in making comparisons and references in solving problems in this research process:

Research has been conducted by Fortune et al. (2018) regarding the usability of university websites in Nigeria; with the aim of this study is to evaluate accessibility guidelines and usability against website content accessibility guidelines (WCAG) 2.0 and the US Federal (Usability.gov). The study used the SortSite Automated Tool to evaluate the suitability of 10 randomly selected state-owned university websites in Nigeria. The results showed that the website did not comply with the implementation of WCAG 2.0, and also most of the usability guidelines hindered ease of access and navigation, thereby increasing barriers to website accessibility.

Another study has also been conducted on reusability on websites conducted by Dabrowski et al. (2014) with the aim of this study is to conduct a usability test on 6 websites in Poland by identifying possible relationships between the characteristics of website usability, consumer satisfaction, trust, and loyalty. The previous research is captured in Table 2.1, while satisfaction with the usability questionnaire is captured in Table 2.2 below.

Table 2. 1 Previous Research

Author	Author	Year	Object	Methods	Aspect
Usability Assessment of Academic Digital Libraries	Judy Jeng	2005	Universities Website	Performance Measurement, Questionnaires	Effectiveness, Efficiency, Satisfaction, and Learnability
Integrating usability and social cognitive theories with the technology acceptance model to understand young users' acceptance of a health information portal	Da Tao Fenglian Shao Hailiang Wang	2020	University Website	Technology acceptance model (TAM), Questionnaires	Perceived usefulness, perceived ease of use, attitude towards usage, behavior intention

Author	Author	Year	Object	Methods	Aspect
Usability Testing On Website Wadaya Based on ISO 9241-11	I K R Arthana, I M A Pradnyana and G R Dantes	2018	University website	Wireframe as an alternative design, SUS Questionnaire	Effectiveness, Efficiency, Satisfaction
Usability Testing Of Google Cloud Applications: Students' Perspective	Abdullah Alqahtani	2019	Learning management system (LMS)	SUS Questionnaire, Performance Measurement	Effectiveness, Efficiency, Satisfaction
Performing Usability Evaluation on Multi-Platform Based Application for Efficiency, Effectiveness and Satisfaction Enhancement	Nik Azlina Nik Ahmad	2021	Platform Website	The usability assessment framework	Satisfaction, efficiency, and effectiveness

Author	Author	Year	Object	Methods	Aspect
E-Government Usability Evaluation: Insights from A Systematic Literature Review	Ria Lyzara	2019	E-Government website	Performance Measurement, SUS (System Usability, Heuristic evaluation	Flexibility and efficiency of use; aesthetic and minimalist design; help users recognize;
Spreadsheet Usability Testing in Nielsen's Model among Users of ITSMEs to Improve Company Performance	Asrul Sani, Ninuk Wiliani, T. Husain	2019	Company website	The questionnaire uses a Likert scale, PLS, SEM	Learnability, Efficiency, Memorability, Errors, and Satisfaction.
The construction and validation of a usability evaluation survey for mobile learning environments	Nadia Parsazadeha, Rosmah Alib, Mehran Rezaeia, Sanaz Zolfaghar Tehrani	2018	Educational website	Cooperative and Interactive Mobile Learning Application (CIMLA),	Effectiveness, Learnability, Efficiency, Memorability, Errors, Cognitive Load, Satisfaction, and Timeliness.

Table 2.2 Satisfaction Usability Questionnaires

Subscales	Questionnaires					
	Questionnaire for User Interface Satisfaction (QUIS)	Software Usability Measurement Inventory (SUMI)	Post Study System Usability Questionnaire (PSSUQ)	System Usability Scale (SUS)	User Experience Questionnaire (UEQ)	Website Usability Evaluation Tool (WEBUSE)
Overall Quality	•			•		
Screen	•					
Information	•			•		
Efficiency				•	•	
Helpfulness		•				
Dependability					•	
Effectiveness				•		•
Satisfaction				•		
Terminology			•	•		
System			•	•		
Control		•	•			
Content						•

Navigation and Link						•
User Interface Design						•
Performance						•
Product				•		
Organization						•
Computer software				•		

Source: Valadi, S., & Broneske, I. D. (2020)

QUIS 7.0 is the latest version of this questionnaire, which examines demographic characteristics and collects user background information. It also measures and evaluates "11 specific interface factors, including screen factors, terminology and system feedback, learning factors, system capabilities, technical manuals, online tutorials, multimedia, voice recognition, virtual environments, internet access, and software installation (Sauro, 2016). The SUS questionnaire was designed in 1986 by Brooke to assess the user's satisfaction with the usability of a product or service. This questionnaire has ten items with a 5 rating scale of measurement between the two options, strongly disagree and strongly agree (Valadi, 2020). The evaluation tool developed is called WEBUSE (Website Usability Evaluation Tool). It was developed based on the model shown in Fig. 2.1.

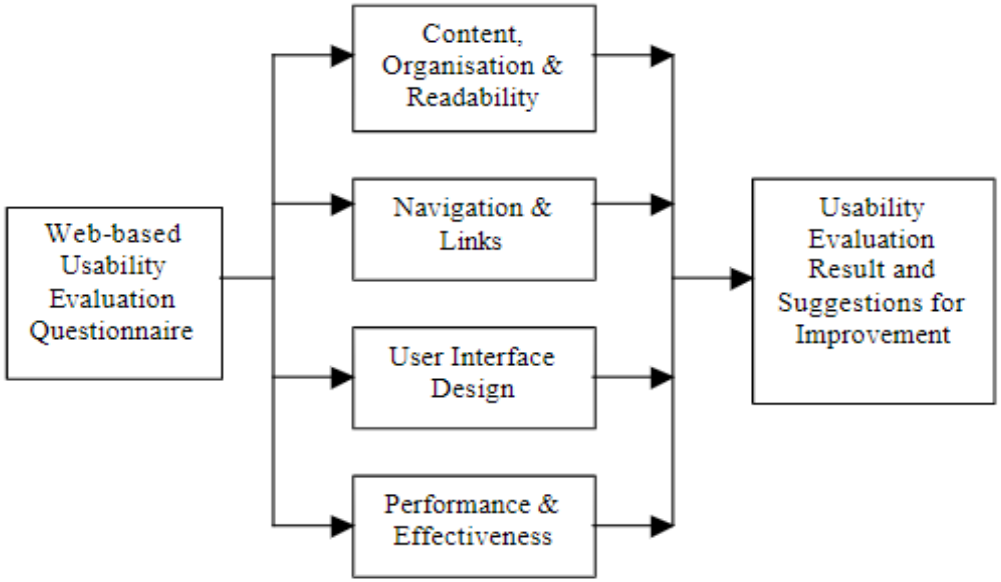

Figure 2.1 Website Usability Evaluation Tool

Kirakowski et al. evaluated user satisfaction with the usability of five websites based on a questionnaire method. The authors developed a new questionnaire (named WAMMI) for the evaluation. The questionnaire showed that the evaluation of user satisfaction contributes to the successful development of websites. Joshua Tarigan, in 2008, conducted research entitled "User Satisfaction Using Webqual Instrument: A Research on Stock Exchange of Thailand". This research aims to assess user satisfaction using the dimensions of WEBQUAL instruments by collecting 341 questionnaires from e-library users. Research results found that 54% of end-users' satisfaction can be explained by the Webqual 4.0 dimension, while 46% of end-user satisfaction cannot be explained. Therefore, there must be other variables that have an influence. Also, the limitation arises from the component of website quality.

2.2 Deductive Study

The deductive study in this study contains theoretical explanations according to the topic of research discussion, namely matters related to the usability of the website used as the basis for the research.

2.2.1 Website Usability

A website is a set of pages that display content or something that can be accessed or opened if we access the internet (Brugger, 2009). According to Nielsen (2000), web usability refers to how quickly a person learns to use something, how efficiently it is used, how long it can be remembered, how many mistakes are made, and how long one likes to use it. Users must be able to intuitively determine the steps to be taken when using a website simply by interacting with all the things displayed on the website page, such as pressing a button. The objectives of web usability are:

1. Display information clearly to the user.

2. Give the right choice in a clear way.

3. Eliminate the confusing step related to the action performed.

4. Put important parts in the right place on the website.

2.2.2 Usability

Usability is the ease with which humans can use a tool or other man-made object to achieve a specific goal (Nielsen, 1993). Usability analyzes the extent to which a product can be used by a particular user to achieve the targets set with effectiveness, efficiency, and satisfaction in a particular context used. ISO 9241 part 11 (1998) explains that usability is the extent to which a product can be used by a particular user to achieve the targets set with effectiveness, efficiency, and achieving satisfaction of use in a particular context. Usability should include three aspects, as follows:

a. Effectiveness

Effectiveness shows the level of accuracy and perfection that the user achieves when performing a particular task.

b. Efficiency

Efficiency shows the resources used in relation to the accuracy and perfection that the user achieves in carrying out the task.

c. Satisfaction

Satisfaction indicates that the user feels free from discomfort and shows positive behavior towards the use of the product.

2.2.3 Usability Method

The usability test is one of the categories of methods in the evaluation of usability that observes the user of a design and then takes the data and analyzes it (Battleson, B. et al., 2020). Users must be able to intuitively determine the steps to be taken when using a website simply by interacting with all the things displayed on the website page, such as pressing a button. The methods of usability are captured in table 2.3 below. The objectives of web usability are:

1. Display information clearly to the user.
2. Give the right choice in a clear way.

3. Eliminate the confusing step related to the action performed.
4. Put important parts in the right place on the website.

According to Nielsen (1993), there are 9 methods of usability described in the stage life cycle.

Table 2.3 Methods of Usability

Method	**Life cycle**	**Respondent**	**Advantages**	**Disadvantages**
Heuristic Evaluation	Initial design, "Inner Cycles" from design iterative	-	1. Find problems reusability by Individual 2. Troubleshooting expert users	1. Not involving actual users, to avoid unexpected surprise 2. Hooking cycles evaluation with their need
Performance Measurement	Competitive Analysis, Final testing	≥ 10	Easy to compare results	Did not find individual reusability problems
Thinking Aloud	1. Iterative design 2. Formative evaluation	3-5	1. Determine user misunderstandings 2. Cheap	1. Unnatural for users 2. Difficult for expert users to reveal

Method	**Life cycle**	**Respondent**	**Advantages**	**Disadvantages**
Observation	1.Task analysis 2. Follow-up studies	3 or more	1. Contains ecological validity 2. Uncovering real tasks User 3. Shows functions and features	1. It is difficult to make an agreement 2. No tester control
Questionnaire	Task analysis	≥ 30	-Finding preferences users subjectively - Easy to repeat	Requires a working example (to prevent misunderstanding)
Interview	1.Task analysis 2. Follow-up studies	5	Flexible in deep attitude, digging into the experience	Time-consuming, as well as difficult to analyze and compare
Focus Groups	1.Task analysis 2. Follow-up studies	6-9 per group	Spontaneous reactions and group dynamics	Difficult to analyze, low validity

Method	**Life cycle**	**Respondent**	**Advantages**	**Disadvantages**
User Feedback	Follow-up studies	100	Track changes in user needs and views	Requires a dedicated organization to handle replies

2.2.4 System Usability Scale (SUS)

System Usability Scale (SUS) is one of the methods used in testing the Usability questionnaire used in measuring usability in a computer with a subjective point of view of use (Broke, 1996). System Usability Scale is a fairly simple testing system with ten scales that provides a comprehensive point of view of the evaluation of the purpose of usability. SUS is a fairly simple Likert scale with respondents being required to provide an assessment in the form of a level of approval and disapproval on a scale of 5 or points. Sus grade is seen in Figure 2.1 of the SUS model, which consists of 5 categories, namely A, B, C, D, F.

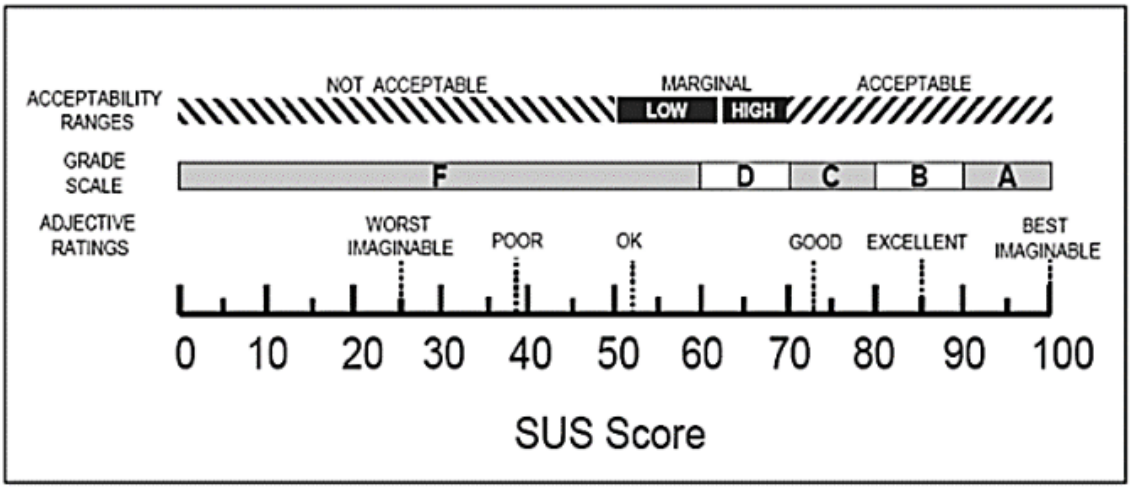

Figure 2.1 SUS Model

2.2.5 Performance Measurement

The performance measurement method is a method used for reusability testing which aims to obtain cumulative data on test performance when the subject or user performs a certain task (Liu, 2022). In general, the testing process or its implementation prohibits all forms of interaction between participants and evaluators during the testing process because it will affect the results of quantitative performance data to be obtained.

One of the ways in which users interact systematically with the system. Also users are required to complete a task based on scenarios under controlled and documented conditions. This technique can be used in combination with retrospective testing, interviews, or questionnaires so that both quantitative and qualitative data are obtained. According to Nielsen (1993), quantitative usability measurements include:

1. The user's time to complete a specific task.
2. The number of tasks that can be completed within a certain time limit.
3. Comparison of successful and failed tasks performed.
4. Time to correct the error.
5. The number of mistakes the user made.
6. The number of commands or other features used by the user.
7. The number of commands or other features that the user never uses.
8. The frequency of use of the relief facility and the time spent on using the assistance facility.
9. The sum of expressions of frustration or joy.

In the testing process using the performance measurement method, several processes or steps are needed in its use, including the following (Usability Home, 2015).

1. Set Goals

In the testing process, of course, it will determine what attributes of usability you want to achieve (for example: easy to learn, efficient to use, easy to remember, few errors, subjectively pleasing). Adjusting the various components of the goal and determining the relative importance, as well as calculating the problems that arise in the process of testing usability.

2. Conducting Testing

During the performance measurement testing process, it would be nice to first ensure that there are no unexpected disturbances during the testing process. When possible, in the testing process, the test should be recorded in a video form to support data collection so that some data can be collected or verified after the test by reviewing the video recording. Although this method is intended for quantitative data collection, it is worth noting that it is quite important to collect qualitative data to uncover the mental processes of the user.

3. Data analysis and conclusions

In this process, it serves to perform a comparison with the benchmark value (for ordinal data, intervals, or ratios). The mean or median can be calculated, along with the standard deviation, the average standard error, and the confidence interval.

2.2.6. User Interface

According to Barfield (1993), the user interface of a system has a relationship with the system itself, the users of the system, and the way in which they interact. There are several things that cause a decrease in the level of usability of an Interface Design System, including:

1. The text is not yet clear, and the improper choice of words in asking becomes the cause of doubt and ends up being re-read, which allows the users to misinterpret it.
2. Improper graphics so that the important elements are hidden.
3. Non-representative titles. It also creates confusion and hinders the ability to see existing relationships.
4. Requests for unimportant or irrelevant information, requests for information that require a rethinking of the previous answer so as to confuse the user, which ultimately gives rise to errors.
5. An unstructured and directional layout that allows errors to occur.
6. The quality of the presentation is poor, difficult to read, will degrade the user's ability, and cause another mistake

2.2.7. Efficiency and Effectiveness

The American National Standard Institutes (ANSI) and The International Standard Organization (ISO 9241-11) (2001) define usability as the degree to which a product can be used by a particular user to achieve a set target with effectiveness, efficiency, and user satisfaction in a particular context of use. In this case, effectiveness means how far the goal or task is achieved. At the same time, efficiency means the amount of effort needed to complete the goal. While, satisfaction is the level of comfort that users feel when using a product and how acceptable a product is for users to achieve their goals (Dix, 2004). Rubin and Chisnell (2008) say that to become a usable product or service, it must be useful, efficient, effective, satisfactory, learnable, and accessible.

The definition of efficiency, according to Sedarmayanti (2001), is, in principle, the best comparison between the results obtained and the activities carried out. Working with efficiency is working with movement, effort, time, and flexibility that is as little as possible by using a simple way of working, the use of tools that can help speed up the completion of tasks and save movement and effort, then a person can be said to work efficiently and obtain satisfactory results. Efficiency is the ability to achieve an expected result (output) at the expense of minimal (input). An activity has been carried out efficiently if the implementation of the activity has been achieving the goal (output) with the lowest sacrifice (input), resulting in efficiency can be interpreted as the absence of waste (Nicholson, 2002).

2.2.8. Human-Computer Interaction (HCI)

Comfort and convenience (usability) have subtypes, one of which is Human-Computer Interaction (HCI). HCI itself is an interaction that occurs between computers and users that focuses on the design, evaluation, and implementation of these interactions (Caesaron, 2015). Similar research on website design of a website can be said to be good by considering Language and Font Style (Geasela, 2018). There is also the 7C's framework method which is used as a guide for designing customer interfaces and online marketing. In this method, it is also explained that a good website if it has a good level for the categories of context, content, community, customization, communication,

connection/link, and commerce (Conole, G, 2016). There usability related to the HCI concept are:

1. Language

   A good language to use for websites is a uniform language to be easily understood by users (Geasela, 2018).

2. Font Style

   The website can be said to be good if the font used is uniform for all elements on the website and has customization of font style and font color used (Kalbuadi, 2018).

3. Navigation and Link

   Link is the degree to which a site can connect to other sites, usually displayed to users in the form of underlined or highlighted text, images, or graphics. The website already has a good link, which is based on the results of the questionnaire obtained by 1 in 30 respondents who failed to find the website link. A good website if it has good navigation and links so that it can provide comfort and satisfaction for its users (Tebay, 2023).

4. Content

   A good website can provide the content needed by users, and how updated information is displayed on the content (Conole, G, 2016).

5. Color

   The combination of colors of a website is one of the most important things to make an attractive website look. Then, to determine the color combination of a website, it is necessary to pay attention to the proper harmonization and contrast (Sasaki, J., 2019).

CHAPTER III

RESEARCH METHOD

The research methods chapter is a chapter on the flow of research and how the research is carried out from beginning to completion, which can be seen in points 3.1, the object of study to 3.9 research flowchart. The description of the research framework using 5W + 1H includes the following:

Table 3.1 5W + 1H

Questions	**Answers**
What	The research was conducted on the academic website IP Industrial Engineering UII with the web address https://industrial.uii.ac.id/ip/, as for the attributes used are effectiveness, efficiency, and satisfaction.
When	The usability test was conducted for 3 weeks, from March 1, 2023, to March 15, 2023.
Why	As for the results of the distribution of questionnaires, it was found that 56% said the website was good, and 44% said the website still needs to be developed because it does not make it easier for users to use it. This research aims to find out what is the increase in the percentage of efficiency and effectiveness. The results of this study are expected to be recommendations for improvement and can optimize the use of university websites.
Who	Active student batch 2019,2020,2021,2022 of IP Industrial Engineering. Because in this study it was categorized into 2 respondents, namely expert, and novice, with an explanation. The IP industrial engineering UII website is intended for IP students so that IP respondents are selected. And the criteria for the selected batch are active students in accordance with the limitations on research.

Where	UII Industrial Engineering IP website by collecting google form
How	Based on this, a usability analysis was carried out using performance measurement and a system usability scale (SUS) questionnaire. 1. Performance Measurement Measure user performance when accessing the website. Effectiveness is seen from the Success of task completion, while efficiency is measured by the timely completion of the assigned task. The purpose of using the performance measurement method is to determine the level of efficiency and effectiveness of work on the website (Vatansever, K., 2018). 2. System Usability Scale (SUS) Questionnaire Measure user satisfaction by looking at the quality levels website based on the SUS score obtained. The system Usability Scale (SUS) will provide results of the level of satisfaction obtained by users. As well as satisfaction from respondents with the interview method and collection of satisfaction values with a Likert scale obtained from the results of the questionnaire demographics found some complaints from users where the website page is difficult to find with web search engines. 3. Useberry Questionnaire Evaluate the website color, contrast, font, style, and navigation with a following link https://app.useberry.com/t/7vJr39AZIY1Qdx/

3.1 Object of Study

The research that is main focus is the IP Industrial Engineering UII website.

3.2 Research Subjects

The subjects of the study are individuals, namely students who have visited the IP Industrial Engineering UII website. There were 30 users who were respondents in this study with the criteria in the novice and expert categories. In testing using questionnaires, 30 respondents were used in testing with the following criteria:

1. Expert category:
    - IP Industrial Engineering Student of Universitas Islam Indonesia, Yogyakarta (Batch 2019, 2020, 2021, 2022)
    - Can use a computer and smartphone.
    - Can use the internet.
    - Have ever accessed the UII gateway website.

4. Novice category:
    - IP Industrial Engineering Student of Universitas Islam Indonesia, Yogyakarta (Batch 2019, 2020, 2021, 2022)
    - Can use a computer and smartphone.
    - Can use the internet.
    - Have not accessed the UII gateway website.

According to Sauer, J., Seibel, K., &; Rüttinger, B. (2010), experts report more usability problems than beginners because experts have a habit of website access, whereas beginners do not. The expert or novice category is used in research to make it easier to find out the opinions of website users from the expert and novice sides. In the usability test, users or website users are required as respondents. Therefore it is important to select respondents from several variations that suit the needs of Urokohara, H., Tanaka, K., Furuta, K., Honda, M., &; Kurosu, M. (2000, April):

1. Novice users, namely people who know the task but have little knowledge about the system.
2. Knowledgeable intermittent users, i.e., people who are familiar with the task but rarely use the tool lead to difficulty remembering the procedure in performing the task to achieve the goal.
3. Expert users, i.e. users who have deep knowledge of relevant tasks and objectives, as well as actions needed to complete purpose.

3.3 Data Type

3.3.1 Primary Data

Primary Data is data obtained directly from users who have accessed the website. The data used includes demographic data, respondents' opinions, and questionnaires which are used for system usability scale (SUS) measurement as a satisfaction measurement and performance measurement as a measurement of effectiveness and efficiency.

3.3.2 Secondary Data

Secondary Data is data collected from previous research, namely literature study data, journals, theses, and information obtained from the internet media. Secondary data is useful as a basis for strengthening studies in research usability websites so that researchers have references and facilitate the research process.

3.4 Data Collection

The data collection method is a way of procuring primary data and data secondary for research purposes. This data collection is carried out to obtain data or information related to the problem to be studied. The techniques used in data collection are:

1. Questionnaire

Questionnaires are used in measuring reusability on a computer with a subjective point of view of use (Broke, 1996). A questionnaire is a technique of collecting data or information through forms containing questions that will be filled out by respondents Cahyo, K. N., Martini, M., &; Riana, E. (2019). Filling out questionnaires is carried out online using the services of Google Forms, which can make questionnaires according to research data needs. Data collection by sharing questionnaires with candidates respondents are students who have visited the UII Industrial Engineering IP website. This study also used a Useberry questionnaire to evaluate font, color, style, and navigation features that need to be updated.

2. Likert Scale

Sugiyono (2011), the Likert scale is a scale used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena. This study used a Likert scale questionnaire to test users' perceptions of the website. In this stage, researchers will distribute a Likert scale questionnaire to respondents, namely students who have visited the IP Industrial Engineering UII website. The Likert scale questionnaire is used to measure an opinion, perception, or attitude of a group in a social phenomenon. Social phenomena are a predetermined research variable. The Likert scale is captured in Table 3.2 below.

Table 3.2 Likert Scale

Level	Information
1	Strongly disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly agree

3.5 Research Tools

The tools that researchers use in data collection are as follows.

1. IP Industrial Engineering UII website interface

The appearance of the UII Industrial Engineering IP website is used to see which website interface should be made improvements.

2. Microsoft word

This software is used by researchers in the preparation of research reports in writing.

3. Google Form

This tool is used for the collection of Likert scale questionnaires.

3.6 Field Data Collection

The field data collection process is carried out by taking data directly through the distribution of questionnaires to the IP Industrial Engineering UII website using the help of google forms and then processing using a Likert scale.

3.7 Results and Discussion

The results and discussions are the last stage to monitor and find out how the results of the measurement of usability are based on aspects of effectiveness, efficiency, and satisfaction. As well as provide recommendations for the development of the appearance of the website.

3.8 Conclusion

This conclusion will contain the answer to the formulation of the problem or the purpose of the previously determined study. In addition to the conclusions, suggestions will be given regarding the results of research that has been carried out as a form of improvement for the website.

3.9 Research Flowchart

The flowchart in Figure 3.1 explains the flow of research and aims to provide an overview of the implementation of research from beginning to end.

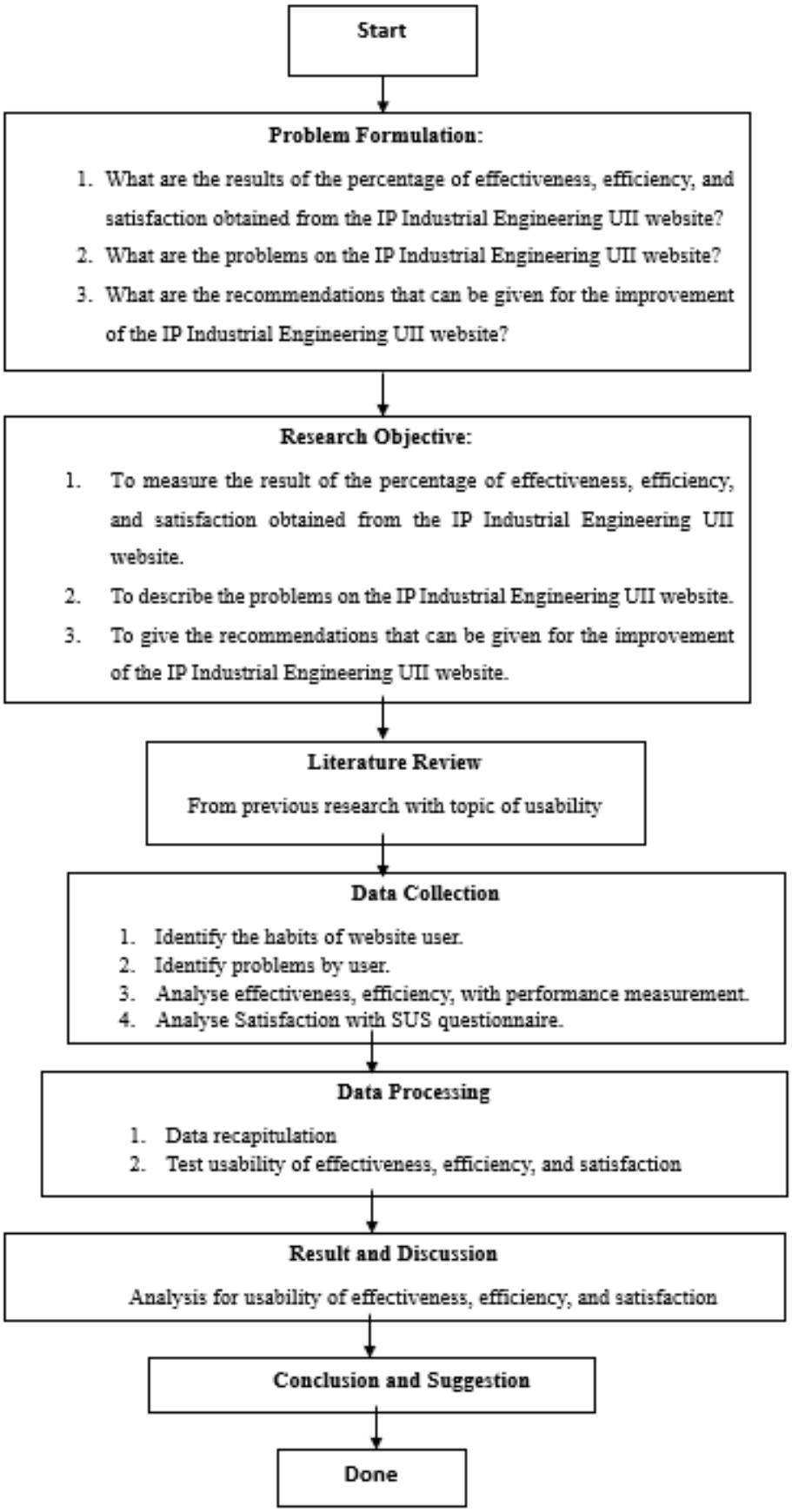

Figure 3.1 Flowchart

CHAPTER IV

DATA COLLECTION AND PROCESSING

4.1 Data Collection

4.1.1 Profile of Respondent

The questionnaire was distributed using a Google Forms consisting of 3 segments, namely demographic profile, system usability scale, and performance measurement tasks that have been distributed to the population of active UII Industrial Engineering IP students. The respondents addressed in this study were active students of IP Industrial Engineering UII who had accessed the website. Data collection is carried out for 3 weeks, from March 1, 2023, to March 15, 2023. Data is taken through the distribution of questionnaires containing questions to get user feedback. Then the questionnaire was distributed online through Google Forms to the respondent population, and obtained as many as 30 respondents collected in this study of category expert and novice users, refer to Appendix 1.

4.1.2 Characteristics of Respondents

Characteristics of respondents consider the primary demographic profile for respondents (McGrath, 2022). Based on the results of direct observations made with a preliminary dispersal questionnaire on UII's Industrial Engineering IP website, obtained 30 responses where 30 respondents were students from the Industrial Engineering UII International Program, with male respondent A with a total of 24 people and 6 female respondents. The age of respondents under 20 years is 7 people, between 21-25 years, as many as 19 people, and over 25 years ,as many as 4 people. There were 13 respondents from the class of 2019, 4 respondents from the class of 2020, 9 respondents from the class of 2021, and 4 respondents from the class of 2022. Where 13 respondents had an intensity of website use as much as 1-2 times, 11 respondents with an intensity of use 3-5 times, and 10 respondents 6-10 times.

So far, students have used the UII Industrial Engineering IP website for internship purposes as many as 5 respondents. The need to download an academic calendar as many as 14 respondents, to find scholarships for as many as 2 respondents, to find research for as many 4 respondents, and for other purposes for as many as 5 respondents. As for the results of the distribution of questionnaires, it was found that 44% said the website was good, and 56% said the website still needs to be developed because it does not make it easier for users to use it. The demographic data used in the questionnaire were classified by age, gender, and batch. The characteristics of the respondents can be seen in Table 4.1.

Table 4. 1 Characteristics Respondent

No	Characteristic	Respondent	Percentage
1	**Age**		
	Under 20 years old	7	18%
	21 – 25 years old	19	71%
	Above 25 years old	4	11%
2	**Gender**		
	Woman	6	36%
	Man	24	64%
3	**Batch**		
	2019	13	46%
	2020	4	12%
	2021	9	30%
	2022	4	12%
4	**Do you access the Industrial Engineering IP website?**		
	Yes	29	96%
	No	1	4%
5	**How many times do you access the Industrial Engineering IP website within a month?**		

No	Characteristic	Respondent	Percentage
	1-2 times	13	43%
	3-5 times	11	26%
	6-10 times	10	33%
6	**What media do you often use when opening the Industrial Engineering IP website?**		
	Desktop (Laptop, Computer, Netbook, etc.)	18	60%
	Mobile (Smartphone)	12	40%
7	**For what purposes do you usually use the Industrial Engineering IP website?**		
	Looking for the Internship Program	5	16%
	Looking for an academic calendar	14	49%
	Looking for Scholarship	2	6%
	Looking for Research	4	13%
	Others	5	16%
8	**Do you think that currently the website of International Undergraduate Program in Industrial Engineering needs to be developed for users' easiness?**		
	Yes	17	56%
	No	13	44%

4.2 Performance Measurement

The performance measurement method is a method used for reusability testing which aims to obtain cumulative data on test performance when the subject or user performs a certain task (Liu, 2022). Measurement of performance measurement for effectiveness and efficiency was carried out by working on 14 tasks provided to respondents. From the task, the researcher divides each task carried out into several scenarios to assess effectiveness and efficiency based on website pages that are known to have problems in them. Each scenario that respondents work on will be recapitulated by researchers and calculated for efficiency and effectiveness.

In this study, the performance measurement technique became very important because by using this technique, we can measure the usability of the UII Industrial Engineering IP website based on two of the three main components in the definition of usability, namely measuring effectiveness, efficiency, and satisfaction. Effectiveness can be seen by looking at the success rate of respondents in completing the assigned tasks. In the data retrieval process, if the respondent fails to complete the task because he entered the desired menu incorrectly or gave up completing the task, the respondent was judged to be unsuccessful in carrying out the command.

4.2.1 Effectiveness

Effectiveness can be measured based on the completion rate of the users when they achieve the specified goals of the task (Arthana, 2019). In data processing, effectiveness is calculated according to the level of success or success of the respondent in interrupting each given, and in this process, the respondent will be asked to complete 14 tasks given in measuring the effectiveness of the UII Industrial Engineering IP website.

A. Calculation

The calculation of effectiveness is obtained by summing the total tasks achieved divided by the total tasks assigned multiplied by 100%. The following result is a summation of a total of 30 respondents shown in the following table. The element observation effectiveness is captured in Table 4.2 below.

Table 4. 2 Element Observation Effectiveness

Element Observation Effectiveness		R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	R21	R22	R23	R24	R25	R26	R27	R28	R29	R30
Scenarios for opening websites																															
1	Respondents managed to find the IP Industrial Engineering website	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
2	Respondents successfully opened the IP Industrial Engineering website	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Scenarios for the Profile Feature																															
1	Respondents managed to find the profile feature IP Industrial Engineering website	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**

Element Observation Effectiveness		**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**	**R21**	**R22**	**R23**	**R24**	**R25**	**R26**	**R27**	**R28**	**R29**	**R30**
2	Respondents successfully learned about the Industrial Engineering International Program's website	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**Y**
3	Respondents can return to the Home page correctly	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Scenarios for the Students feature																															
1	Respondents successfully opened the student feature	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
2	Respondents successfully opened an achievement section	**Y**	**-**	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**Y**

	Element Observation Effectiveness	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**	**R21**	**R22**	**R23**	**R24**	**R25**	**R26**	**R27**	**R28**	**R29**	**R30**
3	Respondents can return to the Home/Home page correctly	**Y**	**-**	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Scenarios for the Academic Feature																															
1	Respondents successfully opened the Academic feature	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
2	Respondents managed to find the Academic Calendar and download it	**Y**	**-**	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
3	Respondents can return to the Home/Home page correctly	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**

Element Observation Effectiveness		**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**	**R21**	**R22**	**R23**	**R24**	**R25**	**R26**	**R27**	**R28**	**R29**	**R30**
Scenarios for the Mobility Feature																															
1	Respondents successfully opened the mobility feature	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
2	Respondents choose the Double Degree Program section	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
3	Respondents can return to the Home/Home page correctly	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Scenarios for the Research Feature																															
1	Respondents successfully opened the research feature	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**

	Element Observation Effectiveness	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**	**R21**	**R22**	**R23**	**R24**	**R25**	**R26**	**R27**	**R28**	**R29**	**R30**
2	Respondents can find the several types of the topic are offered	**Y**	**-**	**Y**	**-**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
3	Respondents can return to the Home/Home page correctly	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**-**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Scenarios for the IPUIITALK feature																															
1	Respondents successfully opened the IPUIITALK feature	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
2	Respondents can return to the Home/Home page correctly	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**

According to Nielsen (2001), The level of effectiveness and efficiency is measured by using User's Success Rate. The equation formula for calculating effectiveness and efficiency is as follows:

$$= \frac{\sum_{i=1}^{n} Xi}{n} \; x \; 100\% .$$

Where Xi is the success score of the i-th respondent, Xi = {0.1}, n = the number of respondents, then the equation formula to calculate the level of satisfaction is as follows:

$$= \frac{\sum_{i=1}^{n} Xi}{n} \; x \; 100\% .$$

Where Xi is the success score of the i-th respondent, Xi = {0.1}, n = the number of respondents' application usability is the average of effectiveness, efficiency, and satisfaction.

B. Results

The calculation of effectiveness is obtained by summing the total of tasks achieved divided by the total of the given task multiplied by 100%. The following results are a summation of 30 respondents. The results of element observation effectiveness are captured in Table 4.3 below.

Table 4. 3 Results of Element Observation Effectiveness

Element Observation Effectiveness		**Succeed**	**Failed**	**%**
Scenarios for opening websites				
1	Respondents managed to find the IP Industrial Engineering website	**29**	1	**97%**
2	Respondents successfully opened the IP Industrial Engineering website	**29**	**1**	**97%**
Scenarios for the Profile Feature				
1	Respondents managed to find the profile feature IP Industrial Engineering website	**25**	**5**	**83%**
2	Respondents successfully learned about the IP Industrial Engineering website	**21**	**9**	**70%**
3	Respondents can return to the Home page correctly	**28**	**2**	**93%**
Scenarios for the Students feature				
1	Respondents successfully opened the student feature	**25**	**5**	**83%**
2	Respondents successfully opened an achievement section	**19**	**11**	**63%**
3	Respondents can return to the Home/Home page correctly	**23**	**7**	**76%**

Element Observation Effectiveness		**Succeed**	**Failed**	**%**
Scenarios for the Academic Feature				
1	Respondents successfully opened the Academic feature	**28**	**2**	**93%**
2	Respondents managed to find the Academic Calendar and download it	**23**	**7**	**76%**
3	Respondents can return to the Home/Home page correctly	**24**	**6**	**80%**
Scenarios for the Mobility Feature				
1	Respondents successfully opened the mobility feature	**24**	**6**	**80%**
2	Respondents choose the Double Degree Program section	**24**	**6**	**80%**
3	Respondents can return to the Home/Home page correctly	**26**	**4**	**86%**
Scenarios for the Research Feature				
1	Respondents successfully opened the research feature	**26**	**4**	**86%**
2	Respondents can find the several types of the topic are offered	**27**	**3**	**90%**

	Element Observation Effectiveness	**Succeed**	**Failed**	**%**
3	Respondents can return to the Home/Home page correctly	**19**	**11**	**63%**
Scenarios for the IPUIITALK feature				
1	Respondents successfully opened the IPUIITALK feature	**28**	**2**	**94%**
2	Respondents can return to the Home/Home page correctly	**26**	**4**	**86%**
	Total	**474**	**96**	**83%**

Data processing is done by first recapitulating the data. It is valid; then the respondent conducts a reusability test measuring the effectiveness and efficiency of the website using the performance measurement method through the tasks given to respondents, both tasks to operate the web, as well as other tasks aimed at improving website performance. At this stage, what researchers do is record the performance of respondents' success in completing tasks, the number of errors, and the time required to complete the task.

The data on the results of respondents' measurements, as shown in the processing of performance measurement data for task 1, the effectiveness value obtained was 97% for parts A and B, with the number of respondents' failures in completing the task was identified as 1 in part A and 1 in part B. In this case, it can be seen that from the task for the scenario for opening websites, there were no major obstacles found by the user. In the results of task 2, the effectiveness value of part A was 83% with 5 failures, part B was 70% with failures of 9, and part C of the effectiveness value was 93% with failures of 2. From the results of scenario

Scenarios for the Profile feature, it can be seen that students did not have difficulty accessing this feature, so there is no need for a suggestion.

In the results of the 3rd task, namely Scenarios for the Students feature, the effectiveness value of part A was 83% with 5 failures, part B was 63% with failures of 11, and part C of the effectiveness value was 76% with failures of 7. In the calculation results, it was found that students have difficulty accessing this feature. This is also because the information provided has not been updated and leads to the Industrial Engineering Instagram account. Another thing is caused by features that are less visible or still incomplete content. In the results of the 4th task, with the scenario for the Academic feature, it was found that the effectiveness value of part A was 93% with 2 failures, part B was 76% with failures of 7, and part C the effectiveness value was 80% with failures of 6. This is because there are still 7 respondents confused about downloading the academic calendar. In this scenario, 100% of respondents managed to find this feature, but they still had difficulty finding the academic information needed, namely 7 of 30 respondents. This is because foreign students have difficulty with the language used. In the results of the 5th task, with the scenario for the Mobility feature, the effectiveness value of part A was 80% with 6 failures, part B was 80% with failures of 6, and in part C the effectiveness value was 86% with 4 failures. This is because there are also several features that do not have content that make respondents confused.

In the results of the 6th task, with the scenario for the Research feature, it was found that the effectiveness value of part A was 86% with 4 failures, part B was 90% with failures of 3, and part C the effectiveness value was 63% with failures of 11. In the results of the calculation of effectiveness and efficiency, it was found that students are easy to access this feature. As many as 86% of students are easy to find the research, but 3 are still struggling and need to ask evaluators for help to be directed. It can be seen in the picture that the research information has not been updated, and the information is not grouped according to the topic, so students have to search the bottom history to find the topic they are going to find out. In the results of the 7th task, with the scenario for the IPUIITALK feature, it was found that the effective value of part A was 94% with 2 failures, and part B was 86% with

failures was 4. In the IPUIITALK feature scenario task, the results of the calculation of effectiveness and efficiency show that there are no difficulties in accessing the website.

It was found that the effectiveness result was 83%, with 474 results and 96 failures from scenario 7 tasks. For the category, scenarios for opening websites, scenarios for the Profile feature, scenarios for the student's feature, academic feature, Mobility feature, research feature, and IPUIITALK Feature. This happens because the results show that the lowest presentation for scenario respondents fail to identify the IP Industrial Engineering website for the profile feature, and respondents cannot return to the Home/Home page correctly for the research feature.

4.2.2 Efficiency

Efficiency refers to the resources expended when users achieve goals (Arthana, 2019). In this study, efficiency can be measured using this technique by looking at the processing time carried out by respondents in completing the assigned tasks. In this study, the average time results were obtained when respondents were doing assignments.

A. Calculation

The calculation of effectiveness is obtained by summing the total tasks achieved divided by the total tasks assigned multiplied by 100%. The following result is a summation of a total of 30 respondents shown in the following Table 4.4.

Table 4.4 Element Observation Efficiency

Element Observation Efficiency		**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**	**R21**	**R22**	**R23**	**R24**	**R25**	**R26**	**R27**	**R28**	**R29**	**R30**	**%**
Scenarios for opening websites																																
1	Respondents successfully selected Browser	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**93%**
2	The frequency with which respondents asked evaluators was low	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**76%**
Scenarios for the Profile Feature																																
1	Respondent successfully selects the Profile button	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**93%**
2	The frequency with which respondents asked evaluators was low	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**83%**
Scenarios for the Students feature																																
1	Respondent successfully selects the student's button	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**97%**

	Element Observation Efficiency	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**	**R21**	**R22**	**R23**	**R24**	**R25**	**R26**	**R27**	**R28**	**R29**	**R30**	
2	Respondents can easily find what they're looking for in the achievement information	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**83%**
3	The frequency with which respondents asked evaluators was low	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**80%**
Scenarios for the Academic Feature																																
1	Respondents successfully selected the Academic button	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**90%**
2	Respondents easily find what they are looking for	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	Y	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**90%**
3	Respondents successfully downloaded the Academic Calendar	**-**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**-**	**73%**

4	The frequency with which respondents ask evaluators is low	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**86%**
Element Observation Efficiency		**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**	**R21**	**R22**	**R23**	**R24**	**R25**	**R26**	**R27**	**R28**	**R29**	**R30**	
Scenarios for the Mobility Feature																																
1	Respondents successfully selected the Mobility button	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**93%**
2	The frequency with which respondents ask evaluators is low	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**86%**
Scenarios for the Research Feature																																
1	Respondents successfully selected the Mobility button	**Y**	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**93%**
2	Respondents easily find what they are looking for in the research	**Y**	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**83%**

3	The frequency with which respondents ask evaluators is low	**Y**	**Y**	**-**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**80%**
Element Observation Efficiency		**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**	**R21**	**R22**	**R23**	**R24**	**R25**	**R26**	**R27**	**R28**	**R29**	**R30**	
Scenarios for the IPUIITALK feature																																
1	Respondents successfully selected the IPUIITALK button	**Y**	**-**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**93%**
2	Respondents have no trouble finding page buttons	**Y**	**-**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**83%**
3	Respondents have no trouble remembering the News/Opinions read	**Y**	**-**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**76%**
4	The frequency with which respondents ask evaluators is low	**Y**	**Y**	**Y**	**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**90%**
	Average																															**81,55%**

As for the Effectiveness Observation data contained in the table, the average result of the total efficiency percentage is 81.55%. This is influenced by the frequency of respondents asking the Evaluator and the frequency of respondents asking for help from the Evaluator, and 73% of respondents have difficulty being able to download the academic calendar.

B. Results

The calculation of effectiveness is obtained by summing the total of tasks achieved divided by the total of the given task multiplied by 100%. The following results are a summation of 30 respondents. The results of element observation effectiveness are captured in Table 4.5 below.

Table 4.5 Results of Element Observation Efficiency

Respondents	**Task (Second)**							**Total**
	1	**2**	**3**	**4**	**5**	**6**	**7**	
1	100	230	100	40	30	111	110	**721**
2	160	150	15	34	4	98	25	**486**
3	122	360	300	50	92	120	116	**1160**
4	120	100	228	300	400	200	198	**1546**
5	87	97	100	234	260	200	170	**1148**
6	86	88	60	47	60	70	98	**509**
7	77	87	30	65	90	76	98	**523**
8	68	78	40	60	98	78	90	**512**
9	67	78	50	68	98	90	87	**538**
10	67	77	99	76	89	67	78	**553**
11	67	76	98	78	87	67	77	**550**
12	66	76	89	78	87	67	77	**540**

Respondents	Task (Second)							Total
	1	2	3	4	5	6	7	
13	63	76	87	85	70	88	68	**537**
14	62	75	87	87	68	88	68	**535**
15	60	70	72	280	65	140	67	**754**
16	56	68	68	88	65	20	67	**432**
17	50	58	68	89	59	40	67	**431**
18	45	42	67	98	57	44	56	**409**
19	44	40	67	40	56	30	55	**332**
20	50	40	67	88	56	60	50	**411**
21	60	50	65	50	56	10	50	**341**
22	8	15	60	50	56	12	48	**249**
23	12	10	57	50	30	11	30	**200**
24	12	43	54	47	15	30	14	**215**
25	10	50	50	65	10	30	14	**229**
26	44	50	45	20	17	56	15	**247**
27	30	60	30	58	3	56	11	**248**
28	55	100	20	120	13	67	100	**475**
29	10	60	11	30	3	67	11	**192**
30	10	40	10	10	3	5	10	**88**
Average	**58,9333333**	**81,46667**	**73,13333**	**82,83333**	**69,9**	**69,93333**	**67,5**	**71,957**

It was found that the average effectiveness result was 83%, with 474 results and 96 failures from scenario 7 tasks. The average of efficiency results show that the efficiency value is 71,96% of the 7 task scenarios, with the lowest efficiency value found in task 1, namely the scenario for opening the website. The problems identified on the website are now 7 problems, student feature, academic feature, IPUIITALK feature, website opening, profile feature, mobility feature, and research feature.

It can be seen in Table 4.5 that the 7 scenarios have an average turnaround time of 71.96%. It was found that scenario 4 had the longest time compared to other

scenarios at an average of 82.84 seconds, while scenario 1 had the fastest average completion time of 59 seconds.

From the results of the performance measurement, it was found that in task 1, an efficiency value of 58,94% was obtained, namely for the scenario for opening websites. In task 2, an efficiency value of 81,46% was obtained, namely for the scenario for the Profile feature. In task 3, an efficiency value of 73,14% was obtained, namely for the scenario for the student's feature. In task 4, an efficiency value of 82,84% was obtained, namely for the scenario for the Academic feature. In task 5, an efficiency value of 69,9% was obtained, namely for the scenario for the Mobility feature. In task 6, an efficiency value of 69,94% was obtained, namely in the scenario for the Research feature. And in task 7, an efficiency value of 67,5% was obtained, namely in the scenario for the IPUIITALK feature. It is easy for students to find related pages, but the difficulty in translating existing information is also the availability of information on pages that have not been updated. Therefore, it is necessary to update the appearance of the information features of this page and the availability of more up-to-date information to increase student interest in accessing the website and assist students in obtaining information.

4.3 System Usability Scale (SUS)

System Usability Scale (SUS) is one of the methods used in testing the Usability questionnaire used in measuring usability in a computer with a subjective point of view of use (Broke, 1996 and 2022). System Usability Scale is a fairly simple testing system with ten scales that provides a comprehensive point of view of the evaluation of the purpose of usability. SUS is a fairly simple Likert scale with respondents being required to provide an assessment in the form of a level of approval and disapproval on a scale of 5 or points. The SUS score is captured in Figure 4.1, and the SUS questions are captured in Table 4.6, and the table of respondents (SUS) is captured in Table 4.7 below.

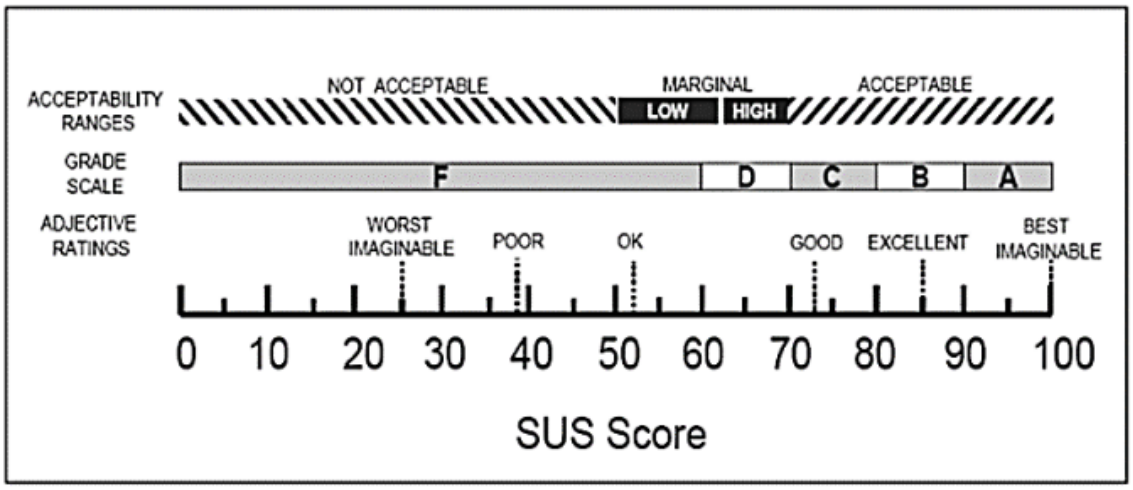

Figure 4.1 SUS Score

Table 4.6 SUS Questions

No	Questions	1	2	3	4	5
1	I will use this site often.					
2	I rate the site too complex (it contains a lot of unnecessary things).					
3	I rate this site easy to use.					
4	I need technical help to be able to use this site.					
5	I rate the functions/features provided on this site well designed and prepared					
6	I rate a lot of inconsistent things on the site					
7	I feel the majority of users will learn to use this site quickly.					
8	I rate this site as very complicated to browse					
9	I am very confident in using this site.					
10	I need to learn a lot of things before I can use this site well					

Table 4.7 Table of Respondent's Results (SUS)

	Respondent																													
Q	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	R21	R22	R23	R24	R25	R26	R27	R28	R29	R30
1	4	5	2	4	5	4	3	2	3	2	4	4	5	1	4	1	2	4	2	3	4	4	2	3	4	2	2	4	2	4
2	2	2	1	2	3	2	5	3	3	3	2	3	5	3	2	3	3	2	2	2	2	4	1	3	2	2	2	2	2	2
3	5	4	4	4	5	4	3	2	4	2	5	4	2	3	5	3	2	5	2	2	4	5	2	2	4	3	2	5	2	4
4	1	3	5	2	4	2	4	1	4	2	1	3	5	2	1	2	2	1	1	2	2	2	1	2	2	2	2	1	2	2
5	2	4	4	4	4	5	2	3	2	4	2	4	5	4	2	2	2	2	4	4	5	5	2	3	5	1	1	2	2	5
6	2	2	5	2	3	2	3	3	4	3	2	2	4	3	2	1	1	2	1	3	2	3	2	3	2	2	3	2	2	2
7	4	1	1	5	2	6	2	2	4	1	4	4	3	4	4	2	2	4	3	4	6	5	5	2	6	2	4	4	1	6
8	1	2	4	2	2	3	4	4	2	2	3	5	4	3	4	2	2	3	3	2	3	2	1	1	3	4	3	2	1	3
9	3	4	5	6	5	3	5	5	2	5	3	5	5	2	1	5	5	1	5	4	4	1	4	5	1	3	5	3	1	2
10	1	4	1	3	2	2	4	1	3	2	5	5	5	2	3	4	4	3	5	2	4	2	1	2	5	2	2	3	2	2

Q	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	R21	R22	R23	R24	R25	R26	R27	R28	R29	R30
Total SUS	31	25	20	32	27	31	15	22	19	22	25	23	17	21	24	21	21	25	24	26	30	27	29	24	26	19	22	28	19	30
Score	**77.5**	**62.5**	**50**	**80**	**67.5**	**77.5**	**37.5**	**55**	**47.5**	**55**	**62.5**	**57.5**	**42.5**	**52.5**	**60**	**52.5**	**52.5**	**62.5**	**60**	**65**	**75**	**67.5**	**72.5**	**60**	**65**	**47.5**	**55**	**70**	**47.5**	**75**

The instrument used in this study was a questionnaire distributed to 30 respondents. Odd number questions are positive questions, and questions with even number have negative tone questions. Each agreed item has an agreed score. Each agreed score item will be calculated between 0 to 4. For items 1, 3, 5, 7, and 9, the contribution score is a rating scale of 1. For items 2,4,6,8, and 10, the contribution score is 5 considering the scale position. Use a score of 2.5 to get the overall value of the system's use. The SUS calculation is captured in Figure 4.2 below.

$$\text{SUS Score} = \{(S_1-1)+(5-S_2)+(S_3-1)+(5-S_4)+(S_5-1)+(5-S_6)+(S_7-1) + (5-S_8)+(S_9-1)+(5-S_{10})\} * 2.5 \quad (1)$$

Note: Si = the-i item statement

Figure 4.2 SUS Calculation

The results of the System Usability Scale (SUS) questionnaire score for the IP Industrial Engineering website of Universitas Islam Indonesia obtained from 30 respondents were 60, namely in category D. From the results of the advice and assessment obtained from the interview obtained the problem that experienced on the postgraduate website of IP Industrial Engineering FTI UII and concluded to be a criterion for improvement which will be a reference for improvement.

4.4 Useberry Questionnaire

The Useberry questionnaire is used to conduct surveys regarding the evaluation of website color, font, style, contrast, and navigation. As for this study, respondent data was taken using a useberry questionnaire with a link is https://app.useberry.com/t/7vJr39AZIY1Qdx/.

The questions asked are about the evaluation of website color, font, layout, contrast, and navigation as seen from figure 5.9. The useberry questionnaire uses the parameters of a scale of 1-5 i.e., a scale of 1 (very unsatisfactory); 2 (unsatisfactory); 3 (neutral); 4 (satisfactory); 5 (very satisfactory).

Comfort and convenience (usability) have subtypes, one of which is Human Computer Interaction (HCI). HCI itself is an interaction that occurs between computers and users that focuses on the design, evaluation and implementation of these interactions (Caesaron, 2015). Similar research on the website design of a website can be said to be

good by considering Language and Font Style (Geasela, 2018). There is also the 7C's framework method which is used as a guide for designing customer interfaces and online marketing, in this method it is also explained that a good website if it has a good level for the categories of context, content, community, customization, communication, connection / link, commerce (Conole, G, 2016).

Based on the results of the distribution of useberry questionnaires, 7 respondents were obtained who provided answers regarding the perception of website evaluation color, font, layout, contrast, and navigation with graphic results in the appendix. The second most important is navigation which is included navigation support, effective internal search tool, working link, no broken links, and no orphan pages. And the third and fourth important categories respectively in the usability of academic website is the ease of use and communication and design, which is included in aesthetic design, appropriate use of images, appropriate use of fonts, appropriate choice of colors, appropriate page design, and consistency (Zainal, 2023). The principle of navigation is a sidebar that is located on the left and top of the web, which makes it easy to navigate to some features. The principle of design materials referred to are environment, layout, navigation, color, and typography. The environment principle is proven by the application of the web sidebar, which has elevation as a marker that the sidebar component is the top layer of the concept of surface material design (Dias, 2017).

CHAPTER V

DISCUSSION

5.1 Characteristic of Respondent

Based on Table 4.1, it is known that there are 8 characteristics of respondents distributed through a Google form questionnaire. The demographic questionnaire refers to Appendix 1. Characteristics of respondents are considered the primary demographic profile for respondents (McGrath, 2022).

1. Age

Age characteristics are used to determine the characteristics (domain coverage, respondent type, and design) varied by different ages (Kwon et al., 2022). In our research, we use it because we want to know the results of the effectiveness, efficiency, and satisfaction of websites dominated by any age group. The results can be seen that it is dominated by the age of 21-25 years, the majority of whom are able to use the website well. Based on the results of interviews and questionnaires, it was found that respondents had age levels that included under 20 years, 21-25 years, and above 25 years. It is found that as many as 18% of active users of websites are under 20 years old, 71% of active users of websites are 21-25 years old, and 11% of active users of websites are above 25 years old.

2. Gender

Gender characteristics are used to determine the characteristics (domain coverage, respondent type, and design) varied by different gender (Kwon et al., 2022). In our research, we use it because we want to know the results of the effectiveness, efficiency, and satisfaction of websites dominated by any gender group. Based on the results of interviews and questionnaires, it was found that as many as 36% of active users of IP Industrial Engineering websites are women, and 64% are men.

3. Batch

Batch characteristics are used to determine the characteristics (domain coverage, respondent type, and design) varied by different circles (Kwon et al., 2022). It is

employed to identify the results of effectiveness, efficiency, and satisfaction of websites dominated by any batch. From this information, it will be seen what generation accesses the website most often and how well the results are. Based on the results of interviews and questionnaires, it was found that respondents consisted of 4 batches, namely 2019, 2020, 2021, and 2022. It was found that 46% of active website users were from the class of 2019, 12% were from the class of 2020, 30% were from the class of 2021, and 12% were from the class of 2022.

4. Use

The use characteristic is used to find out how many respondents use this website in their daily life. Based on the results of interviews and questionnaires, it was found that as many as 96% had used the website (expert) and as many as 4% had never used the website(novice).

5. Frequency of access Industrial Engineering IP website

This characteristic is used to determine how often respondents access the website, and the result is that the more frequent the respondent's access will be used as consideration for website improvement. Based on the results of interviews and questionnaires, it was found that as many as 43% have used the website for 1-2 times per month and as many as 26% have used the website for 3-5 times per month, and 33% have used the website for 6-10 times per month.

6. Media to open the Industrial Engineering IP website

This characteristic is used to determine the majority of respondents accessing what media, and of course, improvements will be adjusted to the perspective of media that is more often accessed by respondents. Based on the results of interviews and questionnaires, it was found that as many as 60% were using desktops (Laptops, Computers, Netbooks, etc.), and as many as 40% were Mobile (Smartphones). It can be seen that more often use desktops because the website, if accessed using a smartphone, the appearance and features are more difficult to access.

7. Purpose of opening the Industrial Engineering website

This characteristic is used to find out the purpose of respondents accessing the website and will certainly be a value for improvement. Based on the results of interviews and questionnaires, it was found that as many as 16% visit the website to find out about the internship program, as many as 49% searched for an academic calendar, as many as 6% searched for a scholarship, as many as 13% looking for research, and as many as 16% for other purposes.

8. Develop the Industrial Engineering IP website

This characteristic is used to determine whether respondents agree to make improvements to the website or not. Based on the results of interviews and questionnaires, it was found that as many as 56% think that the website needs to be improved, and as many as 44% suggest that the websites require no improvement.

In this study, the characteristics of respondents used to determine the diversity of respondents were based on gender, age, year of force, the intensity of accessing the website, the need to access the website, the convenience of the website interface, the comfort of accessing the website, and website development. This can provide a fairly clear picture of the condition of the respondents and their relation to the problem and the purpose of this study. Where the respondents referred to in this study are users or users who participated in the use of the UII Industrial Engineering IP website.

User participation is user involvement in website design and development (Azhar Susanto, 2019). The role of the user and the steps that are taken to contribute directly in the process of website design and development. The respondent population in this study was students of the Industrial Engineering UII.

Usability is the extent to which a product can be used by a particular user to achieve the targets set with effectiveness and efficiency as well as achieve the satisfaction of use in a particular context (Paul, 2020). A set of questionnaires on effectiveness, efficiency, and satisfaction was given after the user had successfully completed the tasks. In a usability study, the main attributes usually involve

effectiveness, efficiency, user satisfaction, and learnability. In this research, only 3 attributes have been considered as they are more related to the projects that are involved. According to Hwang and Salvendy (2010), the three attributes are shown in Table 5.1 below:

Table 5.1 Attributes to measure usability

No	**Derived**	**Measure Raw Data**	**Description**
1	Effectiveness	Number of Errors Number of Tasks	The accuracy and completeness with which customers achieve specified goals
2	Efficiency	Respons e Time	The accuracy and completeness of goals achieved in relation to time
3	Satisfaction	Likert Scale (Post Questionnaire)	Freedom from discomfort and positive attitudes toward the use of the system

5.2 Performance Measurement

The performance measurement method is a method used for reusability testing which aims to obtain cumulative data on test performance when the subject or user performs a certain task (Liu, 2022). This section will discuss about how the results of data processing that have been taken using performance measurement techniques. Data on the percentage of respondents' success in completing each given task will be used in looking at the effectiveness of the website, while the data on time results. The completion of each task that the respondent has done will be used to see the respondent's efficiency in completing each assigned task. Measurement of performance measurement for effectiveness and efficiency was carried out by working on 14 tasks provided to respondents. From the task, the researcher divides each task carried out into several scenarios to assess effectiveness and efficiency based on website pages that are known to have problems in them. Each scenario that respondents work on will be recapitulated by researchers and calculated for efficiency and effectiveness. The scenario of task performance measurement refers to Appendix 3.

Based on the ISO 9241:11 perspective, factors that affect the quality of usability are effectiveness, efficiency, and satisfaction. Therefore, to discover those factors affecting the quality of usability, performance user and usability framework are tested in order to observe the effect of the three aforementioned factors. User performance evaluation is a measurement by observing the behavior of the respondent or user. Performance measurement is used to derive quantitative data regarding subject performance when users are performing tasks during usability testing.

1. Efficiency measurement

   The time needed to use the system for the first time. Measurements of efficiency are responsive (time efficiency), accurate (target efficiency), affordable (cost efficiency), and convenient (power efficiency).

2. Effectiveness measurement

Shackel defined effectiveness as the performance of the user using the related system. Performance is then measured by the time needed by the user to complete a task and the number of errors performed. In this research, effectiveness measurement is performed by observing the completion time in every phase of the task needed by every user in completing the task as a whole with the following formula shown in Figure 5.1.

$$\frac{\text{Respondents able to complete the task}}{\text{Total respondents}} \text{ x } 100\%$$

Figure 5.1 Effectiveness Calculation

In this study, the performance measurement technique became an important part by using this technique, we can measure the usability of the UII Industrial Engineering IP website based on two components of the three main components in the definition of reusability, namely measuring effectiveness and efficiency. Effectiveness can be seen by looking at the success rate of respondents in completing the assigned tasks. In the data retrieval process, if the respondent fails to complete the task because he entered the desired menu incorrectly or gave up completing the task, the respondent was judged to be unsuccessful in carrying out the command.

5.2.1 Effectiveness

Effectiveness can be measured based on the completion rate of the users when they achieve the specified goals of the task (Arthana, 2019). The tasks given in the performance measurement process to measure effectiveness are made based on activities or activities that are often carried out by students when visiting the IUP in IE UII website. In data processing, effectiveness is calculated according to the level of success or success of the respondent in interrupting each given, and in this process, the respondent will be asked to complete 7 tasks that are given in measuring the effectiveness of the UII Industrial Engineering IP website.

Effectiveness is defined as the accuracy and completeness with which users achieve specified goals; efficiency is defined as the resources expended in relation to the accuracy and completeness with which users achieve those goals; and satisfaction

is defined as “freedom from discomfort, and positive attitudes towards the use of the product [system, service or environment].” Although not components of the ISO definition, many practitioners (Gould and Lewis 1985; Shackel, 1990; 1991; Sharp, Rogers and Preece, 2007; Stone et al. 2005) have long considered the following aspects part of usability:

The results of data processing using the performance measurement method obtained the results of the success rate of respondents in completing each task given 100% for advanced respondents in each task given. Task success is measured after all participants' tasks have been done on the website, including finding answers to some questions and providing a written response in a document (Roy et al., 2014).

In this study, task determination in measuring the percentage of effectiveness was obtained from the results of preliminary studies on activities that are often carried out by website users. Starting from looking for information that is easy to get to tasks that are difficult to complete.

The data on the results of respondents' measurements, as shown in the processing of performance measurement data for task 1, the effectiveness value obtained was 97% for parts A and B, with the number of respondents' failures in completing the task was 1 in part A and 1 in part B. In this case, it can be seen that from the task for the scenario for opening websites, there were no major obstacles found by the user.

In the results of task 2, the effectiveness value of part A was 83% with 5 failures, part B was 70% with failures of 9, and part C of the effectiveness value was 93% with failures of 2. From the results of scenario Scenarios for the Profile feature, it can be seen that students did not have difficulty accessing this feature, so there is no need for suggestions.

In the results of the 3rd task, namely Scenarios for the Students feature, the effectiveness value of part A was 83% with 5 failures, part B was 63% with failures of 11, and part C of the effectiveness value was 76% with failures of 7. In the calculation results, it was found that students have difficulty accessing this feature.

This is also because the information provided has not been updated and leads to the Industrial Engineering Instagram account; another thing is caused by features that are less visible or still incomplete content.

In the results of the 4th task, with the scenario for the Academic feature, it was found that the effectiveness value of part A was 93% with 2 failures, part B was 76% with failures of 7, and part C the effectiveness value was 80% with failures of 6. This is because there are still 7 respondents confused about downloading the academic calendar. In this scenario, 100% of respondents managed to find this feature, but they still had difficulty finding the academic information needed, namely 7 of 30 respondents. This is because foreign students have difficulty with the language used.

In the results of the 5th task, with the scenario for the Mobility feature, the effectiveness value of part A was 80% with 6 failures, part B was 80% with failures of 6, and in part C, the effectiveness value was 86% with 4 failures. This is because there are also several features that do not have content that make respondents confused.

In the results of the 6th task, with the scenario for the Research feature, it was found that the effectiveness value of part A was 86% with 4 failures, part B was 90% with failures of 3, and part C the effectiveness value was 63% with failures of 11. In the results of the calculation of effectiveness and efficiency, it was found that students are easy to access this feature; as many as 86% of students are easy to find the research they want to look for, but 3 are still struggling and need to ask evaluators for help to be directed. It can be seen in the picture that the research information has not been updated, and the information is not grouped according to the topic, so students have to search the bottom historical to find the topic they are going to find out.

In the results of the 7th task, with the scenario for the IPUIITALK feature, it was found that the effective value of part A was 94% with 2 failures, and part B was 86% with failures was 4. In the IPUIITALK feature scenario task, the results of the

calculation of effectiveness and efficiency show that there are no difficulties in accessing the website.

This is in line with what Fitriawan (2009) revealed, that usability can also be a factor that distinguishes users to be able to complete their tasks well or not, and also whether there is satisfaction from users when completing their tasks. For this reason, it is important for academic websites to have good usability so that users are easier to learn and use the website to find the desired information. Based on the results of interviews and questionnaires, it was found that as many as 43% have used the website for 1-2 times per month and as many as 26% have used the website for 3-5 times per month, and 33% have used the website for 6-10 times per month. Based on the results of interviews and questionnaires, it was found that as many as 60% use desktops (Laptops, Computers, Netbooks, etc.), and as many as 40% Mobile (Smartphones). So, it is also supportive that the website is quite effective to use, whether using a laptop or smartphone.

It was found that the average effectiveness result was 83%, with 474 results and 96 failures from scenario 7 tasks. The average of efficiency results show that the efficiency value is 57% of the 7 task scenarios, with the lowest efficiency value found in task 1, namely the scenario for opening the website. The problems identified on the website are now 7 problems: student feature, academic feature, IPUIITALK feature, website opening, profile feature, mobility feature, and research feature.

5.2.2 Efficiency

Efficiency refers to the resources expended when users achieve goals (Arthana, 2019). The efficiency analysis process on the website is seen from the results of measuring respondents' time in completing each task that has been given. In the process of analyzing the data, time data is used as an indicator of efficiency. In this study, efficiency can be measured using this technique by looking at the processing time carried out by respondents in completing the assigned tasks. In this study, the average time results were obtained when respondents were doing assignments.

In measuring efficiency, according to Hornbæk (2006), 12 ways can be done to measure efficiency indicators, including the time needed to do the activity (time), and the time it takes for the user to complete one activity (time completion rate). In this study, the efficiency indicator used was the time it took for users to complete an activity (time completion rate) in seconds.

As for the Effectiveness Observation data contained in the table, the average result of the total efficiency percentage is 81.55%. This is influenced by the frequency of respondents asking the Evaluator and the frequency of respondents asking for help from the Evaluator, and 73% of respondents have difficulty being able to download the academic calendar.

From the results of the performance measurement, it was found that in task 1, an efficiency value of 58,94% was obtained, namely for the scenario for opening websites. In task 2, an efficiency value of 81,46% was obtained, namely for the scenario for the Profile feature. In task 3, an efficiency value of 73,14% was obtained, namely for the scenario for the students' feature. In task 4, an efficiency value of 82,84% was obtained, namely for the scenario for the Academic feature. In task 5, an efficiency value of 69,9% was obtained, namely for the scenario for the Mobility feature. In task 6, an efficiency value of 69,94% was obtained, namely in the scenario for the Research feature. And in task 7, an efficiency value of 67,5% was obtained, namely in the scenario for the IPUIITALK feature. It is easy for students to find related pages, but the difficulty in translating existing information is also the availability of information on pages that have not been updated. Therefore, it is necessary to update the appearance of the information features of this page and the availability of more up-to-date information to increase student interest in accessing the website and assist students in obtaining information.

It was found that the average effectiveness result was 83%, with 474 results and 96 failures from scenario 7 tasks. The average efficiency results show that the efficiency value is 71,96% of the 7 task scenarios, with the lowest

efficiency value found in task 1, namely the scenario for opening the website. The problems identified on the website are now 7 problems, student feature, academic feature, IPUIITALK feature, website opening, profile feature, mobility feature, and research feature.

It can be seen in Table 4.5 that the 7 scenarios have an average turnaround time of 71.96%. It was found that scenario 4 had the longest time compared to other scenarios at an average of 82.84 seconds, while scenario 1 had the fastest average completion time of 59 seconds.

5.3 System Usability Scale (SUS)

System Usability Scale (SUS) is one of the methods used in testing the Usability questionnaire used in measuring usability in a computer with a subjective point of view of use (Broke, 1996). System Usability Scale is a fairly simple testing system with ten scales that provides a comprehensive point of view of the evaluation of the purpose of usability. SUS is a fairly simple Likert scale with respondents being required to provide an assessment in the form of a level of approval and disapproval on a scale of 5 or points.

The instrument used in this study was a questionnaire distributed to 30 respondents. The SUS questionnaire refers to Appendix 2. Odd number questions are positive questions, and even number questions have negative tone questions. Each agreed item has an agreed score. Each agreed score item will be calculated between 0 to 4. For items 1, 3, 5, 7, and 9, the contribution score is a rating scale of 1. For items 2,4,6,8, and 10, the contribution score is 5 considering the scale position. Use a score of 2.5 to get the overall value of the system's use. The SUS calculation score is captured in Figure 5.2, and the SUS grade is captured in Table 5.2 below.

$$\text{SUS Score} = \{(S_1-1)+(5-S_2)+(S_3-1)+(5-S_4)+(S_5-1)+(5-S_6)+(S_7-1) + (5-S_8)+(S_9-1)+(5-S_{10})\}*2.5 \quad (1)$$

Note: Si = the-i item statement

Figure 5.2 SUS Calculation Score

The results of the System Usability Scale (SUS) questionnaire score for the IP Industrial Engineering website of Universitas Islam Indonesia obtained from 30 respondents were 60, namely in category D. From the results of the advice and assessment obtained from the interview obtained the problem that experienced on the postgraduate website of IP Industrial Engineering FTI UII and concluded to be a criterion for improvement which will be a reference for improvement.

Table 5.2 SUS Grade

SUS Score	Grade	Rating
90-100	A	Excellent
80-90	B	Good
70-80	C	Okay
60-70	D	Poor
<60	F	Awful

For the interpretation of the SUS score, namely:

• This score also means that the UII Industrial Engineering IP website system gets a grade of D.

• This score can also be interpreted as Poor in the adjective category ratings.

• This score can also mean that UII's IP Industrial Engineering website is in the category of marginally not acceptable in the interpretation of acceptability.

Performance measurement test to determine efficiency and effectiveness based on the success of the task and the time of completion of the task. After the performance measurement test, listen to the response from the respondent to the given scenario. The selection of tasks in the performance measurement test is obtained based on preliminary studies of menus that are often accessed by website users. Then the data obtained from performance measurements, such as the success of completing the task and the time data needed to complete the task, will be processed to see efficiency and effectiveness. The results were obtained in the form of quantitative data on user performance when working on tasks during reusability testing.

Next is to provide a system usability scale questionnaire to respondents. After that, conduct interviews with respondents to explore the advantages, disadvantages, and what things should be developed or added to the website that has been used. Data obtained from demographic questionnaires and System Usability Scale (SUS) will be pre-screened and analyzed to determine respondents in accordance with the specified criteria. In this study, the respondents with novice users / lay users are required, according to the criteria of Setyaningsih (2012) in Husin (2013).

Later, to achieve their purposes, universities website design should go through several design guidelines to ensure that users are more satisfied with the services provided by these websites. By evaluating the usability aspects of these websites, we can improve the usability of these websites. In this study, I used two evaluation approaches: performance measurement. The results obtained showed that the usability of IP Industrial Engineering UII websites was reasonably acceptable in grade C, based on the measures of evaluation used. The study covered various aspects of usability, some of which have been found not at an acceptable level of performance. It has been pointed out that some parameters of evaluation have been satisfied when compared with the acceptable threshold values. It should be noted, however, that the results of this study should be viewed with the fact that the design of some websites undergoes changes from time to time.

Research conducted by Diaz et al. (2016) using usability heuristic methods that have the object of research, namely the Alibaba website, HotelClub website, Latin America Airline, and Sky Airline, said that there is no standard reference in the use of usability heuristics, what needs to be developed is the dimensions of user habits in interacting with websites.

5.4 Research Recommendations

Website development usability must go through several usability guidelines to ensure that the purpose of the website and the intent is achievable (Pierce, 2005). Hence the achievement of development website usability requires a combination of planning to understand the context use of the system as a basis for identifying and measuring systems through user testing (Maguire, 2001).

1. Scenarios for opening websites

   In the scenario task of opening the website, the results of the calculation of effectiveness and efficiency showed that there were difficulties in accessing the website. There is a need to increase the function of the website, which leads to the needs of students so that there is a frequency of students accessing the website so that it is easily known. Based on the calculation results, it was found that from the seven old user scenarios in working on scenario 1, namely opening the website, it can be because the user is not familiar with reaching the website.

2. Scenarios for the Profile Feature

   The user interface in using a website is the most important part. If a website display is bad, users will feel uncomfortable and have difficulty getting the information needed Herchelroath (2010). In the calculation results, it was found that students did not have difficulty in accessing this feature so there is no need for a suggestion.

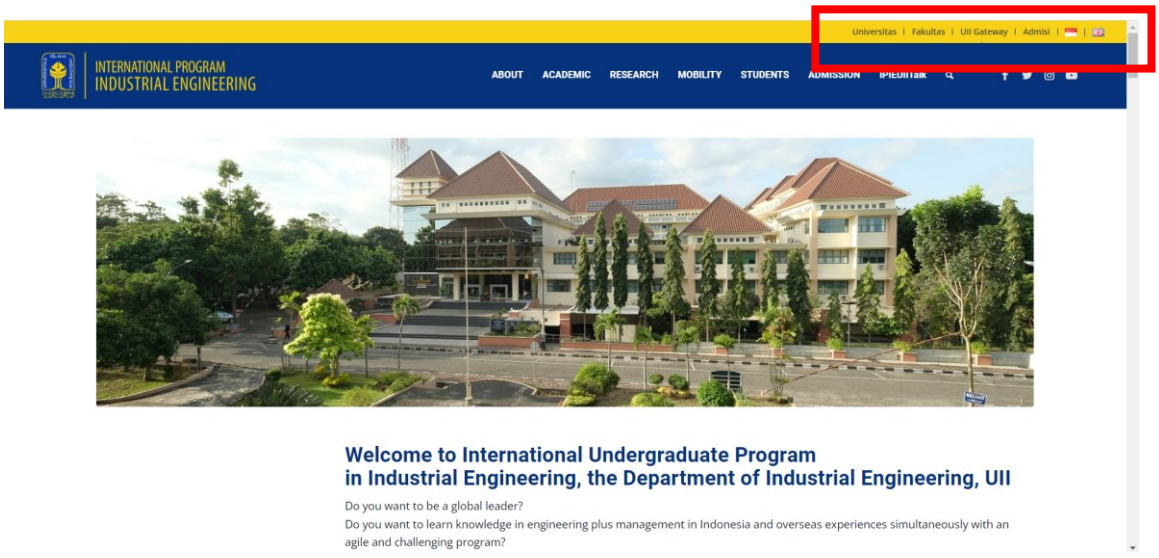

Figure 5.3 Profile Feature

3. Scenarios for the Students feature

In the calculation results, it was found that students have difficulty accessing this feature. This is also because the information provided has not been updated and leads to the Industrial Engineering Instagram account. Another thing is caused by features that are less visible or still incomplete content. So, the content needs to be updated. The student's feature is captured in Figure 5.2 below.

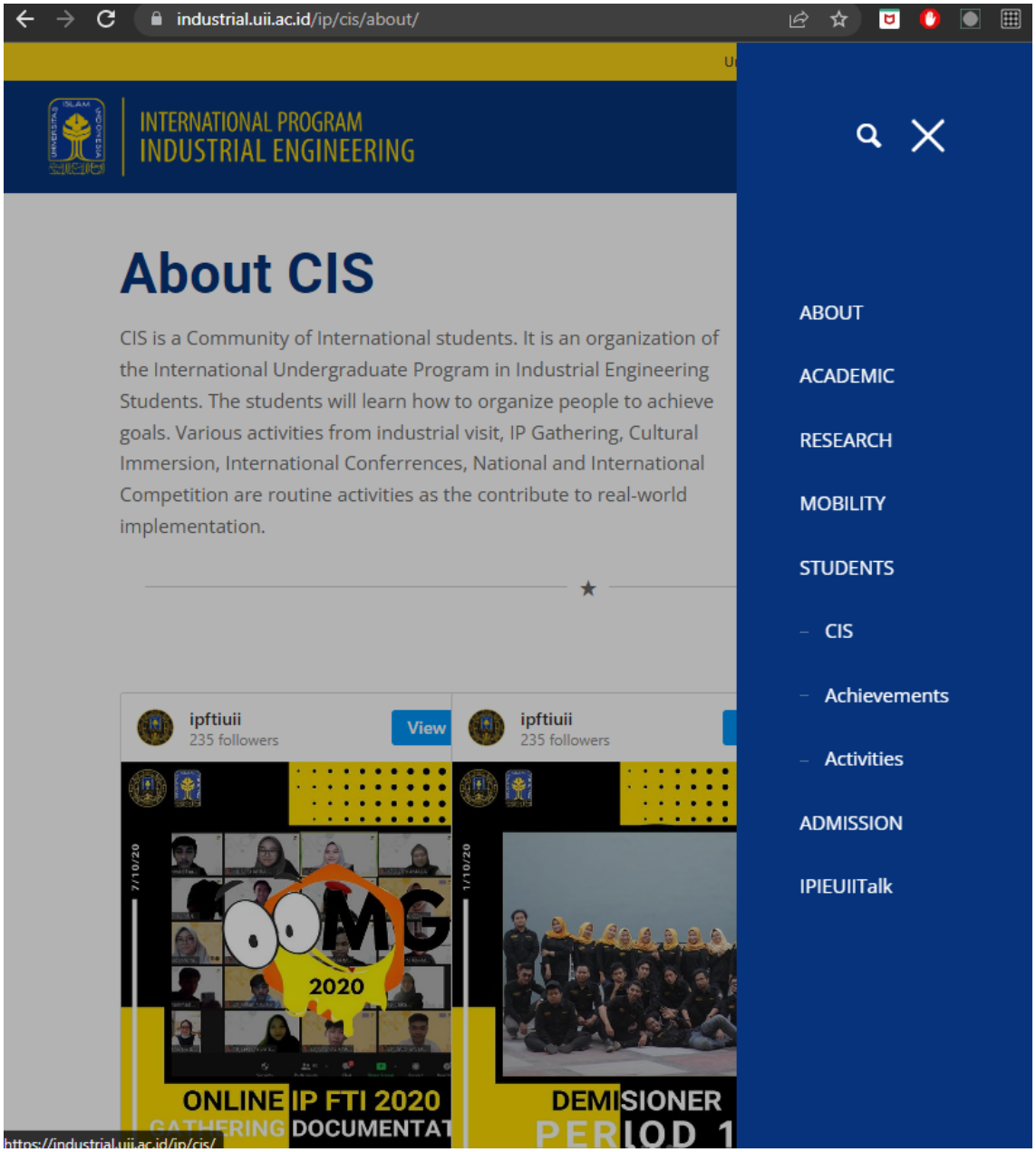

Figure 5.4 Students Feature

4. Scenarios for the Academic Feature

According to Prayoga (2010), the criterion that determines that a website is usable (has a high level of reusability) is if users can find or get what they need and understand from the website.

In this scenario, 100% of respondents managed to find this feature, but they still had difficulty finding the academic information needed, namely 7 of 30 respondents. This is because foreign students have difficulty with the language used. So, must ensure that the language on the website uses English to be uniform and make it easier for users to understand the content of the information. The academic feature is captured in Figure 5.5 below.

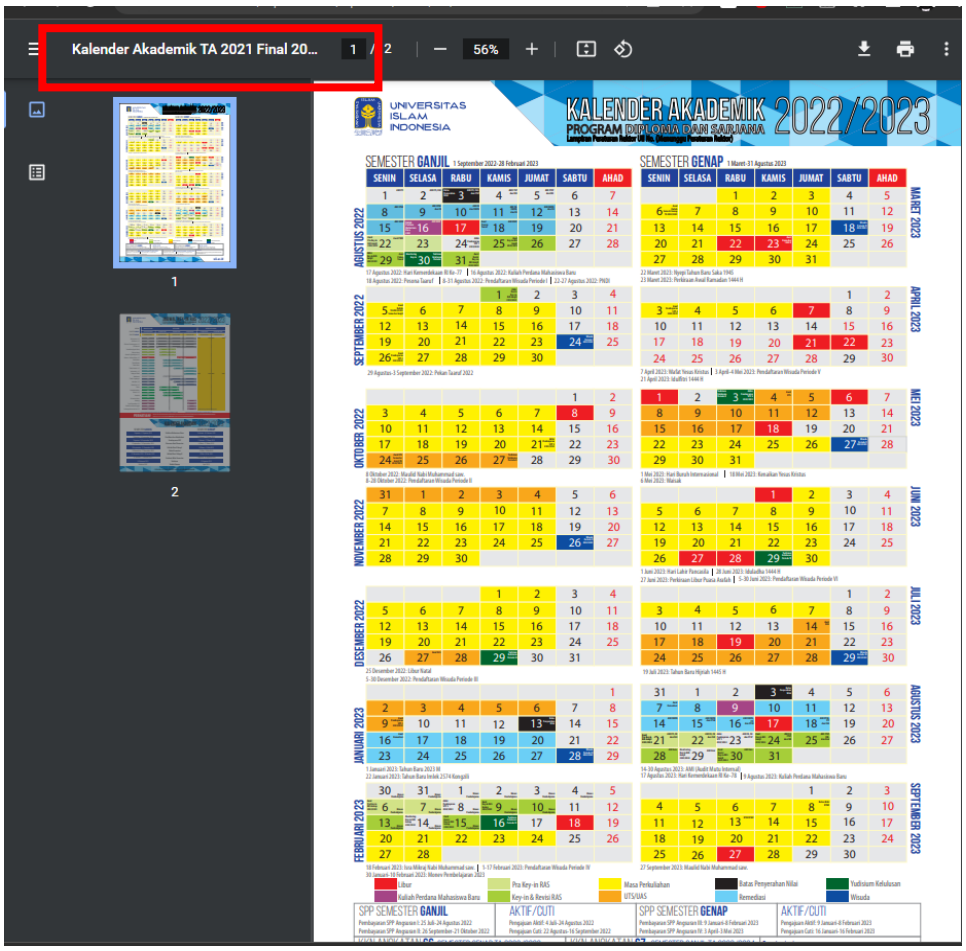

Figure 5.5 Academic Feature

5. Scenarios for the Mobility Feature

In the results of the effectiveness and efficiency of this scenario, it was found that 100% of this feature was in accordance with the wishes and needs of respondents, so there was no need for improvement. In the results of the 5th task, with the scenario for the Mobility feature, the effectiveness value of part A was 80% with 6 failures, part B was 80% with failures of 6, and in part C, the effectiveness value was 86% with 4 failures. This is because several features do not have content that make respondents confused. So, it is guaranteed that the information provided is up to date. Or it needs help from student staff to focus on website content, not only Instagram content as it is now running.

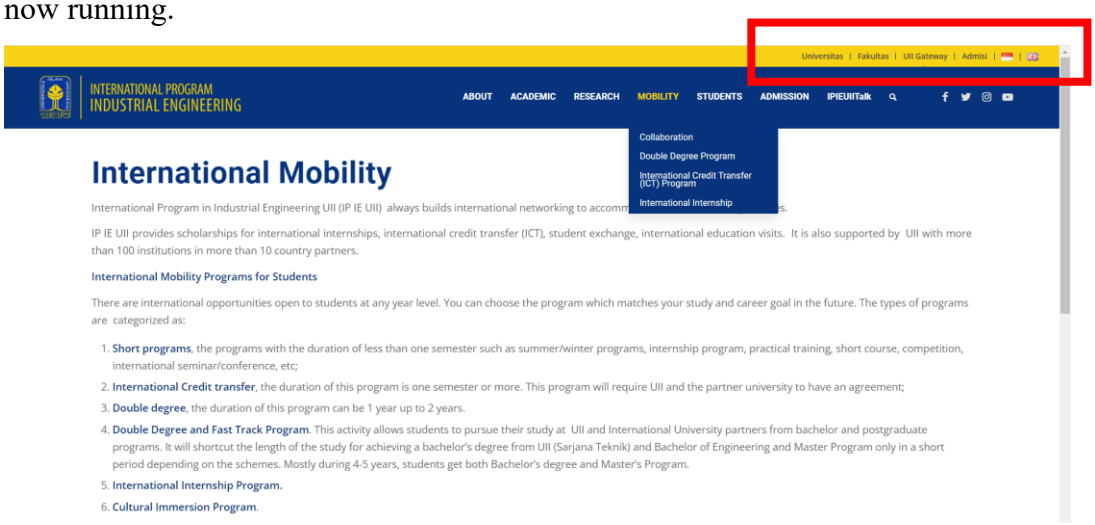

Figure 5.6 Mobility Feature

6. Scenarios for the Research Feature

In the results of the 6th task, with the scenario for the Research feature, it was found that the effectiveness value of part A was 86% with 4 failures, part B was 90% with failures of 3, and part C the effectiveness value was 63% with failures of 11. In the results of the calculation of effectiveness and efficiency, it was found that students are easy to access this feature; as many as 86% of students are easy to find the research they want to look for, but 3 are still struggling and need to ask evaluators for help to be directed. It can be seen in

the picture that the research information has not been updated, and the information is not grouped according to the topic, so students have to search the bottom history to find the topic they are going to find out. So, the writing format in this feature can be grouped by research topic so that it makes it easier for users to find information according to the topic they expect without scrolling the whole one by one. The research feature is captured in Figure 5.7 below.

Figure 5.7 Research Feature

7. Scenarios for the IPUIITALK feature

In the IPUIITALK feature scenario task, the results of the calculation of effectiveness and efficiency show that there are no difficulties in accessing the website. It is easy for students to find related pages, but the difficulty in translating existing information is also the availability of information on pages that have not been updated. Therefore, it is necessary to update the appearance of the information features of this page and the availability of more up-to-date information to increase student interest in accessing the website and assist students in obtaining information. The IPUIITALK feature is captured in Figure 5.8 below.

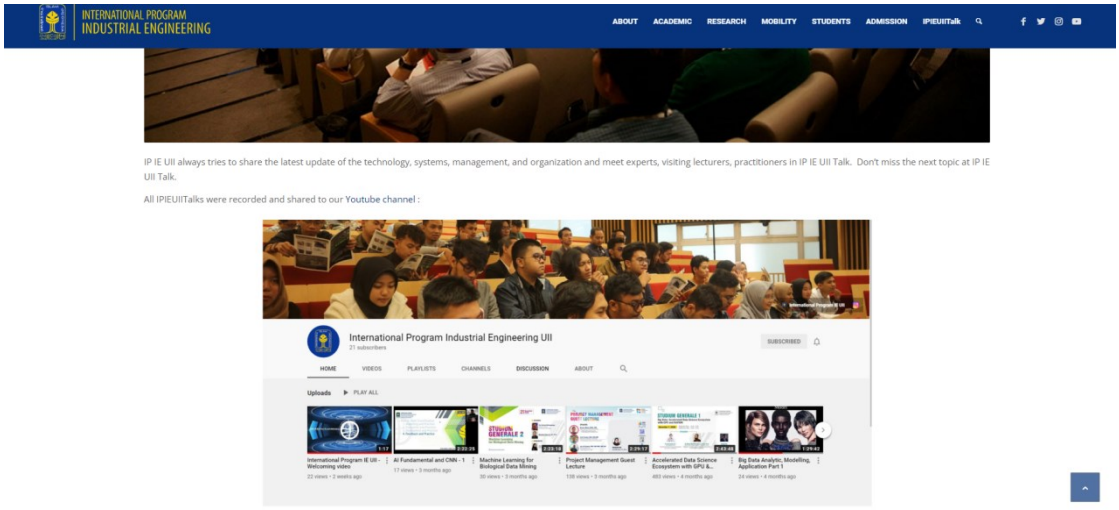

Figure 5.8 IPUIITALK feature

Comfort and convenience (usability) have subtypes, one of which is Human-Computer Interaction (HCI). HCI itself is an interaction that occurs between computers and users that focuses on the design, evaluation, and implementation of these interactions (Caesaron, 2015). Similar research on website design of a website can be said to be good by considering Language and Font Style (Geasela, 2018). As for the WEBUSE technique, the criteria for the website are said to be good, namely if it has content, navigation and links, user interface design, and performance effectiveness at a good level (Tebay, 2023). There is also the 7C's framework method which is used as a guide for designing customer interfaces and online marketing. In this method, it is also explained that a good website if it has a good level for the categories of context, content, community, customization, communication, connection/link, and commerce (Conole, G, 2016).

As for this study, respondent data was taken using a Useberry questionnaire with a link is https://app.useberry.com/t/7vJr39AZIY1Qdx/. The questions asked are about the evaluation of website color, font, layout, contrast, and navigation, as seen from Figure 5.9. Based on the results of the distribution of Useberry questionnaires, 7 respondents were obtained who provided answers regarding the perception of website evaluation color, font, layout, contrast, and navigation with graphic results in the appendix. Based on the literature review and the Useberry the results are:

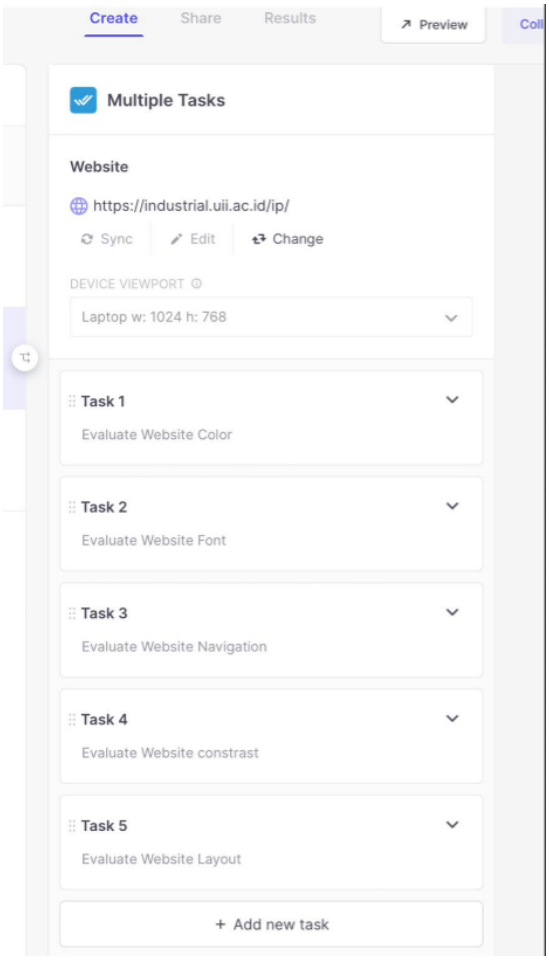

Figure 5.9 Website Evaluation Useberry

1. Language

   The language used on the website is still inconsistent. For example, figure 5.5 for the calendar feature, figure 5.6 in the header, and Figure 5.9 uses smartphones in the advertisement and font of the website, which still uses Indonesian. A good language to use for websites is a uniform language to be easily understood by users (Geasela, 2018).

2. Font Style

   The website can be said to be good if the font used is uniform for all elements on the website and also has customization of font style and font color used (Kalbuadi, 2018). The Useberry questionnaire uses the parameters of a scale of 1-5, i.e., a scale of 1 (very unsatisfactory); 2 (unsatisfactory); 3 (neutral); 4 (satisfactory); 5 (very satisfactory). It was found in Figure 5.10 that as many as 43% of respondents

answered that the website font used was neutral. Then as many as 43% answered was unsatisfactory, 15% answered that satisfactory, and 0% answered very unsatisfactory and very satisfactory. Some of the features on the website are not using a uniform and formal font style, but as well as in terms of font color can be read because it has been adjusted to the background of the writing so that in terms of font style, the website meets the principles.

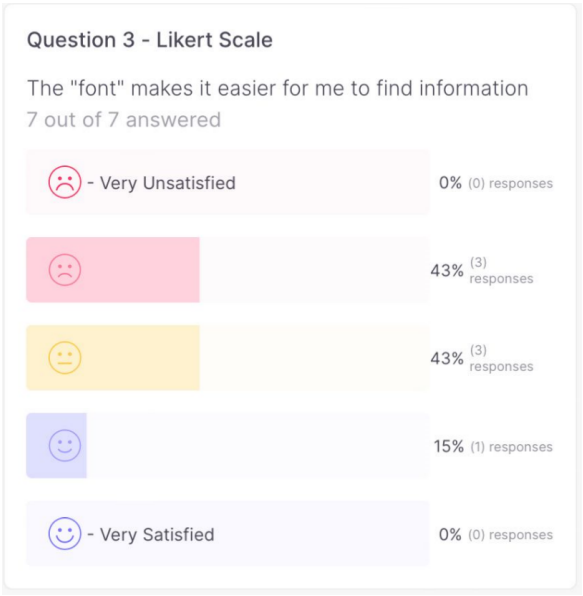

Figure 5.10 Website Font

3. Navigation and Link

Link is the degree to which a site can connect to other sites, usually displayed to users in the form of underlined or highlighted text, images, or graphics. The website already has a good link, which is based on the results of the questionnaire obtained by 1 in 30 respondents who failed to find the website link. A good website if it has good navigation and links so that it can provide comfort and satisfaction for its users (Tebay, 2023).

The Useberry questionnaire uses the parameters of a scale of 1-5, i.e., a scale of 1 (very unsatisfactory); 2 (unsatisfactory); 3 (neutral); 4 (satisfactory); 5 (very satisfactory). It was found in Figure 5.11 that as many as 58% of respondents answered that the website navigation used was neutral. Then as many as 15% answered was unsatisfactory, 15% answered that satisfactory, 15% answered very

satisfactory, and 0% answered very unsatisfactory. The website still does not have good navigation if opened from a smartphone, as depicted in the following Figure 5.12. So that's why 15% answered were unsatisfactory and often have difficulty accessing via smartphone because some feature buttons do not appear. So many prefer to use laptops as the results of questionnaires Google Forms results, stated as much as 60%, while 40% admitted to having difficulties when accessing via smartphones. But overall, for navigation and layout on the website, if opened using a laptop is good.

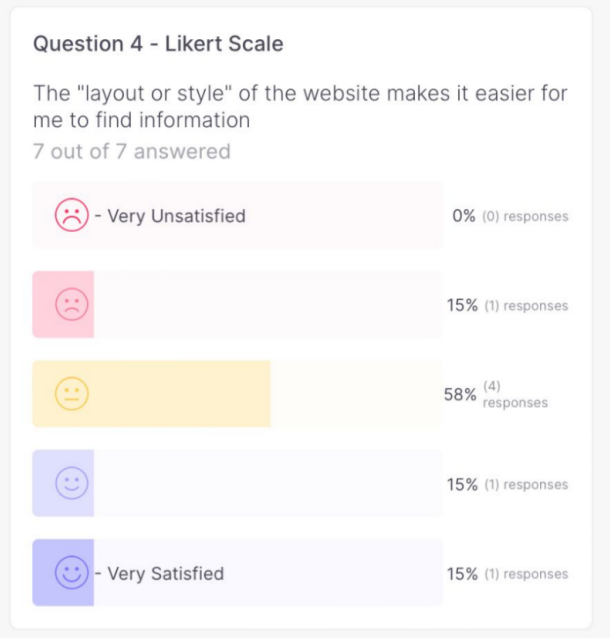

Figure 5.11 Website Layout

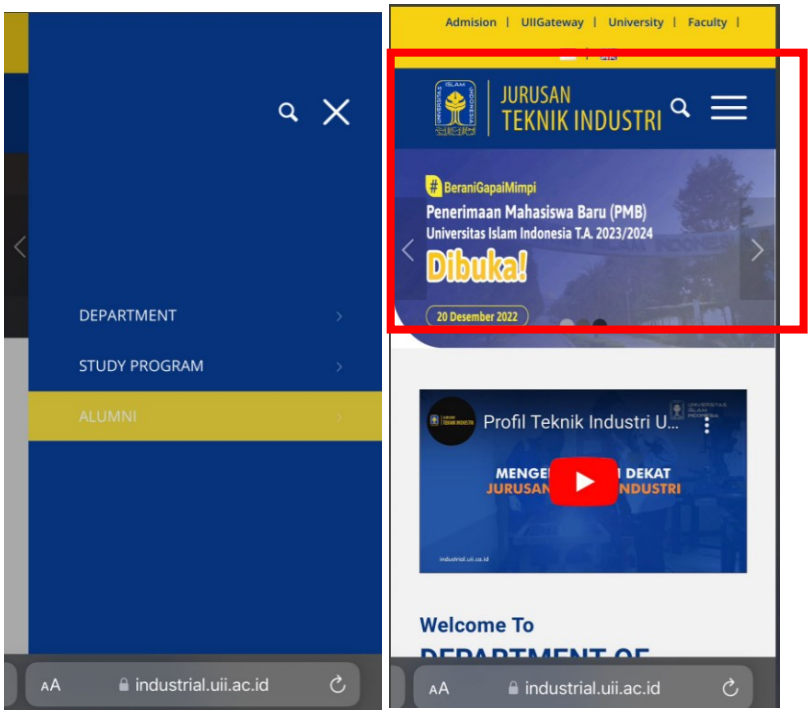

Figure 5.12 Website Using Smartphone

4. Content

   A good website can provide the content needed by users, and how updated information is displayed on the content (Conole, G, 2016). On the website, the information displayed is still not updated, as can be seen from Figure 5.7 in the research feature, which is still presenting research in 2021.

5. Color

   The combination of colors of a website is one of the most important things to make an attractive website. Therefore, to determine the color combination of a website, it is necessary to pay attention to the proper harmonization and contrast (Sasaki, J., 2019). One of the conclusions of the study states that the use of certain colors can affect the comfort level of users, Goethe explained that the colors included in the positive category are red-yellow (orange) and yellow-red (vermeil) (El Ghiffary, 2018).

The Useberry questionnaire uses the parameters of a scale of 1-5, i.e. a scale of 1 (very unsatisfactory); 2 (unsatisfactory); 3 (neutral); 4 (satisfactory); 5 (very satisfactory). It was found in Figure 5.13 that as many as 58% of respondents answered that the website color used was neutral. Then as many as 15% answered was unsatisfactory, 29% answered that satisfactory, and 0% answered very unsatisfactory and very satisfactory. The website has not a good color proportion with the dominance of blue and yellow.

As for the contrast category results, it was found in Figure 5.14 that as many as 29% of respondents answered that the website contrast used was neutral. Then as many as 29% answered was unsatisfactory, 43% answered that satisfactory, and 0% answered very unsatisfactory and very satisfactory.

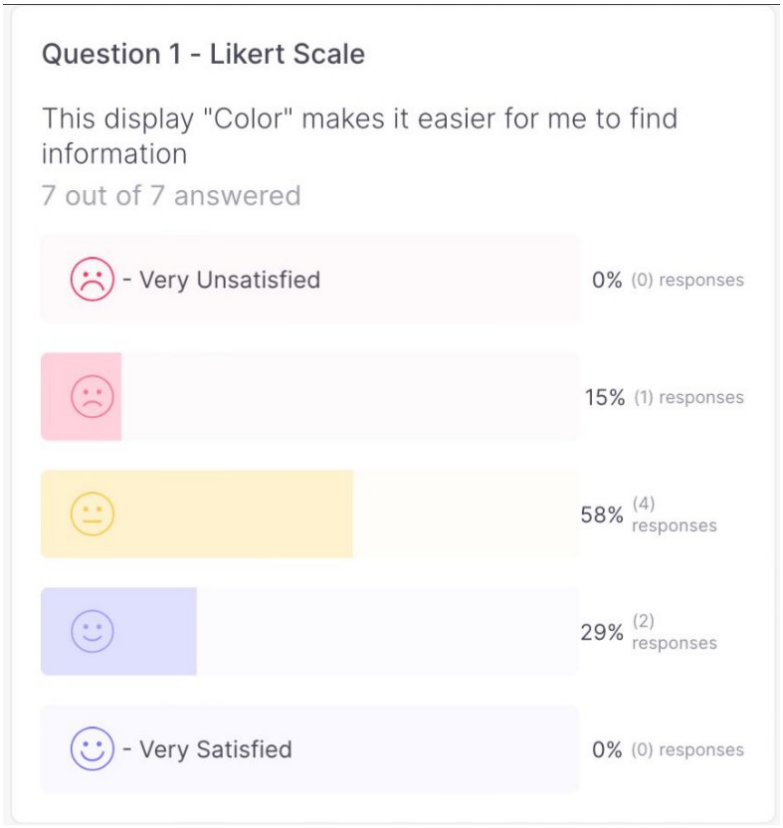

Figure 5.13 Website Color

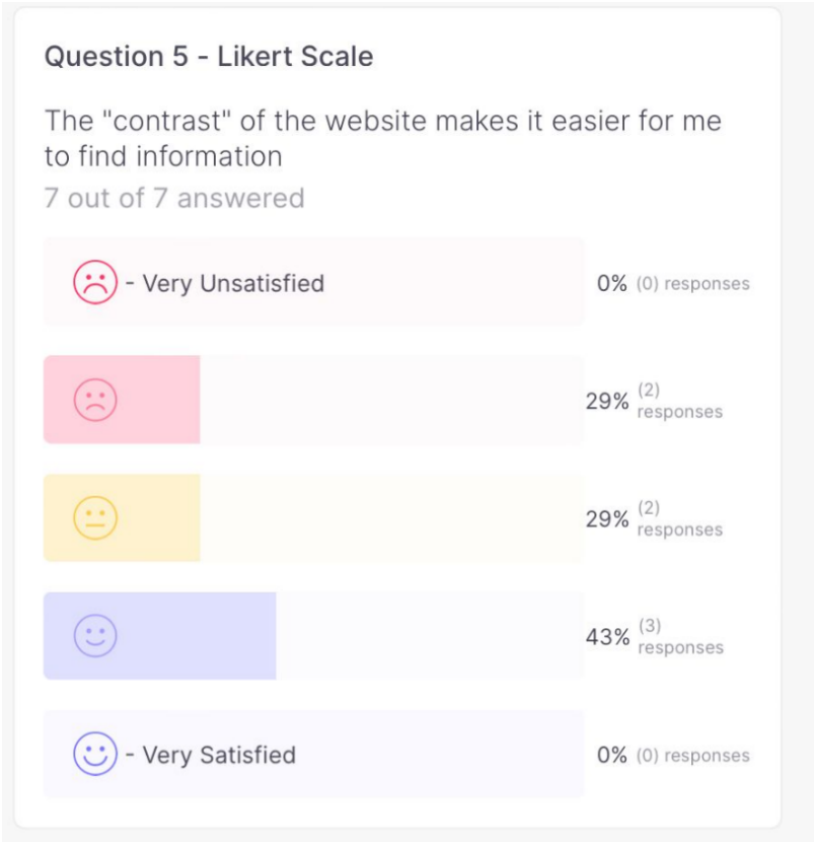

Figure 5.14 Website Contrast

CHAPTER VI

CONCLUSION AND SUGGESTION

6.1 Conclusion

Based on the results of data processing and discussion in the study, it can be concluded as follows:

1. It was found that the average effectiveness result was 83%, with 474 results and 96 failures from scenario 7 tasks. The average of efficiency results show that the efficiency value is 57% of the 7 task scenarios, with the lowest efficiency value found in task 1, namely the scenario for opening the website. The results showed that the UII Industrial Engineering IP website system gets a grade of D (Poor), obtained from 30 respondents and 60%. This score can also mean that UII's IP Industrial Engineering website is in the category of marginally not acceptable in the interpretation of acceptability.

2. The results of the study provide conclusions that the most common problem experienced by users when using the UII Industrial Engineering IP website is when working on scenario 1, namely opening the website. It is due to the user who is unfamiliar with reaching the website. And also, the research feature, it can be seen in the picture that the research information has not been updated and the information is not grouped according to the topic, so students have to search the bottom historical to find the topic they are going to find out.

3. The recommendation that can be given is in the scenario task of opening the website, and there is a need to increase the features of the website, which leads to the needs of students so that there is a frequency of students accessing the website so that it is easily known. For the students' features, they must update the content. For the academic feature, it must be ensured that the language on the website is English to make it uniform and make it easier for users to understand the content of the information. For mobility features, it must be ensured that the information provided is up to date. Or it needs help from student staff to focus on website

content where, not only Instagram content as it is now running. For research features, the writing format in this feature can be grouped by research topic so that it makes it easier for users to find information according to the topic they expect without scrolling the whole one by one. Also, as recommended by Useberry questionnaire, the features like color, style, font, and navigation still need to be updated.

6.2 Suggestion

The researcher realized that this research did not escape the shortcomings and limitations of the study. The suggestions that can be given are:

1. Develop the UII IP Industrial Engineering website on an ongoing basis so that users remain comfortable with a usable website and the teaching and learning process or information exchange becomes smooth.
2. Further research can carry out the use of other methods in analyzing Usability. It is done in order to provide another point of view regarding the problem that occurs.

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APPENDIX

Appendix 1

(Demographic Questionnaire)

I am Mohammed Ameen, a student of Industrial Engineering, Universitas Islam Indonesia Yogyakarta, intending to conduct research on the reusability of the UII Yogyakarta Industrial Engineering IP website. In this section, you are asked to fill in each question regarding self-identity by choosing the answer that you think is representative. All questions asked are used only for research purposes and are kept confidential. For the willingness and cooperation given, I thank you.

Name:

Age:

Gender:

Batch:

1. Do you access the Industrial Engineering IP website?

    a. Yes

    b. No

2. How many times do you access Industrial Engineering IP website within a month?

    a. 1-2 times

    b. 3-5 times

    c. 6-10 times

d. more than 10 times

3. What media do you often use when opening the Industrial Engineering IP website?

a. Desktop (Laptop, Computer, Netbook, etc.)
b. Mobile (Smartphone)

6 For what purposes do you usually use the Industrial Engineering IP website?

6.1 Looking for Internship program
6.2 Looking for academic calendar
6.3 Looking for Scholarship
6.4 Looking for Research
6.5 Others

7 Do you think the web Industrial Engineering IP what currently needs to be developed to make it easier for users??

a. Yes

b. No

Appendix 2

(System Usability Scale)

INSTRUCTION

In filling in the questions below, you are asked to give an opinion proposed development required based on experience in Industrial Engineering IP website regarding the presentation of content and features owned now. In this research questionnaire, choose one of the responses that you think according to the actual circumstances of the Industrial Engineering IP website according to the following information:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

8 = Strongly Agree

No	Questions	1	2	3	4	5
1	I will use this site often.					
2	I rate the site too complex (it contains a lot of things unnecessary).					
3	I rate this site easy to use.					
4	I need technical help to be able to use this site.					
5	I rate the functions/features provided on this site well designed and prepared					
6	I rate a lot of inconsistent things on the site					

7	I feel the majority of users will learn use this site quickly.					
8	I rate this site very complicated to browse					
9	I am very confident in using this site.					
10	I need to learn a lot of things before I can using this site well					

Appendix 3

(Task Performance Measurement)

INSTRUCTION

In this section you are asked to work on the tasks that have been prepared. You can do it the way you know, but if you have difficulties, you can ask or ask for help. The time allotted for work is 1-30 minutes.

8.1.1.1 Open a browser, then look for the IP Industrial Engineering website. If you have found it, open the website.

8.1.1.2 Open the Profile feature of the IP Industrial Engineering website, then the About Us section.

8.1.1.3 Go back to the Homepage.

8.1.1.4 Open the Students features of the IP Industrial Engineering website, then the Achievements section. Look for all the achievements information.

9 Return to the Homepage.

10 Open the Academic features of the IP Industrial Engineering website, then the Academic Calender section. Wait until the page moves, then download the Academic Calendar available.

11 Return to the Homepage.

12 Open the mobility features of the IP Industrial Engineering website, then see if the information available suits your needs?

13 Return to the Homepage.

14 Open the Research feature of the IP Industrial Engineering website, then look for several types of topic are offered.

15 Return to the Home/Home page.

16 Open the IPUIITALK feature from the IP Industrial Enggineering website, then look for an interesting News/Opinion for you to read.

17 Go back to the Home/Home page.

EFFECTIVENESS OBSERVATION SHEET

Element Observation Effectiveness		Yes/No
Scenarios for opening websites		
1	Respondents managed to find the IP Industrial Engineering website	
2	Respondents successfully opened the IP Industrial Engineering website	
Scenarios for the Profile feature		
1	Respondents managed to find the profile feature IP Industrial Engineering website	
2	Respondents successfully knew about the IP Industrial Engineering website	
3	Respondents can return to the Home page correctly	
Scenarios for the Students feature		
1	Respondents successfully opened the student feature	
2	Respondents successfully opened a achievement section	
3	Respondents can return to the Home/Home page correctly	
Scenarios for the Academic feature		
1	Respondents successfully opened the Academic feature	
2	Respondents managed to find the Academic Calendar and download it	

3	Respondents can return to the Home/Home page correctly	
Scenarios for the Mobility feature		
1	Respondents successfully opened the mobility feature	
2	Respondents choose the Double Degree Program section	
3	Respondents can return to the Home/Home page correctly	
Scenarios for the Research feature		
1	Respondents successfully opened the research feature	
2	Respondents can find the several types of topic are offered	
3	Respondents can return to the Home/Home page correctly	
Scenarios for the IPUIITALK feature		
1	Respondents successfully opened the IPUIITALK feature	
2	Respondents can return to the Home/Home page correctly	

EFFICIENCY OBSERVATION SHEET

Element Observation Efficiency		Yes/No
Scenarios for opening websites		
1	Respondents successfully selected Browser	
2	The frequency with which respondents asked evaluators was low	
Scenarios for the Profile feature		
1	Respondent successfully selects Profile button	
2	The frequency with which respondents asked evaluators was low	
Scenarios for the Students feature		
1	Respondent successfully selects students button	
2	Respondents can easily find what they're looking for the achievement information	
3	The frequency with which respondents asked evaluators was low	
Scenarios for the Academic feature		
1	Respondents successfully selected the Academic button	
2	Respondents easily find what they are looking for	
3	Respondents successfully downloaded the Academic Calendar	

4	The frequency with which respondents ask evaluators is low	
Scenarios for the Mobility feature		
1	Respondents successfully selected the Mobility button	
2	The frequency with which respondents ask evaluators is low	
Scenarios for the Research feature		
1	Respondents successfully selected the Mobility button	
2	Respondents easily find what they are looking for the research	
3	The frequency with which respondents ask evaluators is low	
Scenarios for the IPUIITALK feature		
1	Respondents successfully selected the IPUIITALK button	
2	Respondents have no trouble finding page buttons	
3	Respondents have no trouble remembering the News/Opinions read	
4	The frequency with which respondents ask evaluators is low	

Appendix 4

Validity

Validity tests are carried out to test the validity of questionnaires that have been distributed. The questionnaire can be said to be valid if the question variables contained show measurable results (Sugiyono, 2003). The questionnaire validity test is carried out by Compare the calculated r value with the r table. A questionnaire can be said to be valid if: The value of r is calculated > r table. In this study, the amount of data collected was A total of 30 respondents.

Correlations

Correlations

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
Q1	Pearson Correlation	1	.205	.592**	.336	.523**	.275	.531**	-.013	.532**	.572**	.792**
	Sig. (2-tailed)		.278	.001	.069	.003	.141	.003	.945	.003	.001	.000
	N	30	30	30	30	30	30	30	30	30	30	30
Q2	Pearson Correlation	.205	1	-.055	.661**	-.030	.150	-.085	.500**	-.076	-.074	.367*
	Sig. (2-tailed)	.278		.773	.000	.875	.430	.655	.005	.691	.697	.046
	N	30	30	30	30	30	30	30	30	30	30	30
Q3	Pearson Correlation	.592**	-.055	1	.055	.482**	-.080	.601**	-.269	.461*	.787**	.627**
	Sig. (2-tailed)	.001	.773		.774	.007	.673	.000	.151	.010	.000	.000
	N	30	30	30	30	30	30	30	30	30	30	30
Q4	Pearson Correlation	.336	.661**	.055	1	-.113	.226	.009	.378*	-.172	.039	.408*
	Sig. (2-tailed)	.069	.000	.774		.551	.229	.963	.039	.363	.836	.025
	N	30	30	30	30	30	30	30	30	30	30	30
Q5	Pearson Correlation	.523**	-.030	.482**	-.113	1	.361*	.670**	-.080	.641**	.377*	.675**
	Sig. (2-tailed)	.003	.875	.007	.551		.050	.000	.676	.000	.040	.000
	N	30	30	30	30	30	30	30	30	30	30	30
Q6	Pearson Correlation	.275	.150	-.080	.226	.361*	1	.335	.451*	.481**	-.145	.536**
	Sig. (2-tailed)	.141	.430	.673	.229	.050		.070	.012	.007	.444	.002
	N	30	30	30	30	30	30	30	30	30	30	30
Q7	Pearson Correlation	.531**	-.085	.601**	.009	.670**	.335	1	-.025	.662**	.492**	.741**
	Sig. (2-tailed)	.003	.655	.000	.963	.000	.070		.897	.000	.006	.000
	N	30	30	30	30	30	30	30	30	30	30	30
Q8	Pearson Correlation	-.013	.500**	-.269	.378*	-.080	.451*	-.025	1	.166	-.291	.315
	Sig. (2-tailed)	.945	.005	.151	.039	.676	.012	.897		.382	.119	.089
	N	30	30	30	30	30	30	30	30	30	30	30
Q9	Pearson Correlation	.532**	-.076	.461*	-.172	.641**	.481**	.662**	.166	1	.392*	.723**
	Sig. (2-tailed)	.003	.691	.010	.363	.000	.007	.000	.382		.032	.000
	N	30	30	30	30	30	30	30	30	30	30	30
Q10	Pearson Correlation	.572**	-.074	.787**	.039	.377*	-.145	.492**	-.291	.392*	1	.549**
	Sig. (2-tailed)	.001	.697	.000	.836	.040	.444	.006	.119	.032		.002
	N	30	30	30	30	30	30	30	30	30	30	30
Total	Pearson Correlation	.792**	.367*	.627**	.408*	.675**	.536**	.741**	.315	.723**	.549**	1
	Sig. (2-tailed)	.000	.046	.000	.025	.000	.002	.000	.090	.000	.002	
	N	30	30	30	30	30	30	30	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

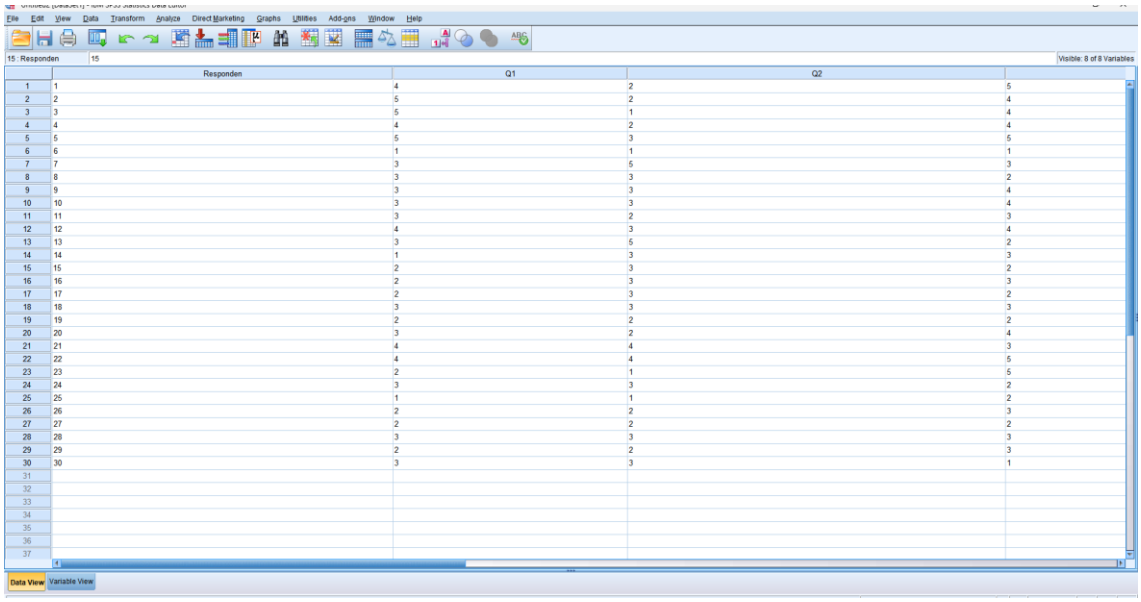
Based on data processing carried out using SPSS 23 software

obtained an r table value of 0.3610 (30-2 = 28, Check on R Table for significancy 0.05) with a significance level of 95%. On the table describe the results of the validity test.

Based on the results of the validity test shown by the table, it is found that the value

r calculate > r table. This result shows that the whole manifest variable

The questions presented on the questionnaire are valid.



	Responden	Q1	Q2	
1	1	4	2	5
2	2	5	2	4
3	3	5	1	4
4	4	4	2	4
5	5	5	3	5
6	6	1	1	1
7	7	3	5	3
8	8	3	3	2
9	9	3	3	4
10	10	3	3	4
11	11	3	2	3
12	12	4	3	4
13	13	3	5	2
14	14	1	3	3
15	15	2	3	2
16	16	2	3	3
17	17	2	3	2
18	18	3	3	3
19	19	2	2	2
20	20	3	2	4
21	21	4	4	3
22	22	4	4	5
23	23	2	1	5
24	24	3	3	2
25	25	1	1	2
26	26	2	2	3
27	27	2	2	2
28	28	3	3	3
29	29	2	2	3
30	30	3	3	1
31				
32				
33				
34				
35				
36				
37				

Tabel r untuk df = 1 - 50

df = (N-2)	Tingkat signifikansi untuk uji satu arah				
	0.05	0.025	0.01	0.005	0.0005
	Tingkat signifikansi untuk uji dua arah				
	0.1	0.05	0.02	0.01	0.001
1	0.9877	0.9969	0.9995	0.9999	1.0000
2	0.9000	0.9500	0.9800	0.9900	0.9990
3	0.8054	0.8783	0.9343	0.9587	0.9911
4	0.7293	0.8114	0.8822	0.9172	0.9741
5	0.6694	0.7545	0.8329	0.8745	0.9509
6	0.6215	0.7067	0.7887	0.8343	0.9249
7	0.5822	0.6664	0.7498	0.7977	0.8983
8	0.5494	0.6319	0.7155	0.7646	0.8721
9	0.5214	0.6021	0.6851	0.7348	0.8470
10	0.4973	0.5760	0.6581	0.7079	0.8233
11	0.4762	0.5529	0.6339	0.6835	0.8010
12	0.4575	0.5324	0.6120	0.6614	0.7800
13	0.4409	0.5140	0.5923	0.6411	0.7604
14	0.4259	0.4973	0.5742	0.6226	0.7419
15	0.4124	0.4821	0.5577	0.6055	0.7247
16	0.4000	0.4683	0.5425	0.5897	0.7084
17	0.3887	0.4555	0.5285	0.5751	0.6932
18	0.3783	0.4438	0.5155	0.5614	0.6788
19	0.3687	0.4329	0.5034	0.5487	0.6652
20	0.3598	0.4227	0.4921	0.5368	0.6524
21	0.3515	0.4132	0.4815	0.5256	0.6402
22	0.3438	0.4044	0.4716	0.5151	0.6287
23	0.3365	0.3961	0.4622	0.5052	0.6178
24	0.3297	0.3882	0.4534	0.4958	0.6074
25	0.3233	0.3809	0.4451	0.4869	0.5974
26	0.3172	0.3739	0.4372	0.4785	0.5880
27	0.3115	0.3673	0.4297	0.4705	0.5790
28	0.3061	0.3610	0.4226	0.4629	0.5703
29	0.3009	0.3550	0.4158	0.4556	0.5620
30	0.2960	0.3494	0.4093	0.4487	0.5541
31	0.2913	0.3440	0.4032	0.4421	0.5465
32	0.2869	0.3388	0.3972	0.4357	0.5392
33	0.2826	0.3338	0.3916	0.4296	0.5322
34	0.2785	0.3291	0.3862	0.4238	0.5254

Reliability

The reliability test shows how consistent and reliable the questionnaires addressed to respondents are.

Reliability

Scale: ALL VARIABLES

Case Processing Summary

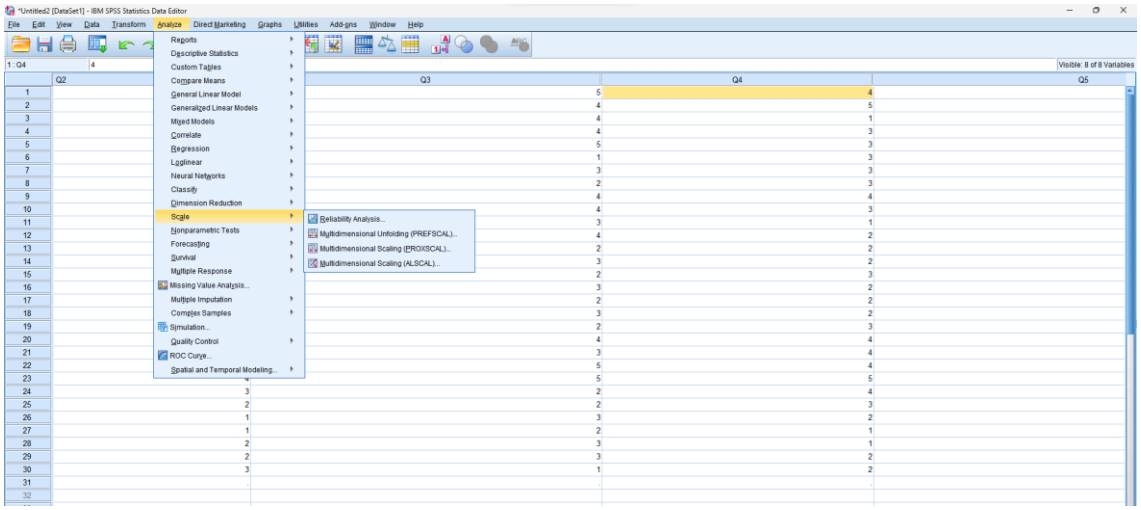
		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

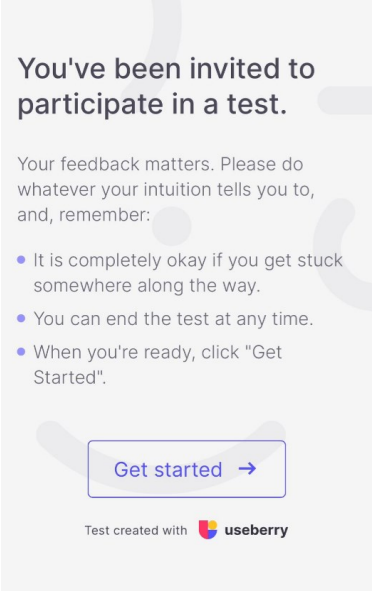
Reliability Statistics

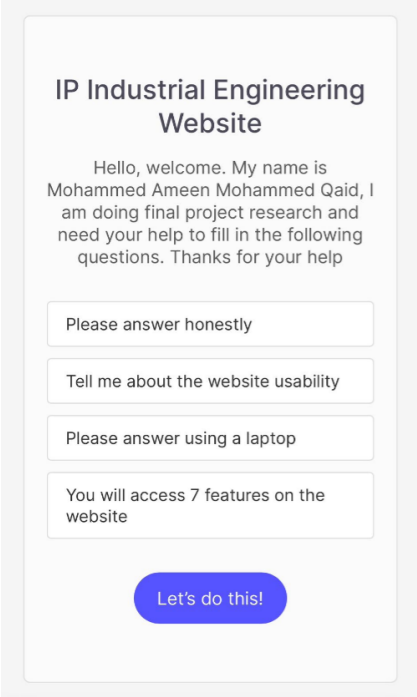
Cronbach's Alpha	N of Items
.776	10

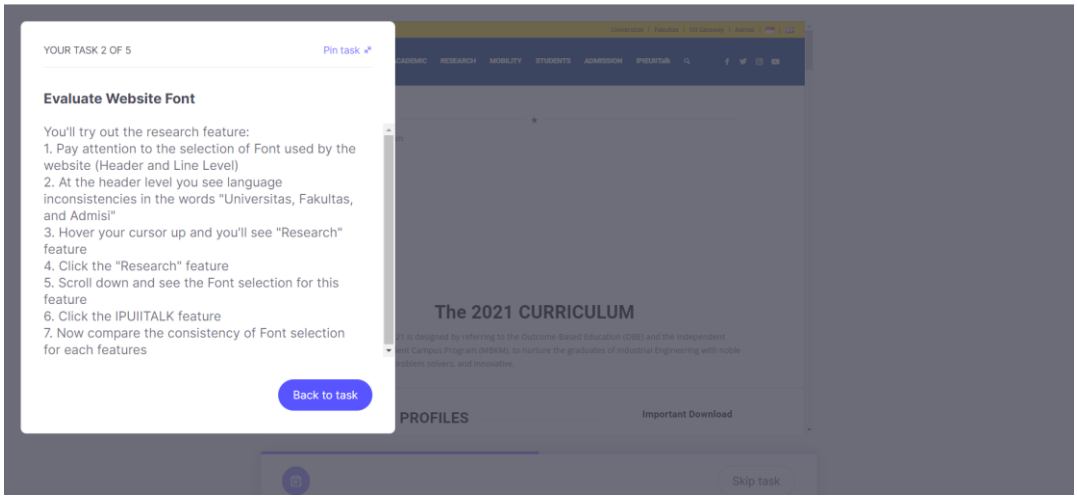
Based on the table, it is obtained that all variables used in research is reliable. This is evidenced by Cronbach's alpha > 0.7 in each variable. Therefore, the questions contained in the questionnaire can be used as a research instrument in the next step.

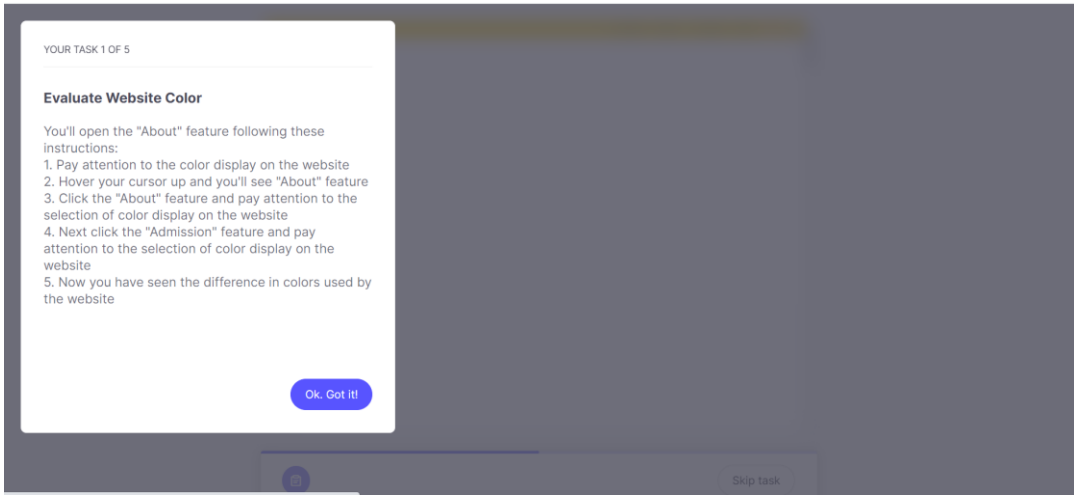


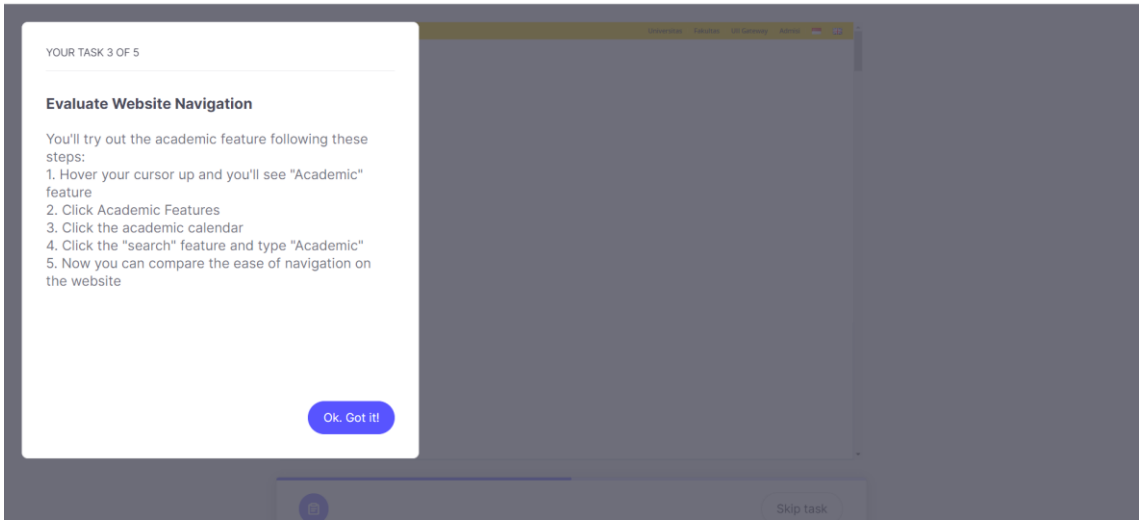
Useberry Questionnaire Results

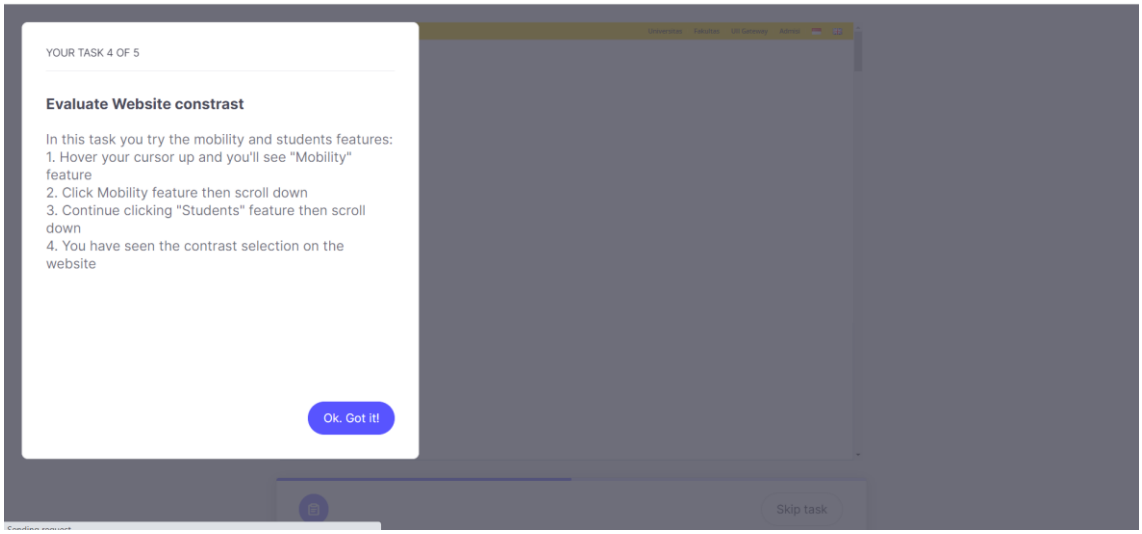


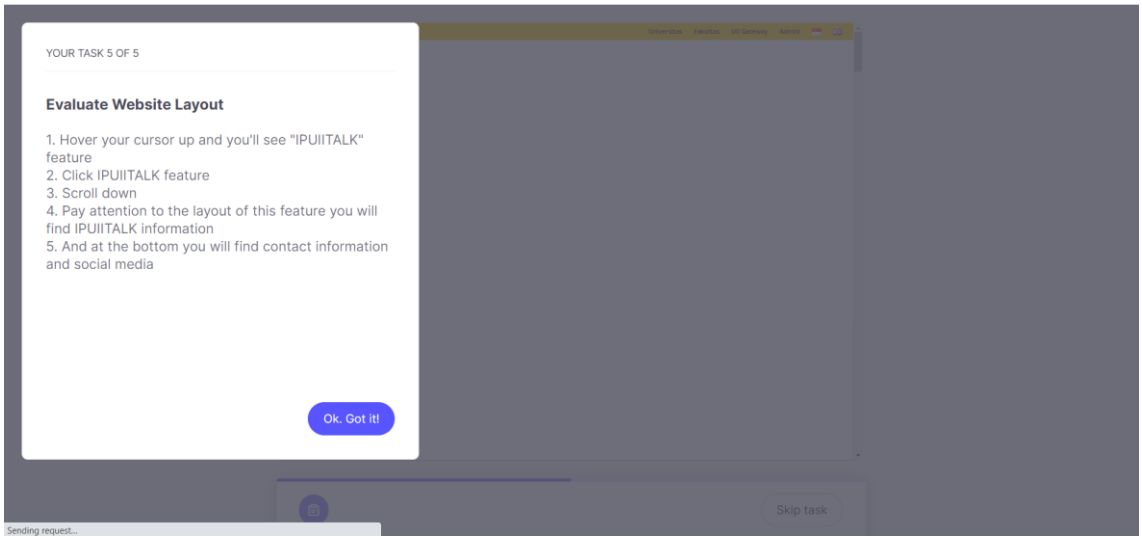


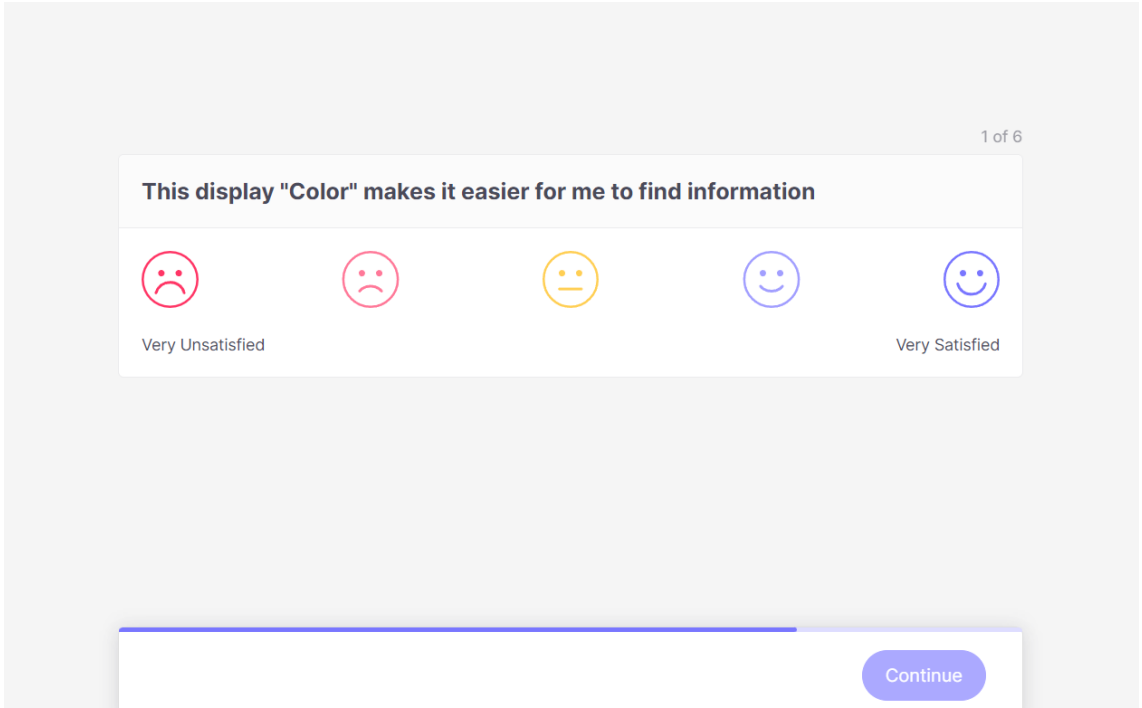

YOUR TASK 2 OF 5
Pin task
Evaluate Website Font
You'll try out the research feature:
1. Pay attention to the selection of Font used by the website (Header and Line Level)
2. At the header level you see language inconsistencies in the words "Universitas, Fakultas, and Admisi"
3. Hover your cursor up and you'll see "Research" feature
4. Click the "Research" feature
5. Scroll down and see the Font selection for this feature
6. Click the IPUIITALK feature
7. Now compare the consistency of Font selection for each features
Back to task
The 2021 CURRICULUM
PROFILES
Important Download
Skip task

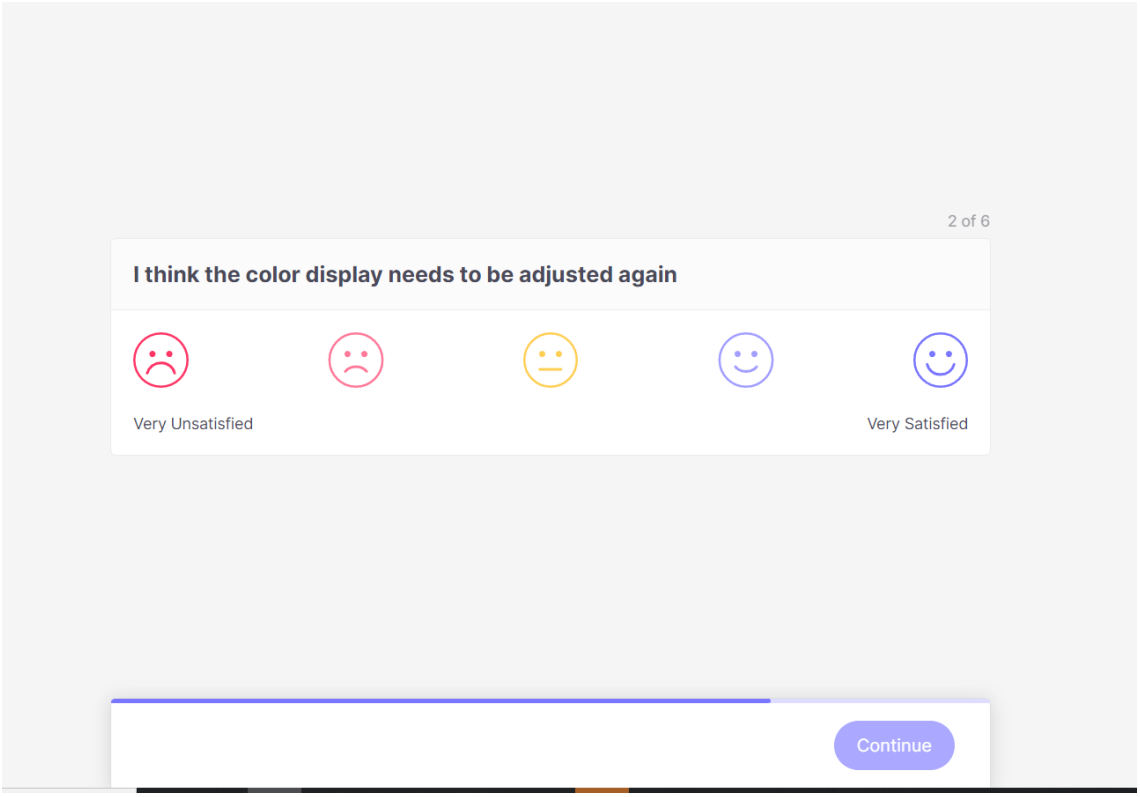

YOUR TASK 1 OF 5
Evaluate Website Color
You'll open the "About" feature following these instructions:
1. Pay attention to the color display on the website
2. Hover your cursor up and you'll see "About" feature
3. Click the "About" feature and pay attention to the selection of color display on the website
4. Next click the "Admission" feature and pay attention to the selection of color display on the website
5. Now you have seen the difference in colors used by the website
Ok. Got it!
Skip task

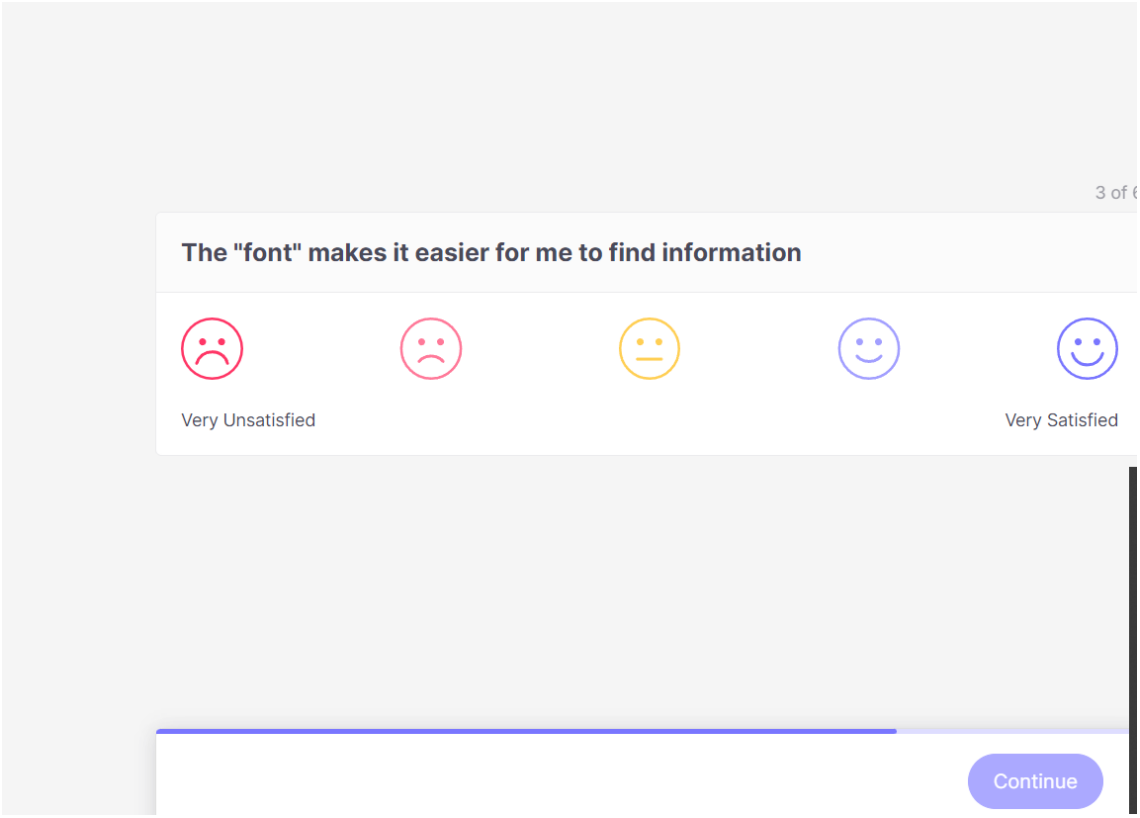

YOUR TASK 3 OF 5
Evaluate Website Navigation
You'll try out the academic feature following these steps:
1. Hover your cursor up and you'll see "Academic" feature
2. Click Academic Features
3. Click the academic calendar
4. Click the "search" feature and type "Academic"
5. Now you can compare the ease of navigation on the website
Ok. Got it!
Skip task

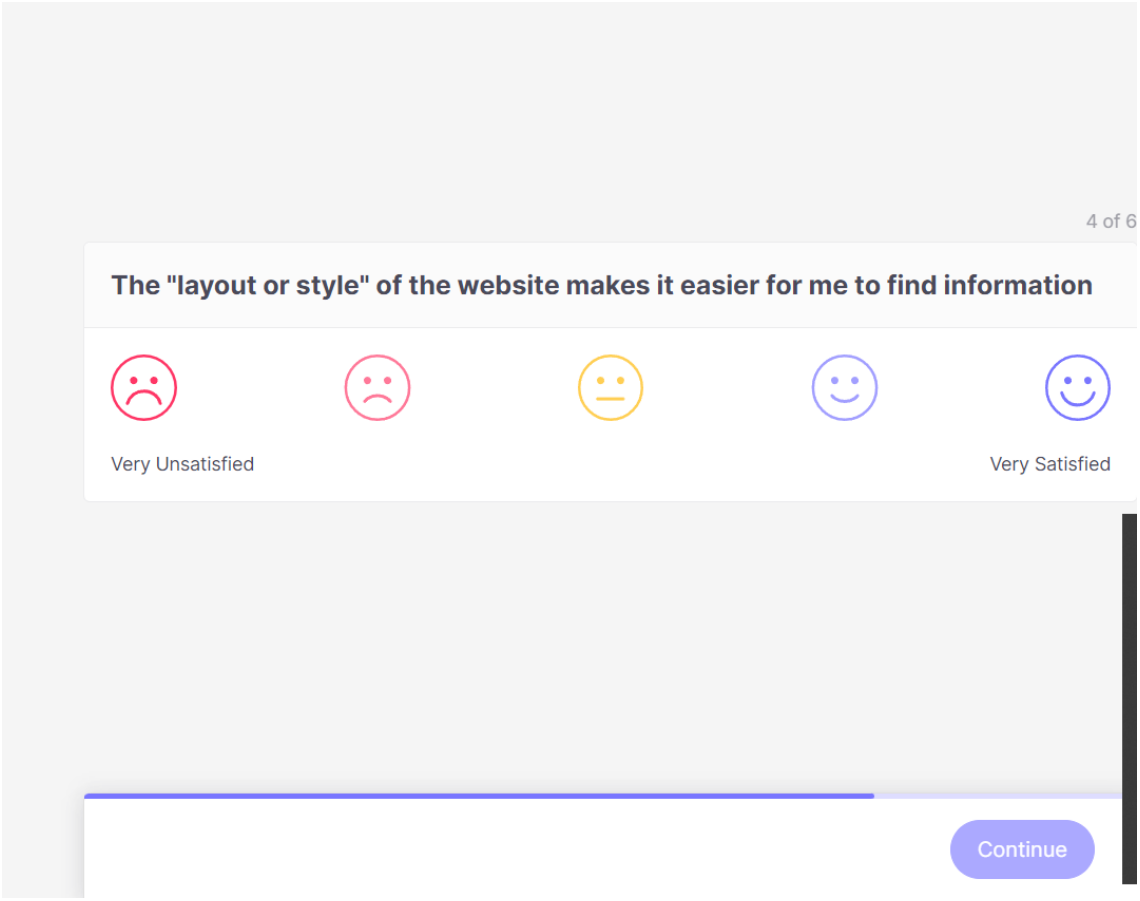

YOUR TASK 4 OF 5
Evaluate Website constrast
In this task you try the mobility and students features:
1. Hover your cursor up and you'll see "Mobility" feature
2. Click Mobility feature then scroll down
3. Continue clicking "Students" feature then scroll down
4. You have seen the contrast selection on the website
Ok. Got it!
Skip task

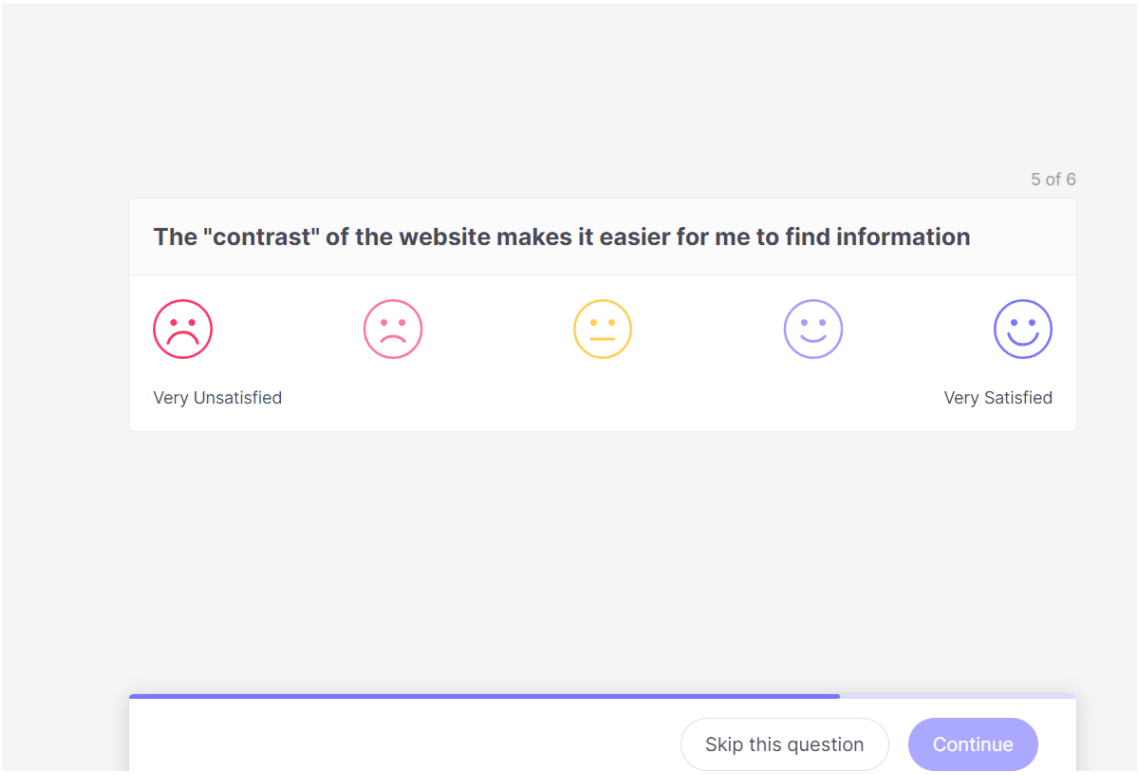

YOUR TASK 5 OF 5
Evaluate Website Layout
1. Hover your cursor up and you'll see "IPUIITALK" feature
2. Click IPUIITALK feature
3. Scroll down
4. Pay attention to the layout of this feature you will find IPUIITALK information
5. And at the bottom you will find contact information and social media
Ok. Got it!
Skip task
Sending request...

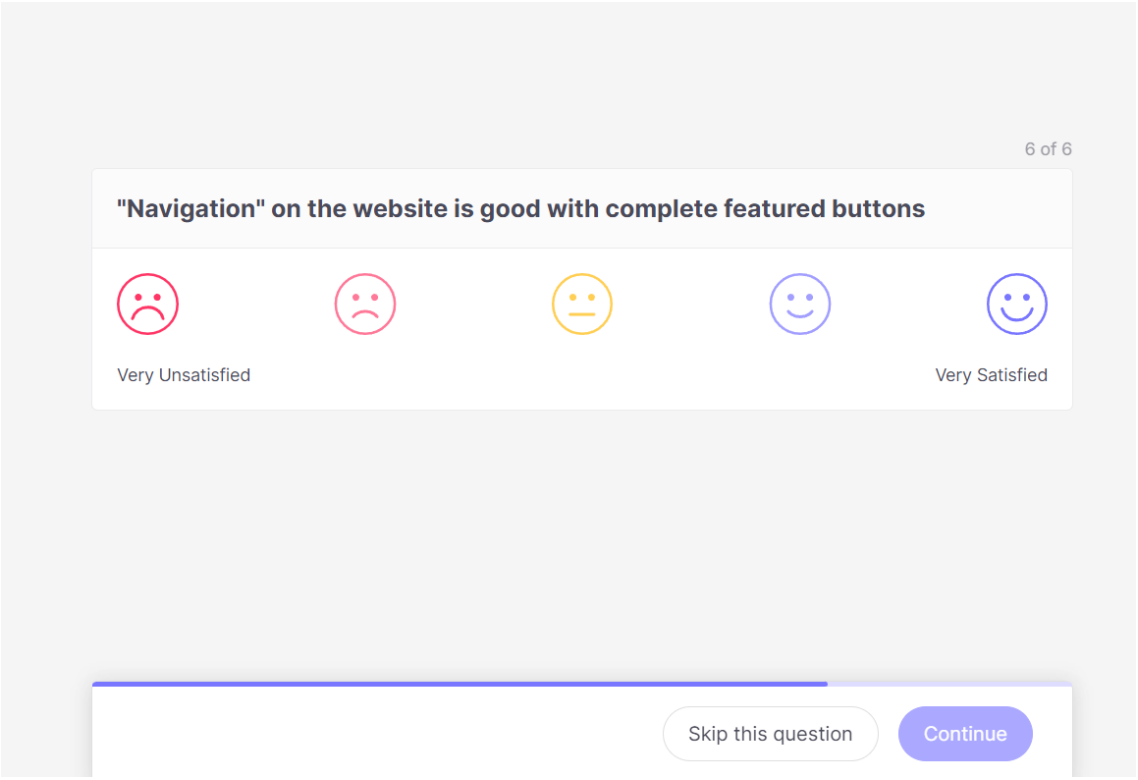

1 of 6
This display "Color" makes it easier for me to find information
Very Unsatisfied
Very Satisfied
Continue

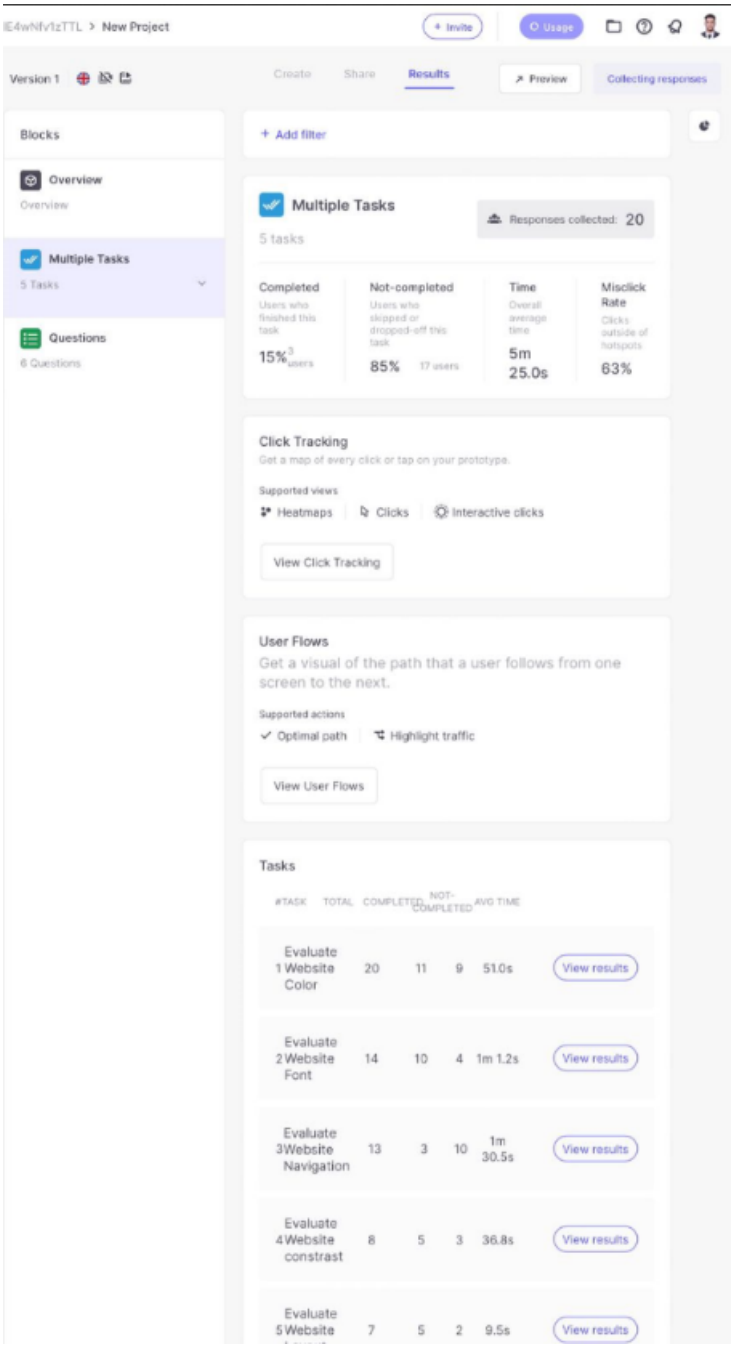

2 of 6
I think the color display needs to be adjusted again
Very Unsatisfied
Very Satisfied
Continue

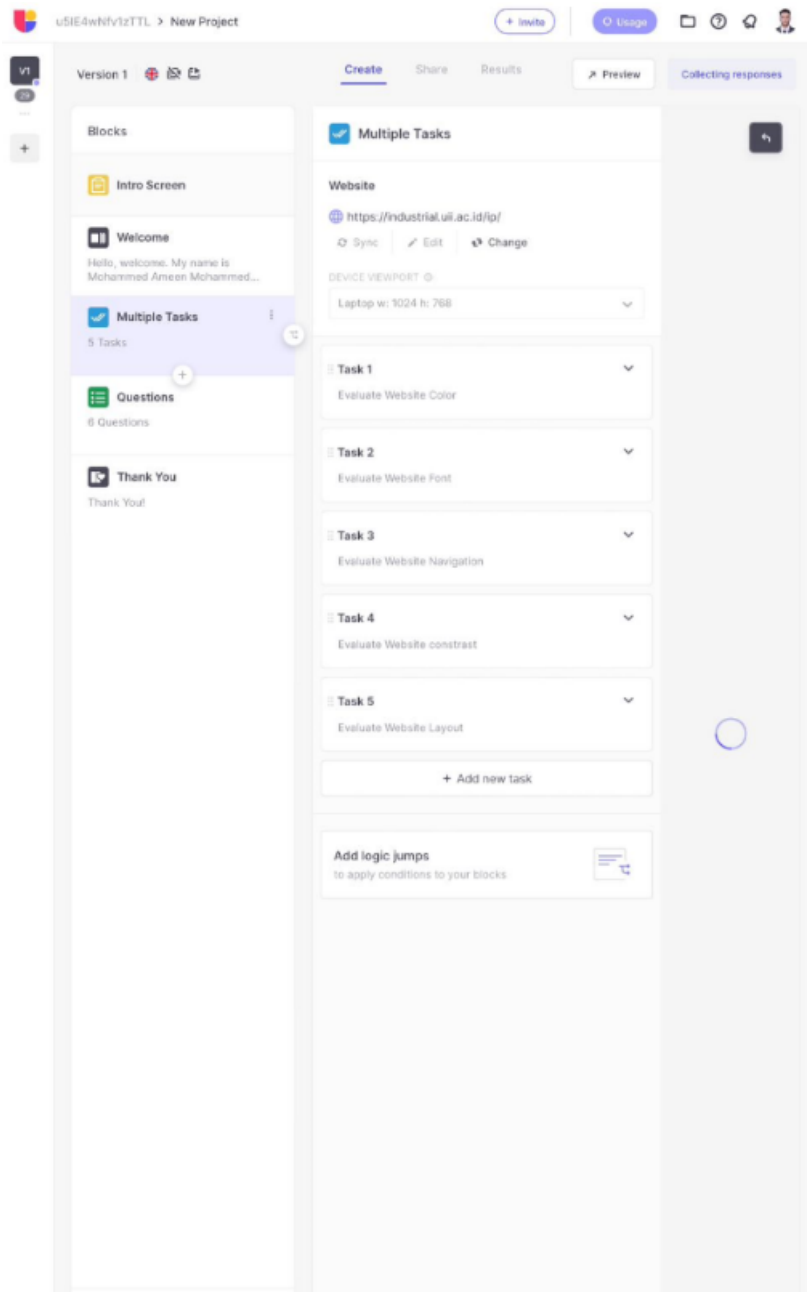

3 of
The "font" makes it easier for me to find information
Very Unsatisfied
Very Satisfied
Continue


4 of 6
The "layout or style" of the website makes it easier for me to find information
Very Unsatisfied
Very Satisfied
Continue


5 of 6
The "contrast" of the website makes it easier for me to find information
Very Unsatisfied
Very Satisfied
Skip this question
Continue


6 of 6
"Navigation" on the website is good with complete featured buttons
Very Unsatisfied
Very Satisfied
Skip this question
Continue


IE4wNfv1zTTL > New Project
Invite
Usage
Version 1
Create
Share
Results
Preview
Collecting responses
Blocks
Overview
Overview
Multiple Tasks
5 Tasks
Questions
6 Questions
+ Add filter
Multiple Tasks
5 tasks
Responses collected: 20
Completed
Users who finished this task
15%
3 users
Not-completed
Users who skipped or dropped-off this task
85%
17 users
Time
Overall average time
5m 25.0s
Misclick Rate
Clicks outside of hotspots
63%
Click Tracking
Get a map of every click or tap on your prototype.
Supported views
Heatmaps
Clicks
Interactive clicks
View Click Tracking
User Flows
Get a visual of the path that a user follows from one screen to the next.
Supported actions
Optimal path
Highlight traffic
View User Flows
Tasks
#TASK
TOTAL
COMPLETED
NOT-COMPLETED
AVG TIME
1 Evaluate Website Color 20 11 9 51.0s View results
2 Evaluate Website Font 14 10 4 1m 1.2s View results
3 Evaluate Website Navigation 13 3 10 1m 30.5s View results
4 Evaluate Website constrast 8 5 3 36.8s View results
5 Evaluate Website 7 5 2 9.5s View results


u5IE4wNfv1zTTL > New Project
+ Invite
Usage
V1
Version 1
Create
Share
Results
Preview
Collecting responses
Blocks
Intro Screen
Welcome
Hello, welcome. My name is Mohammed Ameen Mohammed...
Multiple Tasks
5 Tasks
Questions
6 Questions
Thank You
Thank You!
Multiple Tasks
Website
https://industrial.uii.ac.id/ip/
Sync
Edit
Change
DEVICE VIEWPORT
Laptop w: 1024 h: 768
Task 1
Evaluate Website Color
Task 2
Evaluate Website Font
Task 3
Evaluate Website Navigation
Task 4
Evaluate Website constrast
Task 5
Evaluate Website Layout
+ Add new task
Add logic jumps
to apply conditions to your blocks