

1. Introduction

1.1 Background

At this time the growth of technology has increased rapidly to encourage the development of mobile technology, especially on mobile phones, because mobile phones today can balance the ability of computers in carrying out work tasks so that the naming of mobile phones can also be called smartphones. Following the development of the internet and also today's technology, cellphones have become the most frequently used gadgets, especially by young people, millennials and also Gen Z. [1]. Then a study said that Indonesia was one of the countries that accessed the internet the most and was ranked first in the ASEAN region and also ranked 3rd for the Asia Pacific region and it is predicted that around 67% of connections are accessed via mobile devices. [2].

Even though there are more and more smartphone users in Indonesia, sometimes there are cases where Indonesian people still prefer to use a computer instead of a smartphone in completing an activity, not because of inadequate cellphone capabilities but based on research, mobile devices, especially smartphones, often experience several problems that reduce the quality of user comfort, there are 4 categories of problem identification felt by users with the main problems which is display, interaction, experience, and others [3].

1.2 Problem Statement

In this case, the integrated academic information system Telkom University website namely I-Gracias, has a fairly serious problem with the appearance of its website page when accessed via a smartphone device because they have a bad layout even though they are already using responsive web design. Based on the results of interviews and observations, many students complained about the layout of the TA/PA menu on the I-Gracias website, when accessed via a smartphone, they often experienced several problems, such as often some content on the website was truncated or not fully displayed, to the layout of the buttons and also some Important elements that existed in the desktop version are now invisible in the mobile version which makes users feel confused and spend more effort, such as zooming in or out of the screen to scroll the screen so that they can see some content in the website view. This is evident after the initial usability test to 8 students from various majors using the System Usability Scale (SUS), the score obtained is 41.25 which is a bad score, and received a bad response from Telkom University students.

1.3 Purpose

To overcome this problem, here the researcher plans to use a User Interface Design (UID) pattern approach to deal with this problem, the UID pattern is a design pattern that describes a design problem that repeats itself and serves to provide a concrete solution according to user needs [4]. In general, the UID pattern consists of several general format patterns consisting of a summary of the problem, solutions, examples, and usage [5]. To find out the habits and needs of users, a user-focused development method is needed so that the User Centered Design (UCD) method is chosen. The reason researchers use UCD is because the purpose of this study is to find out a product from the user's point of view, user needs, user habits, and user experience in using a product [6]. Then the results from the previous UID pattern will help in the process of making design solutions at the UCD stage which will be used as an initial guide when designing an application and also has the aim of making it easier for developers when they want to develop an I-Gracias mobile website in the context of a user interface regarding user interaction. [4]. The limitation of the problem in this research is to focus on making the user interface display menu TA/PA I-Gracias website from the student side.