

1. Preliminary

Background

Coronaviruses (Cov), or more commonly known as COVID-19, is a virus that infects the respiratory system, according to the World Health Organization (WHO) [1]. The spread of this virus is relatively rapid; presently, 188 countries have confirmed infection with the Coronavirus [2]. To help minimize the spread of this virus, the Republic of Indonesia's Ministry of Health developed an e-HAC (Electronic – Health Alert Card) application or the Health Alert Card. This application is for all domestic and international travelers during this pandemic [3]. This application will be utilized as a research object because it is a novel application that must be utilized. However, this program acquired 1.4 out of 5 rating stars and numerous negative comments in the Appstore's review column. To validate the e-HAC application's problems, a Pre-Survey of users was conducted using questionnaires and interviews.

The respondents in the pre-survey were users of the e-HAC application on the iOS platform with the aim of obtaining valid information. As much as 20 respondents were involved in the Pre-survey [4]. Respondents must submit a google form available at <https://bit.ly/3xDUMj5>. The data was then analyzed in Excel to determine test scores using the System Usability Scale (SUS). SUS is an effective and reliable usability testing tool that can be used on a wide variety of products and applications, as well as websites. After completing the calculations, it was determined that the SUS score from the e-HAC application is 53.87, indicating that the grade D scale and acceptability range are still relatively low [5].

The issue perceived by users is when they are about to fill in the e-HAC form, they are often confused about where to go, and the navigation is difficult to comprehend, making it difficult for users to understand this e-HAC application. Additionally, the aesthetics of the entire application are less appealing; thus, necessitating an upgrade to make the application more appealing to use.

According to the pre-survey results, it is necessary to enhance several of the existing User Interfaces in the e-HAC application. Thus, a method called User-Centered Design (UCD) is utilized to enhance the usability of e-HAC applications. The User-Centered Design (UCD) method is the most widely used method since it incorporates users in the research process and allows for enhancements to the e-HAC application's User Interface based on user feedback [6]. Additionally, it is popular because the iteration process continues until a satisfactory design is achieved and each level requires the user to clearly integrate.

Topics and Limits

With the hope that the research can focus on the formulation of the problems that have been determined, the limitations of the problem in this study are:

1. The research concludes with the creation of a User Interface design in the form of a prototype utilizing the User-Centered Design method.
2. The respondents for this study are users of the e-HAC application on the iOS platform.

Purposes

Based on the formulation of the problem that has been described, this study aims to:

1. Create a user interface that is suitable for users of the e-HAC application.
2. Apply the User-Centered Design method in completing the e-HAC application's user interface design.
3. Develop a solution for the User Interface design model that will improve the usability of e-HAC applications.