ABSTRACT

The online transportation ordering mobile application is an application that helps users in ordering transportation facilities that can be accessed by anyone using mobile phones and internet users are no exception for people with visual impairments. Users with visual impairments with limited accessibility will have difficulty accessing the application. Based on the results of the initial survey, it was found that the online grab transportation ordering application is currently still less accessible and an increase in accessibility is needed. This study aims to design the right user experience to improve the accessibility of the application so that users with visual impairments can access the application properly. In this research, the method used is User Centered Design (UCD) which focuses on user needs and characteristics who are visually-impaired users. The study's findings are recommendations for the interaction design of the Grab application. Based on the needs and characteristics of the users, the resulting accessibility improvements are in the form of a simpler design than the previous design and features designed to overcome the pain points of users with visual impairments. Furthermore, the design that has been made is tested using the Cognitive Walkthrough method, which contains user scenarios to achieve certain goals. The evaluation results show that the scenario completion rate has increased and the number of errors made when completing the scenario has also decreased. It can be concluded that using the UCD method can improve the usability of the application.

Keywords: Mobile Application; Transportation Ordering; Grab; Visual Impairments; User-Centered Design; Cognitive Walkthrough