ABSTRACT

Visually impaired individuals often encounter significant challenges in leading independent daily lives.. Assistive technology is here to help improve the independence of the visually impaired. However, the use of assistive technology often encounters various obstacles, especially in terms of usability. Based on these problems, a usability measurement application for assistive technology from the visually impaired was developed to facilitate the visually impaired to independently assess the usability of assistive technology by considering the needs and accessibility of the visually impaired. This solution is implemented through designing User Interface (UI) and User Experience (UX) using the design thinking method in order to create an application that can be a solution to the problems faced by users. This method consists of five stages, namely empathize, define, ideate, prototype, and testing. In the initial stage, an analysis of the problems faced, needs, and habits of blind people was carried out by conducting surveys and interviews followed by designing design solutions, then testing was carried out to ensure that the design could be a solution and meet the needs of blind people. In the testing stage, an evaluation of the design is carried out by asking for recommendations and suggestions from users, as well as using the System Usability Scale (SUS) testing method which gets a score of 85.6 with grade B, adjective ratings "excellent" and acceptability ranges "acceptable", Single Ease Question (SEQ) which scores above 6 which is categorized as easy to use by users, and Net Promoter Score (NPS) which scores 66% which proves that more promoters and users feel very satisfied and loyal to this application.

Keywords: ***Visual Impairment, Assistive Technology, User Interface, User Experience, Usability, Design Thinking***