MyDiabetes—the gamified application for diabetes self-management and care

ABSTRACT

Gamified applications are regarded as useful for patients in facilitating daily self-care management and the personalization of health monitoring. This paper reports the development of a gamified application by considering a design that had previously been investigated and reported. Numerous game elements were installed in the application, which covered several tasks aimed at managing diabetes mellitus. The development process utilized the Rapid Application Development (RAD) methodology in terms of system requirements, user design, construction, and cutover; this paper refers to the user design and cutover processes. The developed application was tested through system testing and usability testing. The usability testing adopted the Software Usability Scale (SUS) to assess the usability of the application. Twenty participants were involved in the testing. The result showed that the gamified application is easy and practical to use for an individual with or without diabetes. All the provided functions worked as designed and planned, and the participants accepted their usability. Overall, this study offers a promising result that could lead to real-life implementation