

## **Developing a depression detector application by integrating the DASS-21 measures: a preliminary study**

### **ABSTRACT**

Depression is a serious mental problem that does not neglect university students. There has been an increase in the number of cases in recent times and several alternatives for recovery have been made. Mobile health applications and technologies for depression were initiatives to improve treatment options. However, recent studies had revealed that there was a lack of proven therapeutic outcomes associated with these health applications, especially in concerning depression disorders. Nonetheless, besides a few studies that had applied psychological measures into their depression detector application, insufficient heuristic designs (i.e., features and functions) for health and well-being technologies in depression have also been reported. Therefore the main focus of this project is to identify features/functions needed in a Depression Detector Application and to apply psychological measures that can provide accurate detection of depression among the users. The objective of this project is to identify the features needed through the observation method and to develop a depression detector mobile application using a psychological measure known as the Depression, Anxiety, and Stress Scale (DASS-21). A total of 30 participants were involved in the initial gathering phase and two experts in applying psychological measures in the development phase. The contribution of this study is to gain knowledge about the applicability of using psychological measures on mobile depression detector applications with feedback from medical experts in the development process. Future sequential studies from the study would be studying the effectiveness of the application and enhancing the usability aspects.

**Keyword:** Depression Anxiety Stress Scale (DASS); Depression detector application; Mobile application design