

# Mobile Apps Gamification for Mental Health

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## ABSTRAK

*Gamification is the use of game and design elements in a non-game context. The method of gamification involves the use of game elements such as leaderboards, difficulty levels, and prizes. In this research, the gamification approach is used to obtain the user's mental health data to facilitate data retrieval. This study uses Data of Depression, Anxiety, Stress Scale (DASS) as a reference to make gamification for obtaining data from user easily, efficiently, and pleasantly. We use gamification for data collection. Scenarios are made to represent each question in DASS using actors. We use the User Experience Questioner (UEQ) to determine the user's impression when running the application. The results of this test found that users feel fun, efficient, and easy when running this application.*

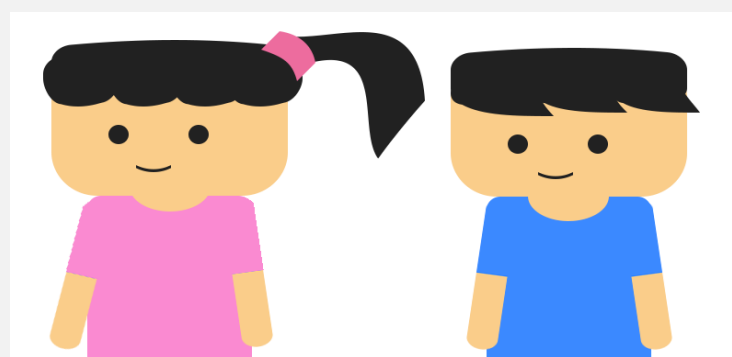
**Keyword :** Gamification, Mental Health, Mobile Apps

## INTRODUCTION

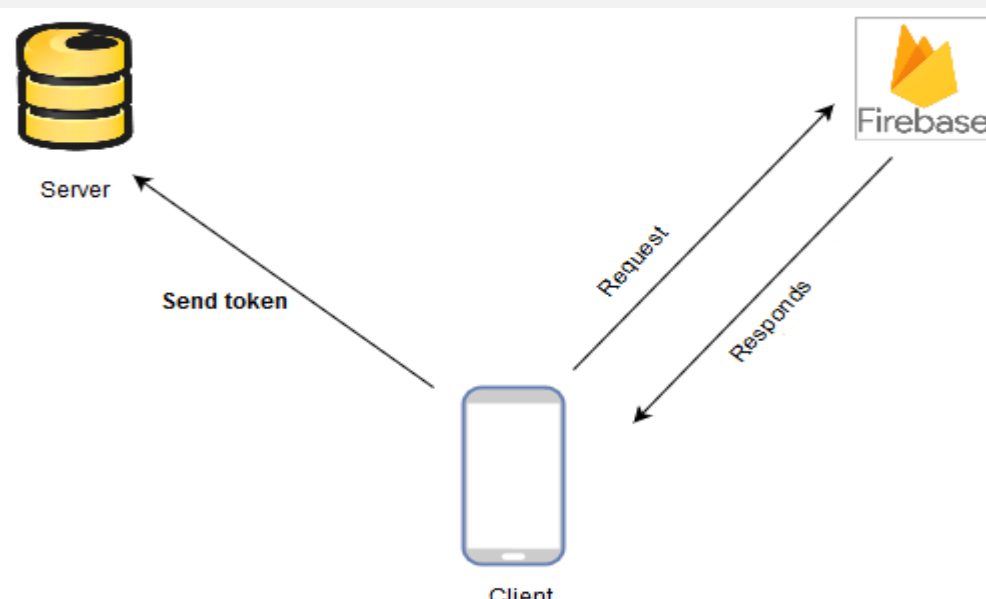
Game and gamification have different meanings. Games are games that were developed to provide additional benefits besides entertainment. The use of games for recreation itself is primary, and other aspects as secondary excellence, perhaps in the form of employee education and orientation. Whereas gamification only involves the use of game elements such as leaderboards, difficulty levels, and prizes. In this study, the gamification approach is used to obtain the user's mental health data. The use of the gamification method approach in this study can facilitate data retrieval. With this research, variations in data collection methods are increasing, not only interviews, questionnaires, or observations. The data obtained will be visualized into tables and pie charts through the website platform.

## METHODS

First, researchers conducted data collection using the FGD (Forum Group Discussion) method involving six students and six students at SMKN 31 Jakarta. The FGD run into two sessions. Each session is 30 minutes long. The topics discussed in the FGD are mental health disorders that are often experienced by adolescents. After collecting data, the researcher makes a scenario or a picture of the situation. Scenarios are made to represent each question in DASS. Researchers also create actors who can represent the object of research or FGD participants. We create two actors called Sutono and Sutini. Sutini is an actor who represents a woman who has a cheerful nature, but when she is in a bad mood, she can become an angry person, and be a little sensitive. Sutono is an actor who represents an ordinary man. He is a passionate figure. Sometimes he can lose his enthusiasm and become someone who loses his enthusiasm to do an activity. The next stage is the implementation of all the previous stages into the application. Implementation begins with designing the Galaw application. Then proceed with creating a database. Then create a website to see the user's mental health results.

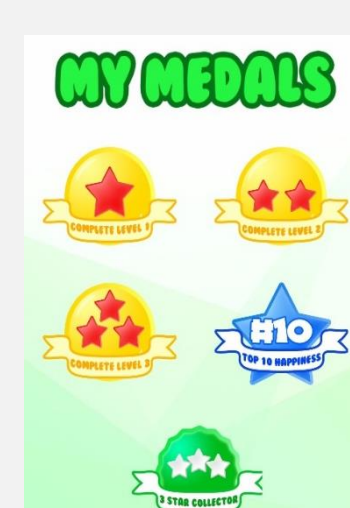
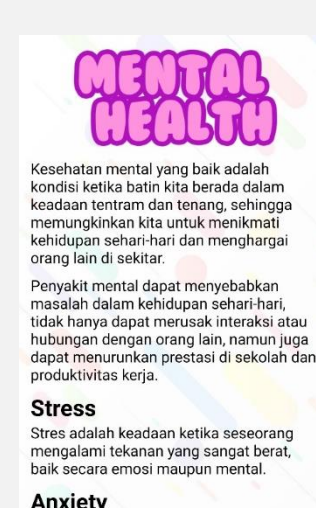
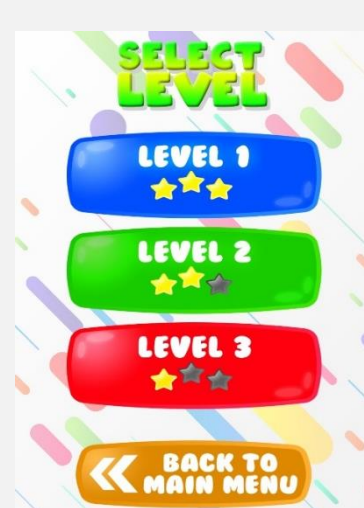


## SYSTEM ARCHITECTURE



Results from user input on the mobile application will only display general results for young people. Detailed results in the form of scores for Stress, Anxiety, and Depressive is on the web where only admins can access. Admin can be counseling teachers in schools who need mental health data of their students.

## RESULTS



## TESTING

User Experience Questionnaire with 30 teenagers revealed that the application had an excellent level on the scale of attractiveness, perspicuity, efficiency, and stimulation, toward the general benchmarked products in the market. This result suggested that most of the respondents were impressed by the product along with its easiness to learn and to get familiar with. The easiness of user control, less difficulties on solving the given tasks, and the embedded gamification aspects, stimulated the high interest and motivation of respondents to use the application.

