

Stress Medication with 2D Game and Al-Quran Reading

Mobile application for relieve the stress

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Abstract—This research was carried out to resolve the need for a Final Year Project at UNIKL MIIT before the academic year ends in January 2021. The Bachelor of Interactive Multimedia Design (BIMD) programme allowed students to create a professional application. "Mobile Application: Stress Medication with 2D Game and Al Quran Reading," the researcher decides to develop a mobile app. The aim of this app is to make the user feel less stressed." This app has a "3 in 1" design, which means it will include stress content, a 2D game, and Al-Quran recitation. Since most mobile apps don't know how to deal with stress and don't combine stress management, Al-Quran recitation, and game play into one app, this app was made. As a result, the aim of this project is to look at existing stress-relieving apps and develop an interactive app with a 2D game and Quran recitation to help people relax. The ADDIE Model was used to create the methodology for this app. The application's efficacy will be evaluated using a questionnaire and a scaling method. Additionally, Unity programming is used in this app. The app is easy to use and has a smart capture feature. Audible musicals have been included to add to the charm of this mobile application. This is an effort to motivate students and employees to play 2D games and recite the Quran to forget about their worries while having endless fun.

Keywords—stress;Quran;2D game;therapy,information

I. INTRODUCTION

Any external events or internal urges that disrupt the living being's balance are referred to as stress. Stress is a condition or feeling experienced when a person sees that requests surpass the individual and social assets the individual can prepare [1]. Stress is an illness that should be emphasized in daily life because of the part it plays in the mind. As a result, these researchers will develop a mobile application that will assist each person in avoiding further stress. Mobile Application: Stress Medication with 2D Game and Al Quran Reading is the title of this project, which is about interactive mobile applications. This project will show how to keep a strategic distance from worry in an intuitive way read the Quran as a guide for providing worry as mood melodies for users and use game medium as treatment, with the researcher creating 2D interactive games to help users release their stress. Users can use their Android phones to access this app. Furthermore, the researcher should complete the objectives in order to meet the project's goals. People who are depressed will benefit from this

app because it is interactive and encourages others to use it. Furthermore, the stress-relieving approach of reciting Quranic verses is not used in the majority of implementations. The Quran is, as we all know, a weapon for us. Anyone who is sad, Muslim or non-Muslim would feel at ease listening to the Quran recited. The majority of apps concentrate on providing stress-relieving content rather than using game media to entice users to relieve anxiety. Users can alleviate stress by concentrating on the game rather than their issues while playing games. The three goals of the project are as follows:

- To analyses the existing application on stress relieves medication.
- To develop an interactive application that contains 2D game and recitation of the Quran that can relieve the stress.
- To evaluate the effectiveness of the application.

The target audience is University Kuala Lumpur Malaysian Institute of Information Technology (UNIKL MIIT) students and lecturers aged 18 and up. This app will be used by people of all faiths. English is the main language in this application. One of the project's flaws is that the mobile app only supports one language, which is English and this app only contains 2D games, not 3D. The target audiences are small due to the pandemic coronavirus (COVID-19). The researcher discovered a plan to distribute a questionnaire to the project's target audiences of 18 years and up, students, and UNIKL MIIT lecturers through the UNIKL MIIT WhatsApp group.

II. LITERATURE REVIEW

Digital health is a term that describes how today's mobile phones can be used as a medical tool. The introduction of versatile figuring gadgets (Personal Digital Assistants [PDAs], followed by cell phones and tablet PCs) has enormously influenced various fields, including medicine [5]. The app is also available for download from the device's store. Aside from that, the researcher will provide ways to alleviate stress in the application that will be created, each of which will have its own levels. What the consumer has to understand is that any pressure does not have to be pressured to do something impossible or difficult in any way. Aside from playing games, there are a variety of ways to relieve tension. One of them is to think positively at all times. Positive logic will help you relax and think more clearly about yourself (and the situation) [6]. Indeed, thinking positively is not as simple as it seems. It necessitates a calm mind and a constant focus on the optimistic, as the adage goes, "Throw away the murky, take the clear." The majority of the 2D games that have created to now adhere to the standard of one objective toward the end. Each game has a straightforward guidance to arrive at the objective by defeating a few deterrents and levels [7]. So, it will make easier to the user to use the application.

A. Case Study

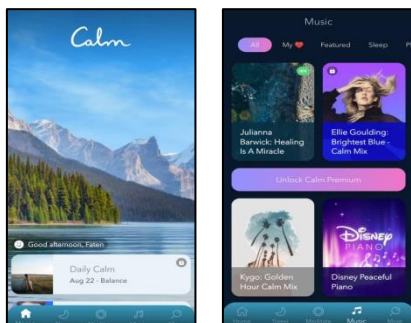


Fig. 1. Calm Application

Figure 1: Calm Application shows some of the features available in the Calm mobile application. Calm's strength is its simple GUI and harmony, which is in line with the medical theme, and the app's primary colour is blue, which is used to create a harmonious theme in this app. Blue shading can make people relax even though they are upset. Both blue and pink are soothing hues, but blue has a greater effect on stress reduction [4]. Calm's flaws are that the app's music is excellent, but it's not accessible. It is extremely difficult to receive a response from free applications for the required applications. This app contains only English songs and does not have Al-Quran recitation. This app is also entirely dedicated to music.



Fig. 2. Kick the Buddy Application

Figure 2: Kick the Buddy Application reveals some of the features included in the Kick the Buddy mobile application. Kick the Buddy's main asset is users can choose whether or not to be a diamond participant. Users can also sign up for a free trial. The character's style is intriguing and appealing. Furthermore, there is a weapon that users can use and the weapon is very fun and appealing for users to play. This application's flaws include the price of the diamond membership, which is very expensive at RM 27.99 a week. Because of the price, not all users would be able to purchase it. Aside from that, the functionality is very basic, and the design isn't particularly appealing. In order to unlock the weapon in this application, users must purchase it with the gold provided, which is very costly.

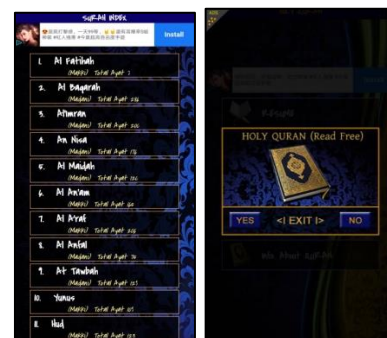


Fig. 3. The Holy Quran Application

Figure 3: The Holy Quran Application demonstrates some of the features available in the Holy Quran mobile application. There are 30 verses in the Holy Quran, which gives it its strength. Apart from that, due to the methods and fonts used to read the Quran, users would have the impression of having a real Quran page in their hands. This application contains answers to all of the commonly asked questions, including tajwid. The Holy Quran's unappealing layout, which is caused by colour not matching the beat, is one of its flaws. The chosen colour is inappropriate and too bright, which can irritate the user's eyes. Furthermore, the font design contrasts with the application's overall theme. The next, back, and home

keys are hidden in this application. Finally, as shown in Figure 3, the exit page's button is neither appropriate nor interactive.

III. METHODOLOGY

Methodology is a methodical, hypothetical investigation of the processes used in a field of research [3]. The aim of this methodological analysis is to create a protocol for the application process. The study will be focused on the "Stress Medication with 2D Game and Al Quran Reading" mobile application. The researcher followed the ADDIE Model when creating this mobile app. The ADDIE Model is a decolonized guideline that can be used by researchers to create applications. According to illustrative experts, the ADDIE Model is a significant move forward that the researcher can use to make applications [2].

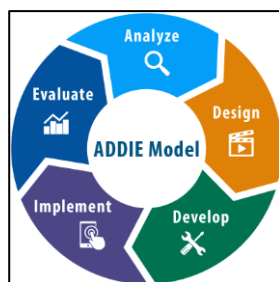


Fig. 4. ADDIE Model

A. Analysis Phase

During this analysis process, the reviewer examines all of the evidence, gathers and dissects all of the material, including the title, aims, challenges, target audience, and any issues that might arise. Researchers will develop "Mobile Apps: Stress Medication with 2D Games and Quran Recitation" as part of this initiative. Researchers will also go through the study's purpose and project requirements during this period. Researchers will combine Quran recitation, 2D games, and prescription drugs in one mobile app to reduce tension. The app is suitable for all ages, but researchers will concentrate on those aged 18 and up.

B. Design Phase

Learning content, application tasks, evaluation, and media collection are all part of the design process. The researcher designed a '3 in 1' mobile app that includes stress information, a 2D interactive game, and Al-Quran recitation all in one app. The researcher creates own structure, such as the GUI, character and button. The researcher preferred to take a record of the Quran recitation on YouTube that is free of copyright. For the whole game in this application, the researcher used a 2D framework. Aside from that, the researcher will design the programme using a storyboard as a reference.

C. Development Phase

The researcher will design the project using effective planning methods and activities to reach the learning destination. The researcher would build what was chosen in the design process during this development phase. A researcher uses Adobe Photoshop CS6 to create the GUI, buttons, and

characters and the researcher uses Unity 2018 to animate characters. Researchers edit video in Adobe After Effects 2018 and import it into Unity 2018. The application will be programmed using Visual Studio 2019 by the researchers.

D. Implementation Phase

All project elements, such as reference materials, tools, instruments, and programming, have been consolidated into the app and are ready for review. Apart from that, alpha and beta testing are the two methods of testing used by researchers. The aim of this alpha testing is to correct each of the app's bugs individually. The application would not know if it met the requirements until it has been run. If the application has a bug, the researcher is the one who fixes it. An anticipation conference will be held during beta testing to evaluate the application. The main groups are people aged 18 and over. Beta testing is a necessary step in the testing process. When the work starts, the analyst can have an eye on the app to see if the desired areas have been planted.

E. Evaluation Phase

The evaluation process involves applying rules to a variety of principles to ensure that learning or planning measure is true, meaningful, and essential. During this step, the item is essentially done and ready to be tested. The planning authority will decide the task's targets. During the test, the entire error was removed. The application's success will be incredible as a result of the researcher's testing, and it will meet its objectives. In the evaluate phase, the entire mistake has been wiped out. So that, the application's quality will be incredible and arrived at the objectives dependent on the testing that researcher does.

IV. PROTOTYPE / PRODUCT DEVELOPMENT

Stress Medication with 2D Games and Al-Quran Reading interactive mobile application contains 62 pages.

A. Site Map

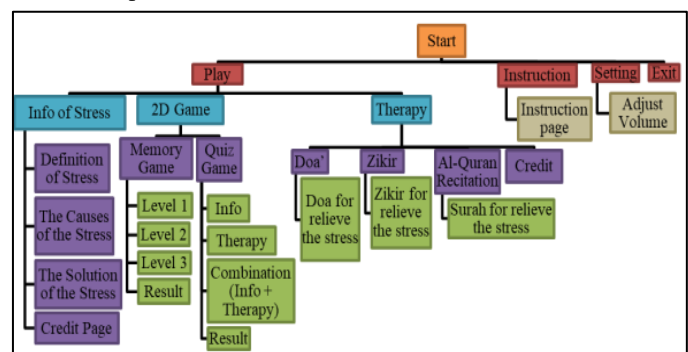


Fig. 5. Site Map

A site map is used as a planning tool for developing this mobile application. One page for the homepage that starts the application, one page for the user to select four main buttons namely the 'Play' button to go to the stress information page, 2D game and therapy page, one page for instructions on the application, one page for adjusting the page i.e. adjusting the volume, one page to exit the application, one page to choose whether the user wants to go to the stress information page, the 2D game or the therapy page.

B. Button



Fig. 6. Button

The researcher uses a variety of buttons to make the apps more attractive and easier to use. The colour changes when a user clicks on a button, as seen in Figure 6. To make it more engaging, the 'Start' button, for example, will change colour when the user clicks on it.

C. Colours

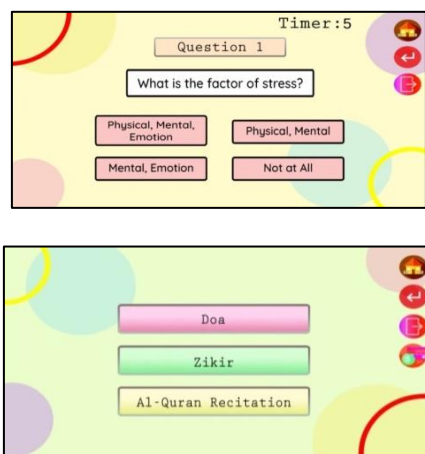


Fig. 7. Colour

When the app is open, the background colour of the project is a variety of pastel colours that can help the user relax. The title uses blue and black to convey the idea that blue represents a positive emotion and black represents a negative emotion, implying that this app will provide users with a bright future by converting their negative emotions into positive emotions. Users can feel more relaxed if the colour is pastel yellow instead of bright yellow, which can irritate them. In addition, the researcher uses a pastel green colour scheme to integrate an Islamic element. According to the article Symbols of Islam on Wikipedia, "On Muhammad's tribe's flags, the colour green were used. Muslims equate green with life and nature. The inhabitants of paradise will wear fine silk green garments, according to the Qur'an (Surah 76:21)."

D. Fonts

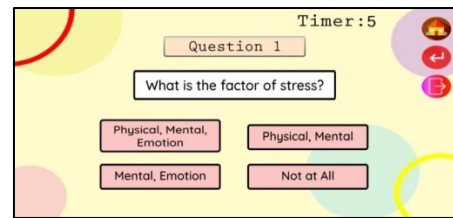
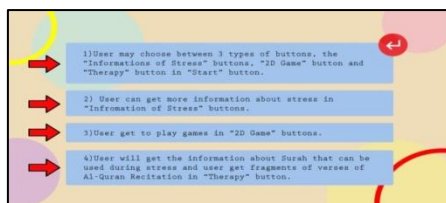


Fig. 8. Font

The researcher uses Prestige Elite Std as the primary font in this application. The researcher uses this font to make it look more like a typewriting font and intends for the user to use this application as their personal diary. The researcher also uses Arial font for the quiz game to make it more organized and simple for the user to read and answer the question because our target audience is 18 and up. For the aged, the font is easy to read. In this application, the researcher employs a more soothing color scheme to aid the user's relaxation. Apart from that, the researcher uses a simple font template to make the app easy to read and navigate. Overall, this app is simple to use and keeps you cool.

V. TESTING AND RESULT

During the testing phase, the researcher uses a questionnaire and a scaling approach to obtain the application's data. 30 users aged 18 and up were chosen to test the mobile application built using an apk file provided by the researcher in a google drive connection, as well as to complete the following questionnaire.

A. User's View Questionnaire

a) The design of graphic of the application

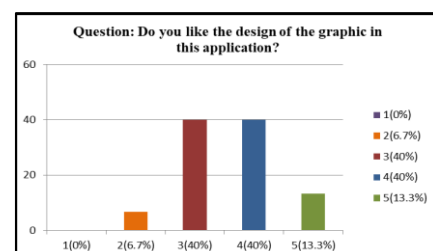


Fig. 9. Application's Design

Figure 9 indicates that 13.3% of respondents strongly like application graphic design, 40% neither like nor dislike application graphic design, and 6.7% do not like it. The colours, fonts, and templates used for them are very suitable for the title of this application, which is a stress-relieving application, and the graphics used do not irritate the user's eyes when they use it.

b) Application's interactivity

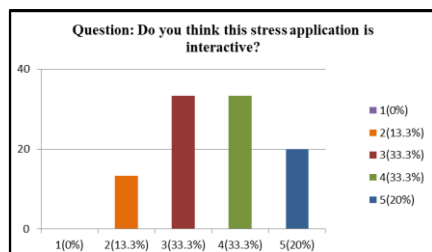


Fig. 10. Application's interactivity

According to Figure 10, 20% of respondents strongly believe that this application is interactive, 33.3 % believe that it is neither interactive nor non-interactive, and 13.3% disagree. The majority of respondents believe this application is interactive because it has push buttons that change colour when the user clicks them to navigate to the next page, as well as a variety of videos and games that make the application more interactive.

c) Respondents' opinion on usability

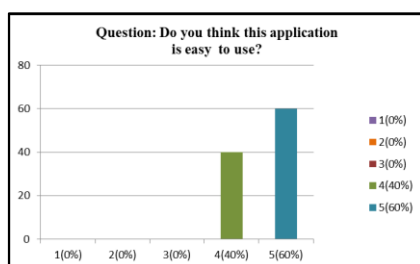


Fig. 11. Respondents' opinion on usability

Figure 11 shows that 60% strongly agree and 40% agree that it is easy to use. Overall, the app is simple to operate. Since it is a direct application, there is no hidden button that enables the user to search for the button that must be pressed.

B. Objectives Questionnaire

a) The application has the ability to alleviate the user's stress

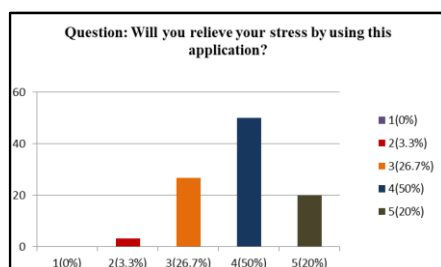


Fig. 12. The application has the ability to alleviate the user's stress

Figure 12 indicates that 20% of respondents strongly agree that the application will alleviate their tension, 50% agree, 26.7 % neither agree nor disagree, and 3.3 % disagree. Several respondents, on the other hand, believe the app will help them relax by providing stress-related material, 2D games, and therapy based on Quranic verse fragments.

b) Application's effectiveness

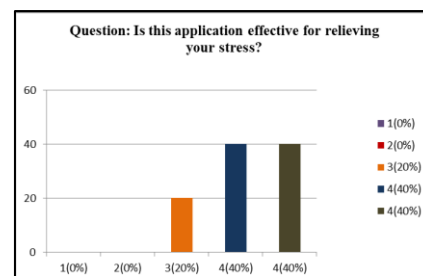


Fig. 13. Application's effectiveness

Figure 13 shows that 40% of respondents strongly agree that this app is helpful in relieving stress. In addition, 40% of respondents believe that this app helps them relax, while 20% disagree. In contrast, the majority of respondents agreed that this application is successful in minimizing their tension, and when compared to the above findings, the results are very positive, indicating that this application achieves its goals.

C. Recommendation Questionnaire

a) Recommendation

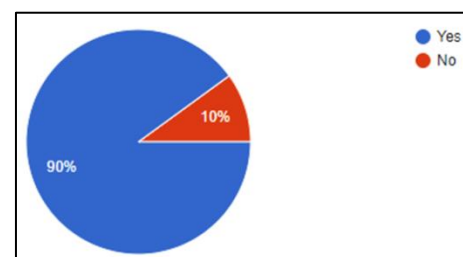


Fig. 14. Recommendation

Figure 14 shows that 90% of those surveyed would recommend it to others, while 10% would not. On the other hand, the majority of respondents believe this app should be suggested to others.

Finally, the majority of the target audiences have given this application a positive review. The majority of respondents say they prefer to use this app because it is simple to use. Apart from that, this software satisfies all of the user's requirements, since it features a '3 in 1' design that includes stress material, a 2D game, and treatment utilising Al-Quran recitation in a single application. Furthermore, this application satisfies the project's aims, based on the findings of the questionnaire, with a favourable answer to the findings regarding the usefulness of stress knowledge, 2D Game, and treatment utilising Al-Quran Recitation for stress relief. The majority of responders strongly believe that this stress mobile application is helpful in reducing their tension, which is one of the project's end aims.

VI. CONCLUSION AND SUGGESTION

For this project, the researcher created an interactive application that will entice a large number of people to use it as a stress reliever. As a result, the researcher has created a "3 in 1" application that includes stress content, a 2D game, and Quran verse-based therapy to assist people in coping with stress. The project goal was determined to have been reached based on the results of the questionnaires and scaling provided to 30 respondents. The respondent was asked to scale the questions in answer to a question about the project's goals, resulting in this outcome. One of the questions raised was whether the app could be used to alleviate stress. The app's .apk file has been uploaded to Google Drive, and respondents have indicated that they are happy to give the subject the highest possible rating. The second objective is to create an immersive app that includes a 2D game as well as stress-relieving Quran recitation. Graphic design, application interface, interactivity, content, games, and therapy were all evaluated in the questionnaire using Quran verses as stats. Respondents gave a high rating to questions regarding using Quran verses in counselling, according to the results. The app's effectiveness was assessed by asking respondents if stress awareness, games, and therapy are truly helpful in reducing stress, and the majority of respondents said they would recommend it to others. The findings of the researcher are very encouraging. This demonstrates that the third objective was met.

A. Future Recommendation

In order to develop the application in the future, the researchers took into account the feedback provided by the assessors as well as the questionnaire completed during Beta Testing. To start, Unity 2018.4.19f1 (64-bit) was used to develop the game in this application, transforming it from a punch game to two games: memory and quiz. To improve the game, more levels could be added. Second, the majority of respondents remarked on the application's interface and graphics, according to the survey results. The graphic and GUI can be upgraded from 2D to 3D to make it more immersive and appealing. Finally, the researcher may incorporate other themes into this application, such as a light or dark one. Finally, the researcher can add more chapters to the app, such as music for users to listen to while they are sad, in order to increase the number of people who use it. Finally, since not everyone can read and understand English, the researcher should provide additional language in this app, such as Malay.

B. Summary

This is a '3 in 1' app that includes stress information, a 2D game, and a stress-relieving therapy based on Al-Quran verses. To show the users, video was used in all of the sessions. There are two types of games in the 2D Game session: memory games and quiz games. Each game requires the user to complete three levels and three categories in order to win. The researcher chose this game because it can teach consumers how to think rationally. To get the user closer to Allah, the researcher decided to include an Islamic aspect in this application during the therapy session. To do so, the researcher looked into which sections of the Quran, Doa, and Zikir are

good for calming down. Additionally, before beginning to develop the app, the researcher conducted research through articles and reports, focusing on stress, how games and Al-Quran recitation can help alleviate stress. The researcher selected a pastel-colored smoothing colour for the application's context. The researcher chose the ADDIE Model, which stands for analysis, design, develop, implementation, and evaluation, as the project's guideline. The researcher used a mixed-method approach that involves a questionnaire and a scaling method to determine whether the project meets its objectives. The researcher included a link to the .apk file in the survey, as well as a video of the app on the same google drive. According to the responses of 30 people, the researcher should expect a positive outcome for this project and that it will meet its goals, which include analyzing existing stress relief applications, developing an interactive application that includes a 2D game and Quran recitation to relieve stress, and evaluating the application's effectiveness.

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