

# Early Detection Emotional Health with Apps Saluti (Sadar Akan Luka Hati) Based On Android In Indonesia

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**ABSTRACT :** This research aims to detect early emotional health with an Android-based application. The name of the application is SALUTI (Sadar Akan Luka Hati - Awareness of Heart Wounds). Early research was carried out because of concern regarding the results of research in Indonesia which states that 1 in 5 people have a prevalence of emotional disorders. This happens because people do not realize that they have emotional wounds and bitter roots within themselves, which contribute to unhappy lives. The research method was carried out in a mixed method. Data was collected through literature study and Focus Group Discussions (FGD). Making applications based on the water fall method. Evaluation was carried out using the ANOVA test on the homogeneity of application users. The results obtained show that the SALUTI application is safe for detecting emotional health to be played by all ages, regardless of gender and education.

**KEYWORDS:** saluti, awareness, emotional wound, educational game, unhappy life.

# I. INTRODUCTION

This research is further research that has been published in the Pharos Journal of Theology volume 104 issue 3 (2023) with the title "The Effect of Heart Recovery Services (RYH), Finding the Root of Bitterness, and Emotional Management, on Heart Healing: Quantitative Study in Indonesia".

The concern is from the results of Basic Health Research in Indonesia in 2018 which stated that 1 in 5 Indonesians may suffer from mental health disorders. This is confirmed by Kompas.com monitoring (20/01/2022), the prevalence of violence is increasing every year. Also, a report from SYMPHONY PPA on June 14, 2022, which recorded 12,308 cases of violence in Indonesia, with 92.6% of the victims being women. This information indicates the truth of the data which states that 1 in 5 Indonesians have a prevalence of emotional disorders.

Report from the National Institute of Health Research and Development's in 2016, it was stated that around 1,800 people attempted suicide every year. Five people commit suicide every day, teenagers and people in their youth account for 47.7% of suicide victims. This is a very worrying problem. People who commit violent crimes or attempt suicide tend to endure a lot of stress in their lives. Individuals who exhibit violent outbursts or suicidal thoughts are the result of feelings of helplessness, powerlessness, and doubt about who can be trusted.

Nuri Rosyada (2017) in her research stated that people who are experiencing second puberty are more likely to drift away or be unfaithful to their partner if they live in an unsupportive environment. M. Gary Neuman (2011) in his research stated that 48% of men cheat on their partners because they are not emotionally satisfied with their partners. Redita Eriningtyas (2018) states that a person's level of loyalty is directly correlated with their emotional maturity. The tendency to commit adultery decreases as emotional maturity increases. It is important to prepare the younger generation with emotional maturity appropriate to their age. This is only possible if parents provide their children with a healthy emotional environment from an early age. Emotionally healthy people are able to control their emotions, thereby reducing their vulnerability to feeling upset or hurt. Emotional wounds must be recognized and healed. Sri Mulyani in her research published in 2023 recommended the importance of early detection of SALUTI ("Awareness of Heart Wounds"). This awareness is important for finding the root of bitterness, enabling oneself to manage emotions, and undergoing emotional healing. Unexpressed unpleasant feelings are a sign of underlying resentment.

This source of resentment has an impact on people who are anxious, their hearts and minds are disturbed, making it difficult to control their emotions and has an impact on mental and physical health. The SALUTI (Awareness of Emotional Wounds) early detection research will be implemented in Tangerang Selatan as a first

Step, considering the increase in cases of violence in the area from 2019 to 2022. The increase in cases of violence in Tangerang Selatan is believed to be a new breakthrough. a sign of the growth in the number of people suffering from emotional illnesses in the region.

The main aim of this research is to develop SALUTI (Aware of Wounds) as an Android-based early detection application. This application will help people become more aware of the emotional trauma they suffer. It cannot be denied, every human being has experienced traumatic experiences that have left emotional wounds. This unpleasant encounter should not become the root of bitterness which leads to trauma that can shackle a person's life. Understanding emotional wounds will encourage people to identify the causes of their emotional wounds and try to find solutions to maintain their emotional balance. As a follow-up to the science of mental wounds, this application will also be connected to experts (Psychologists, Counselors, Doctors and Pharmacists) who can be contacted for help.



### Figure 1: State of the Art

*State of the Art* (Fig 1. above) shows how this research differs from prior studies. As a practical follow-up to previous research, this study develops an application to identify emotional wounds in the form of an instructive game. Developing self-awareness of emotional well-being is facilitated by the SALUTI application. An individual's inventiveness to discover strategies to preserve their emotional well-being will be stimulated by this insight.

# II. RESEARCH METHODS

The research method was conducted using a mixed-method approach. The initial stage of data collection for the development of the SALUTI Android-based application was carried out using a qualitative method, specifically through literature review and in-depth interviews within a Focus Group Discussion (FGD). The FGD involved inviting experts in the field of emotional health and other relevant fields, namely (1) Theologians from Moriah School of Theology, (2) IT Experts from Bina Sarana Global Institute of Technology & Business, (3) Officials from South Tangerang City Government; DP3AK2KB or the Department of Women and Children Protection, Department of Education, Department of Health, and Department of Social Affairs, (3) Counselors from the Golden Bow Foundation, (4) Psychologists from UIN Jakarta, (5) Communication experts from Bunda Mulia University, and (6) Pharmacists from Apotek Tata Farma Cordoba.

The triangulation method is used to evaluate and analyze the information gathered in order to provide material for the application development. Waterfall development is the process used in application development. One of the application development models that fits into the traditional life cycle is the waterfall model, often known as the waterfall approach. Phases that are sequential and methodical are emphasized. The work stages in the development model advance successively, beginning at the top and progressively descending; this can be compared to a waterfall. The development of the SALUTI application will be done in five stages: requirement, design, implementation, integration and testing, and operation and maintenance. Each step will be briefly discussed as follows:

### 1. Defining the problem and the needs of analysis (Requirement)

The initial action in this phase is conducting an analysis of the requirement for the development of the software. Interviews, surveys,

literature reviews, observations, and discussions are used to gather data and gain insights (FGD). Finding the essential problems and the needs for the design of the Apps is the main goal.

### 2. **Designing the App**

The application is designed or created in this stage, which is completed prior to the coding phase. To get a good idea of the look and feel of the software that the programming team will be using, the application must be designed. Information system and device planning are included in this design.

### 3. Unit testing and implementation (Implementation)

Multiple instruments and needs-specific programming languages are used throughout this step. During the implementation stage, technical aspects are the main focus. By applying and testing the design outcomes, the programming team or developers will translate the software design outcomes into a programming language.

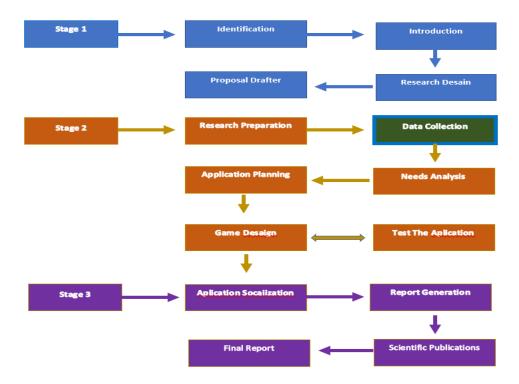
### 4. Integration and Game Testing (Integration and Testing)

The modules developed in the previous stage are combined in the integration stage. Module testing is done once the system integration procedure is finished. As a result, the application will be tested and integrated.

### 5. Operation and Maintenance (Operation and Maintenance)

The final stage is the operation and maintenance of the application. Following system testing, the program will move on to the product stage and be used by users. Once users have used the application, developers can fix any bugs discovered through the maintenance process. Activities include operating the application and maintaining facts in the field.

After the program is ready, the application undergoes testing. If the application meets expectations, the next step is the socialization to South Tangerang citizen. Therefore, the SALUTI application has the potential to profoundly impact the community in which it is used and aid in raising self-awareness of the emotional traumas they suffer. Individuals can also choose who they need to ask for help in order to take charge of their health and reduce stress. In order for this research to have a broader impact, the results will be published in an internationally indexed Scopus journal. The researchers shall write an accountability report following the prescribed format as a duty to the Director General of Christian Community Guidance, who has provided financing support for the research implementation. Figure 2 shows the phases of the research process.



Picture 2. The stages of the research

# III. RESULTS AND DISCUSSION

**Grand Theory:** The Apps is built according to the input from expert in the FGD and on Elisabeth Kubler Ross's theory of peeling onions to identify emotional scars. The process of identifying and addressing emotional wounds will be done in five stages: acceptance, bargaining, depression, anger, and denial.



Picture: 3 Stages of detecting emotional wounds in the Kubler Ross model

Early detection of emotional wounds occurs during the Denial phase of the grieving process. An individual often denies that they are going through an unfavorable event when they are grieving. They might persist to think positively of themselves even when they are actually going through a difficult circumstance. They attempt to deny the real situation and refuse to learn about it, which makes them apathetic and unable to acknowledge the facts as true. Psychotherapeutic therapies, such Cognitive Behavioral Therapy (CBT), can be used to help the person recognize and acknowledge their state in order to resolve this problem.

People that are in the denial phase tend to exhibit the following traits:

- a. Not knowing the true nature of the illness
- b. Refusing to follow treatment plans
- c. Dealing with social barriers
- d. Finding it difficult to carry out daily tasks
- e. Being unable to distinguish between right and wrong or good and bad.

Supporting the person until self-awareness manifests itself and they are able to identify themselves is the answer.

Advice from Dr. Kevin Adrian (September 10, 2021, Alodokter.com) Adrian offers the following advice on getting over bad experiences:

• Make extra time for your loved ones. Set aside time for yourself till you feel better if you're a solitary person.

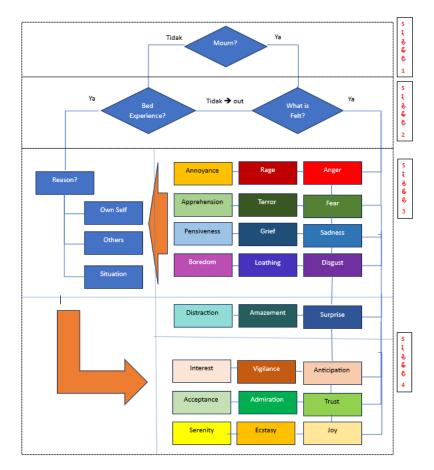
• Try not to keep intensely sad feelings to yourself. Share or confide in close, trustworthy people.

• Try journaling about topics like emotions, sentiments, dreams, or hopes if you find it hard to communicate your feelings to other people.

- Reduce stress by finding pleasurable ways to de-stress, such as frequent exercise, meditation, or prayer.
- Eat a healthy, well-balanced diet and get adequate sleep.

• Steer clear of unhealthy coping techniques like drug or alcohol abuse, smoking, self-harm, or alcohol consumption.

The following can be used to formulate the process of healing emotional scars, based on the theories of Elizabeth Kubler-Ross and Plutchik:



Picture 4: The flow of the heart recovery process

**Step 1: Investigating self-condition:** In the self-condition investigation stage, it is done by asking oneself. The question is "Am I grieving?". There are two answers, "Yes" and "No". Each answer will lead to the second stage.

**Step 2: Investigating what is felt:** If the answer is "Yes" in step 1, the next step will lead to the question "What is felt?". However, if in step 1 the application user answers "No", the next step will lead to the question "Have you ever had a bad experience?". The answer from this second stage will proceed to the third stage.

**Step 3: Examining the underlying emotions encountered:** In case the response to the second step is "Yes," the next step is is to investigate the eight fundamental emotions that are being felt, which are: Anger, Fear, Sadness, Disgust, Surprise, Anticipation, Trust, and Joy. It is possible to properly navigate throughout the grieving process if each step is understood. Unfortunately, the grieving process is sometimes not as straightforward as in theory. According to Elizabeth Kubler-Ross, each stage is not always smoothly navigated. People may occasionally return to earlier stages, which can make things more difficult and exhausting. It may be challenging at times to feel the emotions that are rising within oneself. To be able to go further into other emotions associated to the negative emotion being felt, one must possess full self-awareness. Only then can one comprehend their true inner state and be prepared to look for and identify the source of the negative feeling they are experiencing.

**Step 4:** Looking into and making an effort to comprehend what is actually going on in one's life and determining the reason for it. It is hoped that at this point people are able to accept the world as it is. Negative things that happen do not have to bring us down. We can draw lessons and realize that God is at work in our life from the negative situations we may have. We must be able to find peace with ourselves, others, and the circumstances that have arisen because God utilizes us for His glory. To be at peace with God, we must also be able to humble ourselves because all of God's designs are for the good of His people and are peaceful.

**Saluti Application Design:** The first step toward processing emotional wounds is developing self-awareness. As a result, the early identification of emotional wounds is the main emphasis of this research, and it will be implemented in an Android application. The theoretical basis and expert advice from FGD meetings inform the application's design. The first version of the application will be made especially for kids in elementary school. The premise is that children have a greater probability of healing if they become aware of their emotional scars at an earlier age. Children in elementary school are the target age group since they are prepared to use technology at this level.

The SALUTI app has been designed to appear and operate like a game. The word "Game" originate from English then is translated as "game" in the Indonesian language dictionary is "permainan" (game). The word "permainan" (game) in this sense corresponds to the idea of an intellectually engaging game, which is a setting where players can make decisions and take actions in a lighthearted manner or with the intention of rejuvenating themselves but still having deep significance in terms of developing self-awareness.

In order to effectively teach kids about emotional wellness, the SALUTI application needs to be visually attractive, of the highest quality, and precisely targeted. Good application indicators can be evaluated based on criteria such as media, content, and effectiveness. For media indicators, it can be assessed by the appearance of the media, technical quality, and usefulness. Content or practicality indicators for the application are based on material, material presentation, language, and the purpose of the application. The effectiveness of the application can be assessed by its impact on players, including critical thinking, feeling safe with playmates, and fostering positive thinking.

The grief process theory by Kubler Ross and the emotion theory by Plutchik serve as the foundation for the SALUTI application's content. The SALUTI application use the waterfall design technique to create an instructional game. The SALUTI application is structured in the following way:

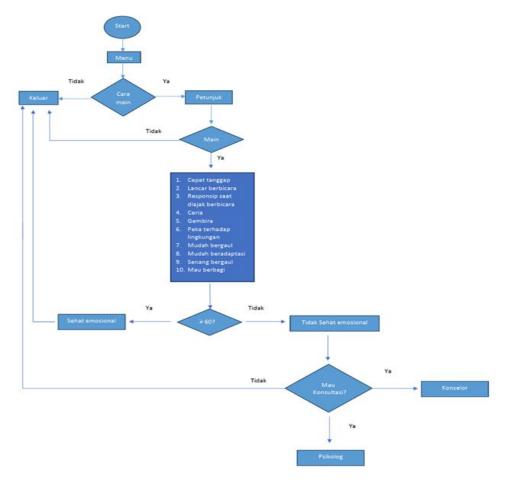


Figure 5: The SALUTI app's design

**Test of Application:** During the SALUTI application's development phase, the research team tested the application several times. A prototype is used throughout the application design development phase to ensure that the performance meets all of the criteria. The testing of the Apps was conducted on Sunday, December 17, 2023.

Media, content, and application efficacy are all evaluated, and the following question grids and indicators are used:

Media Indicators: 1. Media appearance 2. Technical quality

Material Indicators (practicality):

- 1. Material presentation
- 2. Purpose

Effectiveness Indicators:

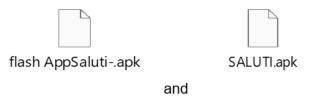
- 1. Critical thinking
- 2. Having playmates
- 3. Positive thinking

The following statements establish the previously mentioned indicators:

- 1. Appealing media appearance
- 2. High-quality images
- 3. A well-presented application;
- 4. Recognize the application's goal
- 5. Encourage the development of critical thinking
- 6. Playmates give you a sense of security
- 7. Encourage optimistic thinking

Based on the indicators mentioned earlier, a game prototype was constructed using the Marvel app. This application makes it easy to comprehend and practice the application's flow. The research team conducted testing while taking a number of aspects into account, and the findings are shown in the link for the game prototype, which you may try at this link: https://marvelapp.com/prototype/a3iid5i

Following that, an Android-based application was created based on the Marvel app. The Android-based application for this game can be viewed at the following link:



For Android device security, you should download SALUTI.apk via Google Play Store. This is to maintain the security of personal data information on Android devices.

The researchers aim to gather feedback from users who use the application. As an outcome, users have to fill out a Google Form which has an appraisal format for the application. Users are requested to provide personal information and an evaluation of the program based on their interactions. The target audience for the SALUTI application is children. It is easier for children to traverse the process of self-discovery when they recognize how important it is for them to have an early awareness of their emotional wellness. It is possible, however, that users of all ages can utilize the SALUTI program.

After play the SALUTI application, they are asked to provide assessments for each assessment indicator with the following score criteria:

Score 5: Strongly agree. Score 4: Agree Score 3: Neutral Score 2: Disagree Score 1: Strongly disagree.

# IV. EVALUATION AND SOCIALIZATION

**Socialization:** Socialization takes place at the Bersaudara Community Reading Park (Taman Bacaan Masyarakat – TBM Bersaudara) in a hybrid style, combining onsite and online ways for convenience. The socializing will be held on Saturday, December 23, 2023. To promote onsite socializing, residents—especially kids—were invited to the TBM. In the meantime, the application link was sent to local WhatsApp groups—including both RT and RW groups—to facilitate online socialization. Socialization emphasizes that the game is aimed toward primary and junior high school children. After completing the game, every participant gives the opportunity to evaluate the game they played by filling a Google Form. The URLs to the game and the Google Form are provided below.



The socialization was held in an environment where children and parents participate in activities together. Flexible methods were used to conduct the socializing in cases where respondents found it difficult to attend the TBM, researchers conducted home visits to those who had made a commitment to taking part in the app socialization process.

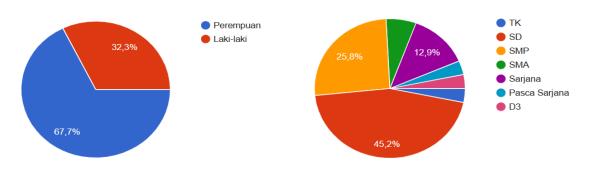
Parents' participation is significantly beneficial for their kids. It is wonderful to see how parents and kids spend quality time together, and how the socializing phase serves as a chance to deepen the relationship between them. Even if children have already demonstrated their independence, the socializing event shows how reliant they are on their parents.

Children are highly dependent on their parents for a variety of reasons, including maintaining the safety and comfort of both the child and the parent. Nearly all kids that visit the TBM with their parents. Parents advise their children to contact them once they are done, so they can be picked up. Despite the secure environment in the residential area, with numerous security guards and a single guarded entrance and exit point, parents still prioritize the safety and well-being of their children.

There are children who are already fluent and accustomed to using smartphones, but there are also children who are not familiar with using them, especially the children of security guards. The kids that are used to using smartphones interact with the application right away, reading and following the directions on their own. Conversely, kids who are unfamiliar with cellphones seek guidance and assistance to understand and operate the application.

Socialization was done at the Community Reading Park (TBM), giving kids an opportunity to chill out by reading books that were available there once they had completed playing the program. A few of them played with their buddies while conversing, asking, and answering questions, and narrating stories. Children who grow up with their parents providing them with responsible independence are generally better prepared to think critically and act. They have a great deal of confidence, and it shows in their demeanor and attitudes.

**Evaluation:** A total of 31 respondents filled out the Google Form during the socialization. From the gathered data, the following information was obtained:



Graph of Respondents Based on Gender Graph: Respondents Based on Education

Thirteen people participated in the socialization questionnaire. The data showed that 32% of respondents were men and 68% were women based on gender. Regarding educational attainment, the distribution was as follows: 3% attended kindergarten (TK), 45% elementary school (SD), 26% junior high school (SMP), 7% senior high school (SMA), 3% diploma (D3), 13% students with a bachelor's degree (Sarjana), and 3% postgraduate students. The respondents' educational backgrounds suggest that the SALUTI application is user-friendly for people with different educational backgrounds, even though during the socialization process, it was mentioned that children in elementary or junior high school should fill out the Google Form.

To assess the validity of each variable in this study, a validity test was conducted using the Pearson Product-Moment correlation. The correlation results between the variables and their overall scores were examined to conduct this validity test. The Pearson Product-Moment correlation table, which presents the data acquired using statistical software, can be interpreted as follows:

- 1. Media display, Sig. value 0.000 < 5%, thus meeting the validity criteria.
- 2. Technical quality, Sig. value 0.000 < 5%, thus meeting the validity criteria.
- 3. Material presentation, Sig. value 0.000 < 5%, thus meeting the validity criteria.
- 4. Objectives, Sig. value 0.000 < 5%, thus meeting the validity criteria.
- 5. Critical thinking, Sig. value 0.000 < 5%, thus meeting the validity criteria.
- 6. Having playmates, Sig. value 0.000 < 5%, thus meeting the validity criteria.
- 7. Positive thinking, Sig. value 0.000 < 5%, thus meeting the validity criteria.

## Table of Pearson Product-Moment Correlation

|       |                                      |              |              | Correlations |              |              |              |              |         |
|-------|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
|       |                                      | Pertanyaan 1 | Pertanyaan 2 | Pertanyaan 3 | Pertanyaan 4 | Pertanyaan 5 | Pertanyaan 6 | Pertanyaan 7 | Total   |
| Total | Pearson Correlation                  | .771         | .726         | .774         | .554         | .833         | .594         | .801**       | 1       |
|       | Sig. (2-tailed)                      | .000         | .000         | .000         | .001         | .000         | .000         | .000         |         |
|       | Sum of Squares and<br>Cross-products | 128.968      | 99.613       | 89.742       | 92.484       | 141.323      | 87.968       | 120.097      | 760.194 |
|       | Covariance                           | 4.299        | 3.320        | 2.991        | 3.083        | 4.711        | 2.932        | 4.003        | 25.340  |
|       | Ν                                    | 31           | 31           | 31           | 31           | 31           | 31           | 31           | 31      |

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

The correlation values for each question with the total score are all less than 5%, thus all variables are considered to meet the validity criteria.

Reliability testing conducted using statistical software yielded the following results:

| Reliability Statistics |  |            |  |  |  |  |  |
|------------------------|--|------------|--|--|--|--|--|
| Cronbach's<br>Alpha    | Cronbach's<br>Alpha Based<br>on<br>Standardized<br>Items | N of Items |  |  |  |  |  |
| .841                   | .847   | 7          |  |  |  |  |  |

|              | Scale Mean if<br>Item Deleted | Scale<br>Variance if<br>Item Deleted | Corrected<br>Item-Total<br>Correlation | Squared<br>Multiple<br>Correlation | Cronbach's<br>Alpha if Item<br>Deleted |
|--------------|-------------------------------|--------------------------------------|--|------------------------------------|--|
| Pertanyaan 1 | 25.65                         | 17.970                               | .654                                   | .497                               | .810                                   |
| Pertanyaan 2 | 25.52                         | 19.525                               | .621                                   | .459                               | .816                                   |
| Pertanyaan 3 | 25.29                         | 19.946                               | .701                                   | .644                               | .810                                   |
| Pertanyaan 4 | 25.74                         | 20.398                               | .372                                   | .420                               | .856                                   |
| Pertanyaan 5 | 25.77                         | 17.181                               | .740                                   | .751                               | .794                                   |
| Pertanyaan 6 | 25.65                         | 20.437                               | .445                                   | .479                               | .841                                   |
| Pertanyaan 7 | 25.42                         | 18.318                               | .711                                   | .560                               | .801                                   |

### Item-Total Statistics

In the Reliability Test table, the value of Cronbach's Alpha is 0.841, which is greater than 0.6. In the Item-Total Statistics table, the values for each variable from Cronbach's Alpha if Item deleted are all greater than 0.6. Therefore, the variables meet the reliability criteria.

### ANOVA with Cochran's Test

|               |               | Sum of<br>Squares | df  | Mean Square | Cochran's Q | Sig  |
|---------------|---------------|-------------------|-----|-------------|-------------|------|
| Between Peopl | e             | 108.599           | 30  | 3.620       |             |      |
| Within People | Between Items | 5.770             | 6   | .962        | 9.807       | .133 |
|               | Residual      | 103.659           | 180 | .576        |             |      |
|               | Total         | 109.429           | 186 | .588        |             |      |
| Total         |               | 218.028           | 216 | 1.009       |             |      |

Grand Mean = 4.26

From the Anova with Cochran's Test table, it is obtained that the value of the Grand Mean is 4.26. This indicates that overall, respondents expressed agreement with the statements in the indicators.

|                    | N         | Minimum   | Maximum   | Me        | an         | Std. Deviation |  |  |  |  |
|--------------------|-----------|-----------|-----------|-----------|------------|----------------|--|--|--|--|
|                    | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic      |  |  |  |  |
| Pertanyaan 1       | 31        | 1         | 5         | 4.19      | .199       | 1.108          |  |  |  |  |
| Pertanyaan 2       | 31        | 2         | 5         | 4.32      | .163       | .909           |  |  |  |  |
| Pertanyaan 3       | 31        | 2         | 5         | 4.55      | .138       | .768           |  |  |  |  |
| Pertanyaan 4       | 31        | 1         | 5         | 4.10      | .199       | 1.106          |  |  |  |  |
| Pertanyaan 5       | 31        | 1         | 5         | 4.06      | .202       | 1.124          |  |  |  |  |
| Pertanyaan 6       | 31        | 2         | 5         | 4.19      | .176       | .980           |  |  |  |  |
| Pertanyaan 7       | 31        | 1         | 5         | 4.42      | .178       | .992           |  |  |  |  |
| Valid N (listwise) | 31        |           |           |           |            |                |  |  |  |  |

#### Descriptive Statistics

The Descriptive Statistics table shows that respondents' answers to the statements in each indicator are as follows:

1. Attractive media display, with an average value of 4.19 in the "agree" category.

- 2. Good image quality, with an average value of 4.32 in the "agree" category.
- 3. Clear application presentation, with an average value of 4.55 in the "strongly agree" category.
- 4. Awareness of the application's objectives, with an average value of 4.10 in the "agree" category.
- 5. Assisting critical thinking, with an average value of 4.06 in the "agree" category.
- 6. Feeling safe having playmates, with an average value of 4.19 in the "agree" category.
- 7. Stimulating positive thinking, with an average value of 4.42 in the "agree" category.

These responses support the statement from the Grand Mean results in ANOVA with Cochran's Test, indicating that the average respondent score is around 4.26, demonstrating that respondents agree with all the statements in the assessment indicators of the played application. To determine the influence of gender, education, and age of the respondents on their answers to each indicator, a homogeneity test was conducted.

The results of the homogeneity test for indicators concerning the respondents' gender can be seen in the following table:

Table of Homogeneity Test for Gender

|                       |                | ANOVA             |    |             |       |      |
|-----------------------|----------------|-------------------|----|-------------|-------|------|
|                       |                | Sum of<br>Squares | df | Mean Square | F     | Sig. |
| Indikator Media       | Between Groups | .125              | 1  | .125        | .155  | .696 |
|                       | Within Groups  | 23.311            | 29 | .804        |       |      |
|                       | Total          | 23.435            | 30 |             |       |      |
| Indikator Materi      | Between Groups | .763              | 1  | .763        | 1.383 | .249 |
|                       | Within Groups  | 16.011            | 29 | .552        |       |      |
|                       | Total          | 16.774            | 30 |             |       |      |
| Indikator Keefektifan | Between Groups | .170              | 1  | .170        | .218  | .644 |
|                       | Within Groups  | 22.577            | 29 | .779        |       |      |
|                       | Total          | 22.746            | 30 |             |       |      |
| Total                 | Between Groups | 13.641            | 1  | 13.641      | .530  | .472 |
|                       | Within Groups  | 746.552           | 29 | 25.743      |       |      |
|                       | Total          | 760.194           | 30 |             |       |      |

The following data was retrieved from the ANOVA table assessing homogeneity of the respondents' educational attainment:

1. Media indicator with a Sig. value of 0.696 > 5%, indicating that the respondents' education level does not influence their assessments for the media indicator.

2. Material indicator with a Sig. value of 0.249 > 5%, indicating that the respondents' education level does not influence their assessments for the material indicator.

3. Effectiveness indicator with a Sig. value of 0.644 > 5%, indicating that the respondents' education level does not influence their assessments for the effectiveness indicator.

4. Overall Sig. value of 0.472 > 5%, indicating that the respondents' education level does not influence their assessments for all indicators.

Thus, it can be concluded that the respondents' education level does not affect their responses when playing the SALUTI game.

For the homogeneity test results for indicators concerning respondents' education level, please refer to the table below:

Table of Homogeneity Test for Respondents' Education Level

|                       |                | ANOVA             |    |             |      |      |
|-----------------------|----------------|-------------------|----|-------------|------|------|
|                       |                | Sum of<br>Squares | df | Mean Square | F    | Sig. |
| Indikator Media       | Between Groups | 1.391             | 6  | .232        | .252 | .954 |
|                       | Within Groups  | 22.045            | 24 | .919        |      |      |
|                       | Total          | 23.435            | 30 |             |      |      |
| Indikator Materi      | Between Groups | 2.221             | 6  | .370        | .610 | .720 |
|                       | Within Groups  | 14.554            | 24 | .606        |      |      |
|                       | Total          | 16.774            | 30 |             |      |      |
| Indikator Keefektifan | Between Groups | 2.794             | 6  | .466        | .560 | .757 |
|                       | Within Groups  | 19.952            | 24 | .831        |      |      |
|                       | Total          | 22.746            | 30 |             |      |      |
| Total                 | Between Groups | 78.711            | 6  | 13.119      | .462 | .829 |
|                       | Within Groups  | 681.482           | 24 | 28.395      |      |      |
|                       | Total          | 760.194           | 30 |             |      |      |

From the ANOVA table testing homogeneity for each indicator concerning respondents' education levels with a significance level of 5%, it is found that:

- 1. Media indicator with a Sig. value of 0.954 > 5%, indicating that respondents' education levels do not influence their assessments for the media indicator.
- 2. Material indicator with a Sig. value of 0.720 > 5%, indicating that respondents' education levels do not influence their assessments for the material indicator.
- 3. Effectiveness indicator with a Sig. value of 0.757 > 5%, indicating that respondents' education levels do not influence their assessments for the effectiveness indicator.
- 4. Overall Sig. value of 0.829 > 5%, indicating that respondents' education levels do not influence their assessments for all indicators.

Thus, it can be concluded that respondents' education levels do not affect their responses when playing the SALUTI game.

For the homogeneity test results for indicators concerning respondents' education level, please refer to the table below:

Table of Homogeneity Test for Respondents' Age

|                       |                | ANOVA             |    |             |      |      |
|-----------------------|----------------|-------------------|----|-------------|------|------|
|                       |                | Sum of<br>Squares | df | Mean Square | F    | Sig. |
| Indikator Media       | Between Groups | 11.435            | 15 | .762        | .953 | .537 |
|                       | Within Groups  | 12.000            | 15 | .800        |      |      |
|                       | Total          | 23.435            | 30 |             |      |      |
| Indikator Materi      | Between Groups | 4.433             | 15 | .296        | .359 | .972 |
|                       | Within Groups  | 12.342            | 15 | .823        |      |      |
|                       | Total          | 16.774            | 30 |             |      |      |
| Indikator Keefektifan | Between Groups | 9.723             | 15 | .648        | .747 | .711 |
|                       | Within Groups  | 13.023            | 15 | .868        |      |      |
|                       | Total          | 22.746            | 30 |             |      |      |
| Total                 | Between Groups | 319.227           | 15 | 21.282      | .724 | .730 |
|                       | Within Groups  | 440.967           | 15 | 29.398      |      |      |
|                       | Total          | 760.194           | 30 |             |      |      |

ANOVA

From the ANOVA table testing homogeneity for each indicator concerning respondents' age with a significance level of 5%, it is found that:

- 1. Media indicator with a Sig. value of 0.537 > 5%, indicating that respondents' age does not influence their assessments for the media indicator.
- 2. Material indicator with a Sig. value of 0.972 > 5%, indicating that respondents' age does not influence their assessments for the material indicator.
- 3. Effectiveness indicator with a Sig. value of 0.711 > 5%, indicating that respondents' age does not influence their assessments for the effectiveness indicator.
- 4. Overall Sig. value of 0.730 > 5%, indicating that respondents' age does not influence their assessments for all indicators.

Thus, it can be concluded that respondents' age does not affect their responses when playing the SALUTI game.

The homogeneity test indicates that the SALUTI app was designed to be universally accessible and playable to users from a wide range of backgrounds, including gender, age, and educational attainment. This is understandable given that SALUTI addresses basic human emotional needs.

# V. CONCLUSION

The SALUTI application is safe for all ages to play, regardless of gender and education. The SALUTI application can be a safe companion for children. Children are invited to play using the SALUTI application which encourages them to think positively and imaginatively while simultaneously detecting their emotional state. By using the SALUTI app, children can learn about their emotions in a safe and supportive environment. The practice suggests that if a child is feeling "out of sorts" emotionally, they should talk to a safe person, perhaps a parent, teacher, counselor, or psychologist. The earlier someone knows about their emotional health, the more likely it is to process to restore their emotional health.

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