

## Development of *Mobile Learning Platform* as A Learning Supplement for Tafsir Hadith Course

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### ABSTRACT

*This study aims to: 1.) Design a mobile learning platform for the Tafsir Hadith course; 2.) analyzing the development of a mobile learning platform in the Tafsir Hadith course; 3.) analyzing the implementation of the mobile learning platform in the Tafsir Hadith course; 4.) analyzing the evaluation of the mobile learning platform in the Tafsir Hadith course. The development model used is the 4D model developed by Thiagarajan, which includes define, design, develop, and distribution. The results showed that the product-based test based on expert and media expert judgments was obtained at 84.16% and 83.33% in the feasible category. Then the results of the limited trial were obtained at 81.61% and the field trial at 88.33% in the very feasible category. Therefore, it can be said that the development of a mobile learning platform in the Tafsir Hadith course is very suitable to be used as a learning supplement.*

**Keywords:** *Mobile learning platform, supplement, tafsir hadith*

### ABSTRAK

Penelitian ini bertujuan untuk: 1.) Mendesain *mobile learning platform* pada matakuliah Tafsir Hadits; 2.) menganalisis pengembangan *mobile learning platform* pada matakuliah Tafsir Hadits; 3.) menganalisis implementasi *mobile learning platform* pada matakuliah Tafsir Hadits; 4.) menganalisis evaluasi *mobile learning platform* pada matakuliah Tafsir Hadits. Model pengembangan yang digunakan adalah model 4D yang dikembangkan oleh Thiagarajan, yaitu antara lain *define, design, develop, dan distribute*. Hasil penelitian menunjukkan bahwa uji kelayakan produk berdasarkan penilaian ahli materi dan ahli media diperoleh persentase sebesar 84,16% dan 83,33% dalam kategori layak. Kemudian hasil uji coba terbatas diperoleh persentase kelayakan sebesar 81,61% dan uji coba lapangan sebesar 88,33% pada kategori sangat layak. Oleh karena itu, dapat disimpulkan bahwa pengembangan *mobile learning platform* pada matakuliah Tafsir Hadits sangat cocok digunakan sebagai suplemen pembelajaran.

**Kata kunci:** *Mobile learning platform, supplement, tafsir hadith*

## A. INTRODUCTION

Currently, Information and Communication Technology has developed very rapidly, including smartphone technology. Smartphones are the most widely used mobile devices by today's society. The results of a survey released by the Association of Indonesian Internet Service Providers (APJII) in April 2018 showed that in general the penetration of internet users in Indonesia increased by around 8 percent to 143.26 million people. This is equivalent to 54.68 percent of the population of 262 million people and mobile devices (smartphones) are the most widely used devices by users than computers or laptops.

Smartphones have a variety of operating systems and one of the most popular today is Android (Satiabudi, 2012). The Android operating system with various kinds of application development is able to produce representative learning media (Scepanovic, 2015). The use of Android-based mobile technology makes learning not monotonous with text alone, but can create audio or visual elements and even animations to make it easier for students to understand the material.

Learning media by utilizing mobile phones (mobile learning) is very feasible to be developed. Several findings from research on the development of android-based learning media (mobile learning) conclude that the use of android-based mobile learning is very feasible to use and shows effective and significant results as stated in the results of research by Ibrahim and Ishartiwi (2017), Liranti Rahmelina (2017), Wibowo and Arifudin (2016), Alhafidz & Haryono (2018), Hafid et al (2013) and Purbasari (2013). In addition, the basic consideration for developing mobile learning-based teaching media is the flexibility in accessing information anytime and anywhere (Calimag, 2014).

The UM Arabic Language Education study program is one of the study programs at the UM Faculty of Letters. The PBA Study Program has a vision, one of which is to create PBA student graduates who have competence in the fields of Tafsir and Hadith. However, so far students have experienced difficulties in understanding the Tafsir Hadith lecture material. In addition to the many branches of knowledge from Tafsir Hadith, the absence of learning media that utilizes mobile device technology to support lecture activities is also one of the factors of student difficulties. This is very important to note, because to improve students' cognitive competence in learning Tafsir Hadith, media that is representative and easy to use by students, especially those who take the course, is needed.

Based on these circumstances, innovation in the development of teaching media, especially the development of learning media by utilizing mobile device technology, is very important and feasible to do in order to support and improve students' cognitive competence

in the field of Hadith interpretation. In addition, the development of this mobile learning platform is expected to be a supplement to the main learning materials that are practical and can be used anytime and anywhere by students, especially in increasing student competence in Tafsir Hadith lectures.

The product developed is the Tafsir Hadith learning media (TAFDIS) as a supplement to the main teaching material for UM Arabic Language Education students. This TAFDIS media is an interactive media based on a mobile learning platform. The material content in the TAFDIS media is based on the content of the Tafsir Hadith course which is a subject of specialization and self-development. The content of the TAFDIS material will also be adjusted to the Graduate Learning Outcomes Standards contained in the UM PBA study program curriculum. The development of this interactive mobile learning platform product and content was chosen based on the needs of students who want additional supplementary teaching materials that are interesting and in accordance with UM competency standards. The mobile learning platform is ubiquitous, so it is hoped that it can increase student motivation through the presentation of a hypermedia learning environment that leads to a personalized learning system.

## **B. LITERATURE REVIEW**

### **1. *Mobile Learning Platform***

The understanding of Mobile Learning has changed along with the emergence of new technologies. In her research, Susan (2007) revealed that the notion of *mobile learning* is a term for learning materials and learning activities delivered using mobile device media that accommodate the limitations of multimedia delivery, especially in the form of sound, images, animation and text.

While Kineo (2007) in his *review*, revealed that the notion of *mobile learning* is the ability to learn that is not tied to place or time, facilitated by mobile devices. The understanding of *mobile learning* used in this article is learning material delivered using mobile device media that is not tied to place or time. The characteristics of *mobile learning* are:

- a. *Ubiquitous*, which means *mobile learning* materials can be accessed anywhere, related to the location of learning.
- b. *Bite sized*, which means the size of *the mobile learning* material accessed must be delivered in a short duration. This is to anticipate students accessing *mobile learning* in situations full of interruptions that can interfere with student concentration.

- c. *On demand*, which means *mobile learning* must be able to deliver material when needed by students. Maximize the delivery of learning materials when needed by students.
- d. *Typically blended*, which means *mobile learning* is commonly used with other learning methods. *Mobile learning tends* to be used as a tool to improve student understanding in addition to those that have been delivered by other methods, such as classroom learning.
- e. *Collaborative*, which means *mobile learning* must be able to utilize the capabilities of devices that have communication skills. With this communication ability, a group of people can learn together and share knowledge with each other. Thus, *mobile learning* has the potential to create a *mobile* community, or at the very least, interaction with teachers can be done through *mobile learning*.
- f. *Location dependent*, which means the mobile device has the potential to convey *material* that matches the student's position. For example, conveying sales tips for sales that match the customers to be visited related to the meeting place. Being aware of the location can be supported by a variety of technologies including the triangle principle of a mobile network or GPS (*Global Positioning system*), which can eventually transmit special materials according to the student's location.

## **2. Learning Supplement**

In the Great Dictionary of Indonesian, supplements are interpreted as 1) (something) added to supplement; additional; 2.) extra sections on newspapers, magazines, and so on; appendices (KBBI.web.id). While learning is a two-way communication process, teaching is done by the teacher as an educator, while learning is done by learners or students. Learning as a learning process built by teachers to develop the creativity of learners who can improve the thinking skills of learners, and can improve the ability to construct new knowledge in an effort to increase good mastery of learning materials (Sagala, 2010).

Therefore, the learning supplement referred to in this development is a medium that contains learning content that is made to complement teaching materials to help students understand the learning of Hadith Interpretation in Arabic education of Malang State University.

### **3. Tafsir Hadith**

#### **a. Tafsir**

Etymological (language), the word "tafsīr" is taken from the word "fassara – yufassiru - tafsīrān" which means description or description (Anwar, 2013). While Tafsir according to terminology (term), as defined by Abu Hayyan quoted by Manna" al-Qaṭān is a science that discusses how to pronounce lafadz-lafadz al-Qur'an, about the instructions, the laws both when standing alone and when arranged and the meanings that are possible for him to be composed and the things that complete it (al-Qattan, 1995).

According to al-Kilbiy in the book of at-Taṣliy, as quoted by Mashuri Sirojuddin Iqbal and A. Fudlali. Tafsir is to obey alQur"an, explain its meaning and explain what it wants with its nash or by signal, or with its purpose (Iqbal and Fudlali, 2005). So it can be concluded that the tafsir is to explain and explain about the state of the Qur'an from the various contents it has to what Allah wants according to the ability of the interpreter.

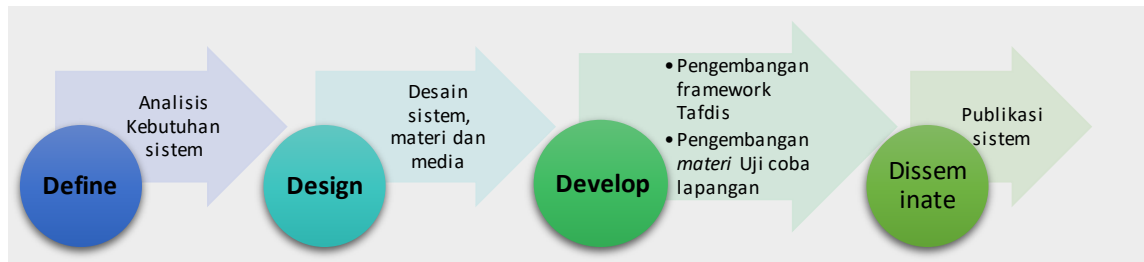
#### **b. Hadith**

Hadith or al-hadith according to language, means al-jadid (something new), opposite the word al-qadim. The word hadith also means al-khabar (news), which is something that is revealed and transferred from one person to another. The plural form is al-ahadits (Arifin, 2010). Hadith as Abdul Baqa' review is isim of tahdith which means talk. It is then defined as speech, deeds or determinations based on the Prophet (peace be upon him). Perhaps al-Farra' has understood this meaning when arguing that the word mufrad ahadits is uhdutsah (the fruit of speech). Then the word ahadith was used as a jama' from the word hadith (As-Shalih, 2009).

So it can be concluded that hadith is something that is based on the Prophet Muhammad, companions, and tabiin that can be used as the law of syara'. Hadith is also a complement or explanation of the Qur'an which is still general to be more specific.

### **C. METHOD**

The model used in this study is to use the 4D model suggested by Thiagarajan. This model consists of four stages of development, namely define, design, develop, and disseminate, which in this study was adapted into a 4P model, namely definition, design and design, development, and dissemination.



**Figure 1.** TAFDIS Development Procedure

In this model, the following 4 main stages will be implemented:

- a. Defining needs is carried out to determine the basic problems in learning and the criteria that are used as references in developing TAFDIS. The definition stage is divided into four steps, namely the analysis of student characteristics, task analysis, concept analysis, and specification of instructional objectives.
- b. Design and design aims to prepare learning media prototypes. At this stage, the preparation of media and media supporting components consists of four steps, namely the preparation of the framework, materials, selection of formats/features and media design.
- c. Development (Develop) is aimed at making media according to the design that has been done and validating the media so as to produce revised media based on input from experts. Furthermore, the effectiveness test was carried out on a small group (group test) and a large group (field test) so as to produce a tested media (final product).
- d. Dissemination is intended to publish media that has been developed for wider use. The dissemination stage is carried out through international seminars and outreach to the education community.

### **Product Trial**

The trial of the TAFDIS development product consisted of: (1) trial design, (2) test subjects, (3) research instruments, and (4) data analysis techniques. The purpose of product testing is to obtain data that can be used as a basis for making revisions/changes to products designed to produce tested and implementable Tafsir Hadith products.

- a. Trial Design

This product development trial design uses a descriptive design with a focus on needs analysis and field testing. The trial was carried out in three stages, namely expert trials, limited group trials, and field trials. Expert trials were conducted to validate systems, materials, and media, while limited group trials and field trials were conducted on PBA UM students.

b. Trial Subject

The trial subjects were categorized into 3, namely: expert test subjects, limited group trial subjects and field trial subjects.

**Table 1.** Test Subjects

No	Test Type	Test Subject	Number of Subjects
1	Expert Test	Material and Media Expert	2
2	Limited Trial	PBA UM students	10
3	Field Trial	PBA UM students	30

c. Research Instruments

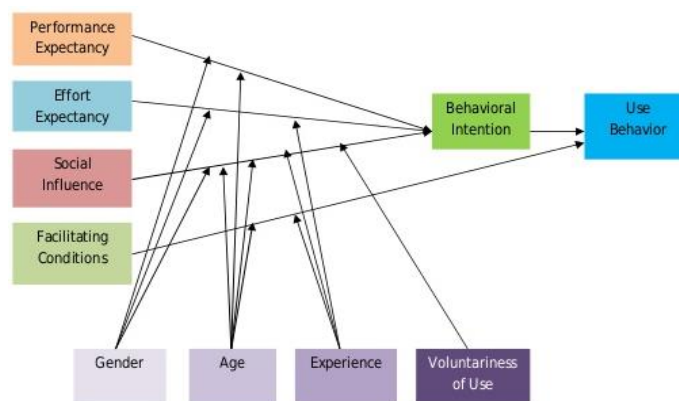
The research instrument was used to collect research data. There are nine types of data/variables to be analyzed. The research instrument in detail is shown in Table 2.

**Table 2.** Data Collection Instruments

Variable Type	Instrument	Scoring Scale	Data Type
Needs Analysis	Documents and interviews	Qualitative data	Quantitative and Qualitative
Material Validation	Material Validation Instrument	Interval	Quantitative and Qualitative
Media Validation	Media Validation Instrument	Interval	Quantitative and Qualitative
<i>Use Behavior</i>	Questionnaire	Interval	Quantitative
<i>Behavioral Intention</i>	Questionnaire	Interval	Quantitative
<i>Performance Expectancy</i>	Questionnaire	Interval	Quantitative
<i>Effort Expectancy</i>	Questionnaire	Interval	Quantitative
<i>Social Influence</i>	Questionnaire	Interval	Quantitative
<i>Facilitating Conditions</i>	Questionnaire	Interval	Quantitative

d. Data Analysis

The analysis in this study used descriptive and inferential statistical tests and qualitative analysis. Descriptive analysis was carried out to analyze the data from the validation results, small and large group tests. Meanwhile, inferential analysis was conducted to analyze the data from the different test results and correlations in the UTAUT (Unified Theory of Acceptance and Use of Technology) evaluation model which consisted of use behavior, behavioral intention, performance expectancy, effort expectancy, social influence, facilitating conditions variables.



## D. RESULT AND DISCUSSION

### 1. Produced Product Specification

The main components of the product that has been developed consist of three things, namely an interactive mobile learning platform, Tafsir Hadith content including modules, videos and learning animations.

#### a. Interactive Mobile Learning Based on Personalized Learning System

The real manifestation of the development of this innovative product is an Android-based interactive mobile learning application that can be used by students in accessing material anytime and anywhere. The mobile learning application developed has the concept of a Personalized Learning System (PLS) which gives users options to learn according to the characteristics of their learning style. In accordance with the PLS concept to support the diverse preferences of users' learning styles, the features of the



mobile learning application developed consist of module-based learning, videos and learning animations (Figure 3).



Figure 3. TAFDIS Application Features

The developed User Interface/User Experience (UI/UX) also supports individualized learning materials, namely teaching materials designed according to the abilities and characteristics of students who are studying them, thus enabling students to learn according to their needs. In addition, this application also contains practice questions in each sub-chapter of material that students can use to measure themselves, how far students understand the knowledge they have learned.

#### b. TAFDIS Content

The content or material in TAFDIS is Tafisr Hadith lecture material which is included in the specialization and self-development courses as one of the special skills specialization packages. In addition, TAFDIS content is also adjusted to the Graduate Learning Outcomes Standards contained in the UM PBA study program curriculum. This course aims to equip students with scientific interpretation and hadith, as well as supporting scientific tools (Ulumul Qur'an and Ulumul Hadith), so that students are expected to be able to apply their scientific insights in the realm of commentary and hadith studies. The following is the general arrangement of material content in the TAFDIS application as shown in Figure 4.

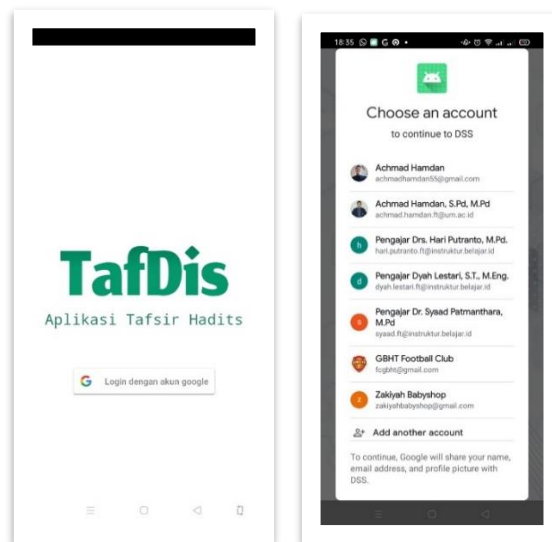


**Figure 4.** Content of TAFDIS Mobile Learning Materials

## 2. Mobile Learning Interface Results

### a. Sign-in Page

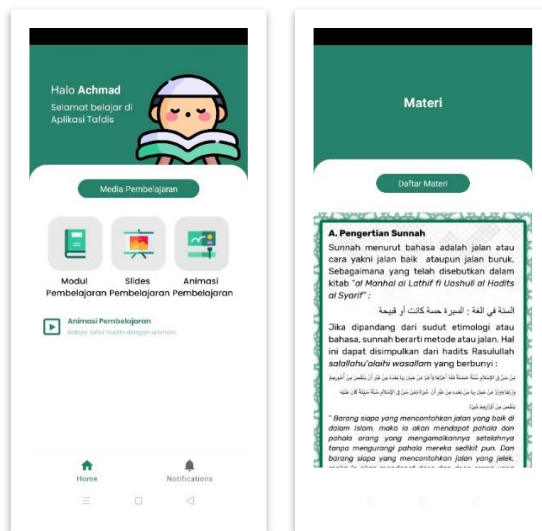
On this page the user can sign-in to the application using a google or gmail account that is already owned by the user. After the user selects a gmail account, the application display will automatically lead to the main page (home).



**Figure 5.** User Sign-in Page

### b. Homepage

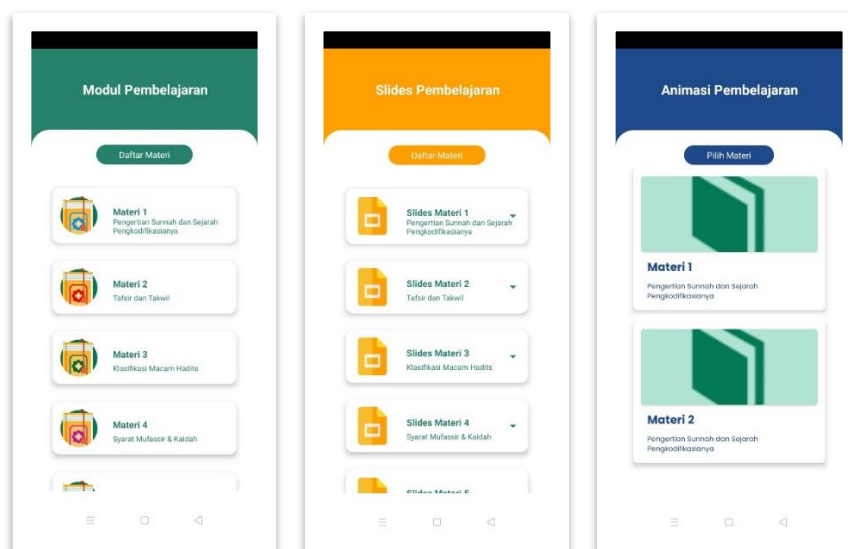
On this page, the main menu of the TAFDIS mobile learning application will be displayed, where the user can start studying the Tafsir and Hadith material by first selecting the media according to his wishes (personalized learning system). Media for learning that can be selected by student users are in the form of modules, videos and animations as shown in Figure 6 below.



**Figure 6.** Main Page (Home) and Module

c. Module Pages, Slides and Animations

On this page, learning menus will be displayed according to the wishes of the user. Media for learning that can be chosen by student users are in the form of modules, presentation slides and animations as shown in Figure 7 below.



**Figure 7.** Module Pages, Slides and Animations

### 3. Data Analysis Results

In the data collection process, the researcher gave questionnaires to material experts and media experts to determine the validity of the TAFDIS product. A limited trial was conducted on 10 students who were taken randomly in one class. Meanwhile, field trials were conducted on 30 students who were taken randomly from two classes in the UM Arabic

Language Education Study Program.

The results of the validation by material experts consisting of 20 questions of learning aspects, and 10 questions of material substance aspects can be seen in Table 3 below.

**Table 3.** Material Expert Validation Results

Assessment Aspect	$\Sigma$ TSEV	$\Sigma$ S-MAX	Average	Score (%)
1. Learning Aspect	69	80	3.45	86.25
2. Aspect of Material Substance	32	40	3.20	80.00
Total score	101	120	3.32	84.16

Based on the data described in Table 3, the average score of material expert validation is 3.32 and this figure according to Widoyoko (2013) is said to be good. While the percentage score of material expert validation got 84.16%, this number qualitatively according to Asyhari & Silvia (2016) can be said to be feasible to use. The input and suggestions for improvement from material experts include, 1) it is necessary to add animation-based teaching materials in other subject matter, 2) the need to replace some sentences or language in teaching materials so that they are easily understood by students, 3) at the beginning of each material it is necessary to convey the purpose learning.

The results of the validation carried out by media experts consisting of general aspects of 6 questions, software engineering aspects of 8 questions, and visual communication aspects of 10 questions can be seen in Table 4 below.

**Table 4.** Media Expert Validation Results

Assessment Aspect	$\Sigma$ TSEV	$\Sigma$ S-MAX	Average	Score (%)
1. General Aspect	20	24	3.33	83.33
2. Software Engineering Aspect	28	32	3.50	87.50
3. Visual Communication Aspect	32	40	3.20	80.00
Total score	80	96	3.34	83.33

Based on the data described in Table 4, the media expert's average validation score was 3.34 which according to Widoyoko (2013) was declared good. While the media expert validation percentage score got 83.33%, this number qualitatively according to Asyhari & Silvia (2016) can be said to be feasible to use. The input and suggestions for improvement from media experts include, 1) the need for a revision of the media color background that is more comfortable for the eye to see, 2) provide the option to sign-in via a gmail account that

is already owned by the user, 3) there are several bugs that must be fixed.

After making product revisions based on input and advice from experts, then limited tests and field tests were carried out. The results of the limited group test validation using 10 student respondents can be seen in Table 5, and the results of the field test validation using 30 student respondents can be seen in Table 6.

**Table 6.** Limited Trial Results

Assessment Aspect	$\Sigma$ TSEV	$\Sigma$ S-MAX	Average	Score (%)
1. Information Quality	17	20	4,25	85,00
2. System Quality	24	30	4,00	80,00
3. Service Quality	20	25	4,00	80,00
4. Use	22	25	4,40	88,00
5. User Satisfaction	23	30	3,83	76,66
6. Net Benefit	16	20	4,00	80,00
Total score	122	150	4,08	81,61

**Table 7.** Field Trial Results

Assessment Aspect	$\Sigma$ TSEV	$\Sigma$ S-MAX	Average	Score (%)
1. Information Quality	17	20	4,25	85,00
2. System Quality	26	30	4,33	86,66
3. Service Quality	22	25	4,40	88,00
4. Use	23	25	4,60	92,00
5. User Satisfaction	25	30	4,16	83,33
6. Net Benefit	19	20	4,75	95,00
Total score	122	150	4,41	88,33

Based on the data described in Table 6, the average score of the validation results of the small group trial got 4.08 and that number according to Widoyoko (2013) was good, and the percentage score of the small group test result got 81.61% which qualitatively according to Asyhari & Silvia (2016) can be said to be very feasible to use. While the data described in Table 7, the average score of the validation results of the large group trial got 4.41 and that number according to Widoyoko (2013) was very good, and the percentage score of the large group test result got 88.33% which was qualitative according to Asyhari & Silvia (2016) can be said to be very feasible to use and implement.

## E. CONCLUSION

Based on the results of research and discussions that have been carried out previously, it can be concluded that the development of TAFDIS learning media in the form of a mobile learning platform is suitable for use in learning. The feasibility of the product is based on the assessment of material experts and media experts with an average percentage rating of 84.16% in the appropriate category and 83.33% in the appropriate category. The results of the trials carried out were limited trials with an average feasibility percentage of 81.61% in the very feasible category, and field trials with an average feasibility percentage of 88.33% in the very feasible category. Therefore, it can be concluded that the interactive mobile learning platform TAFDIS is very suitable for use in learning.

## F. ACKNOWLEDGEMENT

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