

# SOCIAL INTERACTION APPLICATION IN ANDROID-BASED MOBILE LEARNING

**Siti Nofiaty**

Social Science Teacher, SMPIT LHI BANGUNTAPAN  
*Noviasoediro04@gmail.com*

## Abstract

In 4.0 Era, teachers are not only required to master m-learning that is interesting and fun, but m-learning that has good values contained in the Quran. This research aims to find out how to develop an Android-based m-learning that is integrated with the verses of the Quran as a learning media in social interaction materials. This research used Research and Development research method which was oriented to the development of learning media products, android-based learning media. This research developed an android-based application to teach social interaction materials on Social Science subjects in grade 7 at SMPIT LHI Banguntapan. The results showed that overall learning media were made according to the syllabus of Social Sciences subject in class VII. The development of this learning media had been validated through several stages of validation, which were validation from material expert, validation from media expert and conducted trials starting from individual trials, small-scale trials and large-scale trials. Based on the results of the data analysis, 95% of the students said that the Android-based m-learning, the shali shalihaa application, was very helpful in learning because it had complete content, was delivered in a communicative language and had an attractive appearance, so the Android-based m-learning can be said to be feasible in school.

Keywords: Application, Based on Android, Social Interaction

## Introduction

Government regulation number 32 year 2013 concerning amendments to government regulations number 19 year 2005 about national education standards learning process in units which explains that the learning process in education units is carried out interactively, inspiratively, fun, challenging, motivates students to participate actively, and provides sufficient space for initiative, creativity, and independence according to talent, interests, and physical and psychological development of the students. The teacher has a role as a facilitator to provide fun learning and provide sufficient space for students to develop their abilities and potential.

Nana Sudjana (2010) explains that learning is any effort made intentionally by educators that can make students to do learning activities. This effort is carried out by organizing or managing the environment as well as possible and connecting the students so that the learning process occurs. Educators must organize learning activities starting from planning, implementing, and evaluating.

Learning preparation and planning must be prepared systematically by utilizing the potential and learning resources. Wina Sanjaya (2010) argues that learning is the process of interaction between teachers and students by utilizing the potential and resources. Hence, learning is a process of interaction between students and teachers who utilize the potential in the surrounding environment to be a source of learning.

Furthermore, the challenges of teachers in the 4.0 era were even greater because teachers not only had the responsibility to package and present interesting and fun learning but also to utilize the sophistication of information technology. Teachers must have the skills to develop information technology as a learning media. Learning media is a tool used in the learning process. The media can be classified into several groups. Based on its nature, media is divided into audio media, visual media and audio visual media. Based on its outreach capabilities, media is divided into broad reach media and limited reach media. Based on the use technique, media is divided into slide film projection media and image projection media. (Wina Sanjaya, 2010).

Learning media in the form of Mobile Learning (M-Learning) is the development of E-Learning. The term of mobile learning refers to handheld and mobile IT devices which can be in the form of PDAs (Personal Digital Assistants), cellular phones, laptops, tablet PCs, and so on. M-learning can make the users easier to access learning content anywhere and anytime, without having to visit a certain place at a certain time. M-learning is related to learning mobility where the students should be able to engage in educational activities without having to do it in a certain location. (Wirawan, 2011: 22-23).

In the development of mobile learning (M-Learning), it requires software, one of which is android. Sugeng et al (2013: 177) say "Android is a software (software) that is used on mobile devices

which includes the operating system, middleware and core application". Furthermore, according to Satyaputra and Aritonang (2014), Android is an operating system for smartphones and tablets. The operating system can be illustrated as a bridge between devices and their use, so users can interact with their devices and run applications available on the device.

Android-based M-learning that is used is not only full of content but also completed with games that can increase students' motivation. Teachers must be creative in making materials on each subject, especially on social studies at the junior high school level in an Android-based M-learning.

Social Sciences (IPS) is a combination of various branches of social studies such as: sociology, history, geography, economics, politics, law, and culture. Social science education in Indonesia is a simplification of the social sciences discipline and everything that is socially organized scientifically and psychologically with *Pancasila* and *UUD 1945* as its central value to achieve educational goals (national) especially national development in general. (Numan Soemantri, 2001: 74).

The above statement is corroborated by Supardi (2011) which states that social studies education emphasizes on the students' skills in solving problems ranging from the scope of self to complex problems. Social science education is not only a matter of memorization but teaches students to be problem solvers in society.

Students must see social problems that occur in society as a social study that is easily understood. The complexity of social sciences learning materials causes the teacher to be good at getting around to creating interesting, fun and meaningful learning media. One of the efforts to develop an interesting, fun and meaningful learning media is to create an Android-based m-learning that is easily understood by the students, which can increase student motivation and be integrated with the verses of the holy Quran.

## **Research Method**

This research method uses development research. Research and development aim at developing instructional media products (Rusdewanti: 2014). The method used in the stages of development procedures were (Syriac: 2014):

1. Needs analysis which were collecting information related to development, core competence, basic competence, and the books
2. Learning design were in the form of analysing and choosing the core competence; developing and selecting subject matter, making product designs;
3. Production / media development were in the form of collecting, inserting and combining resources such as materials, images,

animations, photographs, audio, etc. which were in accordance with the material to be used; testing to make sure whether the creation of the multimedia was in accordance with the design that has been planned or not; and evaluating in the form of product trials consisting of 2 stages. The first stage was experts judgement (media design expert and material expert), and the second stage was carried out through one-on-one trials, small groups and field trials / large groups (Triyanti : 2015).

The time and the place of the research were August 2019-January 2020 at SMPIT LHI. The subjects of this study were students of SMPIT LHI. The test subjects involved were Social Sciences learning practitioners (Social Sciences teacher at SMPIT LHI), and 81 VII grade students at SMPIT LHI. The things tested in the study were the material and ease of use of the application.

The data collection instrument used was a questionnaire. "Questionnaire is a data collection technique that is done by giving a set of questions or written statements to respondents to answer" (Sugiyono, 2011: 142). The questionnaire is used to measure the quality of the developed media. The questionnaire instrument in this study was used to obtain data from the teacher, and students to evaluate the learning media developed.

Media feasibility test was done by media expert, Deni Hardianto, M.Pd, as a lecturer in the Education Technology Department of UNY. The next was the material feasibility test by material expert, Fely Hilman, S.Pd, as the head of SIT LHI curriculum affair. Then, analyzing the results of the questionnaire from teachers and students of SMPIT LHI.

The data analysis of this research was quantitative descriptive techniques. Quantitative descriptive data techniques are directed to answer the problem formulation that has been determined. As the data was quantitative, the data analysis used the available statistical methods.

## **Results and Discussion**

### **A. Product Research Results**

This research and development aims to develop an android-based m-learning product that is integrated with the Qur'an. In developing this m-learning, several stages of work procedures were conducted. They were analyzing and organizing material, designing the design and applying them in the form of android-based m-learning. The final result of this research was android-based m-learning which is used as social science m-learning for social interaction materials. The application consists of pages that are interconnected using buttons.



Figure 1. Main Display

The main page contains several buttons that function to access a certain page and sound buttons to activate the sound. The second page contains buttons which include the Competency, Materials, Games, and Developer Information.



Figure 2. Display of the Second Page

KI KD button is a button that shows the competency page containing information about, core competence and standard competencies. In the competency page contains information about core competence and standard competencies of the subject. The content of SK, KD, in this media were adjusted to the learning syllabus at school. The i button is the button that shows the Information page.

The materials menu page is a sub menu of the main menu page. On this page, there are buttons for connecting the materials based on the standard competencies. The materials provided had been adjusted to the target indicators set in the learning syllabus. The materials on this page explains the definition of social interaction and the factors supporting social interaction.

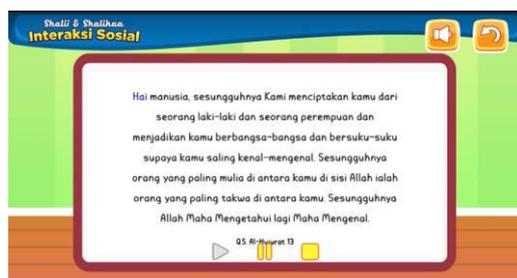


Figure 3. Display of the Material related to the Quran



Figure 4. Explanation of Social Interaction Materials

The game page contains questions that are used to measure students' understanding through the crossword game which is in the learning product. Before the evaluation, there will be displayed instructions on how to answer the questions.



Figure 5. Instructions for Answering Questions

### B. Teacher Questionnaire Results

The assessment of the learning media was also carried out by the Social Sciences teacher of SMPIT LHI by using a questionnaire. Questionnaire for students uses the Ghuttman scale with two alternative answers. The questions in the questionnaire consisted of 15 combination questions. Here are the recapitulation of the Social Sciences teacher of SMPIT LHI grade VII.

1. The materials contained in the shali and shaliha application was appropriate and in accordance with SK KD, as well as the syllabus achieved.
2. The material delivered using communicative language, so it was easily understood by the students.
3. The crossword puzzle were relevance with the materials in the application of shali and shalihaa.
4. The verses of the Qur'an were relevance with the materials.
5. The materials and the crosswords puzzle were presented interestingly.

### C. Student Questionnaire Results

The assessment of the learning media was also carried out by 81 students of SMPIT LHI using questionnaire. Questionnaire for students uses the Ghuttman scale with two alternative answers. The

questions in the questionnaire consist of 5 combination questions. Here are the answers recapitulation of 81 students of the VII grade SMPIT LHI.

1. 95% of SMPIT LHI students agreed that the application of shali and shaliha was considered to be able to help students in understanding the material of social interaction and increasing the learning motivation.
2. 90% of SMPIT LHI students agreed that the shali and shaliha applications have an attractive appearance.
3. 95% of SMPIT LHI students agreed that the application of shali and shaliha has quite extensive and in-depth content material coverage.
4. 92% of SMPIT LHI students agreed that the application of shali and shaliha can encourage students' curiosity in learning social interaction materials.
5. 93% of SMPIT LHI students agreed that the application of shali and shaliha was challenged to complete the crossword puzzle, so it can improve the students' understanding.

#### **D. Result**

This learning media is made in accordance with the core competence and basic competencies in Social Sciences subject class VII. This learning media had been validated in the validation stage by the material experts. Then, the researcher conducted product trials which were individual trials, small-scale trials and large-scale trials. Based on the trial data obtained, the application of shali shalihaa as a learning media on Social Science subjects were feasible to be applied in schools.

This application is presented with an attractive appearance by combining blue and green as the main color and added interesting pictures.

Shali and Shalihaa applications have strength and weaknesses as a learning media. The strength of this media were:

1. Shali and Shalihaa applications were Social sciences learning media that were presented in an Android smartphone with a quite easy usage with an attractive display image.
2. Shali and Shalihaa applications were M-Learning which were easy to carry and could be used at any time.

The weaknesses of the media were:

1. The material presented in the Shali and Shalihaa application is limited to social interaction material.
2. Ease of use of the application is very dependent on the specifications of the type of smartphone and user skills.
3. The Shali and Shalihaa applications cannot be connected to the internet so practice questions and quizzes cannot be updated.

## **Conclusion and Suggestions**

Learning preparation and planning must be prepared systematically by utilizing the potential and learning resources. Teachers must have the skills to develop information technology as a learning media. Based on results the description above can be concluded that social interaction material can be developed in an android-based application. The teacher can develop the application as a mobile learning that can be used to increase student motivation. This is in line with the opinion stated by Wina Sanjaya (2010) argues that learning is the process of interaction between teachers and students by utilizing the potential and resources. Hence, learning is a process of interaction between students and teachers who utilize the potential in the surrounding environment to be a source of learning. Learning media is a tool used in the learning process. The media can be classified into several groups. Based on its nature, media is divided into audio media, visual media and audio visual media. Based on its outreach capabilities, media is divided into broad reach media and limited reach media. Based on the use technique, media is divided into slide film projection media and image projection media.

## **References**

- Hasan, Iqbal. (2006). Analisis Data Penelitian dengan Statistik. Jakarta: Bumi Aksara
- Nana Sudjana.(2010). *Dasar-dasar Proses Belajar Mengajar*. Bandung: Sinar Baru Algesindo.
- Numan Soemantri. (2001). *Menggagas Pembaharuan Pendidikan IPS. PT. Remadja Rosda Karya*. PPS-FPIPS UPI
- Presiden. (2005). *Peraturan Pemerintah Nomor 19 Tahun 2005 tentang Standar Nasional Pendidikan*.
- Rusdewanti, Panca Putri, Abdul Gafur. 2014. Pengembangan Media Pembelajaran Interaktif Seni Musik untuk Siswa SMP. *Jurnal Inovasi Teknologi Pendidikan* 1(2). <https://journal.uny.ac.id/index.php/jitp/article/view/2526> diunduh pada 7 Desember 2020.
- Satyaputra, Alfa dan Aritonang, Eva Maulina. (2014), *Beginning Android Programming with ADT Bundle*, PT. Elex Media Komputindo, Jakarta.
- Sudjana.(2005). *Metode Statistika*. Bandung: Tarsito
- Sugiyono. (2010). *Metode Penelitian pendidikan pendekatan kuantitatif,kualitatif, dan R&D*.Bandung: ALFABETA.
- Sugeng Purwantoro, Heni Rahmawati, dan Achmad Tharmizi.(2013). "Mobile Searching Objek Wisata Pekanbaru Menggunakan Location Base Service (LBS) Berbasis Android. *Jurnal. Politeknik Caltex Riau*", (Vol 1 hlm 177)

- [http://www.pdii.lipi.go.id/wpcontent/uploads/2014/03/Seminar\\_Nasional-Infonatika-SNlf-2013](http://www.pdii.lipi.go.id/wpcontent/uploads/2014/03/Seminar_Nasional-Infonatika-SNlf-2013). Diakses pada 19 Desember 2019.
- Sumiati dan Asra. (2016). *Metode Pembelajaran*. Bandung: CV Wacana Prima
- Supardi.(2011). *Dasar Dasar Ilmu Sosial*. Yogyakarta: Ombak Press.
- Suryani, Lili, Ishartiwi. 2014. Pengembangan Multimedia Pembelajaran Bahasa Arab untuk Mahasiswa UIN Sunan Kalijaga Yogyakarta. *Jurnal Inovasi Teknologi Pendidikan* 1(1).  
<https://journal.uny.ac.id/index.php/jitp/article/view/2460>.
- Triyanti, Merti. 2015. Pengembangan Multimedia Interaktif pada Materi Sistem Saraf untuk Meningkatkan Motivasi dan Hasil Belajar Siswa SMA Kelas XI. *Jurnal BIOEDUKATIKA* 3(2).  
<http://journal.uad.ac.id/index.php/BIOEDUKATIKA/article/view/4148>.
- Wina Sanjaya. (2010). *Strategi Pembelajaran : Berorientasi Standar Proses Pendidikan*. Jakarta : Kencana Prenada Media Group.

### **Author's Biography**

Siti Nofiati, S.Pd was born in Cilacap on November 19, 1992. She completed his undergraduate education at the Faculty of Social Science Yogyakarta State University (UNY), Sosial Studies Program. She is a teacher at SMPIT LHI Banguntapan. She get achievement the 3<sup>rd</sup> place on Mobile Application Ki Hajar Competition in Yogyakarta year 2019.