



Android Based Theme 8 E-Module Development for Class IV Students of MI Asas Islam Kalibening

Supriyatun¹, Ahmad Sultoni²

¹ (Universitas Islam Negeri Salatiga, Indonesia)

² ((Universitas Islam Negeri Salatiga, Indonesia)

* Corresponding Author. E-mail: yatunsupri967@gmail.com

Receive: 11/08/2022

Accepted: 21/09/2022

Published: 01/10/2022

Abstrak

Penelitian ini bertujuan untuk mengkaji pengembangan modul pembelajaran tematik integratif melalui media mobile learning berbasis android. Pada penelitian ini menggunakan metode Penelitian dan Pengembangan atau *Research and Development (R&D)*. Metode penelitian ini menggunakan model ADDIE (*Analysis, Design, Development, Implementation, and Evaluations*) yang dikembangkan oleh Dick and Carry. Hasil penelitian menunjukkan bahwa Pengembangan media pembelajaran E-modul berbasis android tema 8 “Bangga Terhadap Daerah Tempat Tinggalku” kelas IV MI Asas Islam Kalibening kecamatan Tingkir Kabupaten Semarang dilakukan dengan langkah-langkah : 1. Kebutuhan terhadap bahan ajar, 2. Perancangan desain dan tahap kontruksi media, 3. Pengujian Modul, 4. Perbaikan produk. Berdasarkan kriteria Uji Paired Sample Test bahwa nilai t hitung > t tabel sebesar (5,279>2,048) dan P value Sig. (2-tailed) < 0,05 yakni sebesar 0,000. maka Ho ditolak dan Ha diterima. Maka terdapat perbedaan yang signifikan antara hasil belajar pada data pembelajaran sebelum dan sesudah pembelajaran menggunakan media E-modul berbasis android tema 8 “Bangga Terhadap Daerah Tempat Tinggalku” pada kelas IV MI Asas Islam Kalibening Kabupaten Semarang.

Kata Kunci: Modul Pembelajaran, Integratif, Mobile Learning

Abstract

This study aims to examine the development of integrative thematic learning modules through Android-based mobile learning media. This study uses Research and Development or Research and Development (R&D) method. This research method uses the ADDIE model (Analysis, Design, Development, Implementation, and Evaluations) developed by Dick and Carry. The results showed that the development of E-module learning media based on android theme 8 "Proud of the Area where I live" class IV MI Asas Islam Kalibening, Tingkir sub-district, Semarang Regency was carried out in the following steps: 1. The need for teaching materials, 2. The design and stages of media construction, 3. Module testing, 4. Product improvement. Based on the Paired Sample Test criteria, the t count > t table is (5.279> 2.048) and the P value is Sig. (2-tailed) < 0.05, which is 0.000. then Ho is rejected and Ha is accepted. So there is a significant difference between learning outcomes in learning data before and after learning using Android-based E-module media theme 8 "Proud of the Area where I Live" in class IV MI Kalibening Islamic Principles, Semarang Regency.

Keywords: Learning Module, Integrative, Mobile Learning

Introduction

Basic education is the initial foundation for the next level of education. As stated in Law Number 20 of 2003 concerning the National Education System article 17 paragraph 1 that basic education is the level of education that underlies secondary education. Given its position as the initial foundation for further education, of course, success in attending primary education greatly influences success in attending secondary school and tertiary education. Therefore, to achieve success in basic education, real efforts and participation from all parties are needed. Elementary Schools (SD) and Madrasah Ibtidaiyah (MI) are the basic education levels in formal education institutions in the National Education System.

The word education is denoted by the word *rabbani* which means a person who is perfect in knowledge, and broad-minded, to be disseminated to the community.

certainly, the implementation of SD/MI requires more attention, both from the government, the community and from the education staff in the institution. Moreover, basic education such as SD/MI has an important function to develop basic skills as a provision for students in living life in society. For this reason, so that these functions can run well that educational goals can be achieved optimally, the implementation of SD/MI must pay attention to aspects such as interests, characteristics, level of development, potential and needs of students. Nonetheless, the success of implementing SD/MI in carrying out its functions is largely determined by various factors, one of which is the implementation of the learning process. the learning process at the SD/MI level in the 2013 curriculum has used an integrative thematic approach. The integrative thematic learning model or integrated thematic instruction is considered a learning model that can touch all aspects of the needs of students. Where the learning process is managed thematically, holistically, not compartmentalized and can reflect various competency dimensions. Thus, the learning process is following the needs and characteristics of SD/MI students. The 2013 curriculum or thematic learning requires that learning activities in all integrated subjects can achieve attitude, knowledge, and skill competencies in all learning processes.

According to Piaget's theory regarding the age of elementary school children, it is in the concrete operational stage, namely 7 to 11 years. So the use of media in learning in elementary schools helps students to master abstract material accordingly.

The module is a way of organizing subject matter that pays attention to educational functions. The strategy for organizing learning material contains sequencing which refers to making the order in which the subject matter is presented and synthesizing which refers to efforts to show students the relationship between facts, concepts, procedures and principles contained in learning material.

Based on some of the definitions of e-module above, it can be concluded that learning modules are a form of teaching material that is packaged systematically and attractively so that it is easy to study independently. In essence, the learning process in the integrative thematic learning model is defined as a process of interaction between students and students, between students and learning resources, and between students and educators. In this learning model too, the learning process is more emphasized on the active involvement of students. Besides that, the thematic learning process is more oriented towards the application of the concept of learning while doing (learning by doing). Through integrative thematic learning, students can achieve a balance between soft skills and hard skills which include aspects of spiritual competence, social, knowledge, and skills. However, reality proves that the application and implementation of thematic learning models in schools has not been as expected.

The reality in the field is that student learning outcomes tend to decline due to e-modules that are not yet following student needs, the source books suggested by the government are less relevant to use and do not match the characteristics of students in each region in Indonesia, and we can see that elementary school age children / MI is still thinking concretely.

With the e-module being developed, the authors are expected to make improvements to the curriculum and procure relevant module books that can be used in schools. The hope in implementing the 2013 curriculum is the inclusion of Integrative Thematic elements to increase student enthusiasm in learning.

Learning care one of them is a smartphone that operates on the Android system. Android is an operating system for mobile phones based on Linux as the kernel. Currently, android can be called the king of smartphones. The Android operating system makes special learning media for students packaged in the form of software or applications. This application is easy to use and can integrate and combine various things such as images, colors, videos and animations in learning materials so that students are interested in reading and learning. The process of receiving and obtaining information on various knowledge from learning resources that are broad and easy for students to get. Android-based mobile learning is a learning medium that is easy to use and practical. The concept offered by mobile learning is near and distance learning.

Following the Covid-19 Pandemic Period that hit Indonesia, the concept of distance learning must be implemented in learning. One way for teachers to continue to carry out learning by using media, this media can be used during the learning process by teachers and students indirectly (remote) and directly (face-to-face). Distance learning is learning that is carried out without meeting directly between students. teachers with students but learning continues with the help of learning media. This media can be opened and studied when students are outside the school environment. This Android media does not require continuous internet access in its use except for the first time downloading the application,

Then mobile learning can be a solution for Integrative Thematic learning so that learning can be fun. Applications with the thematic content of learning materials wrapped in attractive colors and designs, as well as equipped with sound, will be easily understood and absorbed by students because all the senses possessed by students can respond quickly. Today's mobile phone users among students have grown rapidly, almost all students have used mobile phones. Most students use mobile phones only for calling, texting, playing songs/videos, accessing social networks (Facebook, Twitter, BBM), and even playing games. So the position of the media in the learning component is very important to improve the learning process to be more interesting, fun and of high quality.

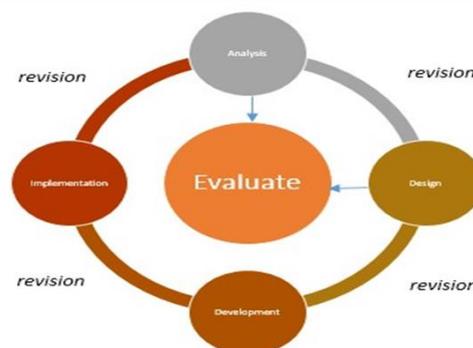
For this reason, the author tries to create media that can attract student enthusiasm. In this case, the author chose to make mobile learning. This is supported by the progress of mobile phones which provide several advantages for audio-visual production activities, besides that mobile phones are already familiar to students, all students already have them and bring them to school. The author hopes that the making of Integrative Thematic learning media will become an alternative learning media that is capable of being a solution to the above problems with the title Android Based Theme 8 E-Module Development For Class IV Students Of Mi Asas Islam Kalibening "

This Integrative Thematic Learning E-module was developed into an *electronic book* using an Android-based mobile learning application so that apart from being a module students and teachers can use it through *Mobile Learning*.

Method

The research model to be used is Research and Development (R&D). This research method is a method that can produce products in a certain area of expertise followed by certain by-products and has the effectiveness of a product. This research method uses the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) developed by Dick and Carry (1996). The ADDIE model was developed to design learning systems.

Gambar 1. Stages of development



Results and

Discussion

E-Module Development Needs

Pelearning has goals and learning outcomes a process that must be carried out to achieve goals. one of the results of well-planned learning is a success. With short learning, fun with animation

will produce extraordinary results. However, learning is boring and lengthy, and that's all that is seen to make students bored. If students feel bored, the learning objectives will not be achieved.

The use of Integrative Thematic E-modules which are packaged through media entitled E-book Theme 8 grade 4 "Proud of the area where I live" what happens is the use of teaching materials in the form of existing textbooks and the breadth of the material with diverse subject matter makes application and understanding one lesson load with another becomes inconsistent. Apart from that, with extensive material, lots of it, various classifications, and requires certain precision, the teaching materials needed are not just ordinary teaching materials but teaching materials that can classify and attract students' interest in learning.

Students often complain about the amount of material that must be mastered in thematic learning. With the existence of an Integrative Thematic E-module which is packaged through media entitled E-book Theme 8 grade 4 "Proud of the area where I live" which is packaged with animation that attracts students' interest in learning, the learning objectives are expected to be achieved.

Thematic learning taught by VAK is Visual, Audio and Kinesthetic. with teaching materials that are often hung with memorization, it makes children bored, often forgetting is not fun, and sometimes children often ignore the existing material.

Needs analysis is the method taken by researchers by conducting research studies and analyzing everything needed for the development of the E-Module by observing the curriculum documents, observing the implementation of learning and interviewing teachers and Madrasah heads.

Researchers made observations on October 28, 2021 in the learning process in class IV, where in Thematic learning activities they still use media in learning because it is still during the Covid 19 Pandemic, students carry out learning activities remotely, whereas teachers with limited media only send assignments in the form of video taken from youtube.

The results of the interview with Mr. Riyan Hariyanto, On October 28, 2021, he stated "that the 2013 curriculum or better known as Integrative Thematic requires students to be the center, but in

reality, the available teaching materials do not fully support learning that is following current conditions. this is the Covid-19 pandemic which requires a teacher to know more about the use of IT because learning is carried out online (remotely).

He also stated that related to the ability of students to understand thematic material "many students still do not understand how Integrative thematic has an approach and each subject is interrelated so that Thematic learning outcomes are still not satisfactory. The results of the last daily assessment were 15 out of 28 participants. students who have not completed the KKM.

After observing the students and the curriculum documents, information was obtained that the time allocation for Thematic learning in 1 week was lesson hours. The results of the time allocation interviews were insufficient to achieve many basic competencies through face-to-face learning

Opinions of Teachers and Students

Thematic learning is often a problem for a teacher because in delivery it requires a medium as a tool in delivering learning otherwise the teacher will experience difficulties in conveying the material, but in a successful lesson, it is a lesson that produces a change.

Teachers often complain that with thematic learning, sometimes children cannot distinguish between subject matter from one subject to another. For example, students will find it difficult to distinguish Indonesian material from PPKN. Requires more time to emphasize existing material.

In addition with the National Based School Examination (USBN) uses two curricula which are well known as the School Examination with a sliced curriculum consisting of the 2006 KTSP curriculum combined with the 2013 curriculum which since 2018 has used multiple choice exams and limited essays, adding to the confusion a teacher in emphasizing and understanding the material on the sub-theme. Teachers with different characters carry out thematic learning in different ways. This teacher because the number of students with a medium scale emphasizes thematic learning by sorting and selecting material from one subject to another.

Students also have something interesting, they can sort and choose from a thematic lesson by isolating materials from different books. For

example, they still have one mixed book (a collection of thematic material) and they also have one subject book at a time which contains material for each subject.

So that in the needs analysis conducted by the researcher found 3 needs, namely:

1. Module
 - a. The modules available today are less efficient in terms of being too large so children are lazy to carry them
 - b. The writing in the module is very much, children are difficult to understand.
 - c. The module is not yet available for the remote.
2. Teacher
 - a. By switching from KTSP to an integrative thematic curriculum, teacher competence when teaching still uses the KTSP method, where teaching is still per subject.
 - b. Lack of teacher creativity.
 - c. Lack of teacher knowledge about integrated learning.
3. Student
 - a. Students are used to learning per subject, not following Integrative Thematic.
 - b. Students in Thematic learning need adaptation, but in student learning it is limited by time, so students have not fully absorbed thematic learning.
 - c. Learning styles are not served in the currently available modules, which only present text and pictures so various student learning styles have not been fulfilled.

So there are several problems experienced in the learning process including limited teaching materials as needed, teaching materials that are per current conditions online (distance learning), learning that is still teacher-centered, limited time allocation for learning that is carried out face-to-face, students who are still passive in implementing the 2013 curriculum need to be addressed immediately. One way is to develop E-module teaching materials to overcome some of these problems. The required teaching materials are teaching materials that can support learning activities either face-to-face or remotely.

Based on these findings, to meet the needs of teaching materials it is considered very necessary to develop thematic learning modules. These modules

are expected to be used effectively in thematic learning to achieve complete learning outcomes.

Development of Integrative Thematic E-Modules Through Android-Based Mobile Learning



The product Feasibility Test is the stage of product guidance to material experts and media experts to receive suggestions for improvement. At this stage, the activities carried out are the feasibility assessment by material experts and media experts, and product revisions for product perfection. Material experts and media experts provide suggestions for revision. The team of experts used in this study was material experts and media experts.

Table 1. Final Results of Material and Media Expert Feasibility Assessment

No.	Indikator Penilaian	Validator	Nilai	Kriteria
1	Kesesuaian materi dengan KD tema 8	Ahli Materi	3.6	Sangat Layak
		Praktisi	3.6	Sangat Layak
2	Keakuratan materi	Ahli Materi	3.5	Layak
		Praktisi	4	Sangat Layak
3	Mendorong Keingintahuan	Ahli Materi	4	Sangat Layak
		Praktisi	4	Sangat Layak
4	Teknik penyajian	Ahli Materi	4	Sangat Layak
		Praktisi	4	Sangat Layak
5	Pendukung penyajian	Ahli Materi	3.5	Layak
		Praktisi	3.7	Sangat Layak
6	Penyajian pembelajaran	Ahli Materi	4	Sangat Layak
		Praktisi	4	Sangat Layak
7	Keruntutan alur berpikir	Ahli Materi	3	Layak
		Praktisi	3.5	Layak
Rerata			3.74	Sangat Layak

Based on the final results of the assessment by material experts and practitioners in the table above, shows that the feasibility level obtained an

average of 3.74, therefore the Integrative Thematic E-module learning media through Android-based Mobile learning on theme 8 "Proud of the Area where I live" is appropriate for use.

Table 2. Final Results of the Feasibility Assessment of Media Experts and Practitioners

No.	Indikator Penilaian	Validator	Nilai	Kriteria
1	Tampilan pada layar	Ahli Media	3.6	Sangat Layak
		Praktisi	3.6	Sangat Layak
2	Desain media Pembelajaran	Ahli Media	3.5	Layak
		Praktisi	4	Sangat Layak
3	Pemakaian kata dan Bahasa	Ahli Media	3.5	Layak
		Praktisi	3.7	Sangat Layak
4	Penyajian	Ahli Media	4	Sangat Layak
		Praktisi	4	Sangat Layak
5	Audio dan visual	Ahli Media	4	Sangat Layak
		Praktisi	4	Sangat Layak
Rerata			3.79	Sangat Layak

Table 2. The final results of the feasibility assessment of media experts and practitioners show an average feasibility level of 3.79 which means that the Integrative Thematic E-module learning media through Android-based mobile learning on theme 8 "Proud of the Area I Live in" is feasible to use.

Discussion

Based on the results of the needs analysis Integrative Thematic E-Modules through Android-Based Mobile Learning answer all needs in terms of modules, students and teachers because:

- 1) Easy to use and can integrate images, colors, videos and animations in learning materials.
- 2) The concept offered by this application is near and distance learning, so we use this application not only during the Covid-19 pandemic but in the context of education, although not during a pandemic, it can still be used.
- 3) This application is packed with various colors, and attractive designs and is equipped with sound. Students will be easy to understand and students will tend to be even more enthusiastic about learning.
- 4) According to the various learning styles expressed by Deporter and Hernacki, one of the first steps in learning is to first identify the

dominance of visual, auditory, or kinesthetic children. Visually inclined people learn what they see, auditory what they hear, and kinesthetics learn through movement and touch, and in this application, they can cover it.

- 5) This application can be used not only for theme 8 but for any theme, as long as it is following the basic concept of the media that has been created.
- 6) as well as improvements by material experts and media experts, the researcher obtained an appropriate media design and was declared feasible by the two experts with the following results;

The results of testing the feasibility of Integrative Thematic E-module learning media through Android-based Mobile learning on theme 8 "Proud of the Area Where I Live" by material experts and media experts became the basis for researchers to go to the next stage, namely limited scale tests (individuals & groups) and scale tests wide.

Conclusion

The need for varied media procurement at MI Asas Islam Kalibening, Tingkir sub-district, Semarang Regency. There are several problems experienced in the learning process, including the limitations of teaching materials that are as needed, teaching materials that are under current conditions online (distance learning), learning that is still teacher-centered, limited time allocation for learning that is carried out face-to-face, students who are still passive in implementing the 2013 curriculum need to be addressed immediately. One way is to develop E-module teaching materials to overcome some of these problems. The required teaching materials are teaching materials that can support learning activities either face-to-face or remotely.

The development of E-module learning media based on android theme 8 "Proud of the Area where I live" class IV MI Kalibening Islamic Principles, Tingkir sub-district, Semarang Regency is carried out with the steps;

- a. The need for teaching materials
- b. Design planning and media construction stages.
- c. Module Testing

d. Product repair

Based on the Paired Sample Test criteria, the t count $> t$ table is $(5.279 > 2.048)$ and the P value is $\text{Sig. (2-tailed)} < 0.05$, which is 0.000 . then H_0 is rejected and H_a is accepted. So there is a significant difference between learning outcomes in learning data before and after learning using Android-based E-module media theme 8 "Proud of the Area where I Live" in class IV MI Kalibening Islamic Principles, Semarang Regency.

Reference

- Abror, Imam Ziaul, Pengembangan Media Pembelajaran Mobile Learning (M- Learning) Berbasis Android Untuk Siswa Kelas XI Pada Materi Struktur Dan Fungsi Organel Sel Di MAN 3 Kota Banda Aceh' (UIN Ar-Raniry Darussalam Aceh, 2017)
- Calimag, J. N., P. A. Mugel, R. S. Conde, and L. B. Aquino, Ubiquitous Learning Environment Using Android Mobile Application.', *International Journal of Research in Engineering & Technology*, 2.2 (2014), 119–28
- D, Latu heru John, *Media Pembelajaran Dalam Proses Belajar-Mengajar Masa Kini* (Jakarta: Depdikbud, 1998)
- Daryanto, *Media Pembelajaran* (Bandung: PT Sarana Tutorial Nurani Sejahtera, 2011)
- Ibrahim, Nurwahyuningsih, and Ishartiwi, Pengembangan Media Pembelajaran Mobile Learning Berbasis Android Mata Pelajaran IPA Untuk Siswa SMP', *Jurnal Refleksi Edukatika*, 8.1 (2017), 80–88
- Mohammad Safari, "Pengembangan Virtual Smart Bones untuk Meningkatkan Hasil Belajar IPA Siswa Kelas V MI Miftahul Huda 01 Kecamatan Pabelan Kabupaten Semarang Tahun 2018", Tesis, IAIN Salatiga, 2018, 16.
- Pambudhi, T., & Retnowati, T. H. (2017). *Pengembangan Modul Pembelajaran Tematik Integratif Berkarakter Nasionalisme Kelas Iv Sekolah Dasar Daerah Banyumas. Jurnal Pendidikan Karakter*, 7(1), 71–85. <https://doi.org/10.21831/jpk.v7i1.15502>
- Robert Maribe Branch, "Instructional Design: The ADDIE Approach", New York: Springer Science+Busines Media, 2009, 2.
- Susanto, Ahmad, *Teori Belajar Pembelajaran Di Sekolah Dasar* (Jakarta: Prenadamedia Group, 2013)
- Susilana, Hadi dan Cipi Riyana, *Media Pembelajaran Hakekat Pengembangan Pemanfaatan dan Penilaian*. Bandung: Wacana Prima, 2008. 20.
- Calimag, J. N., P. A. Mugel, R. S. Conde, and L. B. Aquino, Ubiquitous Learning Environment Using Android Mobile Application.', *International Journal of Research in Engineering & Technology*, 2.2 (2014), 119–28
- Sanjaya, Wina, *Media Komunikasi Pembelajaran* (Jakarta: Kencana Prenada Media Group, 2012)
- Siti Sholihah Aas, "Teori-Teori Pendidikan dalam Al-Qur'an", *Jurnal Edukasi Islami Jurnal pendidikan Islam*, Vol.07/No.1 (2018), 23-46
- Somakim, dkk, "Developing Teaching Materials PISA-Based for Mathematics and Science of Junior High School", *Journal of Education and practice*, Volume 7, number 13 (2016), 73
- Squire, K., Mobile Media Learning: Multiplicities of Place', *On the Horizon*, 17.1 (2009), 70–80
- Sugiyono, "Metode Penelitian Kuantitatif Kualitatif dan R&D", Bandung: Alfabeta, 2011, 297. Lihat pula, Budiono Saputro, "Manajemen Penelitian Pengembangan research & development bagi penyusun tesis dan disertasi", Yogyakarta: Aswaja Pressindo, 2011, 8
- Sutiasih, A. D., & Saputri, R. P. (2019). Pengembangan mobile learning berbasis android sebagai media pembelajaran organisasi arsitektur komputer. *Jurnal Inovasi Teknologi Pendidikan*, 6(2), 137–147.
- Sumiharsono Rudy, Hasbiyatul Hasanah. 2017. *Media Pembelajaran: Buku bacaan wajib Dosen, Guru dan calon Pendidik*. Jember: PT Pustaka Abadi. Halaman 9
- Wibowo, Fransiscus Caraccioli Joni Tri, *Pengembangan Media Pembelajaran IPA SD Materi Penggolongan Hewan Berdasarkan Penutup Tubuhnya Berbasis Metode Montessori'* (Universitas Sanata Dharma Yogyakarta, 2017)