

## Development Of Smart Apps Creator-Based Interactive Learning Media In Economics Subject At Sma Negeri 2 Tenggara

Febri Kerisdianto 1<sup>1)</sup>, Sudarman 2<sup>2)</sup>, Ratna Fitri Astuti 3<sup>3)</sup>

<sup>1)</sup>Mulawarman University, Samarinda, Indonesia

<sup>2)</sup>Mulawarman University, Samarinda, Indonesia

<sup>3)</sup>Mulawarman University, Samarinda, Indonesia

<sup>1)</sup>febrikrisdianto76@gmail.com, <sup>2)</sup> sudarman@fkip.unmul.ac.id, <sup>3)</sup>ratna.fitri@fkip.unmul.ac.id

### ABSTRACT

This study aims to determine the process of developing interactive media based on Smart Apps Creator in economics for class XI SMA, and to determine students' responses to the media developed. One of the interesting interactive learning media can be developed using the Smart Apps Creator software. In this study, the method used is the Research and Development method. The Research and Development research method is a research method used to produce certain products, and test the effectiveness of these products. The development of this media uses the ADDIE model because it is rational, systematic, easy to learn and complete. The ADDIE model is arranged systematically so that in its implementation it is sequential, each stage that will be passed always refers to the previous stage which goes through a revision or improvement process so that in the next stage an effective learning media product is obtained. The results showed that the material expert validation test scored 4.9, the media expert validation test scored 4.6, small group trials were 86.4%, and group trials were 86.5%. Based on the results of this study, it can be concluded that interactive learning media using Smart Apps Creator is very good and appropriate to use to attract students' interest in learning and make it easier for students to understand economics subject matter.

**Keyword:** Interactive Learning Media, ADDIE

### INTRODUCTION

Ekayani (2017: 2) explains that in the learning process a medium is needed to support the smoothness of student effectiveness in learning. Learning media is a learning tool used by teachers to facilitate the delivery of material when teaching at school. The use of learning media can help achieve student learning success. The rapid development of technology has an impact on the unlimited use of learning media. There are several technologies that are flexible and easy to operate anywhere and anytime. For example, internet technology and smartphones are currently used as effective learning resources. Utilizing learning media is important in the learning process and can be one of the things that influences the success of student learning (Astuti, 2017: 2). Learning media increases students' interest in learning and generates enthusiasm in student learning.

The use of learning media can foster students' interest in learning to get new things in the learning material delivered by the teacher so that it can be easily understood. With learning media that is very interesting for students can be a stimulus for students in the learning process. Smart apps creator is an application for creating android or ios mobile apps without programming code, and the output is html5 and exe. Considerations in choosing Smart Apps

Creator software are easy to use, files can be repaired if there are errors, and the resulting application can be used offline so it doesn't require a data plan (Jannah, 2019).

Based on initial observations at SMAN 2 Tenggarong, researchers conducted interviews with teachers of the Economics subject, that at SMAN 2 Tenggarong, students' interest and motivation in learning were still lacking. This can be seen from students who do not pay attention to the teacher when teaching in class. One of the causes of the lack of interest and motivation in learning is the use of learning media that has not been varied. Therefore the variety of media used in learning is very important to foster student learning interest.

## METHOD

In this study, the method used is the Research and Development method. The Research and Development research method is a research method used to produce certain products, and test the effectiveness of these products. In this study, the development model developed by William W. Lee and Diana L. Owens. The ADDIE development model consists of several interrelated stages, namely, Assessment and analysis (needs assessment and analysis), Design (planning), Development (development), Implementation (implementation), Evaluation (evaluation). The development of this media uses the ADDIE model because it is rational, systematic, easy to learn and complete. The ADDIE model is arranged systematically so that in its implementation it is sequential,

The data obtained in this study were divided into two types, namely qualitative and quantitative data. The qualitative data is in the form of comments and suggestions provided by media experts and material experts, while the quantitative data is in the form of questionnaires assessed by each validator. The questionnaire in this study used the class interval formula with a scale of five:

Table 1

Classification of assessment of media and materials

Average Answer Score	Classification of Feasibility Assessment
4.2 to 5	Very good
3.4 to 4.2	Well
2.6 to 3.4	Enough
1.8 to 2.6	Not enough
1 to 1.8	Very less

(Source: Data Processed by Researchers, 2022)

## **RESULT AND DISCUSSION**

### **Result**

The procedure used in the development of this media uses the ADDIE model, with the following research results:

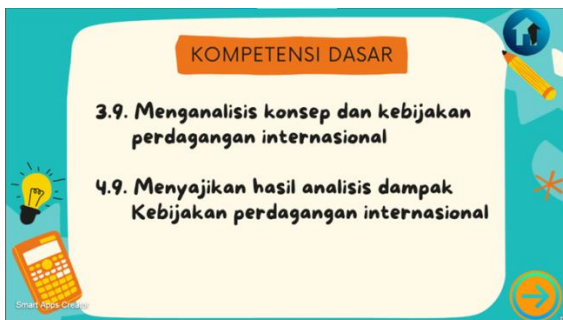
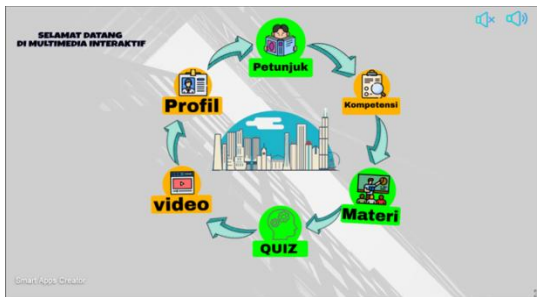
#### 1. *Analysis*(Analysis)

Sourced from observations at SMAN 2 Tenggara. The results of the analysis that has been carried out are used as guidelines and considerations in the preparation of interactive media. The analysis performed includes performance analysis and needs analysis. Performance analysis is carried out to find out and classify the problems faced in schools related to the learning media used in schools so far. After conducting a performance analysis, it is known that the teacher uses learning media that are not yet varied as teaching materials which are then delivered to students without being designed using varied and appropriate media.

Needs analysis, namely determining the learning media needed by students to improve the quality of learning. Thus, researchers develop interactive media which they feel will be able to eliminate the boredom of students when studying Economics subjects. Interactive learning media using the Smart App creator is a medium that will provide variety to the learning process so that the information conveyed is more interesting than conventional books. The material to be used in the development of economics subject media is material in class XI IPS, namely international trade.

#### 2. *Design*(Design)

Interactive learning media using the Smart App creator is a medium that will provide variations in the learning process so that the information conveyed is more interesting. Media development planning is done by making storyboards. The developed media consists of 2 parts, namely the title and the play page. The first part is the cover which contains the words "Media Interactive Smart App creator". While the second part contains the media start page pressing the play button as the format of the contents of this page. The next section is a menu with instructions, KD, materials, quizzes, videos and information. This media is made in the form of electronic media which is stored in an AHL file with the format: APK The resulting product can be accessed via Android and this media is made in non-printed form.



### 3. Development(Development)

This stage is the product realization stage, namely the creation of interactive media including determining the content of the material and validation. The material content of this media is the subject of the Economics subject for class XI IPS in the even semester, namely "International trade". Material expert validation was carried out by an Economics class XI IPS teacher at SMAN 2 Tenggara, while media experts were carried out by a Lecturer in the English Language Study Program, Faculty of Teacher Training and Education, Mulawarman University who is an expert in the IT field. The data obtained in this study were divided into two types, namely qualitative and quantitative data. The qualitative data is in the form of comments and suggestions provided by media experts and material experts, while the quantitative data is in the form of questionnaires assessed by each validator.

The material expert in media development is Mr. Muchlis, S.Pd. who is a teacher of Economics subject at SMAN 2 Tenggara. Material experts assess the learning aspects and content of material in interactive media, as well as provide criticism and suggestions.

Aspect	Score		
	No	grain Question	Aspect
Format	1	5	15
	2	5	
	5	5	
Fill	3	5	49
	4	5	
	6	5	
	7	5	
	8	5	
	9	5	
	10	5	
	11	5	
	12	4	
Theory	13	5	10
	14	5	
	15	5	
<b>Total Score</b>	74		
<b>Validation Score</b>	(4,9)		
<b>Criteria</b>	Very good		

(Source: Data Processed by Researchers, 2022)

Based on the assessment table above, it can be concluded that the learning aspects and content of the material contained in the Smart App creator interactive media, in international trade material, obtained a result of 4.9 which is included in the "Very Good" category and is suitable for use. The media expert in this development research is Mr. Iwan Setiawan, SPd, M.Pd, a Lecturer in the English Language Study Program at the Teaching Faculty. The validation was carried out on August 26 2022 carried out directly, the aspects that are assessed in the media validation are general aspects, namely media display and programming. Validation results can be seen in the attachment. The results of the validation of the two aspects are presented in table form:

Aspect	Score		
	No	grain Question	Aspect
Simplicity	1	5	33
	2	5	
	3	4	
	4	5	
	5	5	
	6	4	
	7	5	
integration	8	4	9
	9	5	
Emphasis	10	4	9
	11	5	
Color	12	4	4

<b>Form</b>	<b>13</b>	<b>5</b>	<b>5</b>
<b>Language</b>	<b>14</b>	<b>4</b>	<b>9</b>
	<b>15</b>	<b>5</b>	
<b>Total Score</b>	<b>69</b>		
<b>Validation Score</b>	<b>(4,6)</b>		
<b>Criteria</b>	<b>Very good</b>		

(Source: Data Processed by Researchers, 2022)

Based on the assessment table above, it can be concluded that the learning aspects and the content of the material contained in interactive media, in international trade material, results of 4.6 are included in the "Very Good" category and are suitable for use.

#### 4. Implementation

Furthermore, the fourth stage is implementing learning media with product trials. In addition to experts from interactive learning media products, Smart App creators will also be given responses from students. Based on the overall results which stated "strongly agree" with a percentage gain of 86.5%. Student responses from the questionnaire stated that interactive learning media is very suitable for use in the learning process.

#### 5. *Evaluation*(Evaluation)

The revising the results of product trials based on the results of student responses, obtained suggestions for learning media, namely media that is applied using a smartphone so that video material can be on/off and buttons in applications that are easy to use. Then researchers can find out that learning media is very suitable for use in the learning process from the results of product validation and in terms of student responses, it is obtained that interactive media is suitable for use in learning.

### **Discussion**

The researcher argues that with today's developments where all groups have used electronic media as a necessity and an attraction, this includes students who already use electronic media such as laptops/smartphones. The majority of students spend time using electronic devices to play games and social media instead of spending time reading books. So that researchers utilize electronic media to develop interactive learning media Smart App creators. With the aim that students can also learn by using interactive media that researchers have developed. This is in accordance with the theory presented by Kurniawan (2012: 22) that one way to attract students' attention or stimulate students to study the material presented by the teacher is to utilize the use of Smart App creator interactive learning media. In line with this theory, Nazmi (2017: 48) states that the use of interactive media is far more effective in attracting the attention and concentration of students in

learning so as to trigger interest in learning and enthusiasm in participating in learning and achieving the desired learning goals.

The first stage of this development is to carry out an analysis which consists of two stages, namely performance analysis and needs analysis. From the performance analysis it is known that the learning media used in schools are teachers only relying on textbooks as teaching materials which are then delivered to students without being designed using the right media. The second stage is needs analysis by determining the learning media needed by students to improve the quality of learning and student achievement. Thus, the researcher developed an interactive learning media Smart App creator which he felt would be able to eliminate the boredom of students when studying economics subjects.

Furthermore, the second stage is designing interactive learning media products with format improvements that are equipped with an opening intro section which consists of 2 parts, namely the title and the play page. The first part is the cover which contains the words "Media Interactive Smart App creator". While the second part contains the media start page pressing the play button as the format of the contents of this page. The next section is a menu with instructions, KD, materials, quizzes, videos and information. This media is made in the form of electronic media which is stored in an AHL file with the format: APK The resulting product can be accessed via Android and this media is made in non-printed form.

The third stage is the development of this media which is designed using the Smart App creator software. The development stage includes pre-production, production and post-production. The stage of producing interactive learning media based on the storyboard that was created at the planning stage. The storyboard function is very important because it serves as a guide in producing media. The software used in producing this interactive learning media is the Smart App creator. This development stage, before being directly applied in learning, is first checked and validated by material experts to assess whether the content is in accordance with the learning indicators, as well as media experts to assess the feasibility of the interactive learning media. Based on the assessment of media experts as a whole, a score of 4 was obtained. 6 and declared very feasible. And the results of the material expert's assessment obtained a score of 4.9 and were declared very feasible. The data obtained are in the form of quantitative data and qualitative data. Quantitative data is in the form of an assessment questionnaire and qualitative data which includes general criticism and suggestions that will be considered for the Smart App creator's interactive media. This is similar to research conducted by Rakhmawati (2015: 32) Qualitative data is an instrument in the form of suggestions and criticisms used as material for making improvements to the interactive media being developed. Agree with research conducted by Irawan (2015: 15) that

in making instruments used to obtain information about the needs of the product to be developed which is distributed to respondents.

Furthermore, the fourth stage is implementing learning media with product trials. In addition to experts from interactive learning media products, Smart App creators will also be given responses from students. Based on the overall results which stated "strongly agree" with a percentage gain of 86.5%. Student responses from the questionnaire stated that interactive learning media is very suitable for use in the learning process.

Then revising the results of product trials based on the results of student responses, obtained suggestions for learning media, namely media that is applied using a smartphone so that video material can be on/off and buttons in applications that are easy to use. Then researchers can find out that learning media is very suitable for use in the learning process from the results of product validation and in terms of student responses, it is obtained that interactive media is suitable for use in learning.

## **CONCLUSION**

Based on the results of the research and discussion in chapter IV, it can be concluded that the development of interactive learning media Smart App creators in economics subjects Class XI IPS was developed using the ADDIE development model which consists of 5 stages, namely, analysis, design, development, implementation, evaluation. Where at each stage it has been carried out according to predetermined procedures and produces products in the form of interactive media using the Smart App creator, in Class XI "International trade" material. Validation of the Smart App creator interactive learning media is carried out by material experts and media experts. The validation results obtained from material experts got an average of 4.9 in the "Very Good" criteria. Media experts assess the appearance and programming aspects of the overall score of 4,

Based on the results of student respondents' assessments on the aspects of pleasure, interest, liveliness, seriousness, convenience and interest. In the small group trial the total score was 648 out of a maximum score of 50 so that it was included in the "Very Eligible" category with an eligibility percentage of 86.4%. In the large group trial, a total score of 2208 was obtained from a maximum score of 170 so that it was included in the "Very Eligible" category with an eligibility percentage of 86.5%



## REFERENCES

- Apriska Angga Devi. Pengembangan Multimedia Interaktif Elektrolit Untuk Pembelajaran Kimia Peserta didik SMK Kelas XI Jurusan Pertanian Tahun Pelajaran 2013/2014. *Jurnal Pendidikan Kimia*, Vol. 3, No. 2, 2014.
- Arsyad. (2011). *Media pembelajaran: peranannya sangat penting dalam mencapai tujuan pembelajaran*. Yogyakarta: Gava Media.
- Astuti, I. A. D., Sumarni, R. A., & Saraswati, D. L. (2017). Pengembangan media pembelajaran fisika mobile learning berbasis android. *Jurnal Penelitian & Pengembangan Pendidikan Fisika*, 3(1), 57-62.
- Dian, P.E , dan Ali, M., 2018, Pengembangan Multimedia Pembelajaran Interaktif Kimia Berbasis Android Menggunakan Prinsip Mayer pada Materi Laju Reaksi, *Jurnal Inovasi* 5(1):38-47.
- Ekayani, Ni Luh Putu. (2017). Pentingnya Penggunaan Media Pembelajaran untuk Meningkatkan Prestasi Belajar Siswa. *Jurnal Fakultas Ilmu Pendidikan Universitas Pendidikan Ganesha Singaraja*, 2(1), 1-11.
- Jannah, I. M., Murtiyasa, B., & Kom, M. (2019). *Rancang bangun media pembelajaran matematika matriks untuk kelas x di smk muhammadiyah 1 sragen berbasis mobile learning* (Doctoral dissertation, Universitas Muhammadiyah Surakarta).
- Kristanto, A. W. (2013). *Pengembangan Media Pembelajaran E-Kamus Komputer Teknologi Informasi dan Komunikasi Menggunakan Microsoft Visual Basic 6.0 Kelas VII SMP Negeri 1 Welehan*. Skripsi. Tidak Diterbitkan. Fakultas Ilmu Pendidikan. Universitas Negeri Semarang.
- Lee, Tien .T., dan Kasimah.O., 2012, Interactive multimedia module in the learning of electrochemistry: Effects on students' understanding and motivation, *Procedia - Social and Behavioral Sciences* 46.
- Mega Kurniawan. (2012) Pengembangan Buku Digital Interaktif Berbantu Adobe Flash di Kelas X SMK Negeri Mojo Agung. Universitas Negeri Surabaya: Unesa Jurnal.
- Mega Kurniawan. (2012) Pengembangan Buku Digital Interaktif Berbantu Adobe Flash di Kelas X SMK Negeri Mojo Agung. Universitas Negeri Surabaya: Unesa Jurnal.
- Muhson. (2018). Pengembangan Media Pembelajaran Untuk Meningkatkan hasil belajar siswa. *Jurnal Misykat*.
- Munadi. (2013). *Media Pembelajaran; Sebuah Pendekatan Baru*. Jakarta: Referensi.

- Nazmi, (2017). *Media Pembelajaran*. Jakarta: Direktorat Jenderal Pendidikan Islam Departemen Agama Republik Indonesia
- Pratomo, A., & Irawan, A. (2015). Pengembangan media pembelajaran interaktif berbasis web menggunakan metode Hannafin dan Peck. *POSITIF: Jurnal Sistem dan Teknologi Informasi*, 1(1), 20.
- Prawiradilaga, D. S. (2012). *Wawasan Teknologi Pendidikan*. Jakarta: Kencana Prenada Media Group.
- Purbasari, Rohmi Julia. (2013). "Pengembangan Aplikasi Android Sebagai Media Pembelajaran Matematika Pada Materi Dimensi Tiga Untuk Siswa SMA Kelas X". Skripsi. FMIPA UNY.
- Rahma, Fatikh Inayahtur. 2019. "Media Pembelajaran ( Kajian Terhadap Langkah-Langkah Pemilihan Media Dan Implementasinya Dalam Pembelajaran Bagi Anak Sekolah Dasar )." *Pancawahana: Jurnal Studi Islam* 14 (2579–7131): 87–99. <http://ejournal.kopertais4.or.id/tapalkuda/index.php/pwahana/article/view/3608>.
- Rahmawati, L. (2015). Pengembangan Media Pembelajaran Berbasis Flipbook Maker pada Mata Pelajaran Elektronika Dasar di SMK N 1 Sampang. *Jurnal Pendidikan Teknik Elektro*, 5(1), 83–88
- Rivai. (2012). *Proses Belajar Mengajar*. Jakarta: Bumi Aksara.
- Robianto, A., & Wahono, M. (2019). Pengembangan Modul Berbasis Aplikasi Android untuk Mata Kuliah Ilmu Bahan Teknik pada Prodi D3 Teknik Mesin Universitas Negeri Malang. *Jurnal Teknik Mesin dan Pembelajaran*, 2(2), 124-133.
- Susilana, Rudi dan Cepi Riyana. 2018. *Media Pembelajaran*. Bandung: CV Wacana Prima
- Sutirman, M. P. (2013). *Media dan model-model Pembelajaran Inovatif*. Yogyakarta: Graha Ilmu, 3(2).
- Teni Nurrita. 2018. "Pengembangan Media Pembelajaran Untuk Meningkatkan Hasil Belajar Siswa." *Jurnal misykat* 3 (1):171–87. <https://media.neliti.com/media/publications/271164-pengembangan-media-pembelajaran-untuk-me-b2104bd7.pdf>.
- Wulandari, N., Aunurrahman, A., & Warneri, W. 2019 PENGEMBANGAN MEDIA PEMBELAJARAN INTERAKTIF BERBASIS ANDROID UNTUK PEMBELAJARAN FISIKA DI SEKOLAH MENENGAH ATAS. *Jurnal Pendidikan dan Pembelajaran Khatulistiwa*, 8(12).