SAC Application as an Android-Based Arabic Interactive Media: Validator and User Perspectives

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Abstract. *This study aims to decipher the results of validation tests and find out the user's response to the development of Android-based learning media using the Smart Apps Creator (SAC) application. This study uses mixed methods (quantitative and qualitative). Data collection uses questionnaires and documents. Quantitative analysis techniques were carried out on validation results using numbers, scales, or percentages, while qualitative analysis was carried out on the results of (1) individual trials, (2) small groups and (3) large groups. The population of this study is 30 grade VII students, while the sample is determined using non-probability sampling which aims to make all populations as samples. The results of the study show that: (1) the results of the validation of media experts obtained a percentage of 95% (very feasible) and material experts 94% (very feasible). (2) the results of user trials on the development of Android-based Arabic learning media products received an average score for individual trials of 80% with categories (good), small group trials of 85% with categories (very good) and large group trials of 95% with categories (very good).*
Keywords: Smart Apps Creator, Interactive Media, Arabic, Android.

Abstrak. Penelitian ini bertujuan untuk mendeksripsikan hasil uji validasi dan mengetahui respon pengguna terhadap pengembangan media pembelajaran berbasis Android menggunakan aplikasi *Smart Apps Creator (SAC)*. Penelitian ini menggunakan metode campuran (kuantitatif dan kualitatif). Pengumpulan data menggunakan angket dan dokumen. Teknik analisis kuantitatif dilakukan pada hasil validasi yang menggunakan angka, skala, atau persentase, sedangkan analisis kualitatif dilakukan pada hasil (1) uji coba perorangan, (2) kelompok kecil dan (3) kelompok besar. Populasi penelitian ini sebanyak 30 siswa kelas VII, sedangkan sampel ditentukan menggunakan *sampling non-probabilitas* yang bertujuan menjadikan semua populasi sebagai sampel. Hasil penelitian menunjukkan bahwa: (1) hasil validasi ahli media memperoleh persentase 95% (sangat layak) dan ahli materi 94% (sangat layak). (2) hasil uji coba pengguna terhadap pengembangan produk media pembelajaran bahasa Arab berbasis android mendapatkan penilaian rata-rata untuk uji coba perorangan 80% dengan kategori (baik), uji coba kelompok kecil sebanyak 85% kategori (sangat baik) dan uji coba kelompok besar sebanyak 95% dengan kategori (sangat baik).
Kata kunci: Smart Apps Creator, Media Interaktif, Bahasa Arab, Android.

1. BACKGROUND

The development of technology and information in the world of education today is very rapid and brings many significant changes.(Rusdiana, 2014) Innovation in learning needs to be done so that the learning process continues to develop and does not become monotonous.(Hakim, Abdul, Haeruman Rusandi, 2020) Learning will be more innovative and interactive if carried out by adjusting to existing technological developments so that it has a significant impact on student learning outcomes.(Setyantoko, 2016)

With the development of technology today, many media innovations can be used as additional learning resources with the display of educational content.(Sugihartini & Yudiana,

2018) Learning media provides convenience for teachers to provide understanding to students.(Learning et al., 2016) Various platforms available on the internet can be developed for learning, but in this context, teachers also need to adapt to new technology so that they can easily channel innovation and creativity in creating media or learning tools using technology.(Permana et al., 2024) The use of learning media can save time to manage classes, assigning assignments, and monitor students' mastery of material digitally.(Ramli, 2012)

Arabic has special characteristics such as complex grammar, changing word forms and right-to-left writing that require special features in developing appropriate learning media.(Arsyad, 2019) There are four interconnected skills in achieving the goal of learning Arabic.(Paputungan, 2020) These skills are *Maharah al-Istima', Maharah al-Kalam, Maharah al-Kitabah, and Maharah al-Qira'ah*.(N. Hula, 2020)

There are various interactive platforms available that can be used to help students' Arabic learning development be more enjoyable.(Astuti et al., 2018) Previously, researchers had developed Android-based Arabic learning media for grade VII students at Madrasah Tsanawiyah. This development with the output produced is learning media in the form of an Android application using the Smart Apps Creator (SAC) platform.

The SAC application is one of the innovations in Arabic language learning designed to provide an interactive learning experience through Android devices. (Hijriyah et al., 2022) The development of this application is based on the need for learning media that can be accessed easily, interestingly, and by the characteristics of students in the digital era.(Kartini & Putra, 2020)

However, the development of learning applications is not enough to stop at the production stage and validation tests to ensure that the applications developed meet the expected quality standards, both in terms of media, materials, and language. In addition, the user's perspective is also a crucial aspect that needs to be considered to assess the application in the context of real learning.(Durrotun Nafisah & Ghofur, 2020)

Based on the previous research above, researchers are interested in analyzing user responses to measure ease of use, understanding, and technical experience with the product. User response refers to the feedback and reaction of the end user to the product that has been developed. The users or respondents of this study are students of grade VII Madrasah Tsanawiyah al-Hikmah Mogutat Kotamobagu.

The results of this research are expected to make a significant contribution to the development of innovative Arabic language learning media and by the needs of students in the digital era. Furthermore, the findings of this study can be the basis for further improvement and

development of the SAC application, as well as provide insight for educators and developers of educational applications on important aspects that need to be considered in designing car-based learning media.

2. RESEARCH METHODS

This study uses mixed methods (quantitative and qualitative). Data collection uses questionnaires and documents. Quantitative analysis techniques were carried out on the results of material and media validators using numbers, scales, or percentages, while qualitative analysis was carried out on the results of (1) individual trials of 3 users, (2) small groups of 10 users and (3) large groups of 30 users. (Manik et al., 2021) All users are students of grade VII MTs. Al-Hikmah Mogutat Kotamobagu.

Techniques using data using questionnaires and documents. The questionnaire contains questions about user convenience, perceived benefits, and suggestions for improvement. (Sohibun & Ade, 2017) User responses using the Likert scale (Haryanti & Saputro, 2016) sebagai berikut:

Table 1. Likert scale response categories

| Bad | Not Good | Pretty Good | Good | Excellent |

To analyze the measurement of percentage values from the total number of validator scores and user responses, the researcher used the following observations and categories: (N. Hula et al., 2021)

Table 2. Likert scale measurement categories

No	Percentage (%)	Category
1.	81-100%	Excellent
2.	61-80%	Good
3.	41-60 %	Pretty Good
4.	21-40 %	Not Good
5.	< 20 %	Bad

The formula for calculating validator and user ratings is presented as follows :(Andi Rustandi & Rismayanti, 2021)

$$P = \frac{\sum R}{N} \times 100\%$$

Description:
P   : Score Percentage

$\sum R$: Total score of each respondent

N : Maximum total score

3. RESULTS AND DISCUSSION

Before entering the test assessment stage of the respondents, the researcher conducted the validation test stage of this Android-based learning media with two types of validation, namely media validation and material expert validation, as many as 1 person each. Media and material experts are expert lecturers in the field of learning media development and Arabic language materials at IAIN Sultan Amai Gorontalo. The following are the results of the assessment from the two experts:

a. Media Ratings

$$P = \frac{76}{80} \times 100\% = \frac{7600}{80}\% = 95\%$$

Information:

P : Score as a percentage

$\sum R$: Sum of all scores from respondents = 76

N : Maximum number of scores = 80

The results of the calculation of the assessment of media experts are summarized in the form of the table below:

Table 3. Media Ratings

No.	Assessment Indicators	Score
1.	Media presentation	20
2.	Design	42
3.	Ease of Use	14
	Average	**76**
	Percentage	**95%**
	Criterion	**Sangat Layak**

The assessment of the subject matter experts in table 3 above shows that the score obtained is 76 with a percentage of 95%, which is included in the very feasible category. The assessment of this media expert has four assessment indicators, namely in terms of media presentation which gets a score of 20, while the design of media products gets a score of 42 and in terms of ease of use of media gets a score of 14. From the three assessments, they were summed up so that they got a score of 76 out of 80 maximum scores.

b. Subject matter expert assessment

$$P = \frac{47}{50} \times 100\% = \frac{4700}{50}\% = 94\%$$

Keterangan:

P   : Score as a percentage
$\sum R$: Sum of all scores from respondents = 47
N   : Maximum number of scores = 50

Table 4. Expert Assessment Matter

No.	Assessment Indicators	Score
1.	Quality of content and purpose	47
	Average	**47**
	Percentage	**94%**
	Criterion	**Highly Worthy**

The assessment of the subject matter expert in Table 4 above shows that the score obtained is 47 out of a maximum score of 50. The score was then presented so that it got a result of 94% and was included in the very feasible category. The results of the assessment of material experts which reached 94% showed that the Arabic language learning materials developed in the Android-based learning media were considered suitable for use by grade VII students. The "Very Feasible" assessment from the material experts indicates that the content and substance of the material presented in the learning media have met the feasibility standards and are by the needs and characteristics of students.

The achievement of a score of 94% from material experts is positive feedback for researchers in the development of Android-based Arabic learning media. This shows that the material packaged in the learning media has been well-designed and can support the achievement of Arabic learning goals for grade VII students.

The assessment of media and material experts that have been described above, this android-based learning media is included in the category of very feasible in terms of media and materials so that it can be said that it is feasible to be tested to users so that their response and assessment of the android-based learning media products that have been developed are known.(Septyanto et al., 2020) After having a suitable validator of media and materials, the researcher continued to collect user responses to understand how the learning media product was received and applied in learning.

The trial process was carried out by distributing questionnaires to each student who became a respondent. The questionnaire sheet contains 20 questions with a score level of 5 (very good), 4 (good), 3 (quite good), 2 (not good) and 1 (very poor). The following is one of the respondents' questionnaires:

No	Pertanyaan	Skor Penilaian				
1	Secara keseluruhan, saya puas dengan kemudahan dalam menggunakan aplikasi ini.	**(5)**	4	3	2	1
2	Cara menggunakan aplikasi ini sederhana.	**(5)**	4	3	2	1
3	Saya dapat belajar secara efektif dengan menggunakan aplikasi ini.	**(5)**	4	3	2	1
4	Saya dapat belajar dengan cepat menggunakan aplikasi ini.	5	**(4)**	3	2	1
5	Saya bisa efisien belajar dengan menggunakan aplikasi ini.	5	**(4)**	3	2	1
6	Saya merasa nyaman menggunakan aplikasi ini.	**(5)**	4	3	2	1
7	Aplikasi ini mudah dipelajari.	5	**(4)**	3	2	1
8	Saya percaya saya lebih produktif dengan menggunakan aplikasi ini.	5	**(4)**	3	2	1
9	Sistem ini memberikan pilihan bantuan yang jelas, memberitahu saya bagaimana menjalankan aplikasi.	**(5)**	4	3	2	1
10	Setiap kali saya melakukan kesalahan, saya pulih dengan mudah dan cepat.	5	**(4)**	3	2	1
11	Informasi yang disediakan dengan aplikasi ini jelas.	5	**(4)**	3	2	1
12	Sangat mudah untuk menemukan informasi yang saya butuhkan.	**(5)**	4	3	2	1
13	Informasi yang diberikan aplikasi mudah dimengerti.	5	**(4)**	3	2	1
14	Informasi ini efektif dalam membantu saya belajar.	**(5)**	4	3	2	1
15	Tata letak informasi yang terdapat di layar aplikasi terlihat jelas.	**(5)**	4	3	2	1
16	Tampilan dari aplikasi ini menyenangkan.	**(5)**	4	3	2	1
17	Saya suka menggunakan tampilan aplikasi semacam ini.	**(5)**	4	3	2	1
18	Aplikasi ini memiliki semua fungsi dan kemampuan yang saya butuhkan.	**(5)**	4	3	2	1
19	Materi yang disajikan bermanfaat bagi saya	**(5)**	4	3	2	1
20	Secara keseluruhan saya puas dengan aplikasi ini.	**(5)**	4	3	2	1

Computer System Usability Questionnaire J.R Lewis
(Sumber: Setia Andrianitta, 2015: 38)

Figure 1. Document Respondent questionnaire

Before carrying out the learning media trial, the researcher explained in detail how to assess and use the application. After that, each student installs this Arabic language learning media application on their smartphone devices. then provide assessments as well as comments and suggestions for products that have been developed on the questionnaire. Here are the results of the user trial:

1. Individual trials

In the individual trial stage, the researcher involved three users of grade VII students to provide an assessment of the Android-based Arabic learning media product that has been developed. The purpose of this individual trial is to get direct feedback from the main users of the learning media. Through individual trials with three students, researchers can find out the initial acceptance and perception of users towards the developed learning media. This is important as a material for evaluation and improvement before the learning media is tested on a wider group.

Table 5. Results of individual trial questionnaires

Respondent	Score	Kategori	Individual Trial
Learners 01	80%	Good	
Learners 02	85%	Excellent	
Learners 03	75%	Good	
Average	**80%**	**Good**	
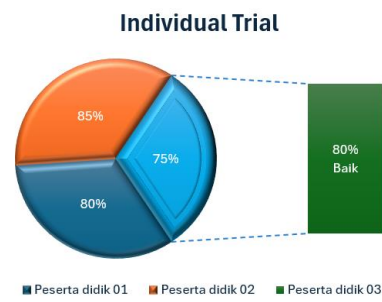
The results of the individual trial assessment showed that student 01 assessed with a score of 80% in the Good category, student 02 with a score of 85% in the Very Good category, for student 03 with an assessment score of 75% in the Good category. Based on the three user ratings above, the average score **is 80%,** category (Good). The following is a view of the revision of Android-based Arabic learning media:

(a) Before revision   (b) After the revision

This revision is expected to improve learning media to adjust to the criteria of students when using this product.

2. Small group trials

In this stage, 10 user response data was obtained as respondents. Here are the results of the small group trial:

Table 6. Small group trial results

Respond	Score	Category	Diagram
Learners 01	94	Excellent	Small Group Trials
Learners 02	83	Excellent	

Learners 03	90	Excellent
Learners 04	80	Good
Learners 05	76	Good
Learners 06	84	Excellent
Learners 07	78	Good
Learners 08	85	Excellent
Learners 09	86	Excellent
Learners 10	94	Excellent
Average	**85%**	**Excellent**

The table and diagram above show that the average score of the small group test is included in the Very Good category at the score interval of 81%-100% of 7 students. Then for students who assessed with the Good category in the score interval of 60%-80%, a total of 3 students. Based on the results of the calculation of the trial of the small group of students, they got an average score **of 85%,** category (very good).

After going through a small group trial, the suggestions and inputs received from this evaluation have been infused for product refinement. Based on the categories above, learning media products are ready to be tested in the next tahapp, namely large group trials. There are several aspects that can be developed and improved in the revision. The suggestions given by the respondents and improvements that can be made are:

(a) Before revision
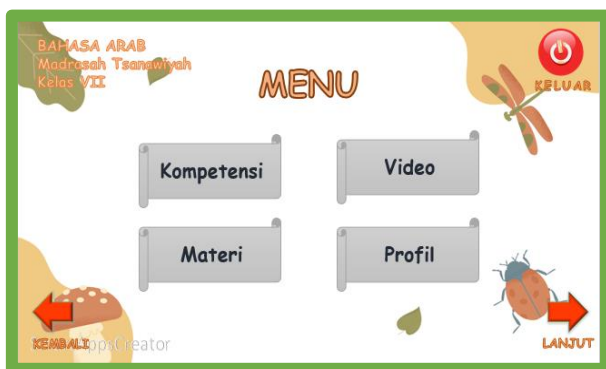
(b) After the revision

It is hoped that users can easily use this application which can increase students' interest and motivation in Arabic subjects.

3. Large group trials

Respondents at this stage involved all students of class VII MTs al-Hikmah Mogutat Kotamobagu totaling 30 people. The trial was carried out by distributing paper-based questionnaires and distributed directly to users. while learning media products are distributed through links sent through WhatsApp groups. The results obtained from large group tests are

in the form of user assessment responses to the products that have been developed. The following is described in the table related to the questionnaire data of large-group trial respondents:

Table 7. Results of large group trials

Total Score	Presented	Category
2851	95,03%	Excellent

Based on the table, it can be concluded that at this stage the total score is 2851 or **95.03%** with the category "very good". This assessment is the last stage in this study to find out the user assessment in using this learning media. When there are no more revisions from the respondents to the researcher and the average score has reached the good category value, the research is considered complete.

4. CONCLUSIONS AND SUGGESTIONS

This research has produced an Android-based Arabic learning media product that is feasible and effective for use by grade VII students of Madrasah Tsanawiyah. The results of the validation of media experts obtained a percentage of 95%, while the validation of material experts obtained a percentage of 94%, both of which were categorized as "Very Feasible". The "Very Feasible" assessment from media experts and material experts indicates that the learning media developed has met the feasibility standards both in terms of design, features, media presentation, ease of use, as well as the quality of content, materials and learning objectives of Arabic.

The results of the trial on various user groups also show that this learning media can be well received. Individual trials received an average rating of 80% "Good", small group trials received an average rating of 85% "Very Good", and large group trials received an average rating of 95% with the category "Very Good". The higher percentage of assessment at each stage of the trial indicates that this learning media is increasingly effective and by the needs of students.

The contribution of this research is to produce an Android-based Arabic learning media product that can be an alternative to interesting and interactive teaching materials and can increase students' motivation and understanding in learning Arabic. For further research, it is necessary to conduct further testing related to the effectiveness of the use of this learning media on student learning outcomes, as well as the possibility of developing learning media with a wider scope of material or adapted to the latest curriculum and can be continued at other levels of education.

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