Al-Kilmah: Jurnal Pendidikan Bahasa Arab dan Humaniora
Vol. 3, No. 2, December 2024, hal. 106~116
e-ISSN: 2963-2889 DOI: 10.58194/alkilmah.v3i2.2056

Optimizing Plotagon Application as an IT-based Arabic Learning Media at MAN 1 Lamongan

Nur Aqilah Lutfiyah Rahma Opier [1], Syafi[2]
[1,2]UIN Sunan Ampel Surabaya, Indonesia
[1]Opierqilah29@gmail.com ,[2]syafii@uinsa.ac.id

Informasi Artikel

Riwayat artikel:

Received 07-10-2024
Accepted 09-11-2024
Published 08-12-2024

Kata kunci:

Plotagon,
Arabic language learning,
IT-based learning media,

ABSTRAK (12 PT)

This research aims to explore the use of Plotagon Story application as an information technology-based teaching tool to improve Arabic listening and speaking skills. The background of this research focuses on the importance of interactive learning tools to support student engagement, especially in the context of learning Arabic at MAN 1 Lamongan. The research uses a mixed method with quantitative and qualitative descriptive experimental design. The research sample consisted of (35) tenth grade students who were selected purposively. Data were collected through pre-test, post-test, observation, interviews, and documentation. The results of the research showed a significant increase in students' abilities in listening and speaking skills after using the Plotagon Story application, with the average post-test score of 84.17 compared to 61.37 in the pre-test. The N-Gain test showed an average gain of 0.61, indicating the effectiveness of the application in the "moderately effective" category. Using this application motivates students through interesting and interactive animated video media. However, there are several drawbacks, such as limited features in the free version and the need for high device specifications. In conclusion, Plotagon Story has proven its effectiveness as a means of learning Arabic, although several aspects need to be improved for further improvement. This research provides recommendations for further integration of similar applications in language learning with better technological support.

Penulis Korespondensi:

Nur Aqilah Lutfiyah Rahma Opier
UIN Sunan Ampel Surabaya
Email: opierqilah29@gmail.com

1. INTRODUCTION

Arabic language learning can be understood as an interaction that occurs between students and the environment that uses Arabic. The success of this learning is measured by the extent to which students are able to master Arabic language skills in accordance with the learning objectives.[1] As with any language learning, there are several important components that are interrelated and affect the success of Arabic learning, including learning objectives, materials, methods, learning resources, learning media, interaction between teachers and students, and evaluation of learning outcomes.

To achieve the goal of effective Arabic teaching, resources are needed that support the success of the learning process. Learning media has a very important role in supporting this process, especially since it can involve the senses of hearing and sight, which accelerates students' understanding.[2] Along with the development of information technology, learning Arabic has also undergone significant transformation. Information technology (IT) has changed the way we learn and teach, replacing traditional media that tend to be monotonous with more innovative and interactive approaches.[3]

One of the learning media that can motivate students' learning independence is video media. Video has many advantages, including its ability to display abstract concepts, speed up or slow down movement, and visualize clearer details.[4] Animated videos, in particular, are very effective in improving the quality of the learning process, as they can explain situations and concepts more dynamically than static images.[5]

The Plotagon Story app is an example of an app that leverages animated video technology. The app allows for the creation of dynamic and engaging animated videos, so it can be used to deliver learning content in a more engaging. Plotagon has been shown to be effective in improving language learning, particularly in Arabic listening and speaking skills.[6] This app is perfect for implementation in conversation materials, as it helps students develop listening and speaking skills.[7] The app can be downloaded for free on https://www.plotagon.com/.

In the context of learning at MAN 1 Lamongan, several problems were found in grade X students, especially related to listening and speaking Arabic skills. Many students have difficulty listening to vocabulary or makhraj Arabic letters because they are not used to hearing the language. The use of the Plotagon application as a learning tool is expected to provide a more interactive and enjoyable learning experience, as well as increase students' understanding of learning materials through attractive animated visualizations.

Based on the results of the literature review, several previous studies have examined the use of the Plotagon application in Arabic language learning, such as the research of Tohir et al,[2] entitled "Prelude of the Plotagon Story Application for Speaking Skills in Arabic Learning in accordance with KMA 183 of 2019", Amrina[5] with the title "The Utilization of the Plotagon Application as an Arabic Learning Media for Class X MAN", as well as Jamil and Agung's research entitled "The Effect of the Use of Animated Videos Assisted by the Plotagon Application on the Learning Outcomes of Class V Students of MI Nurul Islam Pontianak".[8] However, the context, location, and sample in this study are different from previous studies, so this study has its own relevance and contribution.

The purpose of this study is to explore the optimization of the use of the Plotagon application as an IT-based Arabic learning medium. This research will also examine the effectiveness of this application in improving students' Arabic language skills and evaluate the advantages and disadvantages of its implementation. By understanding the potential and limitations of this application, it is hoped that it can provide recommendations for further development in the context of education.

2. METHOD

This study uses a mixed methods approach, which is a combination of qualitative and quantitative methods in one study to obtain more comprehensive and in-depth data.[9]

This research combines descriptive qualitative methods and quantitative experiments. A descriptive qualitative approach is used to describe the use of the Plotagon Story application in Arabic language learning, as well as to understand more deeply how this application affects student engagement and understanding in the learning process. Qualitative data was obtained through observation, interviews, and documentation.

Meanwhile, an experimental quantitative approach with *pre-test* and *post-test designs* was applied to measure the effectiveness of the Plotagon Story application in improving Arabic listening and speaking skills. This experiment was carried out by comparing the test results before and after the use of the application in the group of students who were the research sample.

The population of this study is all class X students at Madrasah Aliyah Negeri (MAN) 1 Lamongan who are studying Arabic language skills. The research sample was selected using *purposive sampling* techniques, focusing on one experimental class, namely the XG class, which consisted of 35 students. The selection of this class was based on the results of initial observations that showed that the students in the class had difficulties in listening and speaking Arabic.

The research instrument used to collect quantitative data is a learning outcome test, which is compiled based on the Arabic language learning materials that have been determined. The test is delivered using the Quizizz application so that it includes maharah istima' and kalam. This test is used to measure students' abilities before and after learning interventions using the Plotagon Story application. The test consists of two stages, namely:

- Pre-test: It is carried out before students use the Plotagon Story application.
- Post-test: It is carried out after students use the Plotagon Story application.

For qualitative data collection, participatory observation techniques, semi-structured interviews, and documentation were used. Observations are carried out during the learning process to understand students' interaction with learning media. Interviews were conducted with several students to explore their experiences and opinions about using the Plotagon Story app. Documentation is used to record and document each stage of learning.

Quantitative analysis was carried out using *the paired-samples t-test* to find out if there was a significant difference between *the pre-test* and *post-test* results after the use of the Plotagon Story application. This analysis was carried out using *the Microsoft Excel* application. The design of this research is described as follows:

Table 01. Research Design

01	X	02

Information:
01 = *pre-test*
X = treatmen atau perlakuan
02 = *post-test*

In addition, the N-Gain test is also carried out to measure the improvement of students' abilities. The criteria for obtaining N-Gain are as follows:

Table 02 : N-Gain Acquisition Criteria

NILAI N-GAIN	CATEGORY
g > 0,7	Tall
0,35 ≤ g ≤ 50,7	Keep
g < 0,3	Low

Table 03: Categories of effectiveness interpretation

PERCENTAGE (%)	INTERPRETATION
< 40	Ineffective
40-55	Less Effective
56-75	Quite Effective
>76	Effective

Meanwhile, qualitative analysis (Data from observations, documentation and interviews will be analyzed using thematic analysis to identify the main themes that arise related to the use of the application).

3. RESULTS AND DISCUSSION

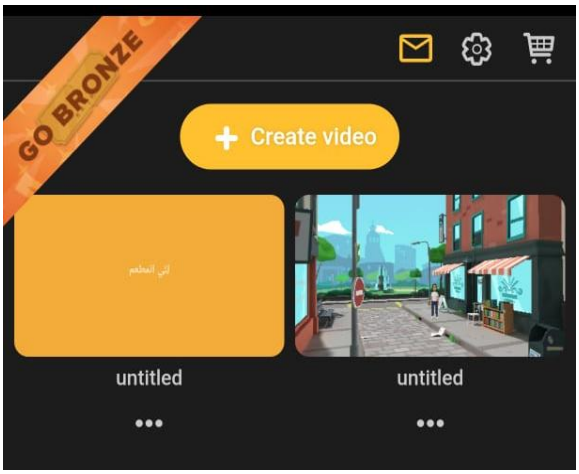
3.1. Step-by-step of creating media using the Plotagon Story application

1) The download of the application is done through the Google Play Store or the official Plotagon website on https://www.plotagon.com. Apps can be installed on HP devices or computers

Picture 01.

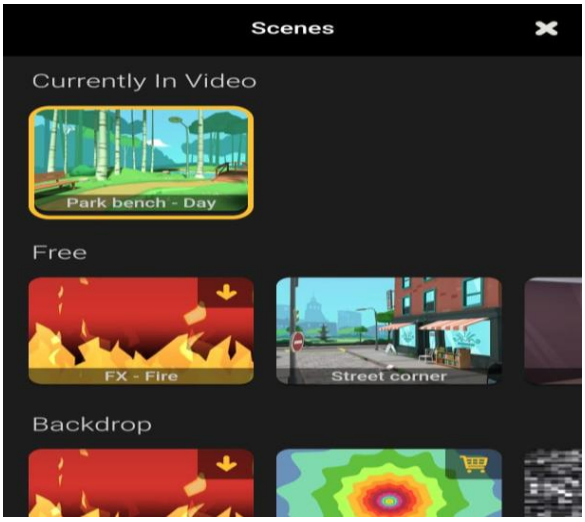
2) Once the application is downloaded, users must register (*sign up*) and create an account, or log in directly if they already have an account.
3) Before creating animations, it's important to plan the content carefully. The user must set the learning objectives and the main concepts to be conveyed. A clear and structured script is created to guide the animated storyline
4) Click Creat Video to create a video.

Picture 02.



5) Choose a background that fits the theme or learning context.

Picture 03.



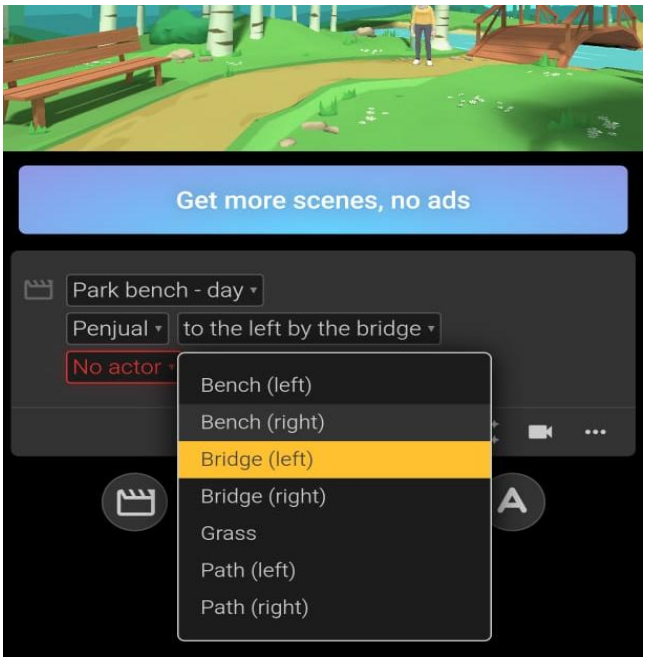
6) Users can add actors to the animated video.

Picture 04.

7) The Plotagon Story app provides a wide selection of characters with customization options such as hairstyles, outfits, and accessories. Users can choose characters that fit the learning context or can create their own actors as desired.

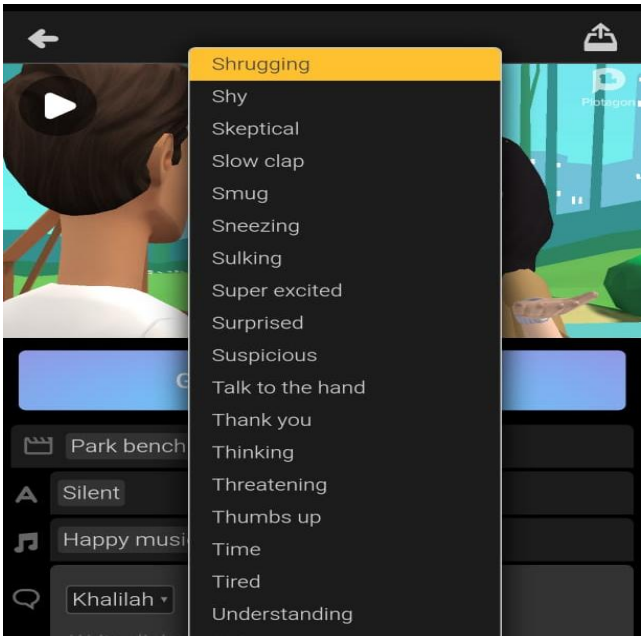
8) The positioning and movement of actors in animation is carried out according to the planned scenario.

Gambar 05.



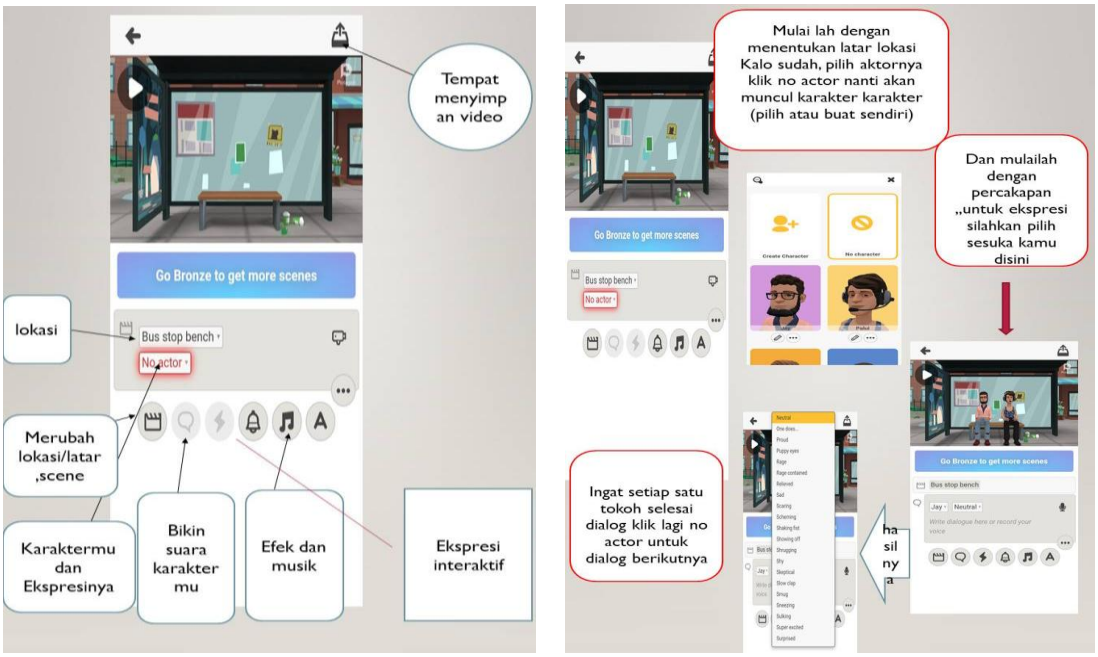
9) Users can click on the checkbox after the character to specify the desired facial expression according to the storyline.

Gambar 06.



10) Below is an explanation of the use and functions of its features

Gambar 07.



These steps provide flexibility for users to create interactive and engaging animated videos, which can make it easier for students to understand the learning material.

3.2. The Effectiveness of the Plotagon Story Application in Improving Students' Language Skills

Analysis of *pre-test* and *post-test* results showed a significant improvement in Arabic listening and speaking skills after the use of the Plotagon Story application. The descriptive data obtained are summarized as follows:

Tabel 04. Uji N-Gaim

Pre-Test		*Post-Test*	
Mean	61,371	Mean	84,171
Standard Error	1,858	Standard Error	1,649
Median	65	Median	85
Mode	70	Mode	93
Standard Deviation	10,992	Standard Deviation	9,754
Sample Variance	120,829	Sample Variance	95,146
Kurtosis	0,210	Kurtosis	-0,439
Skewness	-0,808	Skewness	-0,374
Range	48	Range	40
Minimum	30	Minimum	60
Maximum	78	Maximum	100
Sum	2148	Sum	2946

Count	35	Count	35

From the table above, it can be seen that the average *post-test* score increased to 84.171, compared to the average *pre-test* score of 61.371. This improvement shows that the intervention in using the Plotagon application has a positive impact on students' abilities. In addition, the decrease in the standard deviation value from 10.992 in *the pre-test* to 9.754 in *the post-test* indicates that *the post-test* results are more uniform and centered around the mean value.

The N-Gain test conducted on *the results of the pre-test* and *post-test* showed a significant improvement in the language skills of the students. The following table shows the results of the N-Gain test:

No Resp	*Post-Test*	*Pre-Test*	*PostT-PreT*	*Skor Ideal*	*N-Gain*	*N-Gain Skor*
1	93	70	23	30	0,77	76,67
2	95	65	30	35	0,86	85,71
3	93	60	33	40	0,83	82,5
4	100	78	22	22	1	100
5	93	70	23	30	0,77	76,67
6	85	50	35	50	0,7	70
7	90	70	20	30	0,67	66,67
8	78	50	28	50	0,56	56
9	78	50	28	50	0,56	56
10	85	60	25	40	0,63	62,5
11	76	50	26	50	0,52	52
12	70	50	20	50	0,4	40
13	91	70	21	30	0,7	70
14	80	60	20	40	0,5	50
15	95	70	25	30	0,83	83,33
16	80	70	10	30	0,33	33,33
17	78	65	13	35	0,37	37,14
18	60	45	15	55	0,27	27,27
19	70	50	20	50	0,4	40
20	70	30	40	70	0,57	57,14
21	95	70	25	30	0,83	83,33
22	80	65	15	35	0,43	42,86
23	83	65	18	35	0,51	51,43
24	91	70	21	30	0,7	70
25	82	65	17	35	0,49	48,57
26	78	50	28	50	0,56	56
27	70	45	25	55	0,45	45,45
28	80	50	30	50	0,6	60
29	100	70	30	30	1	100
30	95	70	25	30	0,83	83,33

31	93	75	18	25	0,72	72
32	87	75	12	25	0,48	48
33	75	65	10	35	0,29	28,57
34	91	70	21	30	0,7	70
35	86	60	26	40	0,65	65,00
Mean	84,17	61,37	22,80	38,63	0,61	61,36

The average N-Gain score of all study participants was 0.61, which indicates that there was a significant improvement in students' abilities after using the Plotagon Story application. Based on the N-Gain effectiveness criteria, the average value of 0.61 is included in the "Quite Effective" category because it is above 56%.

The average N-Gain score of all study participants was 0.61, which indicates that there was a significant improvement in students' abilities after using the Plotagon Story application. Based on the N-Gain effectiveness criteria, the average value of 0.61 is included in the "Quite Effective" category because it is above 56%.

This improvement shows that the Plotagon Story application plays a fairly effective role in improving Arabic listening and speaking skills in XG grade students at MAN 1 Lamongan. The use of animated video media with interesting and interactive visualizations has succeeded in increasing students' learning motivation and making it easier for them to understand the material being taught.

3.3. Advantages and Disadvantages in the Implementation of the Plotagon Story Application

1) Excess
   - Plotagon Story offers a wide selection of characters and a variety of backgrounds, making it easier for users to adapt the animation to the context or learning material they want to convey.
   - The app is designed to be easy to use, even by users who don't have a technical background. Intuitive interface makes it easy to create animated videos quickly and efficiently.
   - Plotagon Story has a sound feature that allows users to add dialogue and sound effects, which makes animated videos more interactive and vivid.
   - The app can be downloaded and used without an internet connection, allowing users to edit animated videos at any time.

Thus, users should always check the features, fees, and privacy policy of Plotagon before using it and users can also look for other supporting applications that suit their needs and available budgets.

2) Deficiency
   - The features and characters available on the free version are very limited. To access more features, users need to use the paid version, which may not be affordable for small individuals or organizations.
   - Plotagon Story doesn't provide good collaboration options, making it difficult for teams to work together on animated video creation.
   - Although Plotagon story offers diverse 3D characters and environments, it doesn't have advanced animation features like some other online services. This may be a problem for users who want to create more complex and engaging animated videos.

- Plotagon Story does not provide a feature for text-to-voice automation in Arabic, so users have to record their voices manually.

The results of this study show that the use of the Plotagon Story application is quite effective in improving Arabic language skills, especially in listening and speaking skills. A significant increase in scores on the post-test compared to the pre-test shows that the integration of animated video media into the learning process can increase student engagement and facilitate their understanding of Arabic language material.

In theory, the use of IT-based learning media, such as Plotagon Story, is in line with previous research showing that interactive media can improve students' learning motivation and learning outcomes.[3] Animation video media can visualize abstract concepts in a more engaging way and make it easier for students to understand meaning, especially in listening and speaking foreign language skills[5], Mahmound et al[10] emphasize that gamification and video animation can increase students' motivation to learn in foreign languages, including Arabic, which is in line with the use of the Plotagon application in this study.

However, limitations in the app's features, especially in the free version and technical specification issues, are challenges that need to be considered in the use of this app in a school/madrasah environment. With technological improvements and further support, the app has the potential to be optimized as a more effective learning tool.

4. KESIMPULAN

This study shows that the use of the Plotagon Story application as an IT-based learning medium has a significant positive impact on improving Arabic listening and speaking skills in grade X students at MAN 1 Lamongan. The results of *the pre-test* and *post-test* tests showed an increase in the average student score from 61,371 to 84,171, with an average N-Gain score of 0.61, which shows the effectiveness of this application in the category of quite effective.

The use of the Plotagon Story app allows students to learn interactively through engaging animation media, which in turn increases their motivation to learn and their involvement in the learning process. The app's easy-to-use characteristics, the variety of characters and settings available, and interactive voice features provide flexibility in delivering Arabic material visually and audibly.

However, the study also found some limitations in the use of the app, including the limited features of the free version, the need for high computer specifications, and the lack of voice automation support in Arabic. Nonetheless, this application has great potential to be optimized as an innovative learning medium in the digital era.

With the results obtained, it is recommended that the Plotagon Story application continue to be integrated in language learning, with improved features that support the needs of teaching Arabic more effectively. Further research can be conducted to explore these applications in a variety of other learning contexts and overcome existing limitations.

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