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Google Sites as Learning Media in the Material Development of Advanced Reading Comprehension

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ABSTRACT

This paper aims to determine the process, the effectiveness and feasibility of the advanced reading comprehension learning material based on Google Sites to improve student's ability to understand the text. In accordance with the results of the needs analysis, students need a new material. So, it is developed according to their needs. In addition, Google Sites is accessible online and can be run on a computer, laptop or tablet. This development uses the approach of ADDIE (analysis, design, development, implementation and evaluation). The result of the evaluation shows that: the validation of the material and media has the average score of 93%, in addition, the average score of students in the pre-test is 55 and post-test is 78. This means that there is a significant increase in students' skills and it is worth using. This is proven by the normality test which shows that the data is normally distributed. The pre-test data has the value of Sig. 0.686 and the post-test data have the sig value. 0.054, according to the basis of decision-making in Shapiro wilk normality test, if the value is sig. > 0.05, it is mentioned that there is a difference between before and after using learning media. Therefore, advanced reading comprehension learning material using Google Sites meets the aspects of feasibility and efficiency and this site can improve the skills of students in Advanced Reading Comprehension course.

Keywords: Media, google sites, advanced reading comprehension

INTRODUCTION

In French teaching at pre-pandemic, teachers or lecturers have long used both audio and visual, such as: blackboards, books, radios, loudspeakers, speakers, pictures, etc. But, in reality, each medium certainly has advantages and disadvantages, for example radio, this medium can focus attention and maintain concentration, but the nature of communication is only one direction. The other medium is power point, this medium has many advantages, for example, it has a variety of interesting presentation techniques, it presents the different combinations of clipart, images, colors, animations and sounds to make it more interesting, but it also has flaws, it must take a lot of time because it has a long design process, that means you must have enough capacity to run this program, so that the presentation process is not too many obstacles. Because of all this, students are increasingly losing their enthusiasm for learning French. In addition, the textbooks used are always the same from year to year. That's why, advanced reading comprehension learning material using Google Sites is very interesting to create during this pandemic, because we don't know when it will end.

Based on this explanation above, it can be concluded that each learning medium definitely has advantages and disadvantages. This is why, in the era of globalization, especially this pandemic, we must take advantage of the time to develop the learning media so that learning becomes effective in teaching, especially on e-learning. E-learning is the new multimedia and Internet technology to improve the

quality of learning. It is the use of network technology to design, provide, select, administer and extend the learning.[1] It means that E-learning is the use of new media and network technologies to design, select, administer and extend learning, thus improving its quality.

One of the most interesting websites is the Google sites. Google Sites was established in March 2008. It is a platform that makes it easier for users to create a website display quickly, easily and simply. Google sites is easy to use, especially to support learning by maximizing features such as google docs, sheet, forms, calendar, awesome table, etc. Often users stop in the creation or maintenance of a site due to the complexity of its creation and maintenance. Google is trying to meet this need by launching The Google Sites. It does not require a complex high-level programming language. The advantages of this site are: it's free, it's easy to do, it provides 100MB of free online storage, it's integrated with other Google devices like Google form, YouTube, Wikipedia, etc. The site is securely stored on Google servers. In addition, it includes features such as: time zone, calculator, translation, weather forecast, and public data. The last, of course, is easy to find in the google search engine. There are still other cool things that can be crafted from this tool.

According to the results of the needs of the questionnaire which were given to the French students at State University of Medan via the Google Form, we see that so far, learning French is sometimes ineffective because the duration is too short so there is not enough time to explain the material. In addition, some students, they still often use conventional methods to learn French. On the other hand, the most frequently used methods are the discussion method. We choose to develop advanced reading comprehension learning material using Google Sites because students are very close to laptops, especially in the era of a pandemic. They always use it wherever they are, at home or in the restaurant. This media will facilitate students to learn French seriously because they can open it not only in campus but also anywhere. In addition, using this tool will be more interesting and easier than carrying a dictionary or a book.

This operation is very important because students feel that the advanced reading comprehension course is considered difficult. This was proven by the questionnaire given to the students of the fourth semester. About 85.5% of students said that this course is difficult to understand. Alongside this, in the quiz results, one can find out that they are interested in using the Google Sites learning medium. It is believed that this media can be a good source for them to learn French more easily and they can open it anytime. We want to do a development of advanced reading comprehension learning material using Google Sites and it will be done for students in the fourth semester.

LITERATURE REVIEW

One of the important components in learning is learning materials. Good and bad materials will greatly affect the achievement of learning objectives. Therefore, the development of learning materials is needed to increase learning activities and teacher motivation in carrying out learning in the classroom[2] . Besides that, media is a plural form of media understanding which is a means of communication between a source of information and a receiver[3] . Meanwhile, media learning is a component of delivery strategies that can be loaded with messages to students, media can be in the form of tools, people or materials[4]. It means that learning media is a means used to convey information or learning materials to students.

Google Sites is a product of Google as a tool for creating websites[5]. Users can benefit from Google Sites because it is easy to create and manage by ordinary users. Often users stop halfway through creating or maintaining a site due to the complexity of creating and maintaining it. Google is trying to meet this need by launching Google Sites.

It does not require a complex high-level programming language. It is an interesting tool to learn. First of all, it's free. Second, it's easy to do. Third, it allows users to collaborate on their use. Fourth, it provides 100MB of free online storage. Fifth, of course searchable, which means it can be searched using the Google search engine.
There are still several other cool things that can be crafted from this tool. When logged into our personal Google account, we can go to sites.google.com and get started right away. No risk, no upsells, no expiration dates or limits. It's totally free. In addition, it is ideal for beginners who want to create a website for the first time. Google Sites is easy to use. One can quickly and easily create a functional multi-page website. In addition, Google takes care of security issues. It's integrated with Google Applications This means that Google Sites functions such as maps, YouTube, Google form, Wikipedia, calendars and documents can be integrated into users' websites. Users can work on a single website at the same time without having to worry about interrupting the work of others. It's the best real-time collaboration. Plus, the creator can access the tools anywhere. This means users can use it anywhere as it can be opened with laptops. It is very useful to develop this learning medium, especially in the advanced reading comprehension course. This research is very important in learning French because it adds a lot of new knowledge.

MATERIALS & METHODS

This research model refers to the Robert Maribe Branch model or the ADDIE mode[6] and there are five main stages in the Branch model: analysis, design, development, implementation and evaluation. This research has done at the department of French at Universitas Negeri Medan. This research is done in the class of Reguler C fourth semester of with the total number is 11 students. Then, the object of this study is the media expert and the material expert; this means that they will validate the learning material developed. We apply the plan of a group of pre-test - post-test (one group pretest-postest design)[7].

$$O_1 \quad X \quad O_2$$

Explication:
O1 = Pre-test
X = Traitement
O2 = Post-test

The data analysis technique used is a quantitative analysis technique. The data obtained is data on the validation of advanced reading comprehension learning material using Google Sites in the French section. This data was collected through materiel expert validation and media expert validation. The questionnaire is given to the validator, which is in the form of a Likert scale to which a score is assigned as indicated in the following table:

Table 1. Criteria for Validating Responses with a Likert Scale

Categories	Score
Very Good	5
Good	4
Quite Good	3
Bad	2
Very Bad	1

The data was analyzed using descriptive statistics (average score and percentage), which consists of calculating the percentage of the advanced reading comprehension learning material based Google Sites usage indicators for each category:

$$X = \frac{number\ of\ score\ obtained}{ideal\ score\ number} \times 100\%$$

Calculating the research data using the formula above will produce figures as a percentage (%). The score classification is then converted into a percentage classification[8] and then interpreted with the qualitative phrases listed in the following table.

Table 2. Percentage criterion of learning material indicators

Categories	Interval
Very Good	81% ≤ skor ≥ 100%
Good	61% ≤ skor ≥ 80%
Quite Good	41% ≤ skor ≥ 60%
Bad	21% ≤ skor ≥ 40%
Very Bad	0% ≤ skor ≥ 20%

We calculate the average score of the students' test and measure the significance of tests. To calculate the average score of the pre-test and post-test, we use the formula:

$$X = \frac{\sum x}{N}$$

Explication:
X= average pre-test/post-test score
∑x= total pre-test/post-test score
N= number of samples

The normality test used the Kolmogorov-Smirnov (K-S) via the SPSS 20 program. As the basis of decision-making in the Shapiro wilk normality test:

a. If the value of p value or sig < 0.05 therefore the data is not considered as normally distributed

b. If the value of p value or sig > 0.5 then the data is considered normally distributed

After the normality test is already done, then the data is processed to calculate the significance of the students' competence with the following conditions:

a. If the data is normally distributed, the T-Test will be used

b. If the data is not normally distributed, the Wilcoxon Test will be used

RESULT AND DISCUSSION

A. Material Development Process

This chapter presents the result of the research obtained in relation to the process of Development of advanced reading comprehension learning material using Google Sites to students of the regular C of the fourth semester of the French section at Universitas Negeri Medan. All data results are described according to design from the ADDIE approach. [6]

1. Analysis

In this phase, the needs were identified and the learning organized according to the applicable curriculum. Then we collected information that can be used to plan creations and overcome existing problems. To achieve this, a needs analysis was conducted by distributing questionnaires to students of the fourth semester of the French section at the Universitas Negeri Medan via Google Form in order to obtain information that will be elaborated. The purpose of this needs analysis is to avoid weaknesses in relation to the price objectives to be achieved. We also conducted interviews with teachers from the French section. According to the results of the recorded interviews, we see that there are many obstacles in learning French. One of the big obstacles, lack of interest in learning French, is using the same media and learning methods year after year.

2. Design

At this stage, the material, the questions or the answers, the pre-test and the post-test have been determined. The material is organized according to the references of the Tendance A2 book to facilitate learning of the subject. We chose three lessons, that means: Miscellaneous, Staying in shape and Going out. Assessments are done on Google Form so that students can easily complete them. After that, we prepared feasibility test instruments. The instrument is made in the form of a questionnaire presented to media experts, materials experts and students.

3. Development

In this phase, we validate the design of this learning material to the experts: the media expert and the materials expert. The purpose of this validation is so that this media can be properly developed and used by students, in addition, the purpose is to determine its eligibility. This validation is done using the instrument in the form of the survey. After validation, the shortcomings and weaknesses of this medium were noted. They will be revised on the advice of experts before being tested in the classroom.

4. Implementation

At this point, a test of the advanced reading comprehension learning material based Google Sites is valid or feasible by student

experts is conducted. There are 11 students who participated in the class. The evaluation process was carried out from March 2 to March 16, 2022. It contains three sessions with the stages as follows: Pre-test, first treatment, second treatment and Post-test.

5. Evaluation

After the implementation or implementation stage is complete, the next step is to determine the feasibility of all aspects of the instructional medium. The first is to define the feasibility of the material, the second is the feasibility of the media, and the third is the feasibility of the student satisfaction questionnaire in the use of this product. The material and media expert validation result shows that this learning material based on Google Sites can be used during advanced reading comprehension course, which means that it is valid or indeed feasible. The material expert validation result was rated 94.25% (very good) and the media expert validation result was rated 93% (very good). In addition, the result of the evaluation of the student questionnaire showed that the developed material obtained the rating of 89% (very good), so it can be concluded that it's valid or well feasible.

B. Students' Skill Result

The result of the pre-test and post-test of the students of the regular C of the fourth semester of the French section at the University of Medan shows that that there is an increase in the competence of the students during the advanced reading comprehension course. This means that this medium is influential in improving the ability of students to understand the text because this result is measured on the basis of the student's pre-test and post-test evaluations. The pre-test is administered before students use the materials and media developed. After the students have used the materials and educational media developed in three meetings, the post-test is given to define the result of effectiveness.

The descriptive statistics of the pre-test and post-test of the students during the advanced reading comprehension is presented in Table 3:

Table 3. Descriptive Analysis of Students' Pre- and Post-Test Results

	N	Minimum	Maximum	Average Score	Standard deviation
Pre-Test	11	40	82	55	14.137

According to this table above, the minimum and maximum score of students on the pre-test is 40 and 82 with the average score is 55. And then, the minimum and maximum score of students in the post-test are 70 and 97 with the average score is 78. Therefore, it can be concluded that there is a progression of students' skills during the advanced reading comprehension course after using the Google Sites web. So, increasing students' comprehension skills after using this medium is successful.

The result of the advanced reading comprehension learning material effectiveness based on Google Sites is calculated using statistical tests to make the results valid, such as: the Normality test and the N-Gain test. The normality test can be used to determine whether students' pre- and post-test results are normally distributed. A normality test is first performed to determine whether the data set is statistically close to the normal distribution. To test the normality of the data, the Lilliefors test is used.

Table 4. Result of the Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Pre-Test	0.169	11	0.200	0.953	11	0.686
Post-Test	0.198	11	0.200	0.858	11	0.054
a. Lilliefors Significance Correction *This is a lower bound of the true significance						

Based on the result of the normality test of the SPSS (Statistical Package for the Social Science) software, one can discover the result of the Shapiro-Wilk normality test with the amount of data is <50. The pre-test data has the value of Sig. 0.686 and the post-test data has the value of sig. 0.054. Since the sig. value for both data > 0.05 then as the basis for decision-making in the Shapiro wilk normality test above, it can be

concluded that the data. The student's pre-test and post-test are normally distributed. Since the above data is distributed normally, T-test (independent sample test) can be performed, as the assumption of data normality was fulfilled by the Shapiro Wilk test.

Table 5. Paired sample statistic

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	55.45	11	14.138	4.263
	Posttest	78.45	11	7.435	2.242

Based on the output group statistic table above, it is known that the average value of the pre-test is 55.45 and that of the post-test is 78.45, so statistically descriptive, it can be concluded that there is a difference in the average learning outcomes of students before and after using the learning media based on Google Sites. In addition, to prove whether the difference is significant or not, the following matched sample test output must be interpreted:

Table 6. Interpretation of the Paired sample statistic

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre-test Post-test	-23.000	10.208	3.078	-29.858	-16.142	-7.473	10	<.001

Based on the above output, we know that the value Sig. is 0.001 < 0.05, it can be concluded that there is a progression in the mean value before and after the treatment, which means that there is an influence of the use of this advanced reading comprehension learning material using Google Sites. Based on the paired sample test output table, the value of t-count is -7.473. T-count is negative because the mean value of the pre-test is lower than that of the post-test. In this context, negative t-count can mean positive, so the number of t-count is 7.473.

So, since the t-count value is 7473 > t-table 2228, then as the basis for making the decision can be concluded that H0 is rejected and Ha accepted. This therefore means that there is an improvement in the average learning results seen from the results of the pre-test and the post-test, which means that there is an influence on the use of the advanced reading comprehension learning material using Google Sites in the improving students' reading comprehension skills during advanced reading comprehension.

C. Efficiency Result

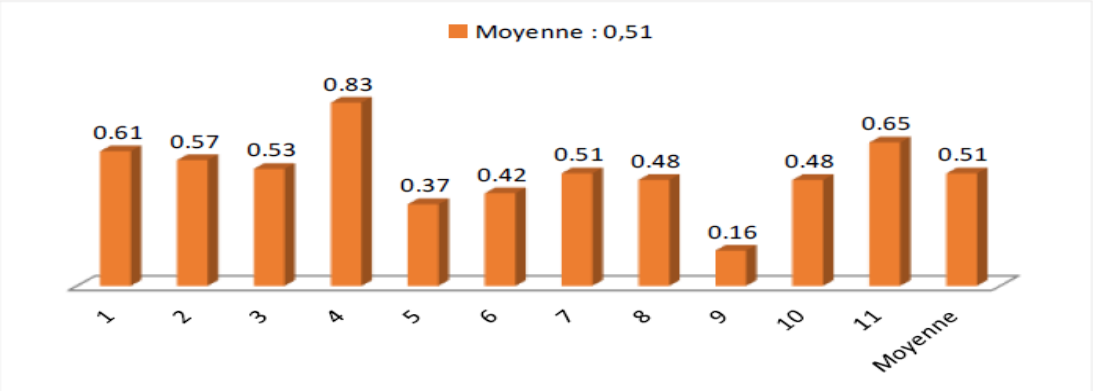

Figure 1. The N-Gain test result

From the result of the N-Gain Test, the average score of N-Gain (g) = 0.51. Based on the criteria of the gain index where (g) < 0.3 = low, 0.7 > (g) > 0.3 = medium, (g) ≥ 0.7 = high[9]. So, this indicates that the effectiveness of using the learning medium during advanced reading comprehension using Google Sites is in the middle category.

CONCLUSION

The development process of the advanced reading comprehension learning material using Google Sites is valid or feasible. Based on the result of the pre-test and post-test of the students, it presents that the average score of the students in the pre-test is 55 and post-test is 78. It expresses that there is a progression in the proficiency of the students before and after using the advanced reading comprehension learning material using Google Sites. This is consistent with the results of the normality test. The pre-test data has the value of Sig. 0.686 and the post-test data has the value of sig. 0.054.

Since the value sig. for both data is > 0.05 then as the basis for decision making in the Shapiro wilk normality test where if the value of sig. > 0.05 it is indicated that there is a difference between before and after using the learning medium. So, it can be concluded that the pre-test and post-test data of the student are normally distributed and this learning material increases the skills of the students. The result of the efficiency using the N-Gain Test shows that the average score of N-Gain (g) = 0.51 which means in the average category. This means that the effectiveness of the use of advanced reading comprehension learning material using Google Sites is effectively used during advanced reading comprehension.

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