Development Of Interactive Learning Media In Increasing Interest In Learning Back To School For Coastal Children In Pkbm Laskar Pelangi Percut Sei Tuan

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Abstract. This research is motivated by a lack of interest in learning for coastal children such as: lack of parental support, difficult economic conditions, access to PKBM, and of course the lack of facilities in learning such as the absence of enthusiastic learning media so that the learning process can be effective and fun. coastal areas in PKBM Laskar Pelangi Percut Sei Tuan by developing interactive learning based on technological developments in this digital era.The method used in this study is the development model proposed by Luther is carried out in 6 stages, namely: concept, design, collecting material, assembly, testing and distribution. The subjects in this study consisted of 50 coastal children who took part in the A, B, and C packages at PKBM Laskar Pelangi, Kec. Percut Sei Tuan, Kab. Deli Serdang.

The results of the research that have been carried out show that interactive learning media can increase interest in learning again about beach children at PKBM Laskar Pelangi Percut Sei Tuan, this is proven by the results of calculations through distributing questionnaires before (pretest) and before (posttest) learning activities are carried out, with the final results seen from the coefficient of determination showing the influence of interactive media development on the interest in relearning beach children in PKBM Laskar Pelangi by 78%.

Keywords: Interactive Learning, Interest in Learning

1. Introduction

Since March 2020, learning carried out in accordance with the regulations of the Ministry of Education and Culture in tackling the increase in COVID-19, it is mandatory for all educational institutions to carry out online teaching and learning activities. However, starting in 2022, the government has begun to set a new provision, namely the granting of full authority in determining limited face-to-face learning permits (PTM). This policy adjustment was taken according to the results of evaluations carried out with relevant ministries and institutions as well as input from regional heads, as well as various stakeholders in the education sector who stated that although distance learning had been implemented well, too long without face-to-face learning would have an impact. negative for students.

Of course, with changes in learning methods that have been carried out previously, students or learning residents tend to feel comfortable and accustomed to online learning so that the

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interest in learning of students or learning residents will decrease with habits that have not been carried out for a long time. However, in order to improve the quality of education for the better the role of the government and various formal and non-formal education institutions must also contribute to supporting the provisions that have been set. This is where the role of educators is to be able to provide motivation in increasing student interest in learning or learning citizens to be able to follow conventional learning again.

Education and community development cannot be separated from each other because the progress of a society and a nation is largely determined by the development of the education sector in the preparation of human resources in accordance with the times. Education is also a very crucial thing because it is able to shape the character of individuals and even a nation that has dignity and worth as well as the desire to continue the process of developing self-potential. However, we often see that the level of education in coastal areas is relatively low, of course this is a problem in the world of education in improving the quality of better human resources.

The low quality of human resources is a common characteristic of coastal communities in various regions in Indonesia. Economic difficulties do not provide opportunities for coastal children to participate actively in education. Many children are required to have to work to help their parents to meet their daily needs. The problem faced by coastal communities today is that most people who do not attend school become indifferent to the future of their children. Then another problem that is also faced is that at school age a child is forced to help his parents work as fishermen. A child whose education was disrupted due to having to divide his time for school and looking for money made his school neglected and even stopped going to school. There is no parental initiative on how to balance their children's education with the responsibility of a child to help their parents. This is motivated by the lack of understanding of parents to be responsible for the future of their children.

Based on the results of field observations, it can be seen that many children are less interested and enthusiastic in starting school again. They tend to carry out daily activities such as school-age children playing on the shores of the Percut sea. Some children are fishing, some are preparing fishing nets to take to sea and some are washing boats when children their age should be at school to learn lessons. They have to accept this fact because the children actually have to help their parents because the family's economy is minimal so that time for learning and playing is taken up and causes a loss of interest in learning again because of fatigue.

Seeing these problems, of course, the educational institutions must participate in welcoming coastal children's learning interest back to school as capital for them to enter the world of work. One alternative that can be done is the development of interactive learning media to increase interest in relearning coastal children. With the existence of interesting learning media, it will make coastal children more enthusiastic and motivated to study diligently so that their free time in addition to helping their parents can be used to learn and increase their skills later to enter the world of work.

In a teaching and learning process there are two interrelated elements, namely learning methods and learning media. Learning media that is created more interesting will certainly help students increase interest in learning, especially for coastal children who we know really need support in increasing interest in learning.

Therefore, the author will develop an interactive learning media that contains material, video tutorials, and quizzes. This media helps explain the material, besides that there are steps for making animations, which make it easier for children to practice, because they can repeat the steps again. This media is also equipped with quizzes that can measure student understanding, increase student interest in learning so it is not boring. Besides, this media can be a learning tool for educators.

2. Research Methods

2.1 Research Design

The method used in this study is Research and Development (R&D) with a 4-D model (Four-D Models). According to Ariesto in Cahayawati's thesis (2015), the development model proposed by Luther is carried out in 6 stages, namely: concept, design, collecting material, assembly, testing and distribution.

1. *The concept* stage is the stage to determine the goals and who are the users of interactive learning media. The purpose of developing this interactive media is to increase interest and motivation in learning for coastal children to return to school after online learning that has been implemented for a long time due to the pandemic.
2. *The design* stage is the stage for designing interactive learning media such as what is best applied to coastal children such as posters, animated pictures, educational videos and others that are designed as attractive as possible.
3. *Material Collecting* is the stage where the collection of materials that meet the needs is carried out. This stage can be done by looking for materials that can be recycled directly or from internet sources that are designed to be unique and attractive
4. *The assembly* stage is the stage where all multimedia objects or materials are created. The team created interactive media according to the design and learning needs of coastal children.
5. *Done after completing* the assembly stage by trying and correcting interactive learning media and seeing whether it is appropriate or not. So, testing will be carried out.
6. *This stage* has started to use learning media as well as possible.

The selection of this development model was based on the consideration that this model was developed systematically. This model is structured programmatically with a systematic sequence of activities in an effort to solve learning problems related to the development of learning media products that are in accordance with the needs and characteristics of children.

2.2 Data Collection Technique

A. Questionnaire (Questionnaire)

Questionnaire is a data collection technique that is done by giving a set of questions or written statements to respondents to answer. Questionnaires are an efficient data collection technique if the researcher knows for sure the variables to be measured and knows what to expect from the respondents. In addition, the questionnaire is also suitable for use when the number of respondents is quite large and spread over a wide area. Questionnaires can be in the form of statements / statements directly or sent via the internet (google form). As for the aspects that are measured or assessed on a questionnaire that has been made based on the level of interest in learning, including feelings of pleasure, student involvement, interest and attention of students.

B. FGD (Focus Group Discussion)

FGDs were conducted with focused discussions involving researchers and related partners with the aim of exploring specific problems related to the topics to be discussed in order to avoid misunderstanding the researcher's interpretation of the problems caused by the subjectivity of the researchers. Focus group discussion (FGD) time ranges from 60-90 minutes so that participants do not get bored or tired so that the data obtained is not too shallow.

2.3 Data Collection Technique

A. Simple Linear Regression
The linear test was conducted to determine whether there was an effect of the independent variable (x) and the dependent variable (y) which was linear. The linearity test is carried out through the following equation: Y A = a + bx

$$a = \frac{(\sum Y)(\sum X^2) - (\sum X)(\sum XY)}{n(\sum X^2) - (\sum X^2)}$$

$$b = \frac{n(\sum XY)(\sum X) - (\sum Y)}{n(\sum X^2) - (\sum X)^2}$$

B. *Hypothesis Test*
To determine whether the formulated hypothesis can be accepted or not, the "t" test with the formula Sugiyono (2014: 250):

t count = $\frac{r\sqrt{N-2}}{\sqrt{(1-r^2)}}$

Information :
t = the calculated price and shows the value of the standard deviation of the t distribution (t table)
r = correlation coefficient
N = number of respondents

Furthermore, the calculated t value is compared with the t table value. With an error of 5% and degrees of freedom (dk) = n-2, then:
Ho : accepted if, t count < t table
Ha : accepted if, t count > t ta

3. Result and Discussion

1. Socialization of the Development of Interactive Learning Media in Increasing Interest in Learning Back in School for Coastal Children at Pkbm Laskar Pelangi Percut Sei Tuan
At this stage, the activities carried out are the provision of basic knowledge, this is done to provide a clear picture of the material to be delivered in the activities that will continue later. As for the process in this activity, the researcher explains how concepts in learning can increase interest in returning to school by using interactive learning media, how to arrange and design interactive and interesting learning media, and how to behave in teaching and learning activities so that all the material taught can be understood well, the goal is for coastal children to be more motivated in increasing their interest in learning and in the end will be eager to return to learning at school as in general with various learning media that can attract and increase the interest of coastal children beach.

Fig. 1 Socialization Activities Before Activities Are Implemented

2. *Designing learning media in accordance with the material that has been specifically determined for coastal children according to their school age range*

In this second stage, researchers designed learning media according to the material needed by coastal children based on their formal education level. The media are designed such as:

a Making posters with interesting pictures according to the material prepared. Poster is a visual combination of a strong design, with color, and a message with the intention of capturing the attention of passers-by but long enough to instill the attention of passers-by but long enough to instill meaningful ideas in their memory

b Making interactive learning videos. Interactive video is a medium in which it combines various texts, images, sounds, motion or animations that are interactive in connecting the learning media in their use (Octaviani, 2017).

Fig. 2 Coastal Children's Learning Media

3. *Carry out direct learning activities for coastal children with learning media that have been made*

In this third stage, activities are carried out with practice for learning activities using learning media that have been previously designed in accordance with materials specially prepared for coastal children based on their school age range. The activities at this stage were held several times, namely: Diversity of Regional Languages, Knowing the Weather, Traditional Traditional Foods, Traditional Houses of North Sumatra, Knowing Provinces and Capitals in Indonesia.

Fig. 3. practical learning activities with interactive media

4. *Conduct an evaluation of the results of the activities that have been carried out*

The results of the evaluation of learning media development activities at PKBM Laskar Pelangi showed an increase in the learning interest of coastal children returning to school who

participated in these activities, this can be seen based on the results of distributing questionnaires to coastal children before and after learning activities. carried out using the basic assumption test to determine the effect of developing interactive media on increasing interest in learning to return to school for coastal children at PKBM Laskar Pelangi, which are as follows:

1) Normality Test

Table 1. Normality Test of Learning Interest Data

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Pretest		Statistic	Df	Sig.	Statistic	df	Sig.
Postest	post_kelompok	.176	15	.200*	.913	15	.140
	pre_kelompok	.141	15	.200*	.930	15	.246

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

In the table of results of the Shapiro Wilk normality test, it can be seen that the value of sig. Pre test is 0.140> 0.05 and the value of sig. Post test is 0.246 > 0.05. That is, the results of the normality test in this study are the samples in this study are normally distributed.

2) Homogenity Tes

Table 2. Homogenity Test of Learning Interest Data

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Postest	Based on Mean	3.654	1	28	.069
	Based on Median	3.530	1	28	.071
	Based on Median and with adjusted df	3.530	1	25.551	.072
	Based on trimmed mean	3.663	1	28	.066

Based on the one way ANOVA homogeneity test output data, it is known that the value of sig. = 0.069. The results of this calculation indicate that the value of sig.> 0.05 or 0.066> 0.05 so that it can be concluded that the results of filling out the questionnaire on the learning interest

of coastal children after learning using interactive media during the pre-test and post-test have the same variance.

3) Hypothesis testing

Table 3. Test Sample T-Test Paired Samples Test

Paired Samples Test

	Paired Differences					T	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
PRETES – POSTTES	-24,26667	3,82598	,98800	-26,38610	-22,14802	-24,565	14	,000

Based on the "Paired Sample Test" Output Table above, it is known that the value of Sig. (2 tailed) is 0.000 < 0.05, so this shows that there is an average difference between subjects of community service.

4) linear regression test

Table 4. Learning Interest Data Linear Regression Test

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1308.167	1	1308.167	186.380	.000[a]
	Residual	92.233	13	7.095		
	Total	1400.400	14			

a. Predictors: (Constant), Pre Test

b. Dependent Variable: Post Test

Based on the calculation data, the calculated F value = 0.186 with a significant level of 0.000 <0.05, the regression model can be used to state that there is an effect of developing interactive media on increasing interest in learning to return to school for coastal children at PKBM Laskar Pelangi.

Table 5. Coefficient of Determination of Learning Interest Data

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.853[a]	.788	.929	2.664

a. Predictors: (Constant), Pre Test

Based on the calculation data, the correlation or relationship value (R) is 0.853. From the output, the coefficient of determination (R square) is 0.788 which implies that the effect of developing interactive media on increasing interest in learning to return to school for coastal children at PKBM Laskar Pelangi is 78%.

So it can be concluded with the development of interactive learning media in PKBM Laskar Pelangi Kec. Percut Sei Tuan, Kab. Deli Serdang can increase the level of interest in learning to go back to school as seen from the comparison results in increasing the pretest (before learning activities using interactive media) and posttest (after learning activities using interactive media).

4. Conclusion

This research activity is the development of interactive media to increase interest in learning to return to school for coastal children at PKBM Laskar Pelangi Kec. Percut Sei Tuan with research subjects as many as 15 coastal children to carry out back-to-school activities that have been carried out online for several years. Of course, with changes in learning methods that have been carried out previously, students or learning residents tend to feel comfortable and accustomed to online learning so that students' or learning community's interest in learning will decrease with habits that have not been repeated for a long time. lack of interest in learning for coastal children such as: lack of parental support, difficult economic conditions, access to PKBM, and of course the lack of facilities in teaching such as the absence of learning media that can provide enthusiasm so that the learning process can be effective and fun

The results of the evaluation that have been carried out are by distributing questionnaires to determine the effect of developing interactive learning media on the interest in learning to return to school for coastal children at PKBM Laskar Pelangi, the results that have been calculated show an influence of 78% after this activity, therefore it can be concluded With interactive media development activities, it can increase the interest in learning for coastal children to return to school.

References

[1] Ashar, Rayandra. Creative Developing Learning Media. Jakarta: Echoes Persada (GP) Press. (2012).

{2] Fitrianingrum, LailatulThesis. The effect of interest in learning on the learning outcomes of fifth grade science subjects at MI Muhammadiyah Karanglo, Cilongkok District, Banyuma Regency.(2017)

[3] palace. A collection of 40 learning methods: For the Teaching Revolution. Medan: Media Persada.(2014)

[4] Kusnawati, Eti, , Thesis. The effect of student interest in learning on student learning outcomes in subjects at SMPN 2. (2014)

[5] Nurdin, H. A. Improving Learning Outcomes in Social Studies Subjects Assisted by Picture Media for Fifth Grade Students at SDN Inpres Bobolon., Vol. 5 No.9. Tadulako Online Creative Journal (2014)

[6] Soibah, Sabiatus. "Development of Lectora-Based Interactive Learning Media on Basic Electronics Engineering Subject Class X TAV at SMK Negeri 7 Surabaya." Journal of Electrical Engineering Education. (2015)

[7] Sugiyono. Quantitative, Qualitative, and R&D Research Methods. Bandung: CV. Alphabet. 2006.

[8] Sudijono, Anas. Introduction to Education Statistics. Jakarta: Grafindo Persada. (2005).

[9] Susanti, Fifi. Development of Student Worksheets on Material Changes in Class VII Substances at SMPN 1 Sukamakmur. Thesis. Banda Aceh: UIN Ar-raniry. (2016).

[10] Teoh, B. S. P., & Neo, T. K.). Interactive Multimedia Learning: Students' Attitudes and Learning Impact in an Animation Course., Vol.6 No. 4, 29-38 The Turkish Online Journal of Educational Technology (2007)