Improving the ability of high school students in learning biographical texts through PowToon media

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ABSTRACT

Biographies are very important to be given to students so that the exemplary in the text can inspire and motivate students. The purpose of this study was to describe the increased abilities and activities of SMA N 2 Indramayu students in learning biographical texts through PowToon media. This study used a nonequivalent control group design. This design involved two groups, namely the trial group and the comparison group, namely class X MIPA 1 totaling 36 students and X MIPA 2 totaling 36 students. The research instruments used were tests (pretest and posttest), observation sheets, questionnaires and documentation. The data analysis technique uses the IBM SPSS 25 application program, namely the data normality test and the Wilcoxon test. The results of the study showed that there was a significant increase in student learning outcomes in the trial class through PowToon media compared to the comparison class. The average learning outcomes for the trial group reached 85.5, while the comparison group obtained a less significant increase compared to the trial class, which was 66. Based on the results of the Wilcoxon test, it was known that Asymp. Sig. (2-tailed) has a value of $0.000 < 0.05$ which means it is rejected and accepted. That is, there is a difference between learning outcomes in the final test of the pilot class and the comparison class.

Introduction

Biographical texts contain life stories and the lives of the characters (Jayanti, et al., 2015). Learning to write biographical texts is directed at students' abilities to be able to explore the exemplary figures presented in the text (Putri, et al., 2020). Learning to write biographical texts is very important to be given to students so that students can practice writing and at the same time be able to acquire the exemplary spirit of the characters in the text. The 2013 curriculum requires students to have or master competence in learning to write biographical texts, including (1) identifying the exemplary characters in biographical texts, (2) retelling in writing the results of identifying exemplary characters in biographical texts, (3) determining the meaning implied in biographical texts, (4) analyzing the language rules of biographical texts,

Writing activity is not an easy job. Teachers have difficulty inviting and motivating students to learn to write biographical texts. The results of interviews with several Indonesian language teachers in class X at SMAN 2 Indramayu, found problems in learning biographical texts in class, namely students were less able to distinguish between the exemplary characters in the biographical texts and interesting things from the biographical text characters presented. Mulyani (2019) describes the factors that cause students' low ability to learn biographical texts, including (1) students' lack of understanding in distinguishing exemplary figures from interesting figures, (2) low student motivation in learning, (3) lack of conformity the learning model used by the teacher, and (4) selection of less attractive media that is unable to stimulate students to learn. One important factor that must be considered in learning is the use of media.

Media as a means or supporting tool is needed by the teacher in fostering student interest and enthusiasm to take part in learning. Inaccuracy in the use of learning media will affect student motivation in learning which will correlate with student learning outcomes. The success of a learning is the only role of learning media. Technological developments have changed the teacher's paradigm in the use of learning media. Teachers will be helped a lot by the presence of technology that can be utilized in the field of education, especially in the process of teaching and learning activities. The rapid progress of this technology must be utilized for use in teaching activities by innovating and developing teaching media in schools.

Powtoons is an application that displays various features that can be combined with audio-visual so that it will be more interesting in the learning process (Ernalida, 2018; Djamarah & Zain, 2013). Various research on the use of Powtoon as a learning tool (1) students are motivated to take part in learning so that the learning outcomes obtained increase (One, 2017), (2) make it easier for teachers to deliver learning material (Sakti & Napsawati, 2021), (3) makes teachers more creative in packaging material through audio-visual presentations (Mershand, 2014), (4) can increase student learning enthusiasm (Qurratini, et al., 2020; Deliviani,), and (5) students more easily accept the material presented by the teacher (Angita, 2020).

In addition to using appropriate instructional media, classroom learning will run well if it is also supported in the use of learning models that are relevant or in accordance with the conditions and characteristics of students. Various studies suggest one of the learning models that can be applied by teachers in order to encourage student activity, namely Discovery Learning. Implementation of Discovery Learning, namely students are given the freedom and space to organize their knowledge and skills to solve problems (Durajad, 2008; Effendi, 2012;

& Yuliana, 2018). The application of the discovery learning model (1) is able to encourage student activity and confidence in solving problems (Yuliana, 2018), (2) increasing critical, independent, and creative thinking (Cintia, 2018; Sunarto & Amalia, 2022),

Based on the background of these problems, it can be drawn the main problems in learning, namely the success of learning is strongly influenced by the accuracy of using learning models and choosing the right media. Likewise, the problems in learning biographical texts for students of SMA N 2 Indramayu. Students have difficulty understanding biographical texts. For this reason, researchers will focus on the use of PowToon media in learning biographical texts. The formulation of the problem in this study: (1) Can the use of PowToon media improve students' abilities in learning biographical texts? (2) How are students' activities in learning biographical texts through PowToon media? The urgency of this research is to provide insight and knowledge to teachers that choosing the right media will have implications for student learning outcomes. PowToon as a learning media that gives teachers flexibility in packaging material combined with pictures, sounds, and animations. Through this innovation, it is hoped that students' understanding and ability in learning biographical texts will increase. The aims of the research are (1) to describe the improvement in students' abilities and learning outcomes in learning biographical texts through PowToon media. (2) describe student activities in learning biographical texts through PowToon media. The aims of the research are (1) to describe the improvement in students' abilities and learning outcomes in learning biographical texts through PowToon media. (2) describe student activities in learning biographical texts through PowToon media. The aims of the research are (1) to describe the improvement in students' abilities and learning outcomes in learning biographical texts through PowToon media. (2) describe student activities in learning biographical texts through PowToon media.

Method

This research is a type of quantitative research with a quasi-nonequivalent control group design involving a trial class and a control or comparison class. This study took a population of 350 students at SMAN 2 Indramayu in class X with a sample of two classes, namely class X MIPA 1 totaling 36 students and X MIPA 2 totaling 36 students. The total number of participants is 72 students. Data collection techniques using test instruments, questionnaires, and observation. The test instrument was used to measure students' abilities in writing biographical texts, both in the form of pre-tests and post-tests. Questionnaires are used to capture feedback information from students. Meanwhile, observation is used to capture student activity data. The data analysis technique uses the IBM SPSS 25 application program, namely the data normality test and the Wilcoxon test.

Results and Discussion

1. Test Class Student Learning Outcomes

Learning in the trial class was carried out in four meetings including the implementation of the initial test and the final test. The initial step taken was to provide an initial test (pretest) before learning biographical texts assisted by PowToon media. The aim is to determine the initial ability of students. The results of the initial test that was carried out in the trial class, obtained an average score of 41 out of a total of 36 students in one class. The lowest score is 5 and the highest score reaches 75. From these data, it can be interpreted that before the trial class students were given treatment, namely learning biographical texts through the PowToon media-assisted discovery learning model, the average results were less than optimal. Meanwhile, after the PowToon media-assisted learning and posttest, an average score of 85.5 was obtained, with the lowest score being 55 and the highest score reaching up to 95.

Referring to these data, it can be concluded that learning biographical texts through the discovery learning model assisted by PowToon media can improve student learning outcomes at SMA N 2 Indramayu. The average score of the trial class was a significant increase of 44.5. The reason for the increase in student learning outcomes is none other than the learning process of biographical texts through the discovery learning model assisted by PowToon media can provide motivation and encourage students to actively participate in learning so that it has implications for improving student learning outcomes. These student learning outcomes prove that learning biographical texts through the Powtoon-assisted discovery learning model is proven to be effective in increasing student competence, especially in understanding biographical texts so that student achievement also increases.

2. Comparison Class Student Learning Outcomes

As in the trial class, learning in the comparison class was carried out in four meetings, including the pretest and posttest. The learning model is carried out using conventional models, namely direct learning with the help of power point. Based on the results of the initial test (pretest) conducted in the comparison class, an average score of 47 was obtained with details of the lowest score of 25 and the highest score of 75. After learning biographical texts using conventional learning methods (direct learning) twice, student motivation in learning less enthusiastic. Students are not interested in participating in learning because it feels monotonous without any media innovations used. This can be seen from the learning achievement of students after learning is implemented. Based on the final test data (post-test),

Based on learning in the trial class and the comparison class, it can be seen that there are quite striking differences. Learning biographical texts through the conventional model and the Discovery Learning model assisted by PowToon media does have similarities in terms of effectiveness in increasing student learning outcomes. However, from the data above, there is a difference in the average score of the pre-test (post-test) of the test class and the comparison class of 19.5 scores. Even though they were not given the same treatment, the average score for the comparison class increased even though this increase was very far behind the increase in the average test class.

The increase in student achievement through learning based on the Discovery Learning model assisted by PowToon media is inseparable from the advantages and advantages of models and media that are innovative, interesting, and appropriately applied to learning biographical texts. This problem-based learning model can help students to discover for themselves about biographical text learning. In this case, the things that can be learned from the characters, the characteristics of the characters, the main content, structure, and language of the biographical text, can be easily understood by students through innovative media, namely PowToon.

PowToon is a media in the form of video by collaborating audio and visual combined into one. This learning media besides its content presents learning material, it also displays interesting animations and can illustrate what is being explained. Apart from being visually in the form of moving learning and animation, there is also a back sound, or a series of pleasant accompaniment sounds and filler voices which can increase students' concentration and understanding in paying attention to broadcasting biographical text learning using PowToon in class.

3. Normality Test Results

The normality test for research data was carried out to be able to determine and describe that the research sample was taken from the same population or is called a normally distributed population. The data normality test was carried out using the Kolmogorov Smirnov and Shapiro Wilk statistical SPSS. Based on the calculation of statistical analysis, the following results are obtained in table 1.

The results of the analysis of the normality test on the research data can be described as a significance value (Sig.) for the data on the Kolmogrov-Smirnov test on the pretest learning outcomes for the trial class 0.200 > 0.05 and the pretest learning outcomes for the comparison class 0.171 >0.05. Based on data analysis, the two test results illustrate that the research data is 'Normal' distribution. Meanwhile, the significance value (Sig.) of the results of the

Kolmogrov-Smirnov test data analysis on the learning outcomes of the final test (posttest) of the trial class is 0.000 <0.05 and the learning outcomes of the final test (posttest) of the trial class is 0.028 <0.05 . Based on the results of the analysis of the two tests, the research data is included in the 'Not Normal' distribution.

Table 1. Tests of Normality

Tests of Normality		Kolmogorov-Smirnova			Shapiro-Wilk		
	Class	Statistics	df	Sig.	Statistics	df	Sig.
Student learning outcomes	Preliminary Test Trials	, 114	36	,200*	,970	36	,416
	Trial Final Test	,251	36	,000	,825	36	,000
	Comparative Preliminary Test	,125	36	, 171	,949	36	,097
	Comparison Final Test	, 156	36	,028	,938	36	.043

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Furthermore, the significance value (Sig.) of the Shapiro-Wilk test on the initial test results (preliminary test) of the trial class was 0.416 > 0.05 and the initial test results (preliminary test) of the comparison class were 0.097 > 0.05 so that the two test results shows the research data taken is 'Normal' distribution. Meanwhile, the significance value (Sig.) of the Shapiro-Wilk test on the results of the final test (post-test) of the trial class was 0.000 <0.05 and the results of the final test (post-test) of the comparison class were 0.043 <0.05 so that it is said that the research data includes an 'Not Normal' distribution. Based on the analysis of the data from the two classes' test results, it can be concluded that the research data is NOT NORMAL in distribution.

4. Wilcoxon Test Results

Testing the data of the trial class and the comparison class through the Wiloxon test can be seen in the table 2.

Table 2. Ranks

Ranks		N	Mean Rank	Sum of Ranks
Trial Class End Test – Initial test Trial class	Negative Ranks	0[a]	,00	,00
	Positive Ranks	36[b]	18,50	666,00
	Ties	0[c]		
	Total	36		
Comparison Class End Test Comparison Class initial test	Negative Ranks	2[d]	13,75	27,50
	Positive Ranks	32[e]	17,73	567,50
	Ties	2[f]		
	Total	36		

The captions in table 2 for section N can be described below. 0^a is the final text of the trial class < the initial test of the trial class. 36^b is the final test of the trial class > the initial test of the trial class. 0^c is the end of class test = The initial test of the trial class. 2^d is the end test of the comparison class < The initial test of the comparison class. 32^e is the end test of the comparison class > the initial test of the comparison class. 2^f is The end test of the comparison class = the   initial test of the comparison class.

The Wilcoxon test results in table 2 will be outlined in the following explanation. Analysis of research data through the Wilcoxon test was carried out because through the results of the normality test the two data were not normally distributed. For this reason, it is necessary to carry out statistical test calculations through the Wilcoxon non-parametric test for both research data in the trial class and the comparison class.

a.   Analysis of the Pre-test and Post-Test of Trial Classes

Based on the Wilcoxon test SPSS output table above, the first column discusses the results of the analysis from the final test of the test class and the initial test of the tryout class. First, the negative ranks or the difference in scores from the initial test to the final test. In the negative ranks of the comparison class there is no decrease or reduction from the initial test scores to the final test scores in the trial class. The difference between the results of the final test and the results of the initial test is 0, both in the value of N, the mean rank and the sum of ranks. That is, all students after being treated using the Discovery Learning model with PowToon media in learning biographical texts experienced an increase in grades.

Second, positive ranks. Positive ranks are positive differences or increases in student learning outcomes from initial test scores to final test scores. There are 36 positive data N, which means that a total of 36 students experienced an increase in learning outcomes. This increase in learning outcomes comes from the results of the initial test scores to the results of the final test scores in the trial class. The Mean Ranks or the average increase is 18.50, while the Sum of Ranks or the number of positive rankings is 666.00.

Ties are the similarities between the initial test scores and the final test scores. In the table above, the tie value or similarity between the initial and final test scores for the pilot class is 0. Based on these data, it can be said that there are no equal scores for a total of 36 students from the entire trial class.

b. Analysis of the final test and the Preliminary Class Comparison test

In the SPSS output in the second column, there are the results of the analysis of the final test for the comparison class and the initial test for the comparison class. First, namely the negative ranks (difference or decrease) in scores from the initial test to the final test. In the

negative ranks there is a decrease or reduction from the initial test scores to the final test scores in the comparison class. The difference or decrease in the final test results and the initial test results is (N) 2 samples. The Mean Rank or the average rating is 13.75 and the Sum of Ranks or the sum of the ratings is 27.50.

Second, namely positive ranks or positive difference (increase) in student learning outcomes from the initial test scores to the final test scores. There are 32 positive data N, which means a total of 36 students there are 32 samples that experience increased learning outcomes. This increase in learning outcomes comes from the results of the initial test scores to the final grade results in the comparison class. The Mean Ranks or the average increase is 17.73, while the Sum of Ranks or the number of positive rankings is 567.50.

*Third, Tei*s the similarity of the pre-test scores with the post-test. In the table above, the tie scores or similarity between the initial and final test scores for the comparison class are 2 samples. So it can be concluded that from the results of the initial test and the final test of the comparison class of a total of 36 students there were similarities in the two samples, which then the two pairs of the same sample experienced a decrease in value. So out of a total of 36 samples for the comparison class, 32 samples experienced an increase and the rest who had similarities also experienced a decrease in scores from the initial test to the final test scores yang tergambar dalam tabel 3.

The basis for making a decision on the Wilcoxon test is as follows: If the Asymp Sig value < 0.05, then the hypothesis is accepted and If the Asymp Sig value is > 0.05, then the hypothesis is rejected.

Table 3. Statistics test

Statistics test		
	Trial final test - Trial initial test	Comparator's final test - Comparator's initial test
Z	-5,248b	-4,627b
asymp. Sig. (2-tailed)	,000	,000
a. Wilcoxon Signed Ranks Test		
b. Based on negative ranks.		

Based on the "Test Statistics" output tabel 3, it is known that Asymp. Sig. (2-tailed) is worth 0.000. Because the value of 0.000 is smaller than 0.05 (0.000 <0.05), it can be concluded that it is rejected and accepted. That is, there is a difference between the solid learning outcomes of the final test of the trial class and the final test of the comparison class so that it can be concluded that "there is an influence on learning biographical texts using the Discovery Learning model assisted by PowToon learning media".$H_0 H_1$

5. Student Response

a. Student Response Indicator

Student responses were taken by distributing questionnaires to respondents. The distribution of this questionnaire was distributed in the trial class and the comparison class with adjustments to the statement indicators according to the model and media used in each of these classes. To be able to find out students' responses to biographical text learning materials, students filled out a questionnaire that had been prepared during the learning process using the PowToon video-based Discovery Learning model. The questionnaire used contains five statements. The Table 4 are the statement indicators included in the questionnaire:

Table 4. Student Response Questionnaire Indicator

Indicator	Statement	Question Number
The interest of students' attention to the use of Powtoon media in the trial class and conventional learning in the comparison.	Positive	1
Student understanding of the material that has been given	Positive	2
The use of Powtoon media in the trial class and conventional learning in the comparison class was boring	Negative	3
Students feel excited about learning using Powtoon (trial class) and conventional learning (comparison class)	Positive	4
Learning using Powtoon (trial class) conventional learning (comparison class) facilitates student understanding	Positive	5

The value limit for the choice of answers to the statements is presented inTable 5.

Table 5. Guidelines for Student Response Questionnaire Values

Value limit	Information
0 - 1	TP: Never
1,1- 2	KK: Sometimes
2,1- 3	SR: Often
3,1- 4	SL: Always

Based on the indicators in table 4 numbers one, two, four and five are included in positive statements. This table assumes that the highest average score obtained from the four numbers is a value of 4, which means that students respond greatly to the learning that has been carried out. Conversely, if the student's response to the four numbers is low, then the student's response to the learning that has been done is low.

Then there is one statement indicator that is spread through the questionnaire, namely at number three there is a negative statement. This statement describes that students are bored with learning biographical texts that have been carried out in class. If the average score obtained for this statement indicator is the highest score or a value close to 4, then it is evident that the biographical text learning that has been carried out is boring. Conversely, if the class average score is low, learning is not boring.

b. **Comparison Class Student Responses**

After learning biographical texts using conventional learning is done, then questionnaires are distributed. The Table 6 are the results of the comparison class student responses:

Table 6. Comparison Class Student Response Results

Number	Means	Category
1	2,7	Often
2	2,7	Often
3	1,9	Sometimes
4	2,6	Often
5	2,8	Often

From the data on tabel 6 the results of student responses to the comparison class, it can be interpreted that number one of the statements contained in the questionnaire is about the attractiveness of learning biographical texts using conventional learning to get an average response of 2.7 which means it is included in the Frequent or interesting category. Statement number two is regarding students' understanding of learning biographical texts which has been carried out with conventional learning reaching an average of 2.7 which is also included in the Frequent or understand category.

In indicator statement number three regarding learning biographical texts using conventional learning, it feels boring reaching an average of 1.9, which means it is included in the sometimes or half boring category. The fourth statement indicator, namely regarding the enthusiasm of students participating in learning activities, reached an average of 2.6, namely in the Frequent or Enthusiastic category. Then the last indicator is regarding learning biographical texts using conventional learning which makes it easier for students to understand to get an average of 2.8, namely the Frequent category or facilitate understanding.

c. **Test Class Student Responses**

After studying biographical texts through the PowToon-assisted Discovery Learning model, the researcher gave a questionnaire to the respondents, namely a trial class. The tabel 7 are the results of the test class student responses.

Table 7. Student Response Results for Trial Class

Number	Means	Category
1	3,3	Always
2	3,1	Always
3	1,4	Sometimes
4	3,3	Always
5	3,4	Always

From the data from the results of the test class student responses above, it can be interpreted that at number one of the statements contained in the questionnaire, namely regarding the attractiveness of PowToon media in learning biographical texts, the average response 3,3 which means always in the category or very interesting for students. Statement number two, namely regarding students' understanding of learning biographical texts which has been carried out using the Discovery Learning model assisted by PowToon media achieves an average3,1who are also included in the category Always or really understand biography text learning.

In indicator statement number three regarding learning biographical texts using the Discovery Learning model assisted by PowToon media it feels boring down to a small average, namely1,4which means it is included in the sometimes or not boring category. The fourth statement indicator is regarding the enthusiasm of students participating in learning activities to reach an average3,3namely in the category Always or very enthusiastic. Then the last indicator is regarding learning biographical texts using the Discovery Learning model assisted by PowToon media which makes it easier for students' understanding to obtain an average of3,4namely the category Always or very easy for students to understand.

Conclusion

Learning biographical texts through the PowToon-assisted Discovery Learning model at SMAN 2 Indramayu Class X has had a positive impact on student learning outcomes. Student learning outcomes showed that the average learning outcomes of the trial group, namely class X MIPA 1, obtained a significant increase in learning outcomes, reaching 85.5. While the comparison group, namely class X MIPA 2, obtained a not too significant increase compared to the trial class, which was 66. The test results revealed Asymp. Sig. (2-tailed) has a value of 0.000 <0.05, it can be concluded that it is rejected and accepted. That is, there is a difference between learning outcomes in the final class trial test and the final class comparison test, so it can be concluded that 'there is an influence on learning biographical texts using the Discovery Learning model assisted by PowToon learning media'.$H_0 H_1$. The results of the student response questionnaire in the pilot class felt very interested, very understanding, not bored,

very enthusiastic and very easy to understand learning. While the responses of students in the comparison group, students did not feel very interested, did not really understand, were very bored, were not very enthusiastic and did not understand learning very easily.

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