

## The Effect of Contextual Method Based on Stop Motion Animation and Vocabulary Mastery on Short Story Writing Skills

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**ABSTRACT :** This study aims to reveal the effect of the contextual method based on stop motion animation and vocabulary mastery of short story writing skills. This research was conducted at a state high school in Banjarnegara Regency. The sample of this study was 60 students divided into two classes, including the experimental class of 30 students and the control class of 30 students. The data analysis technique used a two-way analysis of variance with a 2x2 factorial design. The results presented that: (1) a contextual method based on stop motion animation media was better than a contextual approach based on image media in gaining the students' ability to compose a short story. (2) the students who have high mastery of vocabulary were better than them who had less knowledge of vocabulary, and (3) there was no interaction between learning media-based contextual method and vocabulary mastery.

**KEYWORDS:** Contextual method, stop motion animation, vocabulary mastery, writing a short story

### I. INTRODUCTION

Writing skills are an essential feature of language in everyday life. Writing can support the exploration of thoughts and feelings [1]. Familiarizing the students with literature in schools can be used as a way to gain the students' ability in writing. One of the literary writing activities at the high school level based on the 2013 curriculum is short story writing skills. Thus, after learning short story writing skills, the students are expected to be able to express their ideas, thoughts, and imagination.

The students encounter several problems when they compose a short story. The students consider that writing a short story is challenging. The students discover it challenging to convey the thoughts, to bear the imagination, and to develop storylines in writing short stories [2]. However, the students' vocabulary mastery also comes as another problem to them in writing a short story. The lack of vocabulary knowledge carries the students' writing becomes less optimal. The students lack the necessary vocabulary knowledge and skills to raise their vocabulary knowledge efficiently [3].

One of the ways to support the students to write short stories successfully is that the teacher as a facilitator must have creative and innovative teaching readiness. One alternative that can support teaching and learning activities, especially in learning to write short stories is by contextual learning methods. Contextual learning methods are teaching concepts that help the teachers connect to the material taught with the real-world situation of the students and connect the knowledge they have with their application in daily life. Contextual learning methods will be even better when using media that can support the learning process.

Some observations have been conducted by the researcher in several state high schools in Banjarnegara. It turned out that Indonesian language teachers had never used contextual learning methods based on stop motion animation media in learning to compose short stories. The teachers usually use lecture techniques and use picture media to stimulate the students to enhance their ability to produce a short story. However, picture media in learning is one of the most commonly used because it is easy to get. But it has a weakness that is not able to convey in-depth information for the students. Thus, picture media makes students bored and less interested in enhancing short story writing skills.

On another hand, the stop motion animation media, which is a technique of manipulating video motion. It comes from a collection of images as if the collection of images is like a moving video. The moving image is moved in a fast duration. The selection of stop motion animation media aims to make learning not bored and

make it easier for students to imagine with the visual illustrations presented. Stop motion animation video learning serves the needs of learning media in producing short stories [4].

## II. THEORITICAL REVIEW

### 2.1. Short Story Writing Skills

Writing skills are a person's ability to convey messages through graphic symbols both in a formal and informal form, so that the message delivered can be understood its meaning [5]. Short stories are short prose narratives, which present a bit of real-life artistically with the main object being to entertain, although they can also portray a character or convey morals [6]. It can be concluded that the skill of writing short stories is someone's capacity in expressing ideas, feelings, and experiences in the form of stories that are presented briefly. Aspects assessed in the short story writing skills test include content, organization, vocabulary, language use, and mechanics [7].

### 2.2. Contextual Method Based on Stop Motion Animation Media

Contextual learning is a learning system that produces the meaning by connecting academic content with the context of students' everyday life [8]. The main components that characterize contextual learning are constructivism, finding, asking, learning communities, modeling, reflection, and authentic assessment. Contextual methods will be better if supported by media that can arouse the students in accomplishing learning goals. Learning media are all things that can be used to connect messages from the sender to the recipient so that they can encourage the thoughts, feelings, attention, interests, and attention of the students so that the learning process goes well [9].

One of the learning media that can support the success of contextual methods in short story writing skills is the stop motion animation media. An animation is a form of an object that changes from its original form into another form. Then, the object transforms again into another object form, and so on. These changes in shape make everyone who sees believe that the object does not quiet (silent) anymore [10]. Stop motion animation is the primary form of animation that is usually applied to make things physically appear alive. Animators move small additional objects between individually photographed frames. When photographs are combined and rotated back in sequence, illusionary motion is created [11].

### 2.3. Vocabulary Mastery

Vocabulary mastery is an essential support in communication. Vocabulary is a set of words owned by someone [12]. Vocabulary mastery can be divided into two, namely, a knowledge that is receptive and productive, the ability to understand and use vocabulary. The capability to recognize vocabulary is seen in reading and listening activities, while the ability to use vocabulary appears in writing and speaking activities. Therefore, vocabulary ability tests are usually directly related to overall receptive or productive capacity [7]. The assessment of vocabulary tests mainly deals with the ins and outs and understanding of the meanings of various vocabulary words, including (1) the origin and formation of words, (2) opposing words (antonyms), (3) synonyms, and (4) the use of words in an appropriate context [13].

## III. METHODOLOGY

This research was an experimental research with a 2x2 factorial design. This study has two independent variables and one dependent variable. The Independent variables are (a) contextual methods based on learning media and (b) vocabulary mastery. The first factor independent variable (in this case teaching media-based contextual approach) was an experimental variable, which was divided into two levels, namely: (A1) contextual method based on stop motion animation media, and (A2) contextual method based on image media. The second independent variable (in this case, vocabulary mastery) was an attribute variable which was divided into two groups, namely: (B1) high vocabulary mastery and (B2) low vocabulary mastery.

Meanwhile, the dependent variable of this study was the short story writing skills that are the focus of the research. The population in this study was the eleventh-grade students of SMA Negeri in Banjarnegara Regency in the 2019/2020 school year. The sample of this study was taken using cluster random sampling technique, which is a technique of taking sample members from a population carried out randomly without regard to strata that exist in that population [14]. The sample in this study amounted to 60 students divided into two classes, including the experimental level of 30 students and the control class of 30 students.

The test instrument used, namely the short story writing test in the form of performance tests and vocabulary mastery tests in the way of multiple choice. The validity of short story writing skills using construct validity. To find the reliability of short story writing skills used rating reliability. Meanwhile, the validity of the vocabulary mastery used the product-moment formula, and the reliability test used the Cronbach alpha formula.

## IV. RESULT AND DISCUSSIONS

### 4.1. Data Description

Data descriptions include: n = average; SD = standard deviation; frequency distribution; and frequency histograms for each group.

Table1. Resume of Short Story Writing Skill Score Data

Contextual Method Based on Learning Media	Vocabulary Mastery	Mean	Std. Deviation	Average
Stop Motion Animation	High	88.07	1.624	15
	Low	85.87	1.846	15
	High	86.97	2.042	30
Picture	Low	83.47	2.232	15
	Low	81.47	2.560	15
	Total	82.47	2.569	30
Total	High	85.77	3.025	30
	Low	83.67	3.133	30
	Total	84.72	3.232	60

Based on the data above, it can be seen that the average of short story writing skills of the students that were taught using contextual methods based on stop motion animation media were higher than those who were taught with image media based contextual methods. In addition, the students' average score with higher vocabulary knowledge showed better than them who have low vocabulary skill in composing short stories.

### 4.2. The Requirements Analysis Test

The requirements analysis test in this study included; normality test with Liliefors technique and homogeneity test with Barlett technique. The normality test results of writing poetry scores data and diction mastery score data can be seen as follows.

#### 4.2.1. The Data Normality Test

The normality testing was carried out on eight groups of data, namely (1) scores of short story writing skills of the students taught by contextual methods based on stop motion animation media (A1); (2) scores of short story writing skills of the students prepared by contextual methods based on image media (A2); (3) scores of short story writing skills of the students with high vocabulary mastery (B1); (4) scores of short story writing skills of the students with low vocabulary mastery (B2); (5) scores of short story writing skills of the students taught by contextual methods based on stop motion animation media on the students with high vocabulary mastery (A1B1); (6) scores of short story writing skills of the students taught with contextual methods based on stop motion animation media on the students with low vocabulary mastery (A1B2); (7) scores of short story writing skills of the students taught by contextual methods based on image media on the students with high vocabulary mastery (A2B1); and (8) score of short story writing skills of the students taught by contextual methods based on image media on the students with low vocabulary mastery (A2B2).

Table 2. The Results of Normality Test

No	Group	Average	$L_{count}$	$\alpha$	Decision	Distribution
1	A1	30	0,200	0,05	$H_0$ accepted	Normal
2	A2	30	0,200	0,05	$H_0$ accepted	Normal
3	B1	28	0,189	0,05	$H_0$ accepted	Normal
4	B2	32	0,200	0,05	$H_0$ accepted	Normal
5	A1B1	16	0,189	0,05	$H_0$ accepted	Normal
6	A1B2	14	0,200	0,05	$H_0$ accepted	Normal
7	A2B1	12	0,200	0,05	$H_0$ accepted	Normal
8	A2B2	18	0,187	0,05	$H_0$ accepted	Normal

Based on the sample group data it was found that the  $L_{count}$  for all groups was higher than the significance level of 0.05. Based on these results, the hypothesis was accepted because  $L_{count} >$  significance level of 0.05 and it can be concluded that the sample came from a normally distributed population.

#### 4.2.2. Test of Homogeneity Data

Homogeneity testing with Bertlett test aims to find out the similarity in the value of short story writing skills based on the value groups that exist in each cell (A1B1, A1B2, A2B1, A2B2). From the calculation of this homogeneity test, the price was 3,360; while  $X^2$  table at the significance level  $\alpha = 0.05$  was 7.81. Then it can be concluded that  $H_0$  was accepted, so the population was homogeneous. The results of the calculation of homogeneity of variance can be seen in the following table.

Table 3. Summary of Results of Combined Variance Homogeneity Analysis

Pooled Variance	B value	df	$X^2_{\text{count}}$	$X^2_{\text{table}}$	Result
4,10	34,329	3	3,360	7,81	homogeneous

#### 4.2.3. Balance Test

The balance test in this study was conducted when both groups were not yet treated. Balance test statistics use the t-test. Testing was done using IBM SPSS Statistics 23 with the test criteria that  $H_0$  is accepted if Lower is negative and Upper is positive, or  $\text{Sig. (2-tailed)} > \alpha$ . From the test results the balance was obtained that Lower was negative and Upper was positive or (2-tailed) = 0,249  $> \alpha = 0.05$  then  $H_0$  was accepted or  $H_1$  was rejected. From these results it can be concluded that the initial ability of short story writing skills of experimental group students was balance from the initial ability of short story writing skills of control group students.

Table 4. Result of Balance Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
The Result of Short Story Writing Skills	Equal variances assumed	1.356	.249	.454	58	.652	.267	.587	-.909	1.443
	Equal variances not assumed			.454	56.226	.652	.267	.587	-.910	1.443

#### 4.3. The Result of Hypothesis Test

Research hypothesis test used two-way analysis of variance (anava). After doing the calculations, the results of the variance can be seen in the following table.

Table 5. Resume of the Calculation Results of Two-Way Variance Analysis

Source of Variance	wg	df	RJK	$F_{\text{count}}$	$F_{\text{table}}$
Between Columns (A)	303,750	1	303,750	69,109	4,01
Between Rows (B)	66,150	1	66,150	15,050	4,01
Interaction (AxB)	0,150	1	0,150	0,034	4,01
Within	246,133	56	4,395		
Total	616,183	59			

The first hypothesis, the results of the calculation of the analysis of the two-way variance obtained  $F_{\text{count}}$  value of 69.109 with  $F_{\text{table}}$  price of 4.01 at the significance level  $\alpha = 0.05$ . So,  $F_{\text{count}} > F_{\text{table}}$  which indicates that  $H_0$  was rejected or there was a difference between short story writing skills of students taught by contextual methods based on stop motion animation media (A1) and students taught by contextual methods based on image media (A2) was proven. Therefore it can be stated that the students' short story writing skills taught by contextual methods based on stop motion animation media (A1) were better than contextual methods

based on image media (A2). The development of animation in the world of education acts as a mediator of meaning and symbolic representation so that it was more effective for new development in learning based on digital literacy that breaks down traditional models in teaching [15].

The second hypothesis, the results of the calculation of the analysis of variance of the two-way obtained  $F_{\text{count}}$  value of 15.050 with  $F_{\text{table}}$  value of 4.01 at the significance level  $\alpha = 0.05$ . So,  $F_{\text{count}} > F_{\text{table}}$  which indicates that  $H_0$  was rejected or there was a difference between short story writing skills of students who have high vocabulary mastery (B1) with students who have low vocabulary mastery (B2) was proven. Learning with contextual method based on stop motion animation media on students who have high vocabulary mastery gave a higher influence than media based contextual methods of drawing on students who have high vocabulary mastery of short story writing skills. Audiovisual in the form of stop motion can open classroom doors to be more creative and develop better understanding [16]. It can be concluded that the short story writing skills of students taught using contextual methods based on stop motion animation media were higher than students who are taught using contextual methods based on image media in groups of students who both have high vocabulary mastery.

The third hypothesis, after analyzing the two-way variance, it was found that there were no significant differences, meaning that there was no interaction between contextual methods based on learning media and vocabulary mastery of students' writing skills. The calculation results of the analysis of the two-way variants obtained  $F_{\text{count}}$  value of 0.150 with  $F_{\text{table}}$  value of 4.01 at the significance level  $\alpha = 0.05$ . So,  $F_{\text{count}} < F_{\text{table}}$  so that the null hypothesis was accepted.

## V. CONCLUSION

The results of the analysis revealed that there were two hypotheses were accepted, and one hypothesis was rejected. For the first hypothesis, the analysis showed that contextual methods based on stop motion animation media was better than contextual methods based on picture media to explore the students' short story writing skills. The second hypothesis, the students with high knowledge of vocabulary showed better performance in composing short story rather than them who have lack vocabulary knowledge. In the third hypothesis, there was no interaction between learning media based contextual methods and vocabulary mastery. This study exposed that the contextual models based on stop motion animation media have a better influence in enhancing short story writing skills for the XI grade students of state high schools in Banjarnegara regency. The students' high vocabulary knowledge has a significant impact on their short story writing skills. Thus, the findings revealed that this study strengthen the theory that learning to compose short story with contextual models based on stop motion animation is more effective than contextual method based on picture media.

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