

The effect of *local culture-based* material to improve reading ability of 8th grade students at state junior high school 9 Yogyakarta

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Abstract: The objectives of this study are to find out whether or not there is a significant effect of local culture-based material in improving reading ability of eighth grade students of junior high school. The research was conducted on State Junior High School 9 Yogyakarta. This is an experimental research. The steps were pre-test, treatment and post-test. The data were collected by using multiple choice tests in form of pre-test and post-test. Then, data were analyzed by using descriptive analysis and inferential analysis. The result of the research showed that Local Culture-Based Material (LCBM) has significant effect to improve students' reading ability. Thus, the local culture-based material (LCMB) is recommended to apply in an English material related to Indonesia's local culture in teaching reading. Furthermore, it is expected for further study about local-culture based material in improving students' English ability.

Keywords: Effectiveness, Local Culture-Based Material, Reading ability.

Introduction

English is a foreign language which has four important language skills that should be developed and mastered by English of foreign language learners. One of the skills is reading. In general, people judge that reading is synonymous with learning, in the means of gaining information. Reading is the process of thinking, it is suggested by Burns, Ross and Roe that when a person is reading, and then someone is going to recognize the words that require interpretation of graphic symbols-cymbals (Burns, et.al, 1984). To fully understand a passage, one should be able to use the information to make a conclusion and read critically and creatively in order to understand figurative language, the author set goals, evaluate the ideas written by the author and use such ideas in the right situation. This whole process is a process of thinking.

Including students' local culture can motivates them to learn English more enthusiastic, it is proved by Fredrick's research which is found that in her EFL class, the Tajik students are

more likely to be interested in learning English if the pedagogical materials presented to them are closer to their culture (Fredrick, 2007). The researcher wants to identify how the effect of Indonesian local wisdom-based English material in improving students English ability especially reading skill.

Adopting a local culture in learning a foreign language such as English can enhance student motivation and allow for greater sensitivity to students' goal in learning the language (Post and Rathet, 1996).

Culture and Language Teaching

Culture as the way of life of its members; the collection of ideas and habits which they learn, share and transmit from generation to generation (Mesthtrie et.al, 2009). Language is a part of culture, and culture is a part of language; the two are intricately interwoven so that one cannot separate the two without losing the significance of either language or culture (Brown, 1994).

Reading

Reading is an activity which involves the comprehension and interpretation of ideas symbolized by written or printed language (De Boer and Dalman, 1960). According to Brown (2010), there are four types of reading, they are: Perceptive reading, selective reading, interactive reading and extensive reading.

Teaching reading technique is divided into three steps, they are pre-reading, while reading and post-reading (Brown, 2000).

Principles of teaching reading as follows: (1) Reading is not passive skill; (2) Students need to be engaged with what they are reading; (3) Students should be encouraged to respond the context of a reading text, not just to the language; (4) Prediction is a major factor in reading; (5) Match the task to the topic; (6) Good teacher exploits reading text to the full (Harmer, 1998).

Method

This research was a quasi-experimental study that was aimed to identify the effectiveness of using local culture-based material to improve students' reading ability at State Junior High School 9 Yogyakarta. In specific, this research is designed as *pretest-posttest control group design*.

Population

Population of this study was whole eighth grade students of State Junior High School 9 Yogyakarta.

Sample

The sample of this research was 2 of 6 classes of the eighth grade students of State Junior High School 9 Yogyakarta which a class as the experimental group and the other as the control group. The sample is selected using cluster random sampling technique.

Research Instrument

In this research, the instrument was number of items of pre-test and post-test to collect the students' score that can be represent their reading ability before and after treatment. To find out whether the test item is applicable or not, the validity and reliability test is required.

1. Validity of Instrument

The validity was used to measure whether or not the test instrument is valid. According to Miller (2007), validity is the extent to which the instrument measures what it purpose to measure. Pearson Product Moment was used to identify the validity of the test instruments. Instrument validity was analyzed by using SPSS 22. Based on the result of the try out test, 19 items are valid and 6 items are invalid. The valid number items were 1, 2, 3, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25. In other hand, items number 4, 5, 6, 9, 14, 21 were invalid.

2. Reliability of Instrument

According to Fraenkel and Wallen, reliability refers to the consistency of the scores obtained, how consistent they are for each individual from one administration of an instrument to another and one set items to another (Fraenkel and Wallen, 2006). To identify the reliability of the instrument of this research, try out is conducted on another class beside the experimental and control class. Another class is chosen to avoid bias of the instrument. The reliability test of the instrument is analyzed through Cronbach's alpha by using SPSS 22 and the result of reliability test is shown on the table below.

Table 1 The Result of Reliability Test

Cronbach's Alpha	N of Items
0.686	25

The reliability coefficient was 0.686. While the qualification of the correlation coefficient suggested by Suharto (2006) are as presented on the table below.

Table 2 The Qualification of Correlation Coefficient

Reliability Coefficient	Reliability Category
0.800 up to 1.000	Very high
0.600 up to 0.799	High
0.400 up to 0.599	Fair
0.200 up to 0.399	Low
0.000 up to 0.199	Very low

Based on the qualification above, the reliability of the instrument (0.686) was in high category which is applicable to be used in collecting data.

Data Collecting Technique

The technique of data collecting used in this research was a multiple-choice test in the form of per-test and post-test to identify the students' reading ability before and after treatment, respectively.

Data Analyzing Technique

The data in this research was analyzed using two techniques; descriptive analysis and inferential analysis. Descriptive analysis indicates general tendencies in the data (mean, mode, median), the spread of score (variance, deviation, and range), or a comparison of how one score relates to all others (Creswell, 2008). Inferential analysis was directed to provide the answer if there was significant difference in teaching using local culture-based material and existing material. In this research, inferential analysis includes normality test, homogeneity test and hypothesis testing.

Result

Descriptive Analysis

The result of Descriptive analysis of both experimental and control group can be seen at the table below.

Table 3 Descriptive Analysis of Pre-Test and Post-Test of Experimental Group and Control Group

Description	Group			
	Experimental		Control	
	Pre-test	Post-test	Pre-test	Post-test
Mean	71.88	81.13	67.88	71.38
Standard deviation	15.558	9.651	12.128	9.644
Minimum	44	60	44	56
Maximum	92	96	88	88
Mean Difference	9.25		3.50	

From the table above, it is found that there is difference of mean improvement between experimental group and control group. The mean of experimental group increases 9.25 point, while the mean of control group increase only 3.50 point. The difference also found in standard deviation between experimental group and control group where the standard deviation of experimental group decreases -5.907 point, while the standard deviation of control group decreases -2.484 point. There is also difference of minimum score improvement between both group, the minimum score of experimental group increases 16 point, while the minimum

score of control group increases only 12 point. Both group also have different improvement of maximum score, the maximum score of experimental group increases 4 point while there is no improvement of control group.

Frequency Distribution

After the descriptive analysis of each group, the researcher identifies the frequency of each group. The researcher uses the conversion criterion by five scales to identify the frequency distribution of each group based on the value of ideal mean (MI) and ideal standard deviation

(SDI). The value of ideal mean of each group is 50 and the value of ideal standard deviation is 17. The formula to categorize the score in each category is shown on the table below.

Table 4 Conversion Criterion by Five Scales

Very Good	$MI + 1.5$ (SDI) up to Maximal Score $50 + 1.5$ (17) up to 100 $50 + 25.5$ up to 100 75.5 up to 100
Good	$MI + 0.5$ (SDI) < 75.5 $50 + 0.5$ (17) < 75.5 $50 + 8.5$ < 75.5 58.5 < 75.5
Fair	$MI - 0.5$ (SDI) < 58.5 $50 - 0.5$ (17) < 58.5 $50 - 8.5$ < 58.5 41.5 < 58.5
Poor	$MI - 1.5$ (SDI) < 41.5 $50 - 1.5$ (17) < 41.5 $50 - 25.5$ < 41.5 24.5 < 41.5
Very Poor	Minimal Score < 24.5 < 24.5

Based on the conversion criterion by five scales, the frequency distribution of each group is presented on the table below.

Table 5 Frequency Distribution of Post-Test Score

Category	Percentage Score of Pre-Test			
	Experimental		Control	
	Frequency	Percentage	Frequency	Percentage
Very Good	24	75.0%	15	46.9%
Good	8	25.0%	15	46.9%
Fair	8	25.0%	2	6.3%
Poor	0	0%	0	0%
Very Poor	0	0%	0	0%

The table shows that there are 24 (75%) students of experimental group and 15 (46.9%) students of control group in very good category. 8 (25%) students of experimental group and 15 (46.9%) students of control group are in good category. 8 (25%) students of experimental group and 2 (6.3%) students of control group are in fair category. There is no student of both experimental group and control group in poor and very poor category.

Inferential Analysis

Inferential in this research includes normality test, homogeneity test and hypothesis testing.

1. Normality Test

The result of normality test is shown on the table below

Table 6 The Result of Normality Test

Group		Kolmogorov Smirnov			Decision
		Statistic	Df	Sig.	
Experimental	Pre-Test	0.145	32	0.087	Normal
Control	Pre-Test	0.133	32	0.160	Normal
Experimental	Post-Test	0.107	32	0.200	Normal
Control	Post-Test	0.153	32	0.055	Normal

From the table above, it is found that the probability (sig.) of data of pre-test of experimental group ($0.087 > 0.05$), so it is normally distributed. It is also found that the data of pre-test of control group is also distributed normally because the probability (sig.) is higher than α ($0.160 > 0.05$). The probability (sig.) of data of post-test of experimental group ($0.200 > 0.05$), so it is

normally distributed. It is also found that the data of pre-test of control group is also distributed normally because the probability (sig.) is higher than α ($0.055 > 0.05$).

2. Homogeneity Test

The result of homogeneity test is presented by the table below.

Table 7 The Result of Homogeneity Test

Test	Levene Statistic	df1	df2	Sig.	Decision
Pre-Test	3.453	1	62	0.068	Homogenous
Post-Test	0.151	1	62	0.699	Homogenous

From table above, it is found that the probability (sig.) of pre-test ($0.068 > 0.05$), so the data variance of pre-test is homogenous, and the probability (sig.) of post-test ($0.699 > 0.05$), so the data variance of post-test is also homogenous.

Hypothesis Testing

Hypothesis statistic testing is held to identify whether or not there is significance difference between the experimental group and control group after treatment so the research hypothesis will be answered. In this research, hypothesis statistic testing is held using ANCOVA. ANCOVA was chosen because the data are normally distributed and the variances are homogenous. The result of hypothesis statistic testing is shown on the table below

Table 8 The Result of ANCOVA

Tests of Between-Subjects Effects					
Dependent Variable: Post-Test					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	6191,483 ^a	2	3095,741	171,592	0.000
Intercept	2554,777	1	2554,777	141,607	0.000
Pre	4670,483	1	4670,483	258,878	0.000
Group	826,039	1	826,039	45,786	0.000

Error	1100,517	61	18,041
Total	379392,000	64	
Corrected Total	7292,000	63	

From the Table above, it is found that probability (sig.) 0.000 which is lower than 0.05 ($0.000 < 0.05$), so there is significant difference between the experimental group and control group after treatment. Thus, H_1 is accepted and H_0 is rejected.

Conclusion

Based on the descriptive analysis, there is significant difference of the improvement of students' reading ability, where the students of experimental group who have the mean difference 9.25 has better improvement than then students of control group who have the mean difference only 3.50. It shows that the students taught using *local culture-based* material have better improvement than the students taught using existing material.

Based on the inferential analysis, there is significant difference between the students who taught using *local culture-based* material and the students taught using existing material in improving their reading ability. It is shown by the result of *t-test* which can be seen that the probability (sig.) is 0.000 lower than 0.05, it means that H_0 is rejected and H_1 is accepted. Thus, it can be concluded that the *local wisdom-based* material is more effective to be used to improve students' reading ability than the existing material.

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