Effectiveness of Concluding Procedural Text Content Learning with Group Investigation Model based on Learning Styles

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Article Info

Abstract

A skill to conclude the content of procedural text owned by students to understand the meaning of the text. Learning by using investigation group model is appropriate to learning styles of students. This research aims to analyze concluding skill of students dealing with the text by using investigation group model based on students' learning styles. This quasi experimental research used several data collection techniques, such as questionnaire guidance, observation guidance, documentation, and interview guidance. The data analysis used validity and reliability tests while the sample test used normality and homogeneity test. The final data was analyzed by using one way anova to find out the effectiveness comparison of the learning based on students' learning styles. The findings showed that visual typed students got average score 79, auditory typed students 82.4, and kinesthetic typed students 77.8. Learning the skill to conclude procedural text by using the model was effective to be implemented for auditory typed students. This research is expected to enrich theoretical knowledge of learning to conclude procedural text based on the effective learning styles of students.

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INTRODUCTION

Learning to conclude the content of procedural text requires students to understand the meaning of the text. To understand the meaning can be achieved by reading the meaning of the text. Reading is process to voice a written exposure. It is a perceiving activity upon a written exposure. Series of cognitive skills to get understanding from the read utterance, to give meanings of the visual symbols (Haryadi, 2006). Therefore, learning to conclude is closely related to reading activity. According to Noor (2011), learning and teaching will be effective when they are done by reading.

Procedural text consists of stages to make or to do something. It has several stages to achieve certain purposes (Ibrahim, 2019). It is in line with Direyasa (2016) that procedural text is a text to explain how to get something done in a series of stages. Learning to conclude the content of procedural text needs an effective learning model to get maximum result in learning process.

Models learning is a conceptual framework describing systematic procedures in organizing learning experience to achieve certain learning purpose (Zulaeha, 2016).

Implementation of cooperative learning model can be done to make learning effective (Tristiantari dan Made, 2016). Rustono and Achmad (2016) showed that cooperative learning model was effective than conventional model. One of models to use in concluding procedural text learning is group investigation model. This learning model is a learning variety of cooperative learning. It is a learning model for specific field which needs integrated study project activity leading to achieving, analyzing, and synthetizing information activities in solving problems (Slavin, 2010).

Asfuri (2013), Azizah (2012), and Eka (2013) showed the effectiveness of learning by using group investigation cooperation.

Improving students' skill in concluding procedural text is not only depended on model selection, teacher should consider learning styles of students. Learning modality is defined as individual learning style (Suyono and Hariyanto, 2011). It is strengthened by Adi (2006). He stated that learning style was a preferred method in thinking, processing, and understanding information. Learning styles according to De Porter (2003) are: visual, auditory, and kinesthetic.

Based on the explanation, effectiveness of concluding learning upon procedural text by using group investigation for seventh graders of JHS based on their learning styles were important to find out and proven through a research. So, teacher could select appropriate learning model to succeed the learning. This research is expected to enrich educational research development knowledge and enrich knowledge in learning to conclude procedural text at educational institutions.

METHODS

This quasi experimental research used group investigation model as the intervention. It was done to find out the effectiveness of procedural text concluding learning based on learning styles. From the initial test, final test, and learning style test data plus observation of the elements of the learning, the effectiveness of group investigation model would be found out during the learning based on learning styles.

Normality test used *Kolmogorov Smirnove* while homogeneity test used *Levense* test. The hypothesis test used *paired sample t-test.* The data analysis was assisted by SPSS version 20.0 *for window.* The obtained data were in the form of initial test, final test, learning style result data. The qualitative analysis was obtained from observation of attitudes and interview. The quantitative analysis was obtained from the student skill test in concluding the content of the text and learning style test.

RESULTS AND DISCUSSION

The effectiveness of the learning by using group investigation model seen from the implementation of the model elements during learning and the students' learning styles. The implementation of group investigation model

could be seen from the students' learning achievement. The implementation of the model covered principles, syntagmatic, reaction system, supportive system, and instructional and supportive influences. Learning to conclude procedural text with the model was supported by the student learning style analysis. It was done to allow the teacher designing learning strategy so learners would enjoy and understand learning based on their learning styles.

The experimental group students (intervened by group investigation model) was grouped into three categories based on their learning styles: visual, auditory, and kinesthetic. The numbers of the experimental group students were 28 participants with following details.

Table 1. Learning Style of the Students

Learning styles	Numbers
Visual	6
Auditory	9
Kinesthetic	13
Total	28

Based on the table, it could be seen the experimental group consisted of 28 students. 6 of them were categorized visual typed students, 9 auditory typed students, and 13 kinesthetic typed students. Thus, the class was dominated by kinesthetic typed students

Initial and Final Test Result of Group Investigation Model Class

The initial and final scores of the learning could be seen on the table below.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. dev.
Pre-test	28	50.00	81.00	68.8214	7.76948
Post-test	28	71.00	88.00	79.5357	5.20124
Valid N (listwise)	28				

The table shows that the average of evaluation in the group investigation class:
a. The highest score of pretest at the class was 81 while the highest posttest score was 88.
b. The lowest pretest score of the class was 50 while the lowest posttest score was 71.
c. The average of pretest score of the class was 68.8 while the average of posttest score was 79.5.

To test the effectiveness of the learning by using group investigation model based on the learning styles of the seventh graders, it was tested by this procedure:

Before the data was tested whether there was learning achievement improvement (*pretest* and *posttest*) of group investigation model class, the data should be normally distributed.

Table 3. Initial and Final Normality Test of Group Investigation Model Group

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Initial	.172	28	.340	.955	28	.264
Final	.120	28	.200[*]	.957	28	.296

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

Based on *Kolgomorov – Smirnov Test* **Table**, it was obtained Asymp. Sig. Score (2-tailed) on both pretest and posttest of the class > 0.05. Then, H_0 was accepted. The significant score of the data showed higher than 0.05. If the data had met the criteria of hypothesis test, then H_0 was accepted and H_1 was denied. Then, it could be concluded that the data was taken from population with normal distribution.

It is a test to conclude whether there was learning achievement improvement between before (*pretest*) and after (*posttest*) the intervention. (*posttest*).

Table 4. Paired Sample t-test

	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
_IK - post_IK	77.64286	5.20124	.98294	75.62603	79.65969	78.990	27	.000

Based on *paired T-test,* it showed that on sig. column (2-tailed), the sig score of pair 1 pre_synectic – post_synectic = 0.000 < 0.05. The significance of significant column (2 – tailed) showed that significance of initial and final test of the learning by using group investigation model scored 0.000. The data showed 0.000 < 0.05. Thus, H_0 was denied and H_1 was accepted. Then, the data analysis showed that there was different average between pretest – posttest of concluding procedural text on the group. In another word, there was improvement of learning achievement of the group.

Before the posttest data was grouped based on the learning style, it was tested by using one way test. The data should be homogeneous to ensure that the data variances among learning styles were equal.

Table 5. Homogeneity Test

Levene statistic	df$_1$	df$_2$	Sig.
.632	2	25	.540

Based on *Homogeneity of Variance Test table,* the significance was 0.540 > 0.05. Then H_0 was accepted but H_1 was denied. To test the homogeneity of the data, the criteria of the test were: if the significance was higher than 005, then the data was said homogeneous. It meant there was no difference. Based on the test, the significance was 0.540. Thus, the data was said homogeneous. Meanwhile, to conclude which one was better could be seen on the table below.

Based on *Homogeneity of Variance Test* table, on the experimental group, the variant of the data among learning styles were homogeneous. It could be seen from Levene Statistic column (showing about data homogeneity).

Table 6. Descriptive Test Result

	N	Mean	Std. deviation	Std. error	95% Confidence interval for mean		Min	Max
					Lower bound	Upper bound		
Auditory	9	82.4444	4.82470	1.60823	78,7358	86.1530		
Kinesthetic	13	77.7692	4.93548	1.36886	74,7867	80.7517	71	88
Visual	6	79.0000	3.46410	1.41421	75.3646	82.6354	75	84
Total	28	79.5357	4.93275	.93220	77.6230	81.4484	71	88

Based on post hoc result, it could be concluded that:

1. Auditory and Visual typed students had differences based on descriptive table. It shows audio typed students were better.
2. Kinesthetic and visual typed students had significant difference based on descriptive table. It shows visual typed students were better.
3. Auditory and kinesthetic typed students had significant difference based on descriptive table. It shows the auditory typed students were better.

From the data, it could be concluded that learning to conclude procedural text by using group investigation model was effective to be implemented for auditory typed students.

The correlation of the learning model to students was ever investigated by Risnawati (2012), Azizah (2012), Asfuri (2013), Eka (2013), and Wijayanti and Zulaeha (2015). They showed that group investigation model was effective in learning process.

The correlation between learning styles to learning achievements was ever investigated by Bostrom (2011), Kusnida (2015), and Hakim (2018). They showed there were learning achievement improvement on each learning styles.

The correlation of each learning style was ever investigated by Zulaeha (2017). It showed that learning based on student learning styles was more effective to be implemented for visual typed students than auditory or kinesthetic students. The findings of Zulaeha were relevant to this research dealing with the implementation on visual, auditory, and kinesthetic typed students during learning process.

This research is expected to ease in solving problems dealing with efforts to improve concluding skill of procedural text. This research could motivate educators at the school to conduct further investigation dealing with learners' achievement. This research can be used as reference for future researchers to conduct further

investigation dealing with improving learners' skills by using various models and media.

CONCLUSION

There was learning effectiveness of concluding procedural text by using group investigation model based on learning styles of the seventh graders. Based on variances of average score of the students between before and after the intervention, it showed before the intervention, the average score of concluding skill aspect of the students was 68.8. After being intervened, the average score of concluding procedural text was 79.5. Thus, the learning intervened by group investigation model for auditory typed students was effective than visual or kinesthetic typed students.

It is suggested for further researcher to conduct research dealing with other learning styles as the variables and other learning model in learning concluding procedural text.

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REFERENCES

Adi, W. Gunawan. (2006). "*Genius Learning Strategy*". Jakarta: Gramedia.

Asfuri, Ali. (2013). "Keefektifan Penggunaan Model Investigasi Kelompok dan Model Bermain Peran untuk Meningkatkan Kemampuan Berpidato Impromptu Peserta Didik SMA yang Introver dan Ekstrover". *Seloka,* 2(1), 7-13.

Azizah, M., Rustiana, A. and Pramusinto, H., (2012). "Penerapan Model Pembelajaran Group Investigation untuk Meningkatkan Kreativitas Siswa pada Pelajaran Produktif". *Economic Education Analysis Journal*, 1(1).

Bostrom, L. (2011). *"Effect of Learning Style Responsive versus Traditional Approaches on Grammar".* Retrieved from https://www.semanticscholar.org/paper/Effects-of-Learning-Style-Responsive-Versus-on-Bostr%C3%B6m/a903d1583812e96405a0b0cb7702f106cde394ab

DePorter, Bobbi. Hernacki, Mike. (2003). "*Quantum Learning*". Bandung: Kaifa.

Dirgeyasa, I Wayan. (2016). "*College Academic Writing: A genre-Based Perspective".* Jakarta: Kencana.

Eka, Setya Budi. (2013). "Keefektifan Penggunaan Model Pengaturan Mahir dan Model Investigasi Kelompok untuk Meningkatkan Keterampilan Bercerita Peserta Didik SMP yang Introver dan Ekstrover". *Seloka*, 2(1).

Hakim, Lukman (2018). "Pembelajaran Menulis Teks Penjelasan Menggunakan Model Investigasi Kelompok Berdasarkan Gaya Belajar". Retrieved from https://journal.unnes.ac.id/sju/index.php/seloka/article/view/27941/12248

Haryadi. (2006). "Retorika Membaca: Model, Metode, dan Teknik". Semarang: Rumah Indonesia UNNES.

Ibrahim, Imam Ahmad. (2019). "Keefektifan Pembelajaran Menyimpulkan Isi Teks Prosedur dengan Model STAD dan Investigasi Kelompok Berdasarkan Gaya Belajar Peserta Didik". Tesis. Unnes.

Kusnida, Faris. (2015). "Keefektifan Penggunaan Media Film Animasi dan Media Komik Strip dalam Pembelajaran Menulis Cerita Pendek yang Bermuatan Nilai Karakter Berdasarkan Gaya Belajar Peserta didik Kelas VII". Unnes Journal. Vol 4 No 2 : November 2015. Retrived from https://journal.unnes.ac.id/sju/index.php/seloka/article/view/9868

Noor, Noorizah Mohd. (2011). *"Reading Habits and Preferences of EFL Post Graduates: A Case Study".* Indonesian Journal of Applied Linguistics, 1.

Risnawati., Yulianti, Dwi., dan Dwijananti. (2012). "Penerapan Group Investigation pada Pembelajaran Sains untuk Mengembangkan Karakter Siswa SMP Kelas VIII". *Unnes Physics Education Journal*, *1*(1), 12-19.

Rohmah, Naili. Rustono., dan Rifa'I, Achmad. (2016). "Keefektifan Pembelajaran Kooperatif melalui Media Dadu dalam Pengembangan Kemampuan Matematika bagi Anak Usia Dini". *Journal of Primary Education*, *5*(1), 42-48.

Slavin, Robert. (2010). "Cooperative Learning: Teori, Riset dan Praktik". Bandung: Nusa Media.

Suyono dan Hariyanto. (2011). "Belajar dan Pembelajaran". Bandung: Rosda.

Tristiantari, Desia, K, N. dan Sumantri, Made, I. (2016). "Model Pembelajaran Cooperatif Integrated Reading Composition Berpola Lesson Study Meningkatkan Keterampilan

Membaca dan Menulis". *Jurnal pendidikan Indonesia*, *5*(2), 203-211.

Wijayanti, Weny. Zulaeha, Ida. Rustono. (2015). "Pengembangan Bahan Ajar Interaktif Kompetensi Memproduksi Teks Prosedur Kompleks yang Bermuatan Kesantunan Bagi Peserta Didik Kelas X". Retrived from https://journal.unnes.ac.id/sju/index.php/seloka/article/view/9866

Zulaeha, Ida. (2016). "Teori, Model, dan Implementasi Pembelajaran Menulis Kreatif". Semarang: UNNES PRESS.

Zulaeha, Ida. (2017). "Pembelajaran Menulis Teks Eksposisi Bermuatan Konservasi dengan Model Cooperative Integrated Reading and Composition pada Peserta Didik Bergaya Belajar Visual Auditori, dan Kinestetik".
Retrieved from
http://indonesia.unnes.ac.id/wp-content/uploads/2017/10/I-L-PROSIDING-KBS_2-UNNES-2-497-596.pdf