

APPLYING COLORFUL SCRAMBLE LEARNING MODEL TO INCREASE STUDENTS' CRITICAL THINKING AND LEARNING RESULTS

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Abstract

This study aims to increase students' critical thinking and learning results through the application of the Colorful Scramble Learning Model. The subjects of this study were students of class VII H SMP N 1 Pontianak. The objects of this research are the increasing of students' critical thinking and learning results in learning English. The method of data collection is through observation of teaching and learning activities, students' assessment for learning results, and documentations. The data were analysed qualitatively using Likert Scale and quantitatively using IBM SPSS Statistics 26. The result of this study indicates that the Colorful Scramble Learning Model can increase critical thinking and learning results of students in class VII H SMP N 1 Pontianak in learning.

Keywords: *Critical Thinking, Learning Results, Colourful-Scramble Learning Model.*

INTRODUCTION

In 2020, Nadiem Makarim, Indonesia's Education Minister, introduced a new education program, namely *Sekolah Penggerak*. *Sekolah Penggerak* is believed as the catalyst which can accelerate the improvement of the quality of education in Indonesia. This program intends to develop Indonesia as an advanced, sovereign, independent and persona country through developing Indonesian students to be Students of Pancasila (KEPMENDIKBUD, 2020). Subsequently, the focus of this Program is on developing student learning results holistically, including competence (literacy and numeracy) and character, starting with superior human resources (principals and teachers). This holistic development of learning results can be achieved with Pendidikan Merdeka Belajar.

The concept of Pendidikan Merdeka Belajar has the same direction and purpose as the concept of John Dewey's Progressivism Education philosophy which emphasizes the importance of the basics of independence and freedom for students to develop the talents and abilities that are hidden within them without being hampered by formal rules that sometimes actually shackle their creativity and their critical thinking (Mustaghfiroh, 2020). One of the goals of this concept is to produce Profil Pelajar Pancasila (Hasudungan & Abidin, 2020). The following image illustrates the dimensions of Profil Pelajar Pancasila

Image 1 . Profil Pelajar Pancasila



Profil Pelajar Pancasila (PPP) is a profiled characteristics of well-being students who are critical thinking, creative, independent, faithful and devoted to God Almighty, noble, collaborated, and global diversity. It is also hoped that students with PPP have the ability to develop independently by using their knowledge, studying, and internalizing as well as personalizing character values and noble character that can be realized in daily behaviour (Ismail, Suhana, & Zakiah, 2021). The six dimensions of PPP are 1.) being faithful and devoted to the God Almighty and having noble character, 2.) being global diversity, 3.) doing mutual cooperation/collaborating, 4.) being independent, 5.) being critical thinking, and 6.) having creativity (Hasudungan & Abidin, 2020). The six indicators are considered as the main conditions that must be fulfilled by a student to become a Student of Pancasila (p.36).

One of the dimensions of Profil Pelajar Pancasila is closely correlated to the progress of cognitive abilities or student learning results. That dimension is critical thinking. By developing the students' critical thinking, students' learning results are getting increased simultaneously. Critical thinking is the ability to think at a high level in solving problems systematically, which needs to be developed from an early age so that students become accustomed to critical and creative thinking patterns (Prameswari et al 2018). The ability to think or reason critically is an essential thinking ability that functions in all aspects of life (p.743). In the previous few years Zanthly (2016) also stated that someone who thinks critically is someone who is able to solve problems, make decisions and learn new concepts through the ability to reason and think reflectively based on something that is believed to be true. Students who think critically have the ability to think clearly and rationally, so they can understand problems better and can find the best answers to the problems they face (Najmina, 2017). Also, Nahdi (2015) previously stated that students need to be equipped with critical thinking skills because students who only study the material without being equipped with this ability will have difficulty when conducting assessment activities to find and analyse information. Therefore, it can be concluded that with increasing critical thinking abilities, student learning results also get increased which is a change in

the form of physical, mental, intellectual skills that proceed from learning activities both at the level of formal education such as school and at the level of non-formal education such as in the scope of family and community that will be used in daily activities both in school and in the community (Ariyanto, 2016).

One of the learning models that is believed to be able to improve students' critical thinking skills is the Scramble learning model. According to Komalasari (in Qamariah et al, 2016) the scramble learning model is a learning model that makes students find the answers for a question or pair of a concept creatively by arranging letters arranged randomly to form an answer or concept pair in a good order. The understanding of this learning model is also described by Ariyanto (2016) who states that the Scramble learning model is a learning model which requires students to learn in a group and to maximize their creativity to find logical answers from scrambled words and students are asked to assemble into logical answers to a question or problem. The Scramble learning model is a learning model that uses games that are carried out in groups by arranging words or sentences that have been scrambled beforehand (Sudarmi & Burhanuddin, 2017). Qamariah, Gummah, & Prasetyo (2016) also state that the Scramble learning model is one of the learning models that can be applied to improve students' creative thinking skills. The Scramble learning model is also believed to be able to motivate students to study in groups where they solve problems together and are actively involved, socialize interactively and communicate among them (Sumira, Deasyanti, & Herawati, 2017). Based on the opinions expressed by the experts above, it can be concluded that the Scramble learning model is a learning model that encourages students to think critically in finding answers to a question or problem by using group games to arrange scrambled words or sentences.

The researches that have been conducted using the Scramble learning model shows positive and significant results towards increasing critical thinking abilities and student learning results. The success of the previous research became the background of the researcher's interest to conduct a research on the application of the Scramble learning model in learning English in class VII SMP N 1 Pontianak. However, in this study, the Scramble learning model is then modified by adding the use of colour coding. This learning model is developed into a Colourful-Scramble learning model where scrambled words or sentences are colour coded so that they can attract more the attention of students. Then, this study is intended to investigate whether the application of the Colourful-Scramble learning model can increase students' critical thinking, which will have an effect on increasing student learning results.

RESEARCH METHOD

This research was conducted in SMP Negeri 1 Pontianak. The type of research was best practice conducted for approximately 1 month in November 2021. The subjects of this research were 31 students of VII H SMP Negeri 1 Pontianak, consisting of 18 male students and 13 female students. Diagnostic assessment or pre-test showed that students of VII H were still on average 64.25 or in the category of less understanding toward the concept of using the Simple Present Tense. The result of diagnostic assessment became the reason why the students of class VII H chosen as the research subjects. This research aims to

increase the knowledge or understanding about Simple Present Tense by applying the Colourful-Scramble learning model.

The approaches for analysing data in this study are qualitative and quantitative approaches. The research instruments used were observation sheets, assessment instruments, and documentation. The observation sheet is used to observe the emergence of critical thinking characters in students when teaching learning process was taking place in classroom. Assessment instruments are focused on examining the development or improvement of learning results. Meanwhile, documentation is intended to document the entire process of implementing Colourful-Scramble learning model in teaching and learning activities.

The observation sheet instrument was used for observing the development of critical thinking. The elements of critical thinking observed were: First, obtaining and processing information and ideas. Second, analysing and evaluating the reasons. Third, reflecting and evaluating their own thinking. The assessment instrument is in the form of a diagnostic assessment or pre-test and post-test equipped with a grid of questions, answer keys, and an assessment rubric. The pre-test and post-test are related to English learning materials, the Simple Present Tense. Another research instrument is documentation, such as photos or videos of the teaching and learning process using the Colourful-Scramble learning model. This documentation is used to observe in detail or carefully whether students learned English by applying the Colourful-Scramble learning model in the classroom. In addition, this documentation can be used as evidence that research has been conducted on the application of the Colourful-Scramble learning model.

The data that will be processed in this research are data on students' critical thinking activities, students' English grades, and documentation. To analyse data on students' critical reasoning thinking activities, researchers used qualitative descriptive methods. Then, the data was analysed using a Likert Scale. Likert Scale data processing uses a rating scale. In this study, the rating scale is as the following: 10 – 12 is categorized as Very Good (SB) and the character of critical thinking is already rooted culturally (M); 7 – 9 are categorized as Good (B) and their critical thinking character has developed (B); 4 – 6 is categorized as Enough (C) and the character of critical thinking begins to develop (MB); and 1 – 3 are categorized as Poor (K) and their critical thinking character Requires Guidance (MB). Then, the data that has been analysed will be described qualitatively by referring to the category of students' critical thinking abilities.

Data analysis for student learning results was quantitative methods. The data from the pre-test and post-test were then analysed using the IBM SPSS Statistics 26 application. The results of the statistical application analysis were in the form of a data description of whether the application of the Colourful-Scramble learning model could increase students' critical thinking and learning results.

RESEARCH FINDING AND DISCUSSION

Character of Critical Thinking

This research was conducted because of the results of the diagnostic assessment or pre-test of students of VII H SMP N 1 Pontianak which was still on average 64.25 or in the category of lack of understanding. As it is believed that

character of critical thinking can affect the improvement of student learning results, an observation was made on this character of critical thinking.

Table 1. Finding of Observation of Students' Critical Thinking

Element	Σ	%
Obtaining and processing information and ideas	96	77
Analysing and evaluating the reasons	87	70
Reflecting and evaluating their own thinking	93	75
Total	223	74

Table 1 indicates that critical thinking of VII H students after learning English with the Colourful-Scramble learning model are successfully developed and in good qualifications. It shows that the Colourful-Scramble learning model can increase students' critical thinking. Learning English with Colourful-Scramble learning model requires students to be able to discuss with group members in order to obtain and process the Simple Present Tense linguistic elements from these random words. Then, this learning model also encourages students to be able to analyse and evaluate their reasoning in arranging random words into correct Simple Present Tense sentences. Furthermore, this learning model also encourages students to be able to reflect and evaluate the results of their sentence preparation and they can explain about the sentences they have compiled and the colour code for each word. In this lesson, the colour code is divided into red for the subject; blue for verb; green for positive auxiliary; purple for negative auxiliary; and yellow for object.

The Students' Learning Results

Data analysis of student learning results in learning English through applying the Colourful-Scramble learning model uses IBM SPSS Statistics 26. The data analysed were pre-test data or diagnostic and post-test assessments. Both data were tested for normality, and then their significance was tested to see whether the research hypothesis would be accepted or rejected

Image 1. Test of Normality of Pre Test dan Post Test

	Pretest	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Posttest	25	.260	2	.			
	50	.219	3	.	.987	3	.780
	55	.260	2	.			
	65	.307	4	.	.729	4	.024
	75	.367	5	.026	.684	5	.006
	90	.473	5	.001	.552	5	.000

Image 2 indicates the normality test on the pre and post-tests. The normality data shows a significance of 0.026 and 0.001, which means it is smaller than 0.05. Because it is smaller than 0.05, the results of the normality test state

that the pre-test and post-test data are not normally distributed. The results of this test then lead the researcher to test the hypothesis by using a non-parametric test, namely the Wilcoxon test.

Image 3. The findings of Wilcoxon Signed Ranks Test

Wilcoxon Signed Ranks Test

		Ranks		
		N	Mean Rank	Sum of Ranks
Post Test - Pre Test	Negative Ranks	3 ^a	6.33	19.00
	Positive Ranks	26 ^b	16.00	416.00
	Ties	2 ^c		
	Total	31		

- a. Post Test < Pre Test
- b. Post Test > Pre Test
- c. Post Test = Pre Test

Test Statistics^a

	Post Test - Pre Test
Z	-4.308 ^b
Asymp. Sig. (2-tailed)	.000

- a. Wilcoxon Signed Ranks Test
- b. Based on negative ranks.

Image 3 shows the results of the Wilcoxon Test. Based on the data result, the negative rank or the difference between the results of learning English for the pre-test and post-test in the Simple Present Tense material is 3. “3” here indicates that 3 students experienced a decrease in their Post Test scores from the Pre-Test scores. Meanwhile, the positive rank is 26. This means that there are 26 students who have increased their Post Test scores from their Pre-Test scores. Furthermore, there are 2 students who have similar scores in their Pre-Test and Post-Test as showing in the Ties data.

Subsequently, based on the output of Test Statistics, it is found that Asymp.Sig (2-tailed) is 0.000. Since it is smaller than 0.05, it can be concluded that the hypothesis is accepted. This means that there is a difference between learning results in learning English for the Pre-Test and Post Test in the Simple Present Tense material. Thus, it can also be concluded that the application of the Colourful Scramble learning model can increase the learning results of class VII H students of SMP N 1 Pontianak.

CONCLUSION

Based on the results of research on the application of the Colourful Scramble learning model to increase students' critical thinking and learning results, it can be concluded that the Colourful Scramble learning model can increase students' critical thinking and learning results in class VII H SMP N 1 Pontianak. This conclusion can be determined because of the results of the analysis using the Likert Scale and IBM SPSS Statistics 26. The result of the analysis using the Likert Scale indicates that in general the critical thinking of students in class VII H SMP N 1 Pontianak after learning English using the Colourful-Scramble learning model is progressing and in good qualification. This

indicates that the Colourful-Scramble learning model can increase students' critical thinking

Meanwhile, the result of the analysis using IBM SPSS Statistics 26 shows that there is a difference learning results between the Pre-Test and Post-Test. Hence, it can also be concluded that the application of the Colourful Scramble learning model can increase students' learning results of English lesson for the Simple Present Tense material.

The results of this study also indicate that there is a correlation between increasing critical thinking and students' learning results. Thus, it can be concluded that critical thinking can affect student learning results. For further research, it is highly recommended for researchers to modify the Colourful Scramble learning model to be more like a responsive game so that it can stimulate students' critical thinking more.

REFERENCES

- Alvina Damayanti, I. A. (2020). Peningkatan kemampuan berpikir kritis melalui model Think Pair Share berbantuan permainan Engklek pada siswa sekolah dasar. *Lectura: Jurnal Pendidikan*, 11(2), 197-210
- Apipah, S., & Nurcholifah, S. (2017). Pembelajaran Scramble dengan pendekatan kontekstual untuk meningkatkan kemamouan pemecahan masalah materi himpunan. *PRISMA, Prosiding Seminar Nasional Matematika*. 1, pp. 403-410. Semarang: Universitas Negeri Semarang. Retrieved from <https://journal.unnes.ac.id/sju/index.php/prisma/article/view/21597>
- Ariyanto, M. (2016). Peningkatan hasil belajar IPA materi kenampakan rupa bumi menggunakan model Scramble. *Profesi Pendidikan Dasar*, 3(2), 134-140. Retrieved from <https://journals.ums.ac.id/index.php/ppd/article/view/3844/3513>
- Bachtiar, R. I. (2017). Upaya guru dalam menumbuhkan kemandirian belajar siswa di SD Negeri 22 Banda Aceh. *Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 2(1), 115-123. Retrieved from <https://media.neliti.com/media/publications/187538-ID-upaya-guru-dalam-menumbuhkan-kemandirian.pdf>
- Baloche, L., & Brody, C. M. (2017). Cooperative learning: exploring challenges, crafting innovations. *Journal of Education for Teaching*, 43(3), 274-283. doi:<https://doi.org/10.1080/02607476.2017.1319513>
- Hasudungan, A. N., & Abidin, N. F. (2020). Independent Learning: Forming The Pancasila Learner Through Historical. *Social, Humanities, and Education Studies (SHES): Conference Series* (pp. 34-42). Surakarta: Universitas Sebelas Maret. Retrieved from <https://jurnal.uns.ac.id/SHES/article/viewFile/46219/29174>

- Ismail, S., Suhana, S., & Zakiah, Q. Y. (2021). ANALISIS KEBIJAKAN Penguatan pendidikan karakter dalam mewujudkan pelajar pancasila di sekolah. *Jurnal Manajemen Pendidikan dan Ilmu Sosial*, 2(1), 76-84. doi:<https://doi.org/10.38035/jmpis.v2i1.388>
- Mustaghfiroh, S. (2020). Konsep merdeka belajar perspektif aliran progresivisme. *Jurnal Studi Guru dan Pembelajaran*, 3(1), 141-147. doi:<https://doi.org/10.30605/jsgp.3.1.2020.248>
- Nahdi, D. S. (2015). Meningkatkan kemampuan berpikir kritis dan penalaran matematis siswa melalui model Barin Based Learning. *Journal Cakrawala Pendas*, 1(1), 13-22. Retrieved from <https://media.neliti.com/media/publications/266386-meningkatkan-kemampuan-berpikir-kritis-d-f141f8d8.pdf>
- Najmina, N. (2017). Meningkatkan sikap berpikir kritis dan hasil belajar siswa melalui model Cooperative Learning tipe Group Investigation dalam mata pelajaran PPKn. *Konferensi Nasional Kewarganegaraan III* (pp. 203-208). Yogyakarta: Universitas Ahmad Dahlan.
- Qamariah, N., Gummah, S., & Prasetyo, D. S. (2016). Penerapan model pembelajaran Scramble untuk meningkatkan kemampuan berpikir kreatif siswa. *Prisma Sains: Jurnal Pengkajian Ilmu dan Pembelajaran Matematika dan IPA IKIP Matram*, 4(1), 41-46. Retrieved from <http://ojs.ikipmataram.ac.id/index.php/prismasains/index>
- Saridewi, N. P., & Kusmariyanti, N. N. (2017). Penerapan model pembelajaran Scramble untuk meningkatkan hasil belajar IPA Siswa Kelas IV. *Journal of Education Action Research*, 1(3), 230-239. doi:<http://dx.doi.org/10.23887/jear.v1i3.12687>
- Prameswari, S. S. (2018). Inculctae critical thinking skills in primary schools. *1st National Seminar on Elementary Education (SNPD 2018)*. 1, pp. 742-750. Surakarta: Universitas Sebelas Maret. Retrieved from <https://jurnal.uns.ac.id/SHES/article/view/23648>
- Sudarmi, & Burhanuddin. (2017). Keefektifan model pembelajaran kooperatif tipe scramble dalam keterampilan menulis kalimat Bahasa Jerman siswa kelas XI SMA Negeri 11 Makasar. *Eralingua: Jurnal Pendidikan Bahasa Asing dan Sastra*, 1, 72-79. doi:<https://doi.org/10.26858/eralingua.v1i1.2991>
- Sumira, D. Z., Deasyanti, & Herawati, T. (2017). Pengaruh metode Scramble terhadap kemampuan membaca pemahaman dan kecerdasan interpersonal siswa SD. *Indonesian Journal of Primary Education*, 1(2), 70-76. Retrieved from <http://ejournal.upi.edu/index.php/IJPE/index>

Wahidah, F. R., Setyadi, E. J., & Grafiyana, G. A. (2021). Efektivitas pelatihan Growth mindset pada siswa SMA. *Psycho Idea*, 19(1), 103-114. doi:<http://dx.doi.org/10.30595/psychoidea.v19i1.9147>

Zanthy, L. S. (2016). Pengaruh motivasi belajar ditinjau dari latar belakang pilihan jurusan terhadap kemampuan berpikir kritis mahasiswa di STKIP Siliwangi Bandung. *Jurnal Teori dan Riset Matematika (TEOREMA)*, 1(1), no page. doi:<http://dx.doi.org/10.25157/teorema.v1i1.540>