Improvement of Exposition Text Writing Motivation and Skills Through the Application of the Problem Based Learning Model

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Abstract : This study aims is to improve: (1) student learning motivation; and (2) students' writing skills in writing exposition texts of class VIII on State of Junior High School 3 Surakarta through the application of the Problem Based Learning model. This type of research is Class Action Research (CAR). This research was conducted in three cycles. This research was conducted in State of Junior High School 3 Surakarta in the first semester of the 2018/2019 academic year. This research was conducted in five months, starting from July to November 2018. The subjects of this study were students of class VIII-9 in the first semester of the 2018/2019 academic year with a total of 32 students. The method of data collection is done by using tests, observations, questionnaires and document techniques. Data analysis techniques are carried out using critical analysis. Based on the analysis, the study concluded that: (1) the application of the Problem Based Learning model was able to increase students' motivation in learning Indonesian. This is indicated by an increase in the average score of learning motivation and the number of students with a learning motivation score of classification A (Very Good) and B (Good) in each cycle performed; and (2) the application of the Problem Based Learning model is able to improve students' writing skills in writing exposition texts of class VIII SMP Negeri 3 Surakarta in the first semester of the academic year 2018/2019. This is indicated by an increase in the average student score and the level of student mastery throughout the cycle. The average score of students' writing skills in exposition text writing, increased from 63.09 in the initial conditions, increased to 73.00 at the end of the first cycle, increased to 76.78 at the end of the second cycle, and then increased to 80.22 at the end from Cycle III. The level of mastery of student learning increased from 12.50% in the initial conditions, increasing to 43.75% at the end of the first cycle, increasing to 68.75% at the end of the second cycle, then increasing to 100.00% at the end of cycle III.

Keywords : Problem Based Learning Method, motivation, skills, writing, Text Exposition

I. Introduction

One of the competencies taught in Indonesian language learning is writing skills. Writing skills are very important to learn because writing skills are very important in supporting student success. This is said by Graham et al., (2013) who stated that "Writing is critical to students' success in school and beyond. Writing about material presented in classes or enhancing students 'learning and teaching writing improving students' reading skills ." Another opinion that says that reading skills correlate with writing skills is proposed by Tierney & Leys (1986) which states that" selective reading experiences definitely contribute to writing performance" (Tierney & Leys in Goen & Gillotte-Tropp, 2003).

Based on the results of the initial study, it can be seen that the writing skills of students in class VIII of State of Junior High School 3 Surakarta are still not optimal. Not optimal writing skills are indicated by several indicators that indicate that writing skills are still low. This is indicated by several indicators that can be seen from the results of student writing which include: (1) the main ideas presented are unclear and many paragraphs have more than one main idea, (2) the developer ideas presented are not solid and do not support the main idea, (3) many paragraphs that only consist of or sentences, (4) sentences that are used a lot that have

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an improper structure, (5) the choice of words used is still limited and inaccurate, especially in the use of conjunctions, and (6) punctuation and spelling used are still a lot of mistakes. Based on these indicators the results of the writing are positioned to qualify less than enough.

Based on the evaluation results of the performance in writing, d ari 32 students who take the pretest only 30% reached the criteria of minimum completeness (KKM), while 70% of reached criteria of minimum completeness students have not the (2016) explains the lack of motivation to learn in (KKM). Ihsan's research English. Rosmaya's research (2013) found the problem of students who could not develop ideas or ideas in essays on Junior High Scool in VIII Indonesian Language subjects in exposition text learning with group investigation methods.

The purpose of learning through *PBL is* for students to develop learning and communication skills. This is explained in Wijnia's (2016) study that problem-based learning will provide knowledge stimulation and trigger student interest compared to before. In addition, *PBL* is a way for students to understand *how to learn, how to think and how to live together* (Damiyanti, 2006). Based on this, the researcher is interested in taking the title "Increasing Learning Motivation and Skills in Writing Exposition Texts through Problem Based Learning in Models in State of Junior High School 3 Surakarta."

The aims to improve: (1) the students' motivation in writing skills after the exposition text applied learning model *of problem based learning* class VIII SMP Negeri 3 Surakarta; and (2) improve exposition text writing skills after the implementation of the *problem based learning* learning model of class VIII of State of Junior High School 3 Surakarta.

The hypothesis of this study are: (1) Through the application of the *Problem Based Learning* model can increase students' learning motivation in Indonesian learning aspects of exposition text writing skills; and (2) Through the application of the *Problem Based Learning* model it can improve exposition text writing skills for class VIII-9 students of State of Junior High School 3 Surakarta in the odd semester of school year 2018/2019.

II. Theoritical Review

2.1 Definition of Writing Skills

Writing is a complex activity, not just putting words on paper (Kane, 1998: 17). Writing is a concept or idea that is expressed or conveyed through handwriting from sounds and visual symbols (Marther & McLenithan, 2007: 358).

2.2 Exposition Text

Exposition aims to present, classify, define, describe analogies, compare and contrast information (Marther & McLenithan, 2007: 424). Exposition is defined as the process of understanding and conveying information relating to a topic in a written concept for the purpose of improving one's knowledge (Mosenthal, 1985: 388).

2.3 Motivation to Study

Exposition aims to present, classify, define, describe analogies, compare and contrast information (Marther & McLenithan, 2007: 424). Exposition is defined as the process of understanding and conveying information relating to a topic in a written concept for the purpose of improving one's knowledge (Mosenthal, 1985: 388).

2.4 Model Problem Based Learning

Problem Based Learning is a teaching strategy that is carried out by using problems as a focus in developing content, skills and self-regulation (Eggen & Kauchak, 1969: 264). Problem Based Learning is a teaching approach that involves students in learning to solve problems in real life (Arends, 2012: 396-397). *Problem Based Learning (PBL)* is a pedagogical approach that allows students to be actively involved with problems (Yew & Goh, 2016).

2.5 Relevant Research

Yew & Goh Research (2016) *Problem Based Learning: An Overview of its Process and Impact on Learning*, the results show that *PBL* is an effective teaching and learning approach, especially when evaluated for long-term retention and application of knowledge.

Research Burgess, Roberts, Ayton, & Mellis (2018): A focus group study concludes specifically, that Team-Based Learning results in better preparation, direct feedback on progress and smaller group sizes.

III. Research Method

This study is Class Action analysis performed with three (3) cycles of action. Extensive action research can be defined as an approach where researchers and members collaborate with each other in identifying and developing prescribed problems (Bryman, 2012: 397). the research done in State of Junior High School 3 Surakarta in odd semester of 2018/2019 academic year for 6 (six) months. The research subjects were students in class VIII-9 which consisted of 32 students. The subject was conducted using the *Purposive Sampling* technique, which was for reasons of: (1) lack of interest in learning, (2) classrooms were not conducive, (3) often get conventional learning, (4) values under minimum completeness, (5) low achievement and (6) class location that is not strategic. The method used for early mengumpulk data in this research is me tode tests, observations, questionnaires and documentation. Data analysis techniques are carried out with critical analysis techniques. This technique reveals the weaknesses and strengths of the performance of students and teachers in the teaching and learning process that occurs in the classroom during the research.

IV. Research Results And Discussion

The hypothesis that "The application of *problem based learning* can increase the motivation to learn Indonesian language subjects in class VIII of State of Junior High School 3 Surakarta" proved the truth. This is indicated by the increase in the average score of learning motivation and the number of students with learning motivation scores classification A (Very Good) and B (Good) in each cycle of actions taken. This is indicated by the acquisition of an average learning motivation score in the initial conditions obtained at 43.00 or can be classified into classification C (Good Enough).

Improvement of learning carried out by teachers is to apply the Problem Based Learning (PBL) model. Improvement of learning in Cycle I actions successfully increases student learning motivation in learning Indonesian. This is indicated by the increase in the average score of student learning motivation and the number of students with learning motivation scores classified A (Very Good) and B (Good) compared to the previous conditions.

The results of measurement of learning motivation in Cycle I shows that the lowest score obtained by students is 30, while the highest score is 72. The average score of learning motivation in Cycle I actions is 50.09 or can be classified into classification B (Good).

The average score of student learning motivation increased from as much as 43.00 (classification C) in the initial conditions, increasing to 50.09 (classification B) in Cycle I actions. Increased student learning motivation that was successfully obtained in Cycle I actions was considered not optimal. This is indicated by the non-fulfillment of performance indicators in the form of the number of students with a learning motivation score of classification A (Very Good) and B (Good) reaching \geq 80.00% of the total students, which only reached 50.00%. For this reason, improvement of learning is needed in Cycle II actions.

Improvement of learning in Cycle II actions has succeeded in increasing students' motivation in learning Indonesian. This is indicated by the increase in the average score of student learning motivation and the number of students with learning motivation scores classified A (Very Good) and B (Good) compared to the previous conditions.

The measurement results show that the lowest score obtained by students is 43, while the highest score is 76. The average score of learning motivation in Cycle II is 58.16 or can be classified into classification B (Good). The average score of student learning motivation increases from 50.09 (classification B) in the Cycle I action, increasing to 58.16 (classification B) in the Cycle II action. The number of students with a learning motivation score of classification A (Very Good) and B (Good) increased from as many as 16 students (50.00%) in Cycle I actions, increasing to as many as 22 students (68.75%) in the Cycle II action.

Increasing students' learning motivation that was successfully obtained in Cycle II actions was considered not optimal. This is indicated by the non-fulfillment of performance indicators in the form of the number of students with a learning motivation score of A (Very Good) and B (Good) reaching \geq 80.00% of the total students, which only reached 68.75%. For this reason, improvement of learning is needed in Cycle III actions.

Improving learning in Cycle III actions has succeeded in increasing students' motivation in learning Indonesian. This is indicated by the increase in the average score of student learning motivation and the number of students with learning motivation scores classified A (Very Good) and B (Good) compared to the previous conditions. Increased student learning motivation can be presented in the table below.

No	- Classification	Early		Cycl	Cycle I		Cycle II		Cycle III	
		Jml	%	Jml	%	Jml	%	Jml	%	
1.	Good Sngt	2	6.25	4	12.50	9	28.13	15	46.88	
2.	Well	6	18.75	12	37.50	13	40.63	16	50.00	
3.	Good credit	13	40.63	12	37.50	10	31.25	1	3.13	
4.	Good	11	34.38	4	12.50	0	0.00	0	0.00	
	Total	32	100.0	32	100.0	32	100.0	32	100.0	
	Average	43.00 Pretty good		50.0	50.09		58.16		63.56	
	Classification			Well		Well		Wel	Well	

Table 1. Summary of Increased Student Motivation in Early Conditions - Cycle III

Increasing student learning motivation from initial conditions to Cycle III actions can be presented visually into the following diagram.

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Figure 1: Increased Diagram of Student Learning Motivation Initial Conditions to Cycle III Action

Based on the results mentioned above, it can be concluded that the application of *problem based learning* can increase the motivation to learn Indonesian language subjects in class VIII of State of Junior High School 3 Surakarta. This is indicated by the increase in the average score of learning motivation and the number of students with a learning motivation score classification A (Very Good) and B (Good) in each cycle of actions taken.

The average score of student learning motivation increases from 43.00 (classification C) to the initial conditions, increases to 50.09 (classification B) in Cycle I actions, increases to 58.16 (classification B) in Cycle II actions, then increases to 63.56 (classification B) in Cycle III action. The number of students with a learning motivation score of classification A (Very Good) and B (Good) increased from as many as 8 students (25.00%) in the initial conditions, increased to 16 students (50.00%) in Cycle I actions, increased to 22 students (68.75%) in the Cycle II action, then increased to as many as 31 students (96.88%) in the Cycle III action.

The finding that the application of the model of *Problem Based Learning* (PBL) can increase students' motivation in class VIII-9 State of Junior High School 3 Surakarta in Indonesian language learning aspects of writing skills exposition text supported by several previous studies. This finding is corroborated by the results of a study conducted by Yew & Goh (2016) which concluded that PBL is an effective teaching and learning approach, especially when evaluated for retention and long-term application of knowledge.

The findings of this study are also corroborated by the results of research conducted by Burgess, Roberts, Ayton, & Mellis (2018) in their study entitled "*Implementation of modified teams-based learning within a problem-based learning curriculum: A focus group study*". The results of the Burgess et al. Study concluded that Team Based Learning can improve student learning motivation.

Another study that corroborates the results of this study is the studies conducted by Wijnia (2016), Ardiansah (2015), and Eragamreddy (2015). These studies resulted in conclusions that the application of Problem Based Learning (PBL) model was able to actively involve students in the learning process. This in turn can increase student learning motivation.

Application of *Problem Based Learning* Model to Improve Life Skills Writing Text exposition in Learning Indonesian on Students in VIII-9 of State of Junior High School 3 Surakarta.

The action hypothesis which states that "The application of *problem based learning* can improve exposition text writing skills to eighth grade students of State of Junior High School 3 Surakarta" proved the truth. This is indicated by the increase in the average score of writing skills and completeness of student learning in each cycle of action taken.

The learning outcomes of class VIII-9 State of Junior High School 3 Surakarta in the odd semester of school year 2018/2019 in learning Indonesian language aspects of exposition text writing skills in the initial conditions are still not optimal. Not optimal student learning outcomes are indicated by the acquisition of an average writing skill value of 63.09. This value is still below KKM with KKM> 75.00. On the basis of these matters, the class students are considered classically as yet not achieving mastery learning.

Efforts to improve learning by teachers in Cycle I actions can improve student learning outcomes. This is indicated by the increase in the average value of learning outcomes and the level of mastery of student learning compared to the initial conditions. Based on the final test results of Cycle I action, it can be seen that the lowest value obtained by students is 64.0 and the highest value is 83.0, and the average value obtained is 73.00. The average grade obtained for 73.00 is still below the KKM set by KKM \geq 75.0. On the basis of this, class VIII-9 students have not achieved classical learning in expository text writing skills .

The average value of students' writing skills in Cycle I has increased from 63.09 (Not completed), increasing to 73.00 (Not completed). Student learning completeness increased from 12.50% in the initial conditions, increasing to 43.75% in Cycle I actions.

Based on this fact, it can be said that the increase in learning achievement obtained in Cycle I actions is not optimal. This is indicated by the failure to achieve class completeness classically in the amount of $\geq 80\%$ of the total students have achieved mastery learning. For this reason, improvement of learning is needed in Cycle II actions.

Based on the final test results of Cycle II action, it can be seen that the lowest value obtained by students is 70.0 and the highest value is 87.0, and the average value obtained is 76.78 (Completed). The average grade obtained by 76.78 has exceeded the KKM set by KKM \geq 75.0. On the basis of this, class VIII 9 students have achieved classical learning in expository text writing skills.

The average value of writing skills obtained by students at the end of the second cycle of action has increased, which is equal to 73.00 (incomplete) at the end of Cycle I action, increasing to 76.78 at the end of Cycle II action. The learning completeness has increased from 43.75% at the end of Cycle I action, increasing to 68.75% at the end of Cycle II action.

Increased learning outcomes obtained in Cycle II actions are considered not optimal. This is indicated by the lack of performance indicators in the form of the number of students who have achieved mastery learning with KKM \geq 75.00 reaching \geq 80.00% of the total number of students, which is only 68.75%. On the basis of this matter, efforts to improve learning are needed in Cycle III action. Improvement of learning in Cycle III actions has succeeded in increasing exposition text writing skills to students. This is indicated by the increase in the average value of students' writing skills and mastery learning compared to the previous conditions.

Based on the final test results of Cycle III action, it can be seen that the lowest value obtained by students is 75.0 and the highest value is 90.0, and the average value obtained is

80.22 (Completed). The average grade obtained by 80.22 has exceeded the KKM set by KKM \geq 75.0. On the basis of this, class VIII 9 students have achieved classical learning in expository text writing skills . This shows that the grade completeness in class VIII 9 has reached 100.00%. Based on these results, it can be concluded that the application of problem based learning can improve exposition text writing skills in class VIII students of SMPN 3 Surakarta. The value of the average writing skills of students increases from 63.09 (incomplete) in the initial conditions, increases to be 73.00 (Not completed) at the end of Cycle I action, increasing to 76.78 (Completed) at the end of Cycle II action, then increased from 12.50% in the initial condition, increased to 43.75% in Cycle I action, increased to 68.75% in Cycle II action, then increased to 100.00% in Cycle III action.

Table 2. Increasing the Average Value and Mastery of Student Learning Initial Conditions
Cycle III Actions

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No.	Completeness	Action Stage						
	Completeness	Early	Cycle I	Cycle II	Cycle III			
1.	Complete	4	14	22	32			
		(12.50%)	(43.75%)	(68.75%)	(100.00%)			
2.	Not finished yet	28	18	10	0			
		(87.50%)	(56.25%)	(31.25%)	(0.00%)			
Total		32	32	32	32			
		(100.00%)	(100.00%)	(100.00%)	(100.00%)			
Average value		63.09	73.00	76.78	80.22			
Lowest value		50.00	64.00	70.00	75.00			
The highest score		80.00	83.00	87.00	90.00			
Information		Not finished	Not finished	Complete	Complete			
		yet	yet					
mon	nation	yet	yet	Complete	Complete			

Data on increasing the level of student mastery learning from the initial conditions to the end of Cycle II can be presented in the following diagram.



Figure 2. Increased Learning Completeness Students in the initial conditions - End of Cycle III

The results above indicate that Problem Based Learning model can be used to improve students' understanding of the learning material delivered by the teacher. This is in accordance with the opinion of Sagala (2004) who said that *Problem Based Learning* is a learning model that seeks to instill the basics of scientific thinking in students, so that in this learning process students learn more by themselves, develop creativity in solving problems.

The finding that the use of the *Problem Based Learning* learning model can improve student learning achievement in learning Indonesian reinforces the findings of research conducted by Burgess, Roberts, Ayton, & Mellis (2018). Research conducted by Burgess et al (2018) shows that the use of Problem Based Learning model is able to increase student motivation which in turn can improve student learning achievement. The findings of this study also support the results of a study conducted by Wijnia (2016). Wijnia's (2016) study concluded that the use of Problem Based Learning learning models that can integrate information literacy into training provides a way to engage students actively and to help understand how library research and librarians are in accordance with the task so that they can apply the skills learned in dealing with problems outside the classroom.

The research findings that the use of the *Problem Based Learning* model can improve student learning outcomes in learning also support the findings of research conducted by Chamberlain (2014), Ulger (2018), Aziz et al., (2014), and Sadeghi et al., (2016). The results of their research show that the application of the *Problem Based Learning* model is effective in improving the ability to think creatively and critically [Chamberlain, 2014; Ulger, 2018], improve independent learning skills (Aziz et al., 2014) and writing skills (Sadeghi et al., 2016).

V. Conclusion, Implications and Suggestions

Based on the results of the analysis and discussion, the following research conclusions were obtained : The application of *problem based learning* can improve the learning motivation of Indonesian language subjects in class VIII of of Junior High School 3 Surakarta in the odd semester of school year 2018/2019. This is indicated by the increase in the average score of learning motivation and the number of students with a learning motivation score classification A (Very Good) and B (Good) in each cycle of actions taken .

The application of *problem based learning* can improve exposition text writing skills for class VIII students of of Junior High School 3 Surakarta in the odd semester of school year 2018/2019. This is indicated by the increase in the average score of writing skills and completeness of student learning in each cycle of action taken. The average value of writing skills for students increased from 63.09 (incomplete) in the initial conditions, increased to 73.00 (incomplete) at the end of Cycle I action, increased to 76.78 (completed) at the end of Cycle II action, then increased to amounting to 80.22 (Completed) at the end of Cycle III action. Student learning completeness increased from 12.50% in the initial condition, increased to 43.75% in Cycle I action, increased to 68.75% in Cycle II action.

The results showed that the application of *problem based learning* can increase learning motivation and exposition text writing skills in Indonesian language learning aspects of writing skills for students. These results have both theoretical and practical implications.

The theoretical implications of the results of this study are that learning activities are essentially a process of communication. The students' skill in writing exposition text experienced an increase in each cycle of action is an implication of the application of the applied *Problem Based Learning* model which shows that the teacher has a very important role in the delivery and selection of learning models in accordance with the material to be taught. The application of Problem Based Learning model can improve exposition text writing skills for students.

Based on the results of the study, it can be seen that the application of Problem Based Learning model can increase learning motivation in students. The theoretical implications of the results of this study are that learning will be able to increase learning motivation in students if it is done by encouraging students to be actively involved in the learning process. The practical application that can be obtained from the results of this study is that the teacher needs to apply the model that is deemed appropriate to ensure that the learning objectives can be achieved optimally.

Based on the findings of the research results, further suggestions can be made . For the teacher. The results of the study indicate that the use of the problem based learning method can increase product impact and the impact of the learning process carried out. For Principals. The results of the study indicate that one of the obstacles in the learning process is related to the completeness of school facilities and infrastructure. For Further Researchers. The next researcher is expected to develop more in-depth research related to the use of the problem based learning method as an effort to increase the process impact and product impact of a learning activity so that the results obtained in the study will be more comprehensive .

References

- Afifah, R. 2012. "*Bahasa* Inggris Akan Dihapus dari Kurikulum SD". *Artikel*. Kompas Online, 15th December 2012.
- Bryman, A. 2012. Sosial Research Methods (Fourth Edition). New York: Oxford University Press Inc
- Burgess, A., Roberts, C., Ayton, T., & Mellis, C. 2018. Implementation of modified teambased learning within a problem based learning medical curriculum: A focus group study. BMC *Medical Education*, 18(1), 1–7
- Chamberlin, S. A. 2014. "The use of problem-based learning activities to identify creatively gifted mathematics students." *Problem Based Learning and Creativity*. Nanyang, Singapore: National Institute for Education.
- Dai, D. Y., & Sternberg, R. J. 2010. Motivation, Emotion, And Cognition: Integrative Perspective on Intellectual Functioning and Development. London: Lawrence Erlbaum Associates, Inc.
- Dalman. 2012. Keterampilan Membaca. Jakarta : Raja Grafindo
- Damiyanti, M. 2006. Peran Karakteristik Mahasiswa Dalam Pembelajaran Aktif Dengan Sistem PBL. *Journal of Dentistry Indonesia*, 13(1), 107–110
- Dornyei, Csizer, & Nemeth, 2006: 9 Dornyei, Z., Csizer, K., & Nemeth, N. 2006. *Motivation, Language Attitudes and Globalisation: A Hungarian Perspective*. Clevedon, Bufalo and Toronto: Multilingual Matters Ltd
- Eggen, P., & Kauchak, D. 1969. *Educational Psychology: Windows on Classrooms (Eighth Edi)*. United States Of America: Pearson Education, Inc.
- Eggen, P., & Kauchak, D. 2016. Educational psychology: Windows on Classrooms (Tenth Edit). New York: Pearson Education Limited.

- Eragamreddy, N. 2015. Motivating Learners to Learn : Libyan EFL Teachers ' Strategies and a Perspective. *International Journal of English Language & Translation Studies*, 3(02), 42–54
- Goen, S. & Gillotte-Tropp, H. 2003. "Integrating Reading and Writing: A Response to the Basic Writing 'Crisis'." *Journal of Basic Writing*, Vol. 22, No.2, 2003.
- Graham, S., Hebert, M., Capizzi, A. & Morphy, P. 2013. "Teaching writing to middle school istudents: a national survey." *Read Writ* (2013) 27:1015–1042
- Hyland, K. 2008. "Writing theories and writing pedagogies." *Indonesian Journal of English Language Teaching*. 4 (2): 91-110
- Ihsan, M. D. 2016. Student's Motivation In Speaking English. Journal Of English Educators Society (JEES), 1, 31–48
- Mosenthal, P. B. 1985. "Defining The Expository Discourse Continuum: Toward a Taxonomy of Expository Text Types" *Poetics*, 14, 387–414.
- Rosmaya, E. 2013. Pembelajaran Menulis Teks Eksposisi Dengan Menggunakan Pendekatan Kooperatif Tipe Investigasi Kelompok DI SMP. DEIKSIS: Jurnal Pendidikan Bahasa dan Sastra Indonesia, 5(1), 111–127
- Sadeghi, H., Biniaz, M., & Soleimani, H. 2016. "The Impact of Project-Based Language Learning on Iranian EFL Learners' Comparison/Contrast Paragraph Writing Skills." *International Journal of Asian Social Science*, 2016, 6(9): 510-524.
- Sappaile, B. I., Ba, Y., Djam'an, N., Kadir, & Darwis, M. (2018). Pengaruh Penerapan Model Pembelajaran Discovery Learning terhadap Hasil Belajar Matematika Ditinjau dari Minat Belajar Siswa SMP Negeri di Kota Rantepao. Journal of Medives: *Journal of Mathematics Education IKIP Veteran Semarang*, 2(2), 253–266.
- Stringer, E. T., Christensen, L. M., & Baldwin, S. C. 2010. Integrating Teaching, Learning, And Action Research: Enhancing Intruction in the K-12 Classroom. London & New York: Sage Publications Inc.
- Trianto. 2007. Model-model Pembelajaran Inovatif Berorientasi Konstrutivistik. Jakarta: Prestasi Pustaka.
- Ulger, Kani. 2018. "The Effect of Problem-Based Learning on the Creative Thinking and Critical Thinking Disposition of Students in Visual Arts Education." *Interdisciplinary Journal of Problem-Based Learning*, 12(1).
- Wijnia, L. (2016). "The Problem With Problems in Problem-Based Learning: Difference Between Problem Explaining Versus Problem Solving" *Health Professions Education*, 2(2), 59–60.
- Xu, A. F. 2005. Study and practice of problem-based learning (PBL) teaching method in experimental teaching of pathology. *China Higher Medical Education*. 2005;2:114–115.
- Yan, C. 2005. "Application of PBL in traditional pathology education." *Health Vocational Education*. 2005;31:112–113
- Yew, E. H. J., & Goh, K. 2016. "Problem-Based Learning: An Overview of its Process and Impact on Learning." *Health Professions Education*, 2(2), 75–79.