

Digital Teaching Materials Based on Local Wisdom in the Model of Jigsaw Techniques Learning Towards Descriptive Writing Skills

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Abstract—This research is backed by low levels of students' descriptive writing skills. Aims to prove the influence of digital teaching materials based on local wisdom in the model of jigsaw techniques learning towards descriptive writing skills. The study used a quantitative approach with one group pretest-posttest research design. The subject of research is grade V students at SDIT Insan Kamil. Sampling uses purposive sampling and data collection techniques used tests. The analysis of the data used is the t-test. The results showed that digital teaching materials based on local wisdom in the model of jigsaw technique learning had a significant influence on descriptive writing skills. Thus, the digital teaching materials based on local wisdom in the jigsaw techniques are proven to improve the skills of descriptive writing grade V students.

Keywords—*Digital Teaching, Local Wisdom, Jigsaw*

I. INTRODUCTION

The competency in Indonesia language learning focuses on the mastery of four language skills: listening, speaking, reading, and writing. Writing is a vehicle to convey ideas and feelings in writing on certain media. Sokolik suggests that writing is a combination of process and product, while Olson argues that the concept that writing is a process is very useful to young writers [1]. Through writing, students can pour ideas, thoughts into a logical framework, systematically in the form of language symbols and help students to think crystallized [2]. As such, writing activities are a unified process and meaningful results in expressing a variety of ideas, ideas, and feelings in the form of writing so that it needs to be taught early on. The purpose of learning to write in primary schools is that students can produce writing language products effectively and efficiently in a variety of contexts.

The learning process of writing skills in elementary school indeed produces an excellent product of writing

skills. One of the factors causing low learners' writing skills is teachers who prefer grammar in writing than with how to raise ideas in writing [3]. Learners being grammatically well, but the content of the written contents is less weighted. The reason for this is that writing considered boring because it is only an activity to give up or write assignments. Indonesian language learning that only pursues material reliability makes the learning process stiff, monotonous, and less varied. Assumptions arise for learners that the learning of Bahasa Indonesia, especially writing, is challenging learning. The importance of writing skills in schools that are not yet by the expected learning outcomes, of course, need a method to improve the quality of writing in various ways. One of them is by using teaching materials and learning model selection that corresponds to the writing learning stage.

Teaching materials are tools used by teachers to achieve learning objectives. The Industrial Revolution 4.0 demands the use of a variety of teaching materials that utilize technology. One of them is digital-shaped teaching materials. Digital teaching materials differ from conventional or printed materials. Digital teaching materials can have accessed through electronic devices such as computers, notebooks, and mobile phones. The utilization of digital teaching materials in education in the learning field has been widely practice [4].

The use of digital teaching materials based on technology is practical for teachers and students. The teaching materials in access through electronic devices can be used not only in schools but also elsewhere. Therefore, digital teaching materials are the means of communication between teachers and students in accessing learning materials more efficiently. The benefit of using ICT in education is the supporting technology available for communicating with other teachers and students and providing comfort and control in organizing

student learning [5]. Parents and teachers show a more positive attitude about the use of digital media in schools [6]. Thus, digital teaching materials are one of the alternatives that teachers and students can use to utilize technology to achieve learning objectives.

The advantage of local wisdom is learning for every human being who is intelligent, smart, and wise; Local wisdom has positive values to transform to learners to form a positive personality [7]. It is also by the principles of learning Curriculum 2013 in Permendikbud number 103 the year 2014, one of which is recognizing individual differences and the cultural background of learners. The combination of local wisdom values in the learning process provides ethical education-laden learning to think, speak, and behave well so that learning becomes more meaningful to students and positively impacting [8]. Kesiman and Agustini, in his research, suggest that Hypertext-related media learning and locally developed wisdom can be used to improve student motivation and passion in the learning process, as well as develop learners' ability to interact directly with the environment [9]. Therefore, the community of local cultural owners concerned needs to understand the grains presenting local wisdom.

In developing a learning model, one model that teachers can use is a cooperative learning model. Silberman suggests that Jigsaw learning or learning jigsaw is a widely used technique with similarities with the "group-to-group exchange" technique [10]. This technique appropriately used in writing learning. Students can share their writing in the group's exchange.

The results of the researchers conducted in SDIT Insan Kamil found several problems that led to the low writing skills of students in Indonesian subjects, especially on writing descriptions. The problems found in researchers were not yet available appropriate teaching materials to support the ability to write descriptions close to the student environment. The teaching materials available are only provided as mandatory teaching materials in the classroom. The digital teaching materials based on local

wisdom in which they package the learning steps to develop a description and close to the social environment of digitally-packaged student culture, making it easier for teachers and students to achieve their learning objectives.

The exposure encouraged researchers to prove the effectiveness of digital teaching materials based on local wisdom in the jigsaw techniques learning model of student description writing skills. This research aims to prove the effectiveness of digital teaching materials based on local wisdom to the skills of writing students' descriptions in the model of jigsaw techniques for the Indonesian language in the class V SDIT Insan Kamil.

II. RESEARCH METHODS

The study used a quantitative approach, with an experiment as a research method. Design research using one group, Pretest-posttest design. The population of this research is grade IV student SDIT Insan Kamil. Sampling techniques use purposive sampling with class IV A as a Research sample. Data analysis is doing by conducting a test of normality. The hypothesis test is performing using the average difference test and gain test.

III. RESULT AND DISCUSSION

Process data analysis Skills write the students' description at the start by doing a prerequisite test that is test normality. The test results of the normality of pretests and posttest data can be seen in the following table:

TABLE I. TEST NORMALITY

	Kelas	Shapiro-Wilk		
		Statistic	df	Sig.
Keterampilan menulis deskripsi	Pretest	,952	23	,320
	Posttest	,949	23	,282

Based on that data, the significance value is more than 0.05, and it can be said that the two samples are normal distribution. Further analysis is conducting to test the hypothesis by using the T-Test paired sample test. The following test results paired T-Test sample can be seen in the following table:

TABLE II. PAIRED SAMPLE T-TEST

	Paired Differences				t	df	Sig. (2tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower				Upper
Keterampilan Menulis deskripsi	-27,200	15,078	3,016	-33,424	-20,976	23	,000	

Based on the above data obtained by the value of Sig. (2-tailed) for $0.000 < 0.05$, it can be concluding that there is an average difference in the skills of writing students' descriptions before and after treatment. Thus digital

teaching materials based on local wisdom in jigsaw techniques influence the skills of writing students' descriptions.

TABEL III. RESULT N-GAIN ANALYSIS WRITING DESCRIPTION SKILLS

Keterampilan Menulis Deskripsi	\bar{x}	x_{min}	x_{maks}
	73,2	62	85

According to the table above, it can be seen that the average of the N-Gain score gained by the experimental class of 73.2 in the category is quite useful. Descriptively, it can be concluding that the digital teaching materials based on local wisdom in jigsaw techniques proved to be

quite effective in improving the descriptions writing skills of class V student.

It has been submitting before that the purpose of this research is to prove the effectiveness of digital teaching materials based on local wisdom in jigsaw techniques

towards the writing skills of student descriptions. Based on the test results using the test paired sample T-test obtained the value of Sig. (2-tailed) amounting to $0.000 < 0.005$, it can be said that there is a difference in the average student description writing skills before and after the treatment of using digital teaching materials based on local wisdom in the jigsaw technique.

The successful improvement of the skill of writing this description corresponds to the advantages of local wisdom that can be a means of learning for every human being to be intelligent, smart, and prudent; Local wisdom has positive values to transform to learners to form a positive personality [7]. Local wisdom is essential to be close to school and to be the material of interaction for learners [11]. The jigsaw technique learning is also considering to be used to improve the writing description skills. Every time students learn something combined with the material that other learners have learned, it will form a group of knowledge that is online or expertise.

Local wisdom can be internalized in education because it has many advantages. These advantages include (a) local wisdom can be a means of learning for every human being who is intelligent, smart, and prudent; (b) Local wisdom has positive values to transform to learners to form a positive personality [12]. The activities of reading, writing, and interpersonal communication have been fundamentally altering by the digital environment [13]. The increase in the use of digital technology in student learning environments characterized by open teaching methods is an essential aspect of learning. It has a positive effect on the ability and confidence of ICT utilization in learning [14]. Therefore, changes in the use of digital teaching materials must be adapted to facilitate students in learning.

IV. CONCLUSION

Learning with digital teaching materials based on local wisdom in the jigsaw technique learning model proved to be quite effective in improving the skills of writing students' descriptions in class V SDIT Insan Kamil. It is then advising before preparing and performing the learning that teachers should understand and apply the use of teaching materials appropriate to the student's environment. So students will be enthusiastic to follow the learning and active during the learning process. Using digital teaching materials based on local wisdom in learning activities, especially in learning to write descriptions, can be said to be active and efficient. The use of these teaching materials students can follow the learning process enthusiastically and actively so that the skills of writing students' descriptions increased.

REFERENCES

- [1] C. T. Linse, *Practical English Language Teaching Young Learners*. New York: McGraw Hill, 2008.
- [2] D. Srimelisa, H. E. Thahar, and E. Arief, "Kontribusi Keterampilan Membaca Pemahaman Teks Deskripsi Terhadap Keterampilan Menulis Teks Deskripsi Siswa Kelas Vii Smp Negeri 1 Bayang Utara," *Pendidik. Bhs. Indones.*, vol. 8, no. 2, pp. 53–61, 2019, doi: 10.24036/103914-019883.
- [3] Y. Abidin, *Pembelajaran Bahasa Berbasis Pendidikan Karakter*. Bandung: Refika Aditama, 2013.

- [4] K. Dobashi, "Time series analysis of the in class page view history of digital teaching materials using cross table," *Procedia Comput. Sci.*, vol. 60, no. 1, pp. 1032–1040, 2015, doi: 10.1016/j.procs.2015.08.148.
- [5] J. Waycott, S. Bennett, G. Kennedy, B. Dalgarno, and K. Gray, "Digital divides? Student and staff perceptions of information and communication technologies," *Comput. Educ.*, vol. 54, no. 4, pp. 1202–1211, 2010, doi: 10.1016/j.compedu.2009.11.006.
- [6] M. M. Bordialba and J. G. Bochaca, "Digital media for family-school communication? Parents' and teachers' beliefs," *Comput. Educ.*, vol. 132, no. January 2019, pp. 44–62, 2019, doi: 10.1016/j.compedu.2019.01.006.
- [7] Mulyasa E, *Pengembangan dan Implementasi Kurikulum 2013*. Bandung: PT. Remaja Rosdakarya, 2014.
- [8] I. K. D. Aditya, M. Sumantri, and I. G. Astawan, "Pengaruh Model Pembelajaran Learning Cycle (5E) Berbasis Kearifan Lokal Terhadap Sikap Disiplin Belajar Dan Hasil Belajar Ipa Siswa Kelas Iv Sd Gugus V Kecamatan Sukasada," *J. Pendidik. Multikultural Indones.*, vol. 2, no. 1, p. 43, 2019, doi: 10.23887/jpmu.v2i1.20792.
- [9] M. Windu Antara Kesiman and K. Agustini, "The Implementation of Hypertext-based Learning Media for a Local Cultural Based Learning," *J. Inf. Technol. Educ. Innov. Pract.*, vol. 11, no. January 2018, pp. 377–385, 2012, doi: 10.28945/1741.
- [10] M. Silberman, *Active Learning: 101 Strategi Pembelajaran Aktif*. Yogyakarta: YAPPENDIS, 2007.
- [11] C. Pornpimon, A. Wallapha, and C. Prayuth, "Strategy Challenges the Local Wisdom Applications Sustainability in Schools," *Procedia - Soc. Behav. Sci.*, vol. 112, no. Iceepsy 2013, pp. 626–634, 2014, doi: 10.1016/j.sbspro.2014.01.1210.
- [12] Mulyasa E, *Kurikulum Tingkat Satuan Pendidikan*. Bandung: PT. Remaja Rosdakarya, 2012.
- [13] E. Porat, I. Blau, and A. Barak, *Measuring digital literacies: Junior high-school students' perceived competencies versus actual performance*, vol. 126. Elsevier Ltd, 2018.
- [14] R. Schmid and D. Petko, "Does the use of educational technology in personalized learning environments correlate with self-reported digital skills and beliefs of secondary-school students?," *Comput. Educ.*, vol. 136, no. September 2018, pp. 75–86, 2019, doi: 10.1016/j.compedu.2019.03.006.