

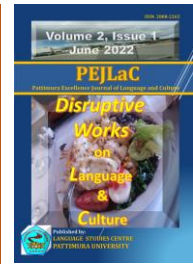


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The Application of Self Organized Learning Environment (SOLE) Learning Model on Learning Outcomes of German Language Teaching Planning Course

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Abstract

The implementation of Distance Learning (PJJ), carried out at the German Language Education Study Program at Pattimura University, is inseparable from various obstacles that hinder the lecture process, one of which is the learning outcomes obtained by students. This study is quasi-experimental quantitative research, namely One-Group Pretest-Posttest, to test the effect of the application of the Self Organized Learning Environment (SOLE) learning model on student learning outcomes in the German Language Teaching Planning Course. The sample consisted of 30 5th-semester students of the German Language Education Study Program. The instrument used in this study was tests. The results of the data analysis showed that the students' posttest was higher than the pretest, with an average score (mean) of the pretest = 74.93 and an average score (mean) of the posttest = 89.86. This result means that there is an influence in the application of the SOLE model on the students' learning outcomes.

Keywords: German, Learning Outcomes, SOLE, Teaching Planning

The significant finding: There is an influence in the application of the Self Organized Learning Environment (SOLE) model on the students' learning outcomes with an average score (mean) of the posttest ~89.9.

Paired Samples Statistics

Pair		Mean	N	Std. Error	
				Deviation	Mean
1	Pretest	74.9333	30	11.92775	2.17770
	Posttest	89.8667	30	6.36658	1.16237

ARTICLES

I. Introduction

The development of Information Technology (IT) in education has led to new teaching and learning methods in universities (Shahmoradi et al., 2018). Universities are essential in implementing short-term education to implement the Sustainable Development Goals (SDGs). The fourth SDG aims to "ensure inclusive and equitable quality education so as to promote lifelong learning opportunities for learners" (Sonetti et al., 2020). Thus, the development of technology today requires every human being to continue learning in the face of the capabilities of artificial intelligence currently developing. The notion is in line with

the objectives of 21st-century learning, which focuses on developing the creativity of students. One of the innovations is working on their ideas/concepts and making decisions that affect project outcomes and the learning process (Pawar et al., 2020).

Concerning the learning process in higher education, Huang (2020) added that innovative learning is a process that sees technology as a partner in realizing abstract concepts born from the correct reasoning process. Innovative learning views technology as the production of thoughts that are responsive to change and, simultaneously, as a bridge that connects the concepts of the human mind to the actual realization of any existing shifts. In education, universities and lecturers must also apply appropriate and relevant learning models

according to the current context to develop students' thinking skills.

The Covid-19 pandemic forces learning to be done through a virtual world known as Distance Learning (Kamil, 2020). The application of distance learning in universities requires lecturers to master the media and support IT-based learning models and innovative learning methods. During the pandemic period, the German Language Education Study Program at Pattimura University has implemented 30% synchronous and 70% asynchronous learning by implementing IT-based learning media that supports such as Google Classroom, Google Form, Whatsapp, Paddlet, Kahoot, and Mentimeter (Wenno, 2021). However, the implementation of distance learning (PJJ) is also experiencing various obstacles that hinder the lecture process, one of which is the low learning outcomes obtained by students in the German Language Teaching Planning course. In addition, students experience difficulties learning independently and in groups to express their ideas due to the lack of interaction between students in the distance learning process (PJJ). In line with these conditions, Karuna (2021), in his research results, explained that the main problem faced by German lecturers and students at Pattimura University related to the implementation of online learning was the readiness of lecturers to face changes in study habits, from guided learning to independent learning, both in terms of learning culture and teaching and readiness to use the internet network and various software both as a learning tool and as a learning aid.

The process of distance learning and the use of IT is integrated into achieving a learning goal. According to Pisoni (2019), the success of

the learning process depends on the learning model used in the classroom. These two processes are brought together and optimized by the Self Organized Learning Environments (SOLE) learning model, where each student is empowered to take responsibility for their learning and is facilitated by technology tools. This learning model is designed based on students whose components include curiosity, cooperation, self-organization, inclusion, social, and the existence of facilities in the form of adult motivation (Mitra, 2015). Furthermore, Celina et al. (2016) added that the SOLE learning model can explore all knowledge so that students can actively build and even create with their knowledge during the learning process. In other words, SOLE is one of the most influential and positive learning models when applied in technology-based language learning. This SOLE model can trigger collaboration and collaboration of students with each other and as a strategy to make students more creative, independent, and confident (Akram & Ghani, 2019). The SOLE learning model emphasizes the independent and free learning process by anyone who wants to learn by utilizing the internet and their smart devices. Freedom to learn new concepts requires every educational institution to maximize the use of technology in the learning process (Anis & Anwar, 2020). In addition, it was found that the results of the latest research show that students need computer-based learning media, one of which is by using Augmented Reality by applying the SOLE learning model (Pratama et al., 2021).

Based on the explanation above, it can be concluded that everyone born has been equipped with curiosity. The presence and development of IT provide convenience in accessing information both for learning and

developing competencies in the world of education. Thus, this study aims to examine the effect of the application of the SOLE learning model on student learning outcomes in the German Language Teaching Planning Course with the hope that students can think creatively, design learning for problem-solving, and have good communicative skills.

II. Research Method

This study used a quasi-experimental quantitative approach, namely the One-Group Pretest-Posttest, which was carried out at the German Language Education Study Program at Pattimura University, to examine whether the application of the SOLE learning model affected student learning outcomes in the German Language Teaching Planning Course. The research sample was 30 students in the 5th semester of the German Language Education Study Program. The instrument used was a test sheet (pre-test and post-test).

The research steps include (1) conducting a pre-test to obtain data on student learning outcomes in the German Language Teaching Planning Course, (2) conducting experiments to apply the SOLE learning model in the lecture process, and (3) carrying out a post-test to obtain an overview of the results of the German Language Teaching Planning course. Furthermore, the student learning outcomes data obtained were then processed and analyzed using the IBM SPSS 26 application.

Table 1. Pretest-Posttest Research Design

Pretest	Treatment	Posttest
O ₁	X	O ₂

III. Results and Discussion

The results found that the SOLE learning model affected students learning outcomes in the German Language Teaching Planning Course, as confirmed in the pretest and posttest. The test consists of 40 questions and is made according to the test instrument grid. Before being used as a data collection tool, the test instrument was first validated. Of the 40 items, there are 30 valid items and 10 invalid items, so in this study, 30 items were used as test instruments. The data from the pretest and posttest research results of student learning outcomes in the German language teaching planning course can be seen in the following table.

Table 2 is the main output table showing the results of the tests carried out. It can be seen from the significant value in the table. Based on the output table of the t-test results, the value of sig = 0.000, which means it is smaller than 0.05. Thus, Ho is rejected, Ha is accepted, or it can be said that there is a difference in the value of student learning outcomes before and after the application of the SOLE learning model.

Furthermore, the Pretest (O₁) learning outcomes data in the German Language Teaching Planning Course from 30 respondents before the application of the SOLE learning model obtained an average value (Mean) = 74.93, standard deviation = 11.9, and standard error of 2.18. Meanwhile, the Posttest (O₂) learning outcomes data in the German Language Teaching Planning Course from 30 respondents after applying the SOLE learning model obtained an average value (Mean) = 89.86 and a standard deviation = 6.3, and a standard error of 1.16. These results indicate that the final test on the data is higher than the initial test. The distribution range of the final

test data is also getting more expansive and with a minor standard error. Thus, it can be concluded that the application of the SOLE model significantly improves student learning outcomes in the German language teaching planning course.

**Table 2. t-test result
Paired Samples Test**

		Paired Differences		Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Mean	Std. Deviation		Lower	Upper			
Pair 1	Pretest-	-	7.27269	1.32780	-	-12.21767	-	29	.000
	Posttest Model SOLE	14.93333			17.64900		11.247		

**Table 3. Descriptive Statistics
Paired Samples Statistics**

Pair		Mean	N	Std. Deviation	Std. Error
					Mean
1	Pretest	74.9333	30	11.92775	2.17770
	Posttest	89.8667	30	6.36658	1.16237

The research data in **Table 2** and **Table 3** show that the application of the SOLE learning model positively influences and contributes to improving student learning outcomes who offer German Language Teaching Planning Courses. In contrast to teaching before the application of the SOLE learning model, the learning outcomes achieved by students were relatively low. It is because previously, the learning model used by lecturers was less varied and less motivating for students. One study conducted by Mitra (2015) showed that by using SOLE, students could learn earlier than their time, retain learning longer, and enjoy an excellent process to explore their

learning more deeply. The results also show that students in groups can read and understand the material at a higher level than everyone's level of understanding. SOLE, which heavily influenced by the Constructivism approach, creates learning and teaching concepts that allow students to take control of their learning processes, giving them the ability to make meaning from their subjects. That is, the role of the lecturer as a facilitator will only observe and supervise students in the learning process, while students are encouraged to work together to answer questions using the internet.

The application of the SOLE learning model also contributes positively to German language students in improving learning outcomes because students experience significant changes in grades in the German Language Teaching Planning Course. Akram & Ghani (2019) stated that there was a change in value with increasing learning outcomes after applying the learning model. The reason is that in applying the SOLE

learning model, activities in the class synchronously and asynchronously are student-centered, while the lecturer only acts as a facilitator (Weisblat et al., 2019). Student-centered activities are carried out by grouping to work together in the German language learning process. The SOLE learning model emphasizes the independent learning process of anyone who wants to learn by utilizing the internet and their smart devices (Al-Nofaie, 2018; Tsai et al., 2020). In the context of learning in higher education, the SOLE learning model is used by lecturers to explore the depth of understanding of the material students by utilizing the curiosity possessed by these students to find the latest references or other information related to the themes discussed in the German Language Learning Planning lecture. In addition, social attitudes are also prioritized to achieve learning goals, namely by collaborating between students in small groups to complete tasks together (Bekezhanova & Dukembay, 2020). Thus, it can be said that in the application of the SOLE learning model, students are not used as learning objects but as learning subjects, because they can be maximally active and creative during the learning process by utilizing technology and online learning platforms that have been provided by lecturers (Mitra, 2018).

In the higher education learning context, student learning activities are highly dependent on how they organize and organize their learning environment creatively and innovatively. This learning model can trigger students to be active in the learning process to develop their critical thinking skills, especially in designing learning to achieve goals (Styers et al.,

2018). In addition, in conveying thoughts and opinions, students are not afraid because there is an element of openness in the learning process, so without realizing it, with the SOLE learning model, there has also been active communication between students. The final step in implementing the SOLE learning model is for students to present the results of exploration and investigation related to the themes that have been worked on in small groups and build good interactions between groups in discussion activities. Lecturers and students do it to evaluate and reflect on each theme or subject presented by each group. Lecturers provide feedback and suggestions to each group to improve the results of group exploration and investigation (Amit, 2020). With the application of the SOLE learning model, students' learning motivation increases, followed by an increase in German learning outcomes, as evidence that the SOLE learning model significantly influences student learning outcomes of the German Language Education Study Program in the German Language Teaching Planning Course.

IV. Conclusion

From the research stages that have been carried out, it can be concluded that (1) The score of students learning outcomes in the German Language Teaching Planning Course when applying the SOLE learning model is higher than the score of student learning outcomes without applying the SOLE learning model. (2) The application of the SOLE learning model provides a positive contribution for lecturers to understand more deeply the characteristics and interests of students in

learning German synchronously and asynchronously so that it can effectively be applied. (3) Students can study independently, collaborate in groups to explore any material obtained, express opinions, practice internet literacy, and train readiness in making presentations.

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Conflict of Interest

The authors declare that we have no any conflicts of interest with another scientists both financially grants and ideas.

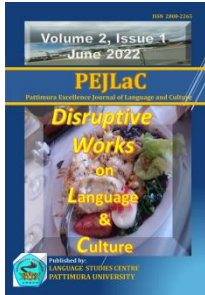

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