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THE EFFECT OF INTERACTIVE LEARNING MODELS ON STUDENTS' GERMAN WRITING SKILLS CLASS XI

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ABSTRAK

Menulis merupakan salah satu dari empat keterampilan bahasa yang harus dikuasai oleh siswa dalam mempelajari bahasa asing, termasuk bahasa Jerman, sesuai dengan kurikulum sekolah menengah atas. Penelitian ini bertujuan untuk menentukan pengaruh model pembelajaran interaktif terhadap keterampilan menulis bahasa Jerman siswa kelas XI jurusan IPA di Taman Madya (Sekolah Menengah Atas Swasta) Tamansiswa Pematangsiantar. Penelitian ini bersifat kuantitatif, menggunakan desain pra-eksperimen dengan desain satu kelompok pra-tes dan pasca-tes. Instrumen penelitian yang digunakan adalah tes esai yang terdiri dari satu pertanyaan. Hasil analisis data menunjukkan bahwa rata-rata skor Pretest adalah 43, sedangkan rata-rata skor Posttest adalah 87. Sampel penelitian terdiri dari kelas XI-2 dengan 35 siswa. Berdasarkan pengujian hipotesis menggunakan uji T dan uji N-Gain, hasil uji T menunjukkan bahwa nilai t yang dihitung adalah 25,060, sedangkan nilai t tabel dengan df = 34 pada tingkat signifikansi 0,05 adalah 1,691. Karena t-hitung > t-tabel (25,060 > 1,691), H1 diterima dan H0 ditolak. Selain itu, persentase skor N-Gain adalah 73,57%. Oleh karena itu, dapat disimpulkan bahwa model pembelajaran interaktif memiliki pengaruh yang signifikan terhadap kemampuan menulis bahasa Jerman siswa kelas XI jurusan IPA di Sekolah Menengah Atas Swasta Taman Madya Tamansiswa Pematangsiantar.

Keywords:
Interactive Learning Model, Writing Skills

ABSTRACT

Writing is one of the four language skills that students must master in learning a foreign language, including German, according to the high school curriculum. This study aims to determine the effect of the interactive learning model on the German writing skills of the eleventh-grade science students at Taman Madya (Private Senior High School) Tamansiswa Pematangsiantar. This research is quantitative in nature, employing a Pre-Experimental design with a One Group Pretest-Posttest Design. The research instrument used was an essay test consisting of one question. The results of the data analysis showed that the average Pretest score was 43, while the average Posttest score was 87. The research sample consisted of class XI-2 with 35 students. Based on hypothesis testing using the T-test and N-Gain test, the T-test results showed that the calculated t-value was 25.060, while the t-table value with df = 34 at a significance level of 0.05 was 1.691. Since t-calculated > t-table (25.060 > 1.691), H1 is accepted and H0 is rejected. Furthermore, the N-Gain percentage score was 73.57%. Therefore, it can be concluded that the interactive learning model has a significant effect on the German writing skills of the eleventh-grade science students at Taman Madya (Private Senior High School) Tamansiswa Pematangsiantar.

1. Introduction

Language, as a means of communication, plays a vital role in human life, allowing us to interact and discuss anything. In today's era of globalization, mastering international languages, as taught from elementary school to high school, is crucial. Language subjects vary from school to school, depending on the facilities available and the curriculum used. (AA Putri & Ardi, 2021). German is one of the most widely spoken languages in Europe and the world. Besides Germany, it is also spoken in several other countries, such as Belgium, Austria, Switzerland, and Luxembourg. Mastering German increases one's chances of working or furthering their studies in these countries. German is a foreign language taught in high schools (SMA/SMK) according to the established curriculum (Puspaningrum et al., 2021). German encompasses four skills: reading (Lesen), writing (Schreiben), listening (Hören), and speaking (Sprechen). However, German writing skills are not easy for students; many students struggle to express their ideas and are less active in class (Sitinjak & Siahaan, 2021).

Writing is one of the four language skills that students must master in learning a foreign language, including German, according to the high school curriculum. This skill requires not only mastery of grammar, vocabulary, and spelling, but also the ability to organize ideas coherently, logically, and communicatively. In practice, German writing remains a challenge for students. (Agustin et al., 2021).

At the GER A1 level, German writing skills focus on constructing simple sentences and short messages related to everyday life. Students are expected to be able to introduce themselves in writing, write a postcard from a vacation, or respond to an invitation in clear, easy-to-understand sentences. The structure of the writing remains simple, typically consisting of a subject, verb, and object, and uses basic vocabulary such as names, addresses, daily activities, and time expressions. (Ricu Sidiq & Najuah, 2020). Writing at this level aims to train students to communicate in writing in common and familiar situations, such as filling out forms, writing short emails, or making personal notes. (Vivien Pitriani et al., 2021). Based on various observations in the field, many students experience difficulties in expressing ideas in German with the correct structure and appropriate vocabulary. (Setyowati et al., 2020).

Based on the results of observations on Field Experience Practice (PPL) in class XI IPA Taman Madya (SMA) Private Tamansiswa Pematangsiantar, difficulties were found in writing skills, namely the results of the learning evaluation of class XI SMA students with a KKM of 75, it is known that the achievement of student learning outcomes is divided into several value categories. Of the total number of students, 5 people (16.12%) obtained scores between 89-100. They are included in the complete category with a very good predicate. Furthermore, 7 students (22.58%) are in the range of 70-88 scores and are also

declared complete because they have met the value standards. Meanwhile, there are 10 students (32.25%) who obtained scores between 54-69 (Maharani et al., 2019). They were categorized as incomplete because their scores did not meet the required grade. Furthermore, 9 students (29.03%) obtained scores below 54, which also fall into the incomplete category and require further attention. Overall, 12 students, or approximately 38.7%, completed their studies, while 19 students, or 61.3%, did not complete their studies. These results indicate that most students still require guidance and material reinforcement to achieve the established competency standards. (ZINNURAIN, 2021).

Many students still lack understanding of how to write letters. They also struggle with placing verbs in sentences. Furthermore, many students struggle with verb conjugation and German grammar at A1 level. Furthermore, many students have not yet mastered German vocabulary, and their motivation to learn is still low (Pasaribu & Syahputra, 2022). Furthermore, many students are unfocused and less active during the learning process. Teachers still employ lecture-based or conventional methods, which negatively impact students' learning interests. (NA Putri et al., 2021).

The interactive learning model is a learning approach that involves two-way communication between teachers and students, as well as between students themselves. The interactive learning model is often known as the child-question approach. Setiawan (Pandiangan et al., 2022) The interactive learning model is an approach that emphasizes active student involvement in the learning process through dynamic interactions between teachers, students, and learning materials. This model can encourage students to discuss, ask questions, conduct simulations, and other activities. Its characteristics include active involvement, direct feedback, experiential learning, and collaboration. The use of this interactive learning model is expected to contribute to the learning process and enable students to understand each German language material explained by the teacher. Students are expected to be more confident in expressing their opinions based on the material taught and able to collaborate with other students in evaluating the material discussed in class, especially regarding German sentence writing skills (Arrum et al., 2021).

Previous research conducted by Mulyono et al., (Djaha & Darmastuti, 2020) At MTS Amin Darussalam, an interactive learning model based on Think Pair Share was developed to improve students' mathematical communication skills. This model was proven valid, practical, and effective, with improved communication skills. Therefore, the researcher implemented this interactive learning model to improve writing skills. (Pratiwi & Suprianto, 2020) . With this interactive learning model, the learning process for students, especially writing skills, is much easier. Therefore, this research will be packaged under the title "The Effect of Learning Models on German Writing Skills of Class XI Students of Taman Madya (SMA) Swasta Tamansiswa Pematangsiantar

2. Method

This type of research uses a quantitative research approach. According to Sugiyono (2022), quantitative research can be classified into several types, including descriptive, associative, and causal research (Audhiha et al., 2022) . The quantitative data in this study were obtained from student learning outcomes in writing skills by applying an

interactive learning model, namely using an experimental approach by providing treatment to an experimental class, with a pre-experimental design type. One form of pre-experimental design used in this study is the One-Group Pretest Posttest. In this design, there is a pretest before the treatment is given and a posttest after the treatment is given. Thus, the results of the research conducted can be understood more clearly, because the conditions before and after the treatment are given can be clearly compared (Maslahah, 2022) .

The purpose of the location and time of this research is to help facilitate useful information in terms of collecting data obtained from information involved in the research. So the location of the school that became the research site was Class XI Taman Madya (SMA) Private Tamansiswa Pematangsiantar. The population in this study were all students of class XI IPA Taman Madya (SMA) Private Tamansiswa Pematangsiantar. Sugiyono (Setyawati et al., 2020) argues that population is a generalization area consisting of objects and subjects that have certain qualities and characteristics that are determined to be studied and then conclusions are drawn. Samples are used to represent the population in research, especially when the population is too large to be studied in its entirety (Sari, 2024). According to Sugiyono (Sugiyono, 2020) samples are part of the number and characteristics possessed by the population. In this study, the sampling technique used was sample random sampling. In this study there are two variables, namely one independent variable called x and one dependent variable called y. According to Sugiyono (2017), research variables are attributes and characteristics or values of people, objects or activities that have certain variations that are determined by researchers to be studied and then conclusions drawn.

According to Sugiyono (Ardiansyah, 2021) , data collection techniques are the methods researchers use to gather the data needed for the study. This is a crucial step in research because the primary goal is to obtain valid and accurate data. Sugiyono (TURSILO, 2020) also highlights several data collection techniques, including observation, interviews, documentation, and triangulation. This research took place in the eleventh grade science class of Taman Madya (SMA) Swasta Tamansiswa Pematangsiantar

3. Result and Discussion

Description of Research Results

This type of research uses a quantitative research approach. Quantitative data in this study were obtained from student learning outcomes in writing skills by applying an interactive learning model, namely using an experimental approach by providing treatment to an experimental class, with a pre-experimental design type. One form of pre-experimental design used in this study is the One-Group Pretest Posttest. In this design, there is a pretest before the treatment is given and a posttest after it is given. Thus, the results of the research conducted can be understood more clearly, because the conditions before and after the treatment are given can be clearly compared (Sirait & Sitohang, 2023) .

The research was conducted from September 9 to 15, 2025 in class XI-2 IPA Taman Madya (SMA) Swasta Tamansiswa Pematangsiantar with 35 students. The following presents the research data on class X1-2 IPA Taman Madya (SMA) Swasta Tamansiswa Pematangsiantar.

Hypothesis Test Results

In this study, a paired sample test was used to determine the influence of the interactive learning model. regarding the writing ability of class XI students in German language subjects, can be seen in the following table:

Table 1. Hypothesis Test Results

Paired Samples Test

		Paired Differences					t	df	Sig.
		Mean	Standa d eviatio	Std. rror lean	95% nterval ifference Lower	Confidence of the Upper			2- ailed
Pair 1	Posttest - retest	40,714	9.6 12	1.62 5	37,413	44,016	25,06	34	.000

Based on table 4.4 above , it is known that t_{count} = 25.060 with a significance level (2 tailed) of 0.000, the probability of significance of $t_{count} > t_{table}$ = 25.060 > 1.691 , so H0 is rejected and H1 is accepted. This explanation shows that there is an influence of the interactive learning model on the German writing skills of class XI IPA students at Taman Mayda (SMA) Private Tamansiswa Pematangsiantar.

Results Test Gain Normalization (N-Gain)

Calculation of the use of interactive learning models using IBM SPSS 22 *for Windows* .

Table 2 . Descriptive Statistics (*Posttest-Pretest*)

)escriptive Statistics

	N	Minimu m	Maximu m	Mean	Standard Deviation
Posttest_less_Pretest	35	19.00	56.00	40.7143	9.61179
Valid N (listwise)	35				

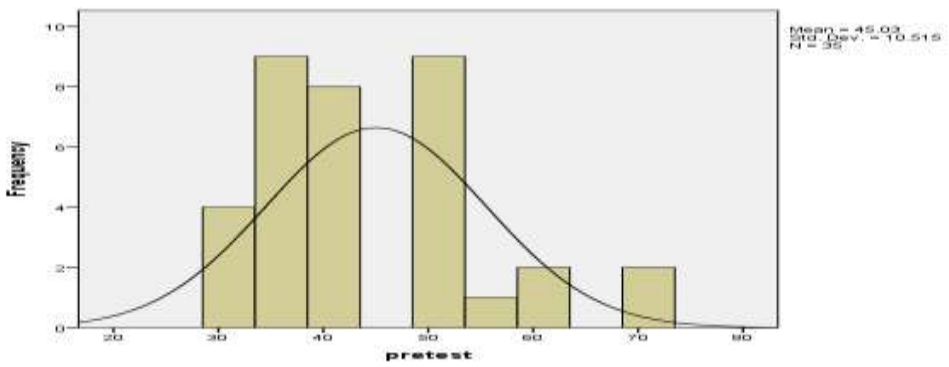

Figure 1. Writing skills *pretest graph*

The figure above shows the distribution of *pretest scores* from 35 students with an average (mean) of 44.74 and a standard deviation of 10.515. The graph shows that most students scored in the 30–50 range, with the highest frequency being around 9–10 students. Only a few students achieved scores above 60, and scores below 30. This distribution pattern tends to be skewed to the right (positive skew), indicating that the majority of students still had low scores in the *pretest stage* before being given the learning treatment (Firmansah & Firdaus, 2021) .

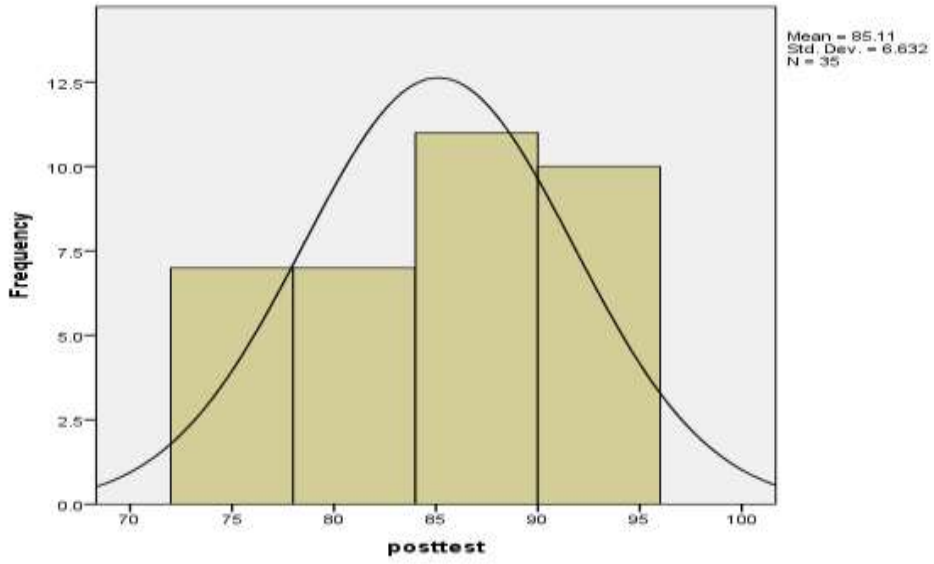

Figure 2. *Posttest graph* of writing skills

The figure above shows the distribution of posttest scores from 35 students with an average (mean) of 85.45 and a standard deviation of 6.632. The shape of the histogram approaches a normal distribution, as seen from the bell curve that curves above the histogram bars. Most students' scores fall in the 85–90 range, with the highest frequency being around 12 students. In addition, there are also a number of students who scored in the 75–80 and 90–95 ranges. Overall, the distribution of *posttest scores* tends to be normal, with the majority of students scoring above the average.

Discussion

This study aims to determine whether there is an influence of interactive learning models on German writing skills at level A1 of students of class XI IPA Taman Madya (SMA) Private Tamansiswa Pematangsiantar. The type of research conducted is *Pre-Experimental design* with *One Group Pretest-Posttest Design* . The population in this study is class XI IPA SMA with a sample of only one class, namely class XI-2 IPA Taman Madya (SMA) Private Tamansiswa Pematangsiantar consisting of 35 students.

During the research, the researcher administered a pretest *to* measure the students' skills before the treatment was administered . At the second meeting, the researcher administered the treatment , which involved learning using an interactive learning model. The researcher then administered a posttest *to* measure the effect of the interactive learning model on the students' A1 level writing skills after the *treatment* .

(Rahmawati et al., 2020). The time allocation used is 4 x 45 minutes, in 4 lesson hours or equivalent to 2 meetings. (lista et al, 2025).

After the research phase was completed, the researchers analyzed the data from *the pretest* and *posttest results* . The *pretest table* shows the total of all data divided by the number of data determined as the average *pretest value,* which is 44.74. (Taryanto, 2023) . The highest score of the *Pretest question* was 6.2.00 and the lowest score was 31.00. The average score *of the Posttest* was 85.45. The highest score of the *Posttest question* was 93.00 and the lowest score was 75.00. It can be concluded that the average score *of the Posttest* was higher than the *Pretest score.* (Khamidah et al., 2019).

After *the Pretest* and *Posttest data* were known, a normality test was conducted. The normality test was used to determine whether the research data obtained were normally distributed. Because the results were significant 0.09 > 0.05, the data obtained were normally distributed. After the normality test was known, the next step to determine the statistical hypothesis was the *Paired Samples T-Test.* The results of the *Paired Samples T-Test* showed that Tcount was 25,060 with a significance level (2 tailed) of 0.000, T - table was = 1.691 . Thus, T - count > T - table = 25,060 > 1.69 1 , it can be concluded that H0 is rejected and H1 is accepted, which means there is an influence of the interactive learning model on the writing skills of level A1 students of class XI IPA Taman Madya (SMA) Swasta Tamansiswa Pematangsiantar. (Pane, 2024). Next, a Normalized Gain (*N-Gain*) test was conducted to determine the effect of the interactive learning model. From the results of the calculation of the average N-Gain score, the result was 0.73 and the N-Gain percentage score was 73.57%. With the results obtained, it can be concluded that the interactive learning model has a significant effect on the writing skills of level A1 students of class XI IPA Taman Madya (SMA) Swasta Tamansiswa Pematangsiatar (Ivo Rohma Dwitha Turnip, Yanti Arasi Sidabutar, 2024).

The differences from the previous research are, the previous research has several fundamental differences with the current research. In terms of research location, the previous researcher conducted his research at MTS Amin Darussalam which is equivalent to junior high school level, while this research was conducted at SMA Swasta Tamansiswa Pematangsiantar at the high school level. Another difference lies in the research subjects, where the previous researcher used MTs students as subjects, while this study used grade XI IPA-2 SMA students as subjects.

In terms of media or research materials, previous researchers focused on improving mathematical communication skills through the Think Pair Share (TPS) learning model, while this research focuses on improving German writing skills using the model. interactive learning.

The next difference lies in the type of research. Previous researchers conducted learning model development research (R&D) to demonstrate the model's validity, practicality, and effectiveness through two phases of trials. Meanwhile, this study employed quantitative methods with a pre-experimental design (One Group Pretest-Posttest Design).

In terms of objectives, the previous study aimed to develop a TPS-based interactive learning model and measure its effectiveness in improving mathematical

communication. Meanwhile, this study aims to determine the effect of the interactive learning model on German writing skills.

The research results also show differences. In previous research, an increase in mathematical communication skills was found from the test. trial I (N-Gain = 0.30 low category) to trial II (medium category). Meanwhile, in this study, an increase in the average value was obtained from 43 in the pretest to 87 in the posttest, with the T-test results showing that the t-count (25.060) was greater than the t-table (1.691), as well as an N-Gain score of 73.57% which is included in the high category.

Thus, it can be concluded that the two studies have differences in terms of location, subject, media, type of research, objectives, and results, even though they both use an interactive learning model approach.

4. Conclusion

Based on the research results and discussions that have been presented, it can be concluded that the average value of the Posttest of students' writing skills after being given treatment (Treatment) is 85.45 and the average value of the Pretest before being given treatment (Treatment) is 44.74, so it is concluded that there is an influence of the interactive learning model on the writing skills of level A1 students of class XI IPA Taman Madya (SMA) Swasta Tamansiswa Pematangsiatar. This is proven by the normality test scores obtained which are normally distributed because the results are significant 0.09> 0.05. The Hypothesis Test that has been carried out, obtained statistical results of T-count of 25,060 with a significant level (2 tailed) of 0.000, Ttable of = 1.691. Thus T-count> Ttable = 25,060> 1.691, it can be concluded that H0 is rejected and H1 is accepted. And the Normalized Gain Test (N-Gain) with a score of 0.73 and an N-Gain percentage score of 73.57%. With the results obtained, it can be concluded that the interactive learning model has a significant impact on A1 level writing skills

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