The Impact of Critical Thinking and Teaching Methods on Students' Writing Ability

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Abstract – *In today's global culture, writing—once thought to be the domain of the educated—has evolved into a critical ability for people from all walks of life. One of the most challenging language production tasks is writing, and both professional and amateur writers routinely lament the process' complexity and difficulty. Students need to be able to think critically to generate an idea. The aim of this study was to ascertain how instructional methods and critical thinking interact to affect students' writing abilities. An experimental research design was adopted. There were 80 pupils in the sample, 40 from MAN 1 Kabupaten Tangerang's experiment class and 40 from MAN 2 Tangerang's control class. The sampling method that was employed. The findings of the validity and reliability tests of the writing ability and critical thinking (30 items) were tested using research instruments. Two-way ANOVA analysis was the test utilized, and the outcome revealed: (1) At State Islamic High School 1 Tangerang Regency, educational methods have a major impact on pupils' writing abilities. It is demonstrated by the values of Fo = 77,449 and sig 0,000 < 0,05. (2) At State Islamic High School 2 Tangerang, pupils' writing abilities are significantly impacted by critical thinking. The values of sig 0,000 < 0,05 and Fo = 51,791 demonstrate this. (3) Do teaching methods and critical thinking have any discernible interacting effects on students' writing abilities at State Islamic High School in Tangerang?*
Keyword: Teaching Methods, Writing Ability, and Critical Thinking

Abstrak - *Dalam budaya global saat ini, menulis-yang dulunya dianggap sebagai domain kaum terpelajar-telah berkembang menjadi kemampuan penting bagi orang-orang dari semua lapisan masyarakat. Salah satu tugas produksi bahasa yang paling menantang adalah menulis, dan baik penulis profesional maupun amatir secara rutin mengeluhkan kerumitan dan kesulitan dalam proses tersebut. Siswa harus mampu berpikir kritis untuk menghasilkan ide. Tujuan dari penelitian ini adalah untuk mengetahui bagaimana metode pembelajaran dan pemikiran kritis berinteraksi untuk mempengaruhi kemampuan menulis siswa. Desain penelitian eksperimental diadopsi. Sampel penelitian berjumlah 80 siswa, 40 siswa dari kelas eksperimen MAN 1 Kabupaten Tangerang dan 40 siswa dari kelas kontrol MAN 2 Tangerang. Metode pengambilan sampel yang digunakan. Temuan uji validitas dan reliabilitas dari kemampuan menulis dan berpikir kritis (30 butir soal) diuji dengan menggunakan instrumen penelitian. Analisis ANOVA dua arah adalah uji yang digunakan, dan hasilnya menunjukkan: (1) Di SMA Islam Negeri 1 Kabupaten Tangerang, metode pendidikan memiliki dampak besar pada kemampuan menulis siswa. Hal ini ditunjukkan dengan nilai Fo = 77,449 dan sig 0,000 < 0,05. (2) Di SMA Islam Negeri 2 Tangerang, kemampuan menulis siswa dipengaruhi secara signifikan oleh pemikiran kritis. Nilai sig 0,000 < 0,05 dan Fo = 51,791 menunjukkan hal ini. (3) Apakah metode pengajaran dan berpikir kritis memiliki efek interaksi yang terlihat pada kemampuan menulis siswa di Sekolah Menengah Atas Islam Negeri di Tangerang?*
Kata Kunci: Metode Pengajaran, Kemampuan Menulis, dan Berpikir Kritis

INTRODUCTION

Every element and contact in our daily lives depend on language. We use language to ask questions, understand the world around us, and communicate our feelings and desires to those around us. In a variety of contexts, we can effectively communicate with words, gestures, and voice intonation. What sets humans apart from other animal species is our capacity for interpersonal communication, bonding, and teamwork. Our life and ourselves are driven by communication.

It's easy to undervalue the significance of communication. even if they can speak to one another. Misunderstandings occur. Keep in mind that communication is a two-way street that needs to be welcomed rather than disregarded. Unbelievably, some people might be conceited enough to think that they cannot travel to other nations without having any knowledge of the local language or culture. The value of language is advantageous whether it is done for leisure, professional advancement, or even just leisure travel.

The psychological impact of open communication during business dealings is another factor. Compared to using a translation for all communications, you will have a more intimate relationship with your clients, and they are more inclined to trust what you are saying. This could be a crucial step in creating enduring and solid commercial ties that support your own company's growth.

Some educational institutions are realizing the value of language. As early as middle school, they start offering to teach a second language. Certain language proficiency is becoming a necessity for many employers and educational institutions.

In Indonesia, English as a Foreign Language (EFL) is typically taught in settings where English is not the primary language of the community or the school. English is a crucial subject to learn in school because of these factors. Students will not be able to speak successfully in English if they do not know correct English. When someone doesn't speak English correctly, they can't reach their full potential. Finding and keeping a job requires being able to communicate with others, which requires learning English.

In terms of the sheer number of speakers, English is the most spoken official language in the world and ranks fourth among native languages. In international affairs, it is the most used language. Even in countries where it is not the most widely spoken language, English is an official language. Unquestionably, English is the main language used in international trade and business. To communicate and engage with tourists and immigrants, most tourism authorities and other public officials in many nations understand English.

There are four abilities we need to master to communicate when learning English. Learning our original language often starts with listening, followed by speaking, reading, and writing. The fourth of the four language abilities is writing.

Writing is the process of expressing ideas and thoughts in a comprehensible format by employing symbols, such as alphabet letters, punctuation, and spaces. Since many aspects of writing are fundamental to literacy, learning how to write is vital. The writing ought to have a goal and be applicable to all subject areas. However, being able to write for a range of audiences and in a variety of formats is essential for successful writing.

Another crucial activity in English classes is writing. According to the school-based curriculum used in Indonesia, senior high school students should be able to communicate at a level that goes beyond simply learning grammar and vocabulary. It might be said that students concentrate on creating a new text in addition to comprehending the one that is being taught.

There are several justifications for requiring pupils to practice both inside and outside of the classroom. To write on a certain kind of content, they might select their own theme or subject. Thinking about the language gives students extra opportunities to process it. "States that writing is a process and that we write is frequently heavily influenced by constraints of genres, then these elements have to be present in learning," adds Harmer (2004:86). According to this explanation, students will focus more on the topic, appropriate title, word choice (diction), etc., and will revise often to get the desired outcome.

Writing is regarded as one of the most difficult language abilities to master yet being one of the most crucial ones in English. Writing abilities are more intricate and challenging to teach since they call for mastery of concepts and judgment in addition to grammatical rules. Thinking and creative abilities are always used in the writing process. Furthermore, it is backed by strict regulations. The key to writing well is mastering grammar and vocabulary. To organize words into sentences and develop them into paragraphs, we must select suitable vocabulary. In addition, we must convey an occurrence at a specific time by using the compatible tense, which is a part of grammar.

Students need to develop their writing abilities because it's more than just putting words on paper. Writing does not follow a rational learning path. Writing requires deliberate practice and training. They used to make improper use of the simple past tense. Sometimes students have trouble telling normal verbs from irregular verbs while writing sentences. Usually, they use the basic present tense form to construct paragraphs of recount text. They are not confident enough to construct their own sentences. Because of this problem, most students find it difficult to write well.

Out of all abilities, writing is the most challenging for language learners. Writing involves more than just coming up with ideas; it also involves structuring those thoughts into coherent phrases. Furthermore, writing in a foreign language will increase the level of writing difficulty. is English in this instance. "Writing is the most difficult ability for foreign language learners to master, with difficulties laying not only in organizing and generating ideas but also in translating those ideas into readable text," according to Richards and Renandya (2002: 303). In writing, thought organization is crucial. Writing is not constrained by time or location-like speech is. "Writing takes language out of the constraints and immediacy of time and arranges it hierarchically," according to Knapp and Watkins (2005:15). Consequently, one can examine concepts or information in writing and translate them into written language without sacrificing specifics.

In today's global society, writing—once thought to be the purview of the well-educated—has evolved into a vital ability for people from all walks of life (Weigle, 2002). Writing is one of the least understood language production duties, and both professional and amateur writers frequently complain about how difficult and complicated the process is.

Based on this instance, students must be able to think critically to come up with ideas. "Critical thinking is a cognitive activity which means thinking in the best way and using mental processes like attention, selection, judgment, etc." is how Corttrell (2005) defines it. People become more accurate in pertinent topics, more precise in their work and thought processes, and better decision makers as a result.

Using a set of reflecting attitudes, abilities, and abilities to guide ideas, beliefs, and actions, critical thinking is founded on reflective thinking, which is concerned with interpreting, analyzing, critiquing, synthesizing, and evaluating information, arguments, and experiences. However, both positive and negative traits can and should be constructively reflected in evaluation. When we think critically, we are assessing the results of our reasoning, such as the quality of a choice or the solution to an issue. Evaluating the logic and thought process that led to the conclusion we reached, or the types of considerations taken into consideration when reaching a decision is another aspect of critical thinking. Because it concentrates on achieving a desired result, critical thinking is frequently referred to as direct thinking. The category of critical thinking does not include daydreams, nightdreams, or other types of thinking that are not done for a specific reason. Neither is the way of thinking that drives our daily routines, like getting out of bed in the morning, cleaning our teeth, or traveling the same path to work and school, which, while goal-oriented, entail very little conscious reflection. These are instances of automatic or non-directed thought. The repetitive recall of facts (such as naming all the capitals) or the disregard for evidence that could contradict your preferred conclusion are more instances of noncritical thinking.

Many students struggled with writing in English, according to the researcher's teaching experience, especially when it came to teaching writing. First, because they were unable to articulate this, the students' ability to generate, organize, and elaborate ideas was poor. Second, the pupils struggled to utilize proper grammar. Third, the pupils' diction and vocabulary were lacking. Finally, the pupils' use of mechanical convention in their writing was subpar. They consequently struggled to write the text effectively.

According to them, a significant contributing element to students' poor writing abilities is the teacher's employment of incorrect writing teaching methodologies, media, and materials. The teaching methods that teachers typically use in the classroom may not be particularly effective or may be boring and uninteresting for the students. Students struggle to grow as individuals during the teaching and learning process as a result. Therefore, the teacher's position as a motivator, facilitator, and educator is highly valued. It is crucial to employ an effective teaching method to ensure that students are well-versed or experienced, particularly in writing classes.

Based on the facts, using the teaching method is one potential way to solve the issue. According to Ellis (2004), "students can identify the missing information or absent connections in one's strategic thinking through the spatial arrangement of teaching methods." Using one word as a topic and linking it to another related term is one method of organizing concepts to arrange past knowledge and generate a lot of ideas. Additionally, "the ways in using teaching method: brainstorming, structuring, and restructuring" is what Perles (2012) claims. First, brainstorming is a step in the writing process that involves students sitting down and considering the subject. The instructor then asks the class to come up with thoughts and facts on the subject by brainstorming it. To assist the pupils in using a different teaching organizer to organize their thoughts, the teacher first selects a topic and then collects ideas or information about it. Finally, restructuring helps students to ensure that the content is well-structured by using an organizer once they have completed their first draft.

This study has several issues, and they are stated as follows:

1. Does the teaching methodology at Tangerang's State Islamic High School have an impact on the writing abilities of the students?

2. Does critical thinking have an impact on students' writing abilities at Tangerang's State Islamic High

School?

3. Do teaching methods and critical thinking have any interrelated influence on students' writing abilities at Tangerang's State Islamic High School?

METHOD

This study was carried out at MAN 1 Kabupaten Tangerang and MAN 2 Tangerang, State Islamic High Schools in Tangerang. The study will take four months to complete. Students in class XI, or second grade, during the second semester were the focus of this study.

Experimental research is the methodology employed in this study. The only kind of research that can test theories to prove cause-and-effect relationships is experimental research. It is the most compelling line of reasoning on the relationship between the variables. The researcher controls other pertinent factors, manipulates at least one independent variable, and then evaluates the impact on one or more dependent variables in experimental investigations. Peter Airasian and L.R. Gay (2000), p. 367. Experimental research is the only kind of research that can be used to test theories. It is employed to prove causation and effect. The independent variable may be impacted by the dependent variable's cause.

An experimental method of research is employed. It refers to treating two student learning groups differently. One group received treatment utilizing a visual organizer as part of the experiment, while another group received treatment using a more traditional method. Based on students' critical thinking abilities, each group will be split into two groups: one for students with high critical thinking abilities and another for students with low critical thinking abilities.

Internal and external validity are the two types of validity that this study possesses. Based on the precision of the process, the data gathered, and the summary of the findings, internal validity pertains to how a treatment affects students' writing abilities. Although external validity pertains to the extent to which research findings can be extrapolated to a different subject that does not share the same conditions and characteristics, this study includes the following controls on the additional variables to accomplish its goal:

Table 3.1
Research Design

Critical Thinking	Teaching Method		Total
	Teaching Method (A1)	Conventional (A2)	
High (B1)	A1B1	A2B1	∑ B1
Low (B2)	A1B2	A2B2	∑ B2
Total	∑ A1	∑ A2	∑ TOTAL

A1 : Group of students who have been given teaching method.
A2 : Group of students who have been given conventional methods. B1 : Group of students who have high critical thinking.
B2 : Group of students who have low critical thinking.
A1B1 : Students are given teaching methods with high critical thinking.
A2B1 : Students are given conventional methods with high critical thinking. A1B2 : Students are given teaching methods with low critical thinking.
A2B2 : Students are given conventional methods with low critical thinking.

The research's target group consists of all students enrolled in Tangerang's State Islamic High Schools, which have about 6554 pupils spread among many parallel classrooms with roughly 30 to 45 students in each class.

Sudjana (1992:6) asserts that a sample is a subset of the population. The 80 students in the sample are

split into two classes for this study: 40 students in the experiment class and another 40 students in the control class. There are two typical students with distinct critical thinking styles in each of the two subclasses that make up an experiment class. XI marketing A and XI marketing B at MAN 1 Kabupaten Tangerang are the experiment classes, while XI marketing A and XI marketing at MAN 2 Tangerang are the control classes. Four (four) sub-classes with varying abilities and treatments are included in this study. The following describes the sample's clustering.

Table 3.2
The Sample Cluster

Group	Character of Subject and Kind of Treatment	Students
A	Group of students using teaching methods and high critical thinking	20
B	Group of students using teaching methods and low critical thinking	20
C	Group of students using conventional methods and high critical thinking	20
D	Group of students using conventional methods and low critical thinking	20
	TOTAL	80

The sampling strategy used in this study is intact class based on factorial group design, and it involves the following steps: (a) selecting the research site; (b) selecting the classes for the study; and (c) selecting the sample by administering the prior test to ascertain the type of critical thinking they possess. The research object will be those who are chosen; (d) get the names of all the students before distributing the research instrument. This study's sample selection process is divided into two stages:

a. Selecting the four research classes is the first step. Two courses are designated as an experiment class and two more as the control class because there are four enrolled.

b. The second part involves selecting a sample based on the students' numbers in this study. The subjects chosen are determined by his or her critical thinking abilities. The experiment class consisted of 50% of students with various critical thinking abilities who were taught using teaching methods, whereas the control class consisted of 50% of students with different critical thinking abilities who were taught using conventional methods.

c. Following the administration of the preferred test to the students, either the experiment class or the control class, this step is carried out to learn more about their critical thinking abilities. The test results are then graded and categorized based on their critical thinking abilities. High critical thinking and low critical thinking are the two types of critical thinking that are known to exist. For this study, a sample of 80 students from four subclasses with varying critical thinking abilities was selected. To prevent false conditions throughout the learning process, students who are not included in both samples are treated identically so that they are unaware that they are being watched. Therefore, we have four groups for this study: 20 students with high critical thinking are treated with teaching methods; 20 students with low critical thinking are treated with teaching methods; 20 students with high critical thinking are treated with conventional method; and 20 students with low critical thinking are treated with conventional method. Two (two) experimental classes (teaching method) with 40 students with varying learning motivations and two control classes (traditional method) with 40 students with varying critical thinking abilities comprised those groups' four classes.

RESULT AND DISCUSSION

Description of Data

The summary of data groups A1B1, A1B2, A2B1, A2B2 are as follows:

Table 4.1 The Summary of Descriptive Statistics

Descriptive Statistics				
Dependent Variable: Writing Ability				
Teaching Method	Critical Thinking	Mean	Std. Deviation	N
Teaching Method	High	71.25	6.069	20
	Low	65.30	4.692	20
	Total	68.28	6.144	40
Conventional	High	63.40	5.020	20
	Low	52.30	5.312	20
	Total	57.85	7.591	40
Total	High	67.33	6.784	40
	Low	58.80	8.234	40
	Total	63.06	8.637	80

According to the descriptive statistics above, the mean score for 20 students with good critical thinking abilities who were taught utilizing a teaching method was 71.25, with a standard deviation of 6.069. Meanwhile, the mean score for students' writing abilities with 20 students who have low critical thinking abilities is 65.30, with a standard deviation of 4.692.

Additionally, the statistics demonstrate that the mean writing ability of 20 students with good critical thinking abilities employing a traditional teaching approach is 63.40, with a standard deviation of 5.020. In contrast, 20 students with low critical thinking abilities had a mean score of 52.30 and a standard deviation of 5.312 for their writing abilities utilizing the conventional method.

Table 4.2 Descriptive Statistics Refers to Research Design

B	Stat	A		Total
		A1	A2	
B1	N	20	20	40
	X	71.25	63.40	67.33
	S	6.069	5.020	6.784
B2	N	20	20	40
	X	65.30	52.30	58.80
	S	4.692	5.312	8.234
Total	N	40	40	80
	X	68.28	57.85	63.06
	S	6.144	7.591	8.637

Test Requirement for Data Analysis

Normality Data Test

One-Sample Kolmogorov-Smirnov Test		
Writing Ability		
N		80
Normal Parameters[a,b]	Mean	63.06
	Std. Deviation	8.637
Most Extreme Differences	Absolute	.099
	Positive	.099
	Negative	-.093
Kolmogorov-Smirnov Z		.883
Asymp. Sig. (2-tailed)		.416

According to the table, the dependent variable of writing ability's data resulted in a Kolmogorov-Smirnov (K-S) value of 0.883 and sig= 0,416 > 0.05. It indicates that there is a regular distribution in the writing abilities of the students.

Homogeneity Data Test

Levene's Test of Equality of Error Variances[a]			
Dependent Variable: Writing Ability			
F	df1	df2	Sig.
2.040	3	76	.115

The table indicates that Sig 0.115 > 0.05 and Fo = 2.040. It indicates that a homogeneous sample provided all of the data. As a result, the theory is approved. It demonstrates that the sample is representative of a homogeneous and uniform population.

The criteria must be met by the study data examined by ANOVA, according to the results of the normality and homogeneity tests. The ANOVA method has been finished.

Table 4.3 Research Hypothesis Test

Tests of Between-Subjects Effects					
Dependent Variable: Writing Ability					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3759.738[a]	3	1253.246	44.655	.000
Intercept	318150.313	1	318150.313	11336.142	.000
A	2173.613	1	2173.613	77.449	.000
B	1453.512	1	1453.512	51.791	.000
A * B	132.613	1	132.613	4.725	.033
Error	2132.950	76	28.065		
Total	324043.000	80			
Corrected Total	5892.688	79			

a. R Squared = .638 (Adjusted R Squared = .624)

The statistical result above suggests that the suggested research hypothesis can be addressed, and the table's interpretation is explained as follows:

Initial Hypothesis

Students' writing abilities at Tangerang's state islamic high school are impacted by the teaching methods used.

Based on table 4.9, it is possible to conclude that the alternative hypothesis (H1) is accepted, and the null hypothesis (Ho) is rejected based on the ANOVA with the values of Sig 0.000 < 0.05 and Fo = 77.449. It indicates that teaching methods have a major impact on pupils' writing abilities at Tangerang's State Islamic High School. In other words, various outcomes of pupils' writing abilities using instructional strategies and conventional methods.

Second Hypothesis

Critical thinking has an impact on students' writing abilities at Tangerang's state islamic high school.

With an ANOVA with Sig 0.000 < 0.05 and Fo = 51.791, it is possible to conclude that the alternative hypothesis (H1) is accepted, and the null hypothesis (Ho) is rejected based on table 4.9. It indicates that pupils' writing abilities at Tangerang's State Islamic High School are greatly impacted by critical thinking. On the other hand, distinct outcomes of pupils' writing abilities with high and low critical thinking might be observed.

Third Hypothesis

At Tangerang's State Islamic High School, students' writing abilities are impacted by both teaching methods and critical thinking. Table 4.9 shows that the ANOVA yielded a value of Sig = 0.033 < 0.05 Fo = 4.725, indicating that the alternative hypothesis (H1) is accepted, and the null hypothesis (Ho) is rejected. It indicates that pupils' writing abilities at Tangerang's State Islamic High School are influenced by both teaching methods and critical thinking.

In the meantime, 0.638 is the corrected R Square value. It demonstrates how teaching methods that emphasize critical thinking have a strong 63.8% impact on students' writing abilities at Tangerang's State Islamic High School.

Students' writing abilities are significantly impacted by the connection between critical thinking and educational methodology.

Additionally, a Pos Hoc test must be conducted. Tukey testing is generally required because of the substantial interaction effects of critical thinking and teaching methodology on students' writing abilities.

Table 4.4
Pos Hoc with Tukey Testing Students' Writing Ability

Multiple Comparisons

Dependent Variable: Writing Ability
Tukey HSD

(I) Pos Hoc	(J) Pos Hoc	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1B1	A1B2	5.95*	1.675	.004	1.55	10.35
	A2B1	7.85*	1.675	.000	3.45	12.25
	A2B2	18.95*	1.675	.000	14.55	23.35
A1B2	A1B1	-5.95*	1.675	.004	-10.35	-1.55
	A2B1	1.90	1.675	.670	-2.50	6.30
	A2B2	13.00*	1.675	.000	8.60	17.40
A2B1	A1B1	-7.85*	1.675	.000	-12.25	-3.45
	A1B2	-1.90	1.675	.670	-6.30	2.50
	A2B2	11.10*	1.675	.000	6.70	15.50
A2B2	A1B1	-18.95*	1.675	.000	-23.35	-14.55
	A1B2	-13.00*	1.675	.000	-17.40	-8.60
	A2B1	-11.10*	1.675	.000	-15.50	-6.70

Based on observed means.
The error term is Mean Square (Error) = 28.065.

*. The mean difference is significant at the 0.05 level.

Writing Ability

Tukey HSD

Pos Hoc	N	Subset

		1	2	3
A2B2	20	52.30		
A2B1	20		63.40	
A1B2	20		65.30	
A1B1	20			71.25
Sig.		1.000	.670	1.000

Means for groups in homogeneous subsets are displayed.
Based on observed means.
The error term is Mean Square (Error) = 28.065.

a. Uses Harmonic Mean Sample Size = 20.000.

b. Alpha = 0.05.

Note:
A1B1 =   Students' writing ability by using teaching method with high critical thinking. A1B2 =
          Students' writing ability by using teaching method with low critical thinking. A2B1 =
          Students' writing ability without using teaching method (conventional) with high critical
thinking. A2B2 =Students' writing ability without using teaching method (conventional) with low critical
thinking.
          Based on the table of the previous test above, there are four interaction models. Here they
are Interaction model A1B1 and A1B2

          In group A1B1 and A1B2, Mean Difference is 5.95, it means that the average of the group A1B1 and
A1B2 is 5.95. The value is quite high, and it is proved by Sig 0.004 < 0,005 or can be said that special for the
A1, there is a difference significance in writing ability between group B1 and B2.
Interaction model A1B1 and A2B1

          In group A1B1 and A2B1, Mean Difference is 7.85, it means that the average of the group A1B1 and
A2B1 is 7.85. The value is quite high, and it is proved by Sig 0.000 < 0,005 or it can be said that special for
the group B1, there is a difference significance in writing ability between group A1 and A2.
Interaction model A1B2 and A2B2

          In group A1B2 and A2B2 Mean Difference is 1.90, it means that the average of the group A1B1 and
A2B1 is 7.85. The value is quite low, and it is proved by Sig 0.670 > 0,005 or can be said that special for the
group B2, there is no difference significance in writing ability between group A1 dan A2.
Interaction model A2B1 and A2B2

          In groups A2B1 and A2B2, Mean Difference is 11.10, it means that the average of the group A2B1 and
A2B2 is 11.10. The value is quite high, and it is proved by Sig 0.000 < 0,005 or can be said that special for the
group A2, there is difference significance in writing ability between group B1 and B2.

CONCLUSION

          The current study adds to the teaching methods at Tangerang's State Islamic High School, particularly
in the areas of writing and critical thinking. The findings indicate that teaching methods have a major impact
on students' writing abilities at Tangerang's State Islamic High School. The values Sig = 0.000 < 0.05 and Fo =
77.449 demonstrate this. At Tangerang's State Islamic High School, pupils' writing abilities are significantly
impacted by critical thinking. This is demonstrated by the values of Fo = 51.791 and Sig = 0.000 < 0.05. At
Tangerang's State Islamic High School, there are notable interplay effects between teaching methodology and
critical thinking on students' writing abilities. This is demonstrated by the values of Fo = 4.725 and Sig = 0.033
< 0.05.
          There are four interaction models based on the Tukey test, which is an additional test. They are Models
of interaction A1B1 and A1B2. The mean difference between groups A1B1 and A1B2 is 5.95, indicating that
both groups' average is 5.95. Sig 0.004 < 0,005 indicates that the value is rather high, indicating that, specifically
for group A1, there is a significant difference in writing talent between groups B1 and B2. Models of interaction
A1B1 and A2B1. The mean difference between groups A1B1 and A2B1 is 7.85, indicating that both groups'
averages are 7.85. The Sig 0.000 < 0,005 indicates that the value is relatively high, or that it is unique for the
group B1, there is difference significance in writing ability between group A1 and A2. Models of interaction
A1B2 and A2B2. The mean difference between groups A1B2 and A2B2 is 1.90, which indicates that the average
for groups A1B1 and A2B1 is 7.85. Sig 0.670 > 0,005 indicates that the value is rather low, indicating that,
specifically for group B2, there is no discernible difference in writing proficiency between groups A1 and A2.

Models of interaction A2B1 and A2B2. The average age of groups A2B1 and A2B2 is 11.10, as indicated by the Mean Difference of 11.10. The Sig 0.000 < 0,005 indicates that the value is rather high, indicating that, specifically for group A2, there is a significant difference in writing competence between groups B1 and B2.

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