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The Influence of Fisher and Frey's Direct Instruction on Students' Critical Thinking Skills in Writing Performance of Grade VIII Students at SMP Negeri 4 Pakem

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Abstract

Critical Thinking (referred to as CT henceforth) is one of the learning outcomes included in the 4Cs 21st-century skills promoted in education, especially in Indonesia's educational context. This study examined the effectiveness of Fisher and Frey's direct instruction on students' writing and critical thinking, with a focus on junior high school students. This study employed a quantitative approach using a quasi-experimental research design. Two classes participated, consisting of 28 students from the control group and 29 students from the experimental group. The instruments were the writing tests and rubrics for both writing and critical thinking. Two analyses were conducted to address the research questions: a descriptive analysis to explore the levels of skills and inferential statistics to test hypotheses. Hypothesis testing was performed using paired and independent sample T-Tests, as well as the Wilcoxon signed-rank test. The findings reveal that Fisher and Frey's direct instruction can enhance students' writing skills. Nevertheless, no significant difference occurs between students who received Fisher and Frey's direct instruction and those who did not. Their ability to express ideas and arguments in their writings, mainly through connectors that combine ideas, is one of the improved aspects, as well as a rise in the organisation of complex sentence structures and paragraphs. On the other hand, the details suggest that Fisher and Frey's direct instruction can strengthen students in critical writing. The ability to reason is one of the improved aspects found in students' paragraphs, which are highlighted with the conjunction "because" to express the question "why".

Keywords: *Explicit Teaching; Critical Thinking; Direct Instruction; Writing*

1. INTRODUCTION

Writing is a skill that has frequently received attention in recent years due to its value in academic settings. As stated by Numan Khazaal (2019) in Elmoisheer & Elsawy (2022), it is important to students' academic studies because its tasks are widespread in educational settings. Teaching writing is also necessary, particularly in the twenty-first century. It matters because it not only helps students develop their academic language skills but also prepares them for an interrelated environment in which they will be required to write for a variety of purposes and genres (Hayik, 2018). This skill is essential for

academics or university students to conduct research. It requires proficiency in communication and cognitive abilities to convey ideas and findings from studies effectively. In addition, Graham (MacArthur et al., 2008) argues that writing strength depends on students' ability to convey knowledge and ideas effectively. The acquisition of strong writing abilities could be considered one of the most beneficial actions to take, as it is advantageous for all times, regardless of whether one is required to get excellent grades, succeed in college, attract a manager of human resources, get promoted, or enhance everyday interactions (Okpe & Onjewu, 2017). Therefore, teaching students how to employ writing in formal education is necessary.

Writing and CT abilities cannot be separated, as they are essential requirements for enhancing students' academic preparation. CT, part of the 4Cs, is being emphasised in this period. Eighty per cent of CEOs, according to The National Education Association (2015), in Erdoğan (2019) believe that incorporating the 4Cs will ensure students are better equipped for the workplace. It appears that the term CT pertains to the systematic and exact approach to thinking employed to address issues (McPeck, 2016). It fundamentally signifies an individual's ability to accomplish academic assignments that must be refined in line with the requirements of 21st-century skills and those specified in the curriculum, primarily being implemented in Indonesia. CT cannot be separated from students' cognitive abilities, which fall under the category of higher-order thinking skills. CT abilities are part of high-level thinking abilities, which go beyond memorization and comprehension to encompass students' CT abilities. Dewey in Letseka & Zireva (2013) continues by stating that the process of intelligence, the process of learning, or learning that utilises and rewards the mind, is thinking.

Furthermore, the newest curriculum explicitly emphasises its importance, particularly in writing, and the government recommends it to be included in students' learning objectives. They have recently established learning principles and assessment standards for the curriculum, designed to guide teachers in generating and implementing meaningful learning experiences that encourage students' creativity, CT, and innovative thinking. Although it has become essential for students, especially when it pertains to writing, many approaches are inappropriate, insufficiently organised, and lack lesson plans with clear objectives for each stage. Among the various methods, teachers most frequently employ explicit teaching as the most effective way to teach language. According to (Mehrpour et al., 2022), students of EFL benefit more from explicit instruction when it comes to increasing their reading comprehension.

It places more emphasis on organised and explicit instruction. Using this approach to teach CT is necessary because it introduces students to examples while they employ techniques in appropriate situations (Boehnlein, 1995). Before undertaking more complex and lengthy writing projects, students can establish a foundation in correct writing by using models, particularly when it comes to the concept of CT in writing. According to Pessoa et al. (2018), as cited in Huang & Jun Zhang (2020), the use of explicit instruction at a Middle Eastern English language institution was successful in encouraging students to write more arguments in their history classes. It demonstrates that writing classes, that is include CT, might employ the approach. Nevertheless, its use in the writing, especially for junior high school students, has remained remarkably limited and underexplored, particularly in writings that attempt to promote CT. Previous experimental research has also demonstrated the effectiveness of explicit teaching in enhancing reading comprehension, but not in writing classes. It is also in line with a cross-group comparison that showed that explicit teaching of connectors is more successful than implicit one (Safaie, 2020).

To address the lack of CT exploration in writing in the junior high school environment, this study aims to examine the influence of Fisher and Frey’s DI on students' writing and CT in writing, comparing their performance before and after the intervention, as well as the differences between the two classes.

2. LITERATURE REVIEW

2.1. Teaching Writing and CT

Language teachers need to include CT as a learning objective, particularly in teaching foreign languages, as it significantly contributes to the success of argumentation in writing. Writing proficiency is also affected by an individual's ability to reason coherently about significant topics (Amhar et al., 2022). To encourage students to think critically, they must cultivate a critical mind that investigates the requirements of intellectual products, such as the ability to discuss, ask questions, and present arguments rather than accepting issues at a glance or keeping to preconceived assumptions (Glaser, 1941); (Paul, 1981); (Siegel, 1988); (Ennis, 1991) in (Hitchcock, 2017). It can occur when appropriate teaching is carried out well and structured, due to a mistake in the selection of the teaching model, which affects not only the learning goals but also the formation process itself.

There are several strategies and methods that teachers should be aware of when teaching writing to EFL students. According to Hayik (2018), a good writing teacher presents instances that demonstrate solid and efficient writing. An approach that meets the needs of students is also required when teaching writing. Daffern & Mackenzie (2020) classify six approaches to skills, including creative, processes, genre, critical literacies, and multimodal approaches, that teachers might consider while instructing writing to EFL students. The "skill approach" concept emphasises the standard of writing competence that students will acquire. According to behaviourist theory, as defined by Daffern & Mackenzie (2020) students must learn writing skills to fulfil the demands, including spelling, phonics, punctuation, grammar, handwriting, and a list of sight words. It is essential to note that students demonstrate their reasoning abilities through their writing, which is a key requirement for developing critical thinking skills in writing. Teachers may incorporate the second approach, which is creative, in their classroom instruction. Based on this approach, Daffern & Mackenzi (2020) emphasise that to connect more closely with novice writers, teachers should provide students with opportunities to write and perform like them. The third is the process approach. Socio-constructivist theories of learning, which emphasise students collaboratively creating writings and employing skills and techniques with increasing independence, significantly impact process-based writing instruction (Daffern & Mackenzie, 2020). The fourth approach is the genre approach. Students are urged to commence their writing by recognising the primary purpose of a text, such as to argue or describe, followed by considering whether the text could evolve in a specific style to accomplish its stated communicative objective when teaching writing employing a genre approach (Daffern & Mackenzie, 2020). However, beyond understanding genre, in teaching writing, especially with CT as a goal, simply knowing and understanding the process is not enough. As a teacher, it is important to understand further how specific approaches can be selected to incorporate CT as one of the learning objectives, including the ability to evaluate, argue, and convey diverse perspectives.

The CT components in writing vary widely according to what experts declare. Self-directed thinking, self-discipline, self-monitoring, and self-correction are all components of critical thinking, which is the skill of assessing and examining cognitive functions to improve them (Paul & Elder, 2019). To state it straightforwardly, this process of CT begins when an individual actively analyses or accumulates information concerning a particular issue and can make judgments about the outputs. Meanwhile, Dwyer et al., (2014) argue that critical thinking is a metacognitive ability that improves one's chances of generating a rational response regarding an argument or finding an answer to an issue by making deliberate, thoughtful decisions. Regarding this ability, teachers must be more aware when understanding the aspects that need to be considered before teaching writing. There are four primary steps in applying criticism to the process of learning to write: make plans, think, produce, and review (Sedita & Hasbrouck, 2022).

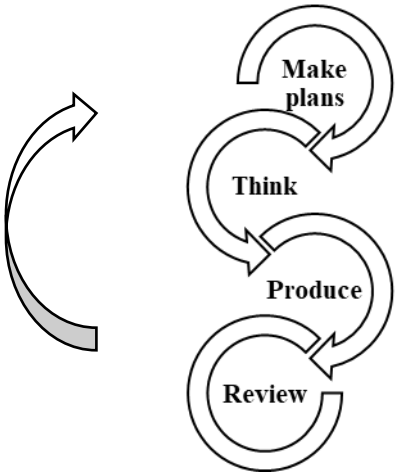

Figure 1. CT in the writing process

Figure 1 shows the key elements of explicit teaching in the writing process, which first involves arranging the learning plans. Students need to receive the materials first (as well as revise and review the previous lesson and skills or knowledge they have already had) and understand what they will learn at the beginning of the course. It has to be clearly stated and informed to them. After the students get all the information, the teacher encourages them to think by generating ideas and using a planning guide. After they generate the outline or ideas, they practice making sentences and paragraphs. After the text is produced, they review the content and rewrite it. It can be a way to engage the students in learning and practicing thinking while writing.

2.2. Fisher and Frey's DI to Promote CT in Writing

Direct Instruction (DI) was first outlined as a teaching method by Adams and Engelmann. In its learning method, DI establishes a clear and direct relationship between the teacher's instructional steps and the students' learning outcomes (Boxer & Bennett, 2019). DI involves teachers employing teacher-centred and structured plans and instruction. To help students get familiar with the topic being taught, DI requests clear models, instructed practice, and scaled tasks. Hollingsworth & Ybarra (2017) also introduced Explicit Direct Instruction (EDI) in their book, highlighting that this model is structured to enhance the quality of student learning through clear and step-by-step instructions. Hollingsworth & Ybarra (2017) also mention in their book that the core principle of EDI is building student confidence and self-efficacy, which is reflected in the phrase "I Can Do It." In discussing DI, Zhang et al. (2022) argue that explicit teaching, which provides students with direct information through text or demonstration, is more supported by empirical evidence than exploration-based science learning, which is based on controlled research in educational psychology.

Direct teaching is convincing when it is used to teach students fundamental facts, rules, formulas, or sequences that contribute to their learning achievement (Moore, 2009). As Engelmann found that teachers might encounter problems in completing coherent and effective instructional sequences, especially when using the examples provided in their teaching, he developed a script that provided the necessary directions and specific wording as a characteristic of DI (Engelmann, 2024). In the design, there are at least eight components that teachers need to consider when implementing EDI in the classroom, including learning objectives, activating prior knowledge, concept development, skill development, lesson matter, guided practice, lesson closure, and independent practice (Hollingsworth & Ybarra, 2017). Weisberg et al. (2016) in Skene et al., (2022) mentions that DI gives the students a limited choice of activities, especially in interacting with peers, because this teaching method uses a didactic approach where the teacher determines the skills and learning objectives.

The teacher acts as the centre of learning development when using DI, which completely controls the activities carried out, making planning very important to organize them effectively (González-Espinosa et al., 2021). In its implementation, Archer (2011) also defines the concept and process of teaching and learning, breaking the steps down into opening, three bodies (teacher presentation, prompted practice, and unprompted practice), and closing. What to highlight in this teaching and learning is structured with detailed models or examples, and carried out periodically.

Fisher and Frey's DI, also known as the Gradual Release of Responsibility (GRR), places the teacher at the centre of the learning process. This model's implementation of structured learning, which forms the basis of the zone of proximal development (ZPD) developed by Vygotsky, is another form of constructivist and cognitive development. Because it accommodates both what students can accomplish independently and with support, this method of learning is well-suited for promoting students' cognitive development. In achieving problem-solving, when students are not yet able to do it independently, a form of collaboration is needed to achieve success, namely by providing the ZPD, in the form of collaborative problem-solving (Zaretsky, 2021). This model makes it one of the most suitable options for its intended application. Additionally, the alignment of this model with the ZPD is evident in the scaffolding provided, which is also given to teachers in GRR. Providing a structured, detailed, and repeated model gives students the experience for their maximum achievement. What needs to be highlighted is that, although representing metacognition instruction may seem effortless, habits of thinking may not develop easily or quickly (Ozturk, 2022). The figure below depicted the divided responsibilities for both students and teacher by Fisher and Frey's.

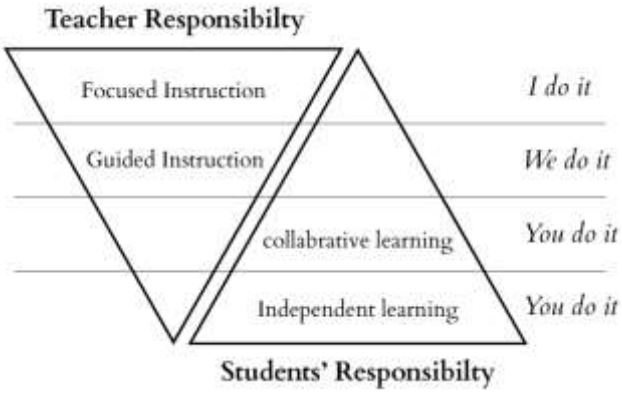

Figure 2. Gradual Release of Responsibility

Furthermore, what makes Fisher and Frey's model appropriate for developing CT is that its structure and steps clearly outline the responsibilities of both teachers and students. By providing focused and guided instruction phases, as well as opportunities for collaboration and independent work, a varied learning experience is created that involves exchanging ideas not only between teachers and students, but also among students. Based on previous research, it has been found that teaching diverse students is the most effective strategy for promoting CT through collaborative problem-solving (Xu et al., 2023a). It is conducted to gather different points of view from each student. Additionally, it is also a line with scaffolding teaching strategy that has been shown to improve students' cognitive and affective learning outcomes, conceptual knowledge, science procedure skills, argumentation aptitudes, CT, HOTS, independent learning, motivation, science literacy, problem-solving skills, and misinterpretations (Azzaroiha et al., 2025). It indicates the higher demands that students must meet to have a CT skill, especially in their writing.

2.3. Hypotheses

Two hypotheses are tested for each variable: the null hypothesis (H0) and the alternative hypothesis (Ha). The hypotheses for comparative analysis to answer the RQs are as follows:

Table 1. Hypothesis of the study

1.	$\mathbf{H_0}$	There is no significant difference in students' writing skills before and after being taught using Fisher and Frey's DI
	$\mathbf{H_a}$	There is a significant difference in students' writing skills before and after being taught using Fisher and Frey's DI
2.	$\mathbf{H_0}$	There is no significant difference in students' CT in writing before and after being taught using Fisher and Frey's DI
	$\mathbf{H_a}$	There is a significant difference in students' CT in writing before and after being taught using Fisher and Frey's DI
3.	$\mathbf{H_0}$	There is no significant difference in students' writing skills before and after being taught without using Fisher and Frey's DI
	$\mathbf{H_a}$	There is a significant difference in students' writing skills before and after being taught without using Fisher and Frey's DI
4.	$\mathbf{H_0}$	There is no significant difference in students' CT in writing before and after taught without using Fisher and Frey's DI
	$\mathbf{H_a}$	There is a significant difference in students' CT in writing before and after taught without using Fisher and Frey's DI
5.	$\mathbf{H_0}$	There is no significant difference in students' writing skills between a class taught using Fisher and Frey's DI and a class not taught using it
	$\mathbf{H_a}$	There is a significant difference in students' writing skills between a class taught using Fisher and Frey's DI and a class not taught using it
6.	$\mathbf{H_0}$	There is no significant difference in students' critical thinking skills in writing between a class taught using Fisher and Frey's DI and a class not taught using it.
	$\mathbf{H_a}$	There is a significant difference in students' critical thinking skills in writing between a class taught using Fisher and Frey's DI and a class not taught using it.

3. METHODS

This research employed a quantitative approach, utilising a quasi-experimental design (Creswell & Creswell, 2017). There were 164 students who were in the eighth grade. The total number of participants was 57, 29 students from the treatment group, and 28 students from the control group. The dependent variables were students' writing skills and CT skills in writing. Meanwhile, the independent variable was explicit teaching on Fisher and Frey's DI. The data was collected from two different groups and assessment rubrics for both writing and CT in writing in SMP Negeri 4 Pakem.

SPSS 25 was used to analyse the data. The rubric used to analyse students' writing and CT was two, including one adapted from Brown (2007) and one from Abdelrahim (2024). A parametric test, paired sample T-test, was used to determine the differences before and after implementing Fisher and Frey's DI. A non-parametric test, the Wilcoxon signed-rank test, was conducted to determine the differences before and after teaching without explicit teaching. Lastly, to know the differences between classes, an independent T-test was conducted.

4. RESULTS

The results are divided into two, namely descriptive analysis to determine the level of students' writing and CT skills, and then inferential statistics to test the hypotheses.

4.1 Descriptive Analysis

4.2.1 Students' Writing Skills

The results of students' writing skills in the pre-test for both groups ranged from limited to outstanding. The chart below provides more explanations of the results from both groups.

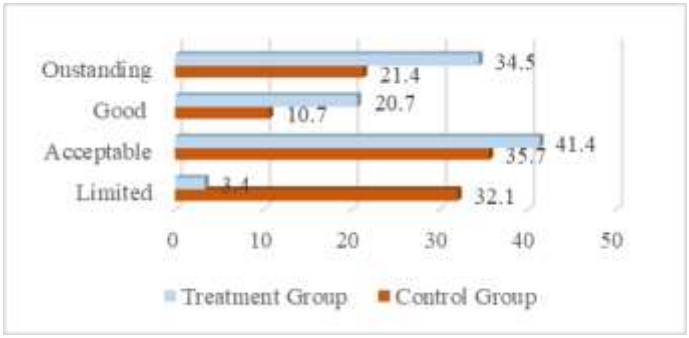

Figure 3. Students' Writing Skills in the Pre-test

According to the chart above, the pre-test writing outcomes showed that students in the treatment group (34.5%) had more outstanding skills than those in the control group (21.4%). The percentage also indicated a good level, indicating that the treatment group yielded satisfactory outcomes. In addition, the percentage at the acceptable level suggested that students in both groups demonstrated basic writing skills that did not point to any excessive limitations. Meanwhile, the result of students' writing after the intervention is presented below

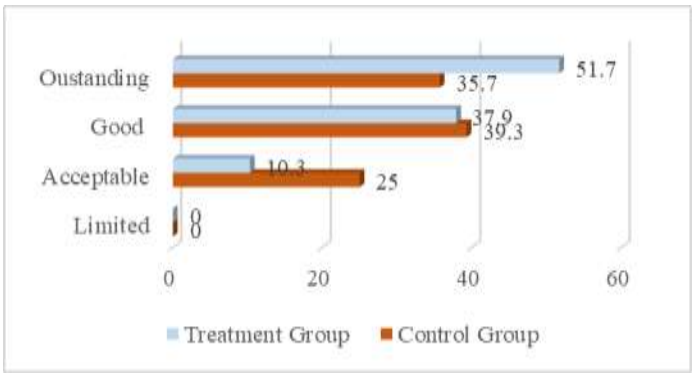

Figure 5. Students' Writing Skills in the Post-test

The treatment class had a more significant percentage (51.7%) than the control class (35.7%) at the outstanding level. However, more students (39.3%) were at a good level in the control group than in the treatment group (37.9%). The acceptable level remained the same, only fewer students were in this level from the treatment group. Nonetheless, the positive post-test results indicated that both groups' limited levels had at least changed.

4.2.2 Students' CT Skills

The results of students' skills for both before and after the intervention is depicted in the following figure.

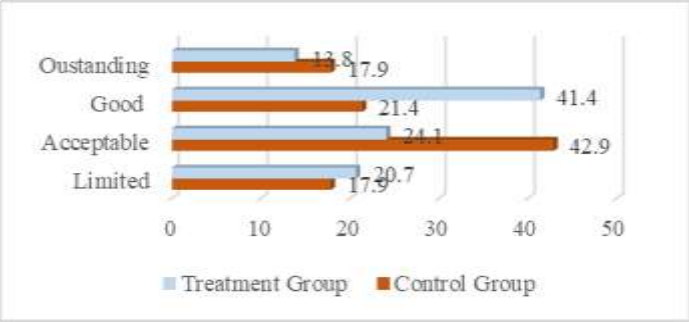

Figure 6. Students' CT Skills in the Pre-test

According to the frequency chart above, a large percentage of students (42.9%) in the control group were at an acceptable. In contrast, most students in the treatment group (41.4%) had good CT skill levels. Both groups also demonstrated that students from each were still performing at a limited level and required more improvement. Those performing at an outstanding level, such as the treatment group (13.8%) and the control class (17.9%), had to maintain their ability in CT. As a result, both groups' CT skills, particularly their writing, needed strengthening and improvement. Meanwhile, after the intervention, the results are depicted in the chart below.

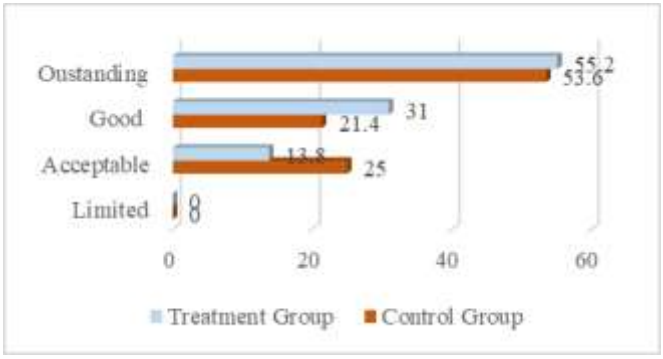

Figure 7. Students' CT Skills in the Post-test

The percentage of CT level frequency in the post-test for both groups was highlighted in the bar chart above. Comparing the numbers between groups at an outstanding level revealed not much difference. Compared to the control group (53.6%), the treatment group had a higher number (55.2%). The treatment group was also more satisfactory, as evidenced by the good level (31%). Nonetheless, the control group had a higher percentage of acceptable levels (25%). No students in any group occupied the limited level. In summary, concerning students' ability to CT in writing, the treatment group performed better than the control group at the highest two levels: outstanding.

4.2 Inferential Statistics

The inferential statistic was used to test the hypotheses. There were six sets of hypotheses, consisting of the null hypothesis and alternative hypothesis. To all the six variables tested are explained in detail in the following section.

4.2.1 The Differences in Students' Writing Skills Before and After Being Taught Using Explicit Teaching on Fisher and Frey's DI

According to the normality test results, the data from the pre-test and post-test scores were both normal. The paired sample T-test, a parametric test, used in this assessment, compared two sets of scores from the treatment group. The test results are shown in the following tables.

Table 2. Paired Sample Statistics (Writing)

		N	Correlation	Sig.
Pair 1	Writing Pre-test & Writing Post-test	29	.638	.000

Table 3. Writing Paired Differences Between Pre-test and Post-test

Paired Differences									
		M	SD	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Writing Pre-test – Writing Post-test	-10.0517	10.1448	1.8838	-13.9106	-6.1929	-5.336	28	.000

Sig. (2-tailed) value, which means the p-value with degrees of freedom (df) that corresponded to the test statistic t, was .000. It showed that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_a) was accepted. The results demonstrated a statistically significant difference between the students' writing tests performed before and after receiving explicit instruction on Fisher and Frey's DI, indicating that Fisher and Frey's DI has a positive impact on students' writing skills.

4.2.2 The Differences in Students' CT Skills Before and After Being Taught Using Explicit Teaching on Fisher and Frey's DI

Table 4. Paired Sample Statistics

		N	Correlation	Sig.
Pair 1	Critical Thinking Pre-test & Critical Thinking Post-test	29	.665	.000

Table 5. Critical Thinking Paired Differences

Paired Differences									
		M	SD	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Critical Thinking Pre-test – Critical Thinking Post-test	-13.3966	8.0505	1.4949	-16.4588	-10.3343	-8.961	28	.000

In the CT change test employing Fisher and Frey's DI model, the Sig. (2-tailed) value was .000. It suggested that the null hypothesis (H_0) was rejected and the alternative hypothesis was accepted. It also showed that students' skill, especially CT, changed significantly after receiving treatment. As a result, Fisher and Frey's DI on how to write texts can positively and significantly impact students' CT skills, particularly when it comes to writing about daily activities and concentrating on basic present tense grammar (e.g., the use of base word and s/es), vocabulary use, conjunctions, and connectors that link ideas or stories. In this context, students' writing effectively expressed their narratives or stories.

4.2.3 The Differences in Students' Writing Skills Before and After Taught Without Explicit Teaching on Fisher and Frey's DI

Since the data from the control class were not normally distributed, the hypothesis was tested using the Wilcoxon signed-rank. The result of the calculation is shown in the table below.

Table 6. Wilcoxon Signed-Rank Test Statistic for Writing Scores in Control Group

Statistics[a]	
	Writing Post-test – Writing Pre-test
Z	-4.270[b]
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed-Rank
b. Based on negative ranks

As can be seen from the table above, the Sig. (2-tailed) value indicated .000, which means it was less than 0.05. Hence, the alternative hypothesis (H_a) was accepted, and the null hypothesis (H_0) was rejected. It revealed that the control group experienced significant improvements in their writing despite not receiving explicit teaching on Fisher and Frey's DI.

4.2.4 The Differences in Students' Critical Thinking Skills Before and After Taught Without Explicit Teaching on Fisher and Frey's DI

Table 7. Wilcoxon Signed-Rank Test Statistic for Critical Thinking Scores in Control Group

Statistics[a]	
	Critical Thinking Post-test – Critical Thinking Pre-test
Z	-4.362[b]
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed-Rank
b. Based on negative ranks

The Z value findings showed -4.362, meaning there was an excellent impact of the post-test scores were often higher than the pre-test. Furthermore, the p-value, also known as the Asymp. Sig. (2-tailed), was less than 0.05, with a value of .000. The difference between the pre-test and post-test values indicated a statistically significant change if the Sig. (2-tailed) value was smaller than the significance level (0.05). Thus, the alternative hypothesis (H_a) was accepted, and the null hypothesis (H_0) was rejected. It demonstrated that students' CT before and after receiving instruction without Fisher and Frey's DI changed significantly.

4.2.5 The Differences in students' writing skills between class taught with and without using explicit teaching on Fisher and Frey's DI

Once the differences between groups that received explicit teaching on Fisher and Frey's DI and those that did not, both of which, surprisingly, showed significant outcomes, had been demonstrated. It is crucial to define Fisher and Frey's DI for promoting writing skills compared to the group that did not receive this method. The table below shows the results of an independent sample T-test for further details about students' writing skills between two classes.

Table 8. Independent Sample T-test for Writing in Control and Treatment Group

Independent Samples Test										
		Levene's Test for Equality of Variances		**t-test for Equality of Means**						
		F	Sig	**t**	**df**	**Sig. (2-tailed)**	M Diff.	Std. Error Diff.	95% Confidence Interval of the Difference	
									Lower	Upper
Writing Post-test	a.	1.063	.307	-1.949	55	.056	-5.8362	2.9942	-11.8367	.1643
	b.			-1.954	54.494	.056	-5.83.62	2.9871	-11.8238	.1514

a. Equal variances assumed
b. Equal variances not assumed

According to Table 35 above, the null hypothesis was accepted since the Sig. (2-tailed) value was 0.56, which was higher than the threshold of 0.05. The null hypothesis is accepted, and the alternative hypothesis is rejected. It indicated that although the treatment group's average value was higher than the control group, there was no statistically significant difference in students' writing skills between the groups that received explicit teaching on Fisher and Frey's DI and those that did not.

4.2.6 The Differences in Students' CT Skill between Class Taught with and without Using Explicit Teaching on Fisher and Frey's DI

Students' CT skill was also assessed using the same test. Both groups, those who received explicit teaching on Fisher and Frey's DI and those who did not, exhibited a significant change in score between the pre-test and post-test. An independent sample T-test was also performed to determine if there were any significant differences in CT between the groups. The results of the test calculations using SPSS are presented to illustrate the differences between Fisher and Frey's models and another model.

Table 9. Independent Sample T-test for Critical Thinking in Control and Treatment Group

Independent Samples Test										
		Levene's Test for Equality of Variances		**t-test for Equality of Means**						
		F	Sig	**t**	**Df**	**Sig. (2-tailed)**	M Diff.	Std. Error Diff.	95% Confidence Interval of the Difference	
									Lower	Upper
Critical Thinking Post-test	a.	.657	.421	-.487	55	.628	-1.2623	2.5942	-6.4611	3.9365
	b.			-.486	54.367	.629	-1.2623	2.5975	-6.4692	3.9446

a. Equal variances assumed
b. Equal variances not assumed

Based on the findings of the independent sample T-test, the Sig. (2-tailed) value of .628 indicated that the value was higher than the 0.05 threshold. Therefore, since the null hypothesis (H_0) was accepted, there were no statistically significant differences in the CT scores between the two groups. It revealed that explicit teaching on Fisher and Frey's DI and learning did not result in statistically significant changes compared to the methods employed in the control group.

5. DISCUSSION

5.1 The Impact of Explicit Teaching on Fisher and Frey's DI on Students' Writing Skills

Students who received explicit teaching on Fisher and Frey's DI showed significantly improved writing compared to their scores before the treatment. Regarding the writing aspect, students' progress has nearly met all requirements, including those related to content, grammar, mechanics, a wider variety of vocabulary, and the organisation of sentences and paragraphs. Since structured explanations can demonstrate to students how to navigate language and sentence structure, explicit teaching, especially Fisher and Frey's DI, appears to be a practical model for teaching writing. For example, it is highly beneficial and effective for teachers to break down rules and provide detailed and explicit examples to demonstrate verbs while teaching subject-verb agreement (Ramzan et al., 2023).

The findings showed their heightened vocabulary and ability to articulate complex sentences logically and in a well-organised manner. For instance, they wrote a single clause followed by a connector, indicating they could not distinguish between a dependent and an independent clause to produce a sentence. Meanwhile, after being taught using explicit instruction, many complex sentences using acceptable and proper connectors were found in the test following the treatment. Because they affect the information the writer tries to express, the use of dependent and independent clauses, along with other associated writing rules, is crucial when writing. Their comprehension of the role of sentence structure is one of the aspects emphasised in this learning and teaching model.

Furthermore, another activity could happen, such as integrating two different types of activities, such as writing and speaking. Additionally, it has been demonstrated to have a substantial impact on skills beyond writing, such as teaching students how to argue in public, which has a beneficial effect on their ability to write argumentatively (Larouz, 2021). While providing students with a direct and systematic explanation of the content or materials during practices, teachers also encouraged interaction between students and themselves. For instance, when focusing on writing and learning vocabulary, especially the verbs used for telling daily routines, the teacher created a brief survey on everyday activities using *Slido*., for example. According to the same study by Tahir et al. (2021), teachers should scaffold their students' learning by providing them with pictures, hints, and sample sentences before the lesson, which allows them to understand the target words on their own while guiding them through the process.

It also revealed that the students valued working collaboratively with peers during the learning process while practising producing paragraphs. Additionally, collaborative learning necessitates interdependence, where students explicitly define their roles and responsibilities (Chowdhury, 2021). This alternative, however, if it is not performed engagingly, it also becomes less attractive. It was less efficiently implemented due to the short class period and students' perception that completing the task once was sufficient.

5.2 The Impact of Explicit Teaching on Fisher and Frey's DI on Students' Critical Thinking Skills

Based on the aspects assessed for the CT criteria, including inference, assumption, deduction, interpretation, analysis, and evaluation, the most prominent critical aspect evident in the students' writing was inference. It was demonstrated by the discovery of sentences that primarily employ complex sentences and utilise "because" conjunctions in their reasoning. This conjunction use demonstrates that

students have become more adept at supporting their arguments with evidence and that the information presented in the previous sentence or clause is coherent and consistent. Although not as detailed and advanced as those found in argumentative texts, Fisher and Frey's DI is tailored to the type of text taught and helps students develop simple critical thinking skills. Nonetheless, some perspectives hold that implicit teaching is a more effective way to promote CT than explicit teaching. A study also indicates that some teachers are more inclined to employ an implicit teaching method rather than an explicit one when teaching CT, and they report using dialogue-based activities to foster CT skills (Bellaera et al., 2021).

Furthermore, an explicit focus on promoting students' thinking skills is somehow incorrect and potentially distracting, as they are viewed as general skills that are best fulfilled through the growth of content knowledge and are mainly unaffected by instructional strategies (Ellerton, 2022). However, it is also possible if the learning tasks are completed through periodic learning, such as learning how to explain, evaluate, and analyse information, in contrast to the viewpoint that expresses disapproval of explicit teaching for CT. Therefore, assisting students in becoming more conscious and understanding through directed learning can also reinforce the natural development of CT skills. It was also discovered that explicit teaching methods, such as practice, group projects, and feedback, were the most effective strategies for promoting the growth of CT skills (Jamil et al., 2024).

In addition to the students' increasing reasoning ability, as indicated by the use of more varied connectors after receiving the intervention, their conclusions were also better compared to before being taught using Fisher and Frey's DI. Moreover, related to the activity conducted, as mentioned in the previous section (explicit teaching on Fisher and Frey's DI for writing), students also engaged in collaborative activities, which encouraged speaking and helped them develop their ability to express themselves while learning vocabulary and thinking critically. According to Alan Alan Bensley & Spero (2014), in (Xu et al., 2023b), teaching blended lessons using explicit instruction in parallel with other subject courses has a significant impact on students' CT compared to those without it. It demonstrates how developing CT skills can be aided by concentrating on more than one lesson or ability, such as writing. Thus, blended learning, which emphasised speaking and writing, also impacts one of the characteristics that raised CT in the treatment group. As the treatment group experienced, the activity focuses on group speaking through board games to encourage direct thinking and exchanging ideas. Moreover, the teacher continued to employ explicit teaching in the class. In addition to writing, students in the treatment group also experienced an increase in CT from speaking-based blended learning.

5.2 The Impact of Explicit Teaching on Fisher and Frey's DI on Students' Critical Thinking Skills

The first impact found was that providing written feedback is one way that explicit teaching and learning can help students recognise and track their progress as learners. Having the opportunity to interact with teachers directly and explicitly for clarification makes them feel content, which helps them grasp and optimise their ability to prevent inaccuracies (Fitriyah et al., 2024). During the treatment session, the teacher provided feedback directly when students asked during the practice. When students inquire about proper grammar use, such as the use of past and present tenses, during the practice sessions involving conversations about daily life, for instance, the teacher provides feedback by pausing the activity and providing clarification. Based on another study, according to deciphered and analysed interviews, the majority of students valued direct feedback to improve their academic writing proficiency, in contrast to a small number of students who were inclined toward other forms of feedback, including metalinguistic feedback techniques (Kara & Abdulrahman, 2022). It could be one factor contributing to the effectiveness of this model. It also makes teacher involvement essential for advancing students' growth, rather than letting them lose track of their learning.

To maintain their engagement and focus on the key material, teachers provide them with numerous opportunities to respond to inquiries and requests regarding the material (Hughes et al., 2022). In addition, in countries where English is a foreign language (the context of this study was Indonesia), explicit teaching is more effective because it generally proves successful in teaching vocabulary, text

structure, and directed writing exercises, compared to countries where English is the primary language (Pianpadungporn, 2024). This is shown by the results of the post-test writing of students whose vocabulary was varied and not monotonous. In addition, the use of gerunds and connectors was also appropriate.

Furthermore, the explicit teaching on Fisher and Frey's DI can have a significant impact on students' CT, for instance, by using the term 'because' to express ideas or arguments, demonstrating the practical outcomes of this teaching and learning method. This is also supported by Liang & Fung (2021), who argue that both quantitative and qualitative data demonstrate that participating students can use explicit reasoning and exploratory discourse in class discussions, indicating their CT abilities, even though they appear to be better at providing reasons than searching for them. The findings of a related study by Khishfe (2021) demonstrated that explicit teaching was the chosen and used method in the treatment class, producing positive results in argumentation learning.

6. CONCLUSION

Fisher and Frey's DI is effective in supporting students' writing and CT. Although the results were not significantly different, Fisher and Frey's DI was more successful in encouraging writing and nurturing CT than the approach used in the control group. Nonetheless, this method provides students with adequate cognitive practice in expressing comprehension, concepts, or questions to maintain the learning goals they have set. Moreover, it is essential to provide students with explicit modelling, instructions, and directions, as well as scaffolded exercises or practices that help them develop their critical thinking and writing skills.

In conclusion, even though the results of the groups that received and did not receive the implementation showed no noteworthy differences, this model nevertheless greatly enhances students' writing and CT in writing, thereby providing an effective teaching option for teachers, particularly in writing and thinking, which also encourages them to achieve better results. Comparing the two concerns under this investigation, writing and CT, the explicit teaching on Fisher and Frey's DI group students performed better than the control group. Based on the study's findings and outcomes, the significance of teachers' use of explicit teaching strategies must be thoroughly considered, as well as how they should be implemented to provide students with information that will assist them in writing and thinking more systematically and logically.

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