THE EFFECT OF TEAM ACCELERATED INSTRUCTION MODEL ON STUDENTS' TEXT ANALYSIS ABILITY IN GRADE VII

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ABSTRACK

Analytical skills in understanding and interpreting news texts are essential in Indonesian language learning, particularly in shaping students' critical thinking. Initial observations at SMP Negeri 29 Medan indicated that students still tended to understand texts literally and had difficulty distinguishing between facts and opinions. This study aims to determine the effect of the Team Accelerated Instruction (TAI) learning model on the analytical skills of seventh-grade students in interpreting news texts. The research employed a quantitative approach with a one-group pretest-posttest pre-experimental design. The sample consisted of 32 students from class VII-8, selected using the quota sampling technique. The instrument used was a multiple-choice test measuring the ability to identify facts and opinions, understand text structure, and evaluate the content of information. The results showed an increase in the average score from 48.91 to 70.31. The normality test indicated a normal data distribution ($p > 0.05$), and the paired t-test showed a significant difference ($p = 0.000$). The average N-Gain score of the 32 students was 0.4452, which falls into the "moderate" improvement category. These findings indicate that the TAI model not only significantly improves students' analytical abilities but also contributes theoretically to supporting cooperative learning approaches based on social constructivism. Practically, TAI can serve as an alternative strategy for strengthening critical literacy in Indonesian language learning aligned with the Kurikulum Merdeka.

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A. INTRODUCTION

Analytical ability is an essential skill that must be possessed by students to face the challenges of the 21st century. This skill is very crucial in helping students understand information deeply and develop critical thinking abilities needed in various aspects of life. Conversely, low analytical ability can hinder the development of more complex problem-solving skills.

In Bloom's taxonomy, analytical ability is at level C4 (A & AN, 2023, p. 123), which indicates that this skill already falls into the category of higher-order thinking. This ability is also part of HOTS (Higher Order Thinking Skills), which, according to Sipahutar et al., (2024, p. 283), involves complex thinking processes and high-level mental activities. Therefore, strengthening analytical ability needs to be a priority in learning practices that are relevant to current demands.

The urgency of this analytical ability is also in line with Islamic values reflected in Surah Al-'Alaq verses 1–5, which emphasize the importance of reading, thinking, learning, and teaching as the path to acquiring knowledge. Amani (2023, p. 196) states that the attitude and skill of critical thinking are identical to those who enjoy reading and thinking deeply. Faridah (2022, p. 74) also emphasizes that the process of reading and analyzing information has an important value as an effort to understand social and cultural phenomena. Therefore, analytical skills in education not only support academic mastery but also reflect balanced spiritual and intellectual values.

In the Merdeka Curriculum, as stated in the Decree of the Head of the Agency for Education Standards, Curriculum, and Assessment SK BESKAP NO 032/H/KR/2024, analytical ability becomes an important part of Indonesian language learning in phase D. The learning outcomes require students to be able to interpret information, evaluate data, and compare various sources. This shows that analytical ability is no longer just a complement, but a core competency that must be possessed. Rachman et al. (2020, p. 171) emphasize that the learning process should ideally encourage students to think actively,

ask questions, and discuss, while Mahsup et al. (2023, p. 516) remind that inappropriate teaching materials can hinder the development of critical thinking ability.

One relevant material for training critical thinking skills is news texts because they present factual and current information that can be used as a means of analytical learning. Subarna et al. (2021, p. 124) state that news must be based on facts, be objective, and accurate. This view strengthens the urgency of analytical learning, as students are required to identify the truth of information. In addition, Arfiyani et al. (2024, p. 339) explain that news texts are part of explanatory texts that emphasize cause-and-effect relationships. This shows that analysis of news texts involves the ability to understand the logical structure between pieces of information. Furthermore, according to Nuryaningsih (2021, p. 21), news presents ideas that are true and attract readers' attention, so learning news texts also trains students' sensitivity in capturing the important meaning of the reading content. And Budiman et al. (2023, p. 183) also emphasize that the use of formal and rule-compliant journalistic language is important so that the information conveyed can still be understood accurately and not biased.

However, based on observations conducted on February 19, 2025, at SMP Negeri 29 Medan, the analytical ability of grade VII students toward news texts still needs to be improved. Students tend to understand the content of the text literally, without evaluating the meaning or the accuracy of the information deeply. This is in accordance with the opinion of Kartikasari (2022, p. 9) who states that students aged 11–13 years are in the concrete operational stage, so they still have difficulty in understanding abstract concepts. Therefore, a learning model is needed that can encourage students to think analytically in a structured manner.

The observation results also reveal that learning at SMP Negeri 29 Medan already includes individual and group learning activities, but both have not been integrated in a unified way. In fact, a structured combination of individual and group learning can create a more effective learning environment. Mahsup et al. (2024, p. 391) state that critical thinking develops through student-centered learning models. Rahmatiah (2021, p. 164) adds that the effectiveness of learning is greatly influenced by the model used, especially those that allow collaboration and active participation.

The Team Accelerated Instruction (TAI) model is one of the cooperative learning models that combines individual and group learning. Nurpesti (2021, p. 322) explains that this model is designed to help students understand learning objectives, increase interest in learning, and build deeper conceptual understanding. Sitompul & Cahya (2022, p. 25) emphasize that the combination of independent and group work in TAI encourages creativity, cooperation, and mutual assistance among students. Therefore, TAI has great potential in improving analytical skills in news texts.

Previous research by Zarzua (2024) shows that the TAI model is effective in improving combinatorial thinking ability in science subjects. Meanwhile, research by Sitompul & Cahya (2022) and Tunisa (2022) proves that the TAI model can improve accounting learning outcomes of senior high school students. However, no research has been found that applies this model to Indonesian language learning in the context of news text analysis. Thus, it can be stated that there has been no previous research examining the application of TAI in developing the analytical ability of news texts, indicating a research gap. This research also offers novelty in terms of the application of the TAI-based cooperative learning model in critical literacy material.

Based on the above background, this study aims to determine the effect of the Team Accelerated Instruction model on the news text analytical ability of grade VII students at SMP Negeri 29 Medan. By applying the cooperative learning model, namely TAI, students are expected to be able to distinguish facts and opinions, understand text structure, and evaluate the content of information critically. This is in line with the opinion of Nurpesti (2021, p. 165) who states that the TAI model encourages students to discuss, exchange ideas, and actively present analysis results. In addition, Devianty (2021, p. 96) adds that clarification of words that are often misinterpreted in news texts needs to be done so that students become sharper in sorting information.

B. METHODS

This research was conducted at SMP Negeri 29 Medan in the even semester of the 2024/2025

academic year. The selection of this location was based on initial observations that indicated the need to strengthen students' analytical skills, particularly in interpreting news texts.

The population in this study consisted of all seventh-grade students at SMP Negeri 29 Medan. According to Anshori & Iswati (2019, p. 100), a population is the generalization area consisting of subjects with certain characteristics that are studied to draw conclusions.

The sample was determined using the quota sampling technique, which is a method for selecting samples with specific characteristics until a certain quota is reached (Hamdi & Bahruddin, 2014, p. 44). From the six seventh-grade classes at SMP Negeri 29 Medan, class VII-8 was selected because it met two main criteria: (1) it had never received Indonesian language instruction using the Team Accelerated Instruction (TAI) model; and (2) it did not include students with cognitive impairments that could affect their ability to analyze news texts. This information was obtained from interviews with subject teachers and initial observations. A sample of 32 students was selected to ensure homogeneity and efficiency in terms of time and resources (Kusumastuti et al., 2020, p. 34).

However, the use of quota sampling has limitations. The sample does not represent the population on a large scale, so the generalization of results becomes limited. Even so, Hamdi & Bahruddin (2014, p. 43). emphasize that findings remain useful as long as caution is applied when generalizing. Therefore, in this study, the researcher carefully indicates that even though the sample was not randomly selected from a large population, the characteristics of the subjects adequately represent the general population.

This study used a quantitative approach with a pre-experimental design, namely the One-Group Pretest-Posttest Design. According to Yusuf (2017, p. 77) experimental research can directly show the effect of a variable and describe the causal relationship between the independent and dependent variables or test a hypothesis. In this design, the research subjects were given a pretest (O1), followed by treatment using the Team Accelerated Instruction model (X), and concluded with a posttest (O2) to observe any changes in learning outcomes after the treatment. The research design is shown in the following table.

Table 1. One Group Pretest Posttest Design

Subject	Pretest	Treatment	Posttest
Class VII-8 Students	O1	X	O2

Data collection in this study was carried out using a multiple-choice test instrument designed to measure students' analytical skills in news texts, both before (pretest) and after (posttest) the application of the Team Accelerated Instruction (TAI) learning model. The questions in this test were developed based on three main indicators: (1) the ability to distinguish between facts and opinions, (2) understanding the structure of news texts, and (3) evaluating the truthfulness of the information contained in the texts.

Before being used, the instrument was tested on 32 students outside the sample to measure its validity and reliability. The validity of the research instrument was tested using the Product Moment correlation technique, while the reliability was tested using Cronbach's Alpha.

The results of the validity test showed that all items on the pretest and posttest had r-calculated values greater than the r-table (0.3494), with r-calculated values for the pretest ranging from 0.411 to 0.721, and for the posttest from 0.404 to 0.736. Therefore, all items were declared valid. The results of the validity tests are presented in Tables 2 and 3 below.

Table 2. Pretest Item Validity Test Results

Question No	Highest r	Lowest r	r-table	Description
1-20	0,721	0,411	0,3494	All items valid

Table 3. Posttest Item Validity Test Results

Question No	Highest r	Lowest r	r-table	Description
1-20	0,736	0,404	0,3494	All items valid

Furthermore, the reliability test showed that the Cronbach's Alpha value for the pretest was 0.718 and for the posttest was 0.717. Since both values exceed the r-table value, the instrument was declared reliable. This is consistent with Islahudin et al. (2018, p. 87) who state that a reliability test is used to determine the accuracy of a measurement tool when reused under the same conditions. The

reliability test results are shown in Tables 4 and 5 below.

Table 4. Pretest Item Reliability Test Results

r-tabel	r-hitung (Alpha Cronbach)	Description
0.3494	0.718	Reliabel

Table 5. Posttest Item Reliability Test Results

r-tabel	r-hitung (Alpha Cronbach)	Description
0.3494	0.717	Reliabel

After the data were collected, analysis was conducted using descriptive and inferential statistics. Descriptive analysis was used to describe the distribution and tendency of pretest and posttest scores. Then, inferential analysis was used to test the hypothesis through a paired t-test, after confirming that the data were normally distributed using the Shapiro-Wilk test. Yusuf (2017, p. 92) states that the t-test is a technique commonly used in experimental research because it can determine the effectiveness of a treatment by comparing two sets of data.

In addition to the t-test, this study also used the N-Gain test to measure the practical effectiveness of the treatment. According to Sukarelawan et al. (2024, p. 9) the N-Gain test is a method commonly used to assess the contribution of a learning program in improving students' understanding.

C. RESULTS AND DISCUSSION

This research was conducted through learning activities in Class VII-8 at SMP Negeri 29 Medan, from July 10 to 20, 2025. The study aimed to determine the effect of the Team Accelerated Instruction (TAI) model on students' news text analysis skills. To analyze the data obtained, descriptive statistics, inferential statistics, and practical effectiveness analysis were employed, as outlined in the following subsections.

1. Descriptive Analysis

Descriptive analysis is used to analyze data by describing or depicting the collected research data as it is, without intending to draw general or generalized conclusions (Pebriani & Oktarina, 2018, p. 576). presented in Table 6 below

Table 6. Descriptive Statistics of Pretest and Posttest Scores

		Pretest	Posttest
N	Valid	32	32
	Missing	0	0
Mean		48.91	70.31
Std. Error of Mean		1.691	2.256
Median		50.00	75.00
Mode		45	75
Std. Deviation		9.566	12.759
Variance		91.507	162.802
Range		40	50
Minimum		30	50
Maximum		70	100
Sum		1565	2250
Percentiles	10	35.00	51.50
	20	40.00	58.00
	25	45.00	60.00
	30	45.00	64.50
	40	45.00	65.00
	50	50.00	75.00
	60	50.00	75.00
	70	55.00	75.50
	75	55.00	80.00
	80	55.00	80.00
	90	65.00	87.00

The table 6 shows an increase in the average score after implementing the Team Accelerated Instruction (TAI) model. This increase not only reflects a general improvement in scores but also a shift in score distribution toward higher categories. This demonstrates an overall enhancement in students' analytical skills. Score distribution in Tables 7 and 8 (see the original manuscript) further supports this result.

Table 7. Frequency Distribution of Pretest Score

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30	1	3.1	3.1	3.1
	35	3	9.4	9.4	12.5
	40	3	9.4	9.4	21.9
	45	8	25.0	25.0	46.9
	50	7	21.9	21.9	68.8
	55	5	15.6	15.6	84.4
	60	1	3.1	3.1	87.5
	65	3	9.4	9.4	96.9
	70	1	3.1	3.1	100.0
	Total	32	100.0	100.0	

Table 8. Frequency Distribution of Posttest Score

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	50	3	9.4	9.4	9.4
	55	3	9.4	9.4	18.8
	60	3	9.4	9.4	28.1
	65	6	18.8	18.8	46.9
	75	8	25.0	25.0	71.9
	80	6	18.8	18.8	90.6
	90	1	3.1	3.1	93.8
	95	1	3.1	3.1	96.9
	100	1	3.1	3.1	100.0
	Total	32	100.0	100.0	

Based on the score distribution, a significant shift occurred from a dominance of low scores to moderate and high scores. Most students who were previously in the low category improved to the middle and upper categories after implementing the TAI model. This indicates equitable learning outcomes and a significant improvement not only for high-achieving students but also for those previously at the bottom.

Theoretically, these findings are consistent with the principles of the TAI learning model, which emphasizes active involvement in both teamwork and individual learning. The model facilitates group interaction that allows for elaboration of information and deeper understanding. This aligns with the opinion of Sitompul & Cahya (2022, p. 26) who explained that the team accelerated model can replace competition with cooperation and engage students actively in the learning process.

This improvement is also consistent with Rahmatiah (2021, p. 164) who stated that the effectiveness of learning is greatly influenced by the model used, especially one that allows students to think and discuss actively. It also aligns with Mahsup et al. (2024, p. 391) who asserted that critical thinking emerges through student-centered learning models.

The increased median score also shows that not only certain students improved, but almost all groups experienced an increase in analytical skills. This indicates the TAI model's equitable effectiveness in enhancing higher-order thinking skills, particularly in the context of analyzing news texts.

2. Inferential Analysis

Before conducting the t-test, a normality test was first performed to ensure that the data were normally distributed. The normality test used the Shapiro-Wilk test, as the Shapiro-Wilk test is generally used for small sample sizes. The normality test is used to determine whether the data are normally distributed or not (Yusuf, 2017, p. 255). Table 9 display the result of the normality test.

Table 9. Shapiro-Wilk Normality Test Results

	Statistic	df	Sig.
Pretest	.961	32	.295
Posttest	.947	32	.115

The significance value obtained was greater than 0.05, indicating that the data were normally distributed. Therefore, the paired t-test could be validly applied in the inferential analysis. The results of the paired t-test are presented in the following table.

Table 10. Paired Samples Test Results

Paired Samples Test

	Paired Differences							
				95% Confidence Interval of the Difference				Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pretest - Posttest	-21.406	7.210	1.275	-24.006	-18.807	-16.794	31	.000

The test results in table 10 showed a significant difference between the pretest and posttest scores ($p < 0.05$). This confirms that the application of the TAI model had a real effect on improving students' analytical abilities. In other words, the increase shown in the previous descriptive section was not coincidental but a direct result of the treatment given.

This improvement also reflects the internalization of analytical strategies by students through a collaborative and responsible learning structure. In line with this, S. et al. (2022, p. 404) emphasized that the TAI model is designed to promote satisfaction and strengthen team collaboration in fostering students' positive attitudes.

In the context of news texts, these results show that students not only improved in literal comprehension but also developed their ability to

identify opinions, evaluate the truth of information, and understand text structure critically. This is in accordance with Rachman et al. (2020, p. 171), who stated that learning processes in the curriculum encourage students to think actively, ask questions, and engage in discussion to enhance their critical understanding.

This study also supports previous research that demonstrated the effectiveness of the TAI model in learning. Sitompul & Cahya (2022, p. 25) stated that the combination of student-centered learning and group work in TAI promotes creativity and effective collaboration. Nurpesti (2021, p. 322) added that the model is designed to help students understand learning objectives and develop deep understanding.

Thus, the success of TAI in improving news text analysis skills is evident not only in improved scores but also in changes in students' thinking patterns in critically and contextually understanding the structure and content of texts. This supports earlier observations that students initially understood information literally, and through this model, they advanced to higher levels of analysis as required in the Kurikulum Merdeka (Amani, 2023, p. 196).

3. Practical Effectiveness Analysis

After it was determined that the TAI model had a statistically significant effect, it was also important to assess the practical effectiveness of the treatment. Effectiveness in this study was measured using the N-Gain test, which reflects the extent to which score changes indicate substantive impact. Table 11 display the result of N- Gain test.

Table 11. N-Gain Test Results

Statistic	N	N-Gain Score	Improvement Category	%N-Gain
Average	32	0,4452	Moderate	44,52

Based on calculations of pretest and posttest data from 32 students, the average N-Gain score was 0.4452, which falls into the "moderate" improvement category. This shows that the TAI model meaningfully improved students' analytical abilities in news text analysis.

In terms of percentage, the N-Gain of 44.52% falls into the "less effective" category based on interpretive classifications. However, it is important to understand that this classification is general and does not fully capture the learning context holistically. In practice, an increase of 44.52% still shows a real and continuous improvement in students' analytical skills. Moreover, considering that news text analysis requires critical thinking skills that do not develop instantly, this achievement can be regarded as a strong foundation for further development.

In other words, although considered "less effective" by percentage classification, the results remain statistically and practically significant and demonstrate the potential of the TAI model to progressively enhance learning quality.

These findings reinforce the urgency of developing analytical skills as emphasized in Bloom's Taxonomy, which places analysis at level C4 (A & AN, 2023, p. 123), and indicate that students have moved from merely understanding text content to evaluating and interpreting information critically—core components of HOTS (Sipahutar et al., 2024, p. 283). This practical effectiveness proves that the TAI model is not only a pedagogically effective solution but also relevant to the 21st-century competencies that prioritize critical and reflective thinking.

Although the TAI model had a positive effect on students' news text analysis skills, some limitations must be noted to enrich contextual understanding and serve as a basis for future development.

One limitation is the use of the One-Group Pretest-Posttest Design without a control group. While this design was chosen for its efficiency and feasibility in real classroom settings, it has methodological limitations in isolating the treatment effect from external factors (Yusuf, 2017, p. 93). Therefore, the findings should be interpreted as strong indications that still require replication using more rigorous experimental designs in the future.

The implementation process also faced practical challenges in the classroom, such as differences in students' initial abilities, learning styles, and levels of confidence in group work. These differences sometimes led to dominance by some students and passivity by others. However, this is a common condition in classroom learning and part of the adjustment process to a new model (Mislinawati & Nurmasyitah, 2018, p. 30).

External factors, such as limited instructional time, also influenced the results. The TAI model essentially requires more time to fully implement its collaborative and individual accountability principles. Building a collaborative culture also takes time, as students need to get used to exchanging ideas and taking responsibility for group learning.

Although proven effective, further development of the TAI model is needed to optimize its application

in various educational contexts. One direction is the use of experimental designs with control groups to strengthen validity and confirm that improvements are truly due to the TAI model. Adapting the model for inclusive education is also crucial, ensuring students with special needs can fully participate in structured group learning.

Other developments include conducting longitudinal research to explore the long-term impact of TAI on critical thinking and collaborative skills—competencies essential in the 21st century. Parental involvement should also be increased, as they can instill collaborative learning habits at home to reinforce school-based learning.

In today's digital era, integrating educational technology into the TAI model is a strategic step to make learning more engaging, efficient, and relevant. Using collaborative platforms, interactive apps, and online tools can support group work and expand collaboration beyond the classroom.

In conclusion, this research not only demonstrates the successful implementation of the TAI model in improving news text analysis skills but also offers practical insights for developing this model more effectively, adaptively, and sustainably in diverse learning contexts.

D. CONCLUSIONS AND SUGGESTIONS

This study demonstrates that the Team Accelerated Instruction (TAI) model has a significant effect on improving the news text analysis skills of Grade VII students at SMP Negeri 29 Medan. The average score increased from 48.91 to 70.31, with the t-test showing a significance value of 0.000 (p < 0.05). The average N-Gain score of 0.4452 falls into the "moderate" improvement category. This indicates that the TAI model effectively promotes a meaningful improvement in students' analytical abilities.

Theoretically, these findings reinforce that cooperative learning based on social constructivism can develop critical thinking skills. Practically, the TAI model encourages active participation, individual responsibility, and collaboration, particularly in news text learning, which requires deep analysis.

The implication is that TAI is relevant as an analytical learning strategy aligned with the Kurikulum Merdeka and critical literacy, as it helps students reflectively understand texts, assess facts, opinions, and the structure of information. Further research is recommended to use an experimental design with a control group, as well as to develop affective aspects, explore different contexts, and integrate technology.

Overall, this research contributes to the development of cooperative learning theory in Indonesian critical literacy and offers the TAI model as a strategy capable of enhancing cognitive abilities while fostering reflective, collaborative, and contextual learning.

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