

## LEARNING BACKWARDS: IMPROVEMENT SKILLS ACCOUNTANCY PARTICIPANT EDUCATE THROUGH THE *RECIPROCAL TEACHING LEARNING MODEL*

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### ABSTRACT

*This study aims the effect of reciprocal teaching as a flipped learning model in improving accounting skills among vocational school students majoring in accounting. The research was conducted at SMK Bina Jaya Palembang involving 52 participants from class XI Akuntansi 2. The instrument used included essay-based accounting tests focused on inventory cards. The findings revealed a significant improvement in participants' accounting skills after the reciprocal teaching model was implemented. The average score increased from 49.01% (pre-test) to 72.71% (post-test), particularly in recording, analyzing, and presenting financial information and it shows based on normality test that the datas are normal furthermore based on paired sample t-test show  $t_{table} = 1,67528 < t_{count} = 5,49$  The conclusion suggests that reciprocal teaching effectively enhances learners' metacognitive engagement and critical thinking in accounting classes, supporting the Merdeka curriculum's emphasis on student autonomy.*

**Keyword :** Reciprocal Teaching , Learning Accountancy, Learning Backwards

### INTRODUCTION

Learning is a complex psychological and social process, in which individuals experience changes from not knowing to knowing through interaction. with the environment and others. Learning activities must be structured and planned before the learning process takes place, where the learning context is often defined as an activity that involves communication (Fahruriza et al., 2021). In formal education, learning success is greatly influenced by the design, strategies, and learning models used by an educator. The learning process is not limited to delivery information from educator to participants educate, but Also involving active interaction, in-depth understanding of concepts, and comprehensive student involvement. However, in reality, accounting learning in Vocational High Schools (SMK), especially in financial accounting majors are still dominated by models conventional learning that is centered on educators, who do not encourage active student involvement (Sabaniah et al., 2021).

Accounting is a subject that emphasizes logical and analytical thinking skills, as well as mastery of theory and practice simultaneously. Students are required to understand various basic accounting concepts and be able to apply them in the form of recording financial transactions. preparation of accurate and standard-compliant financial reports. The main challenge in learning accounting is students' difficulty understanding abstract and technical material. This is exacerbated by a one-way learning model that doesn't provide space for students to discuss, ask questions, and develop their critical thinking (Sari, 2022).

Based on initial observations at SMK Bina Jaya Palembang, it was discovered that many eleventh-grade accounting students experienced difficulties in understanding financial accounting material, particularly on inventory cards. Of the approximately 50 students in one class, only a small

proportion were able to achieve scores above the Minimum Completion Criteria (KKM). This situation indicates that the current learning approach is not fully able to meet the needs and learning styles of students. Students are expected to have motivation and independence in the learning process to support achieving learning objectives (FH et al., 2021). Therefore, it is necessary to develop innovative learning models that not only focus on delivering material but also encourage students to think critically, independently, actively, and collaborate effectively.

One of the learning models that is considered relevant and capable of answering these challenges is the *Reciprocal learning model*. *Reciprocal teaching* or learning. This model emphasizes active student participation in the learning process through activities such as summarizing, generating questions, clarifying, and predicting material content (Sari, 2022:187). In practice, students are formed into small groups and given responsibility for studying and presenting material to other groups, while the educator acts as a facilitator, providing direction and feedback on the results of student discussions. This model creates a more interactive learning environment and emphasizes independence and individual responsibility in the learning process. *reciprocal* teaching model also aligns with the principles of the Independent Curriculum, which emphasizes character building, independent learning, and critical thinking and problem-solving skills. By implementing this model, students become not only recipients of information but also active subjects, able to explore knowledge, collaborate with group members, and practice communication skills. Research conducted by Sabaniah et al., 2021; Sari, 2022, has shown that the reciprocal teaching model improves learning outcomes and student active participation at various levels. Similarly, research by Ulya and Yanto (2016:45) confirms that this model is effective in enhancing critical thinking skills in economics learning.

In the era of the Industrial Revolution 4.0 and Society 5.0, the world of education is required to transform to prepare students who are not only cognitively competent but also possess 21st-century skills such as critical thinking, collaboration, creativity, and effective communication. In the context of vocational education, such as in vocational high schools (SMK), these skills must be integrated with specific vocational competencies, including accounting skills. Vocational high school students majoring in accounting are expected to master the technical skills of recording transactions, preparing financial reports, and analyzing financial data as provisions for directly entering the workforce or continuing their education to a higher level (Aryanto, Farida & Maulidah, 2023:88).

But, If seen from the field shows that The accounting learning process is still not optimal in developing students' comprehensive abilities. The learning process still tends to focus on memorizing concepts and imitating problem-solving steps, rather than on conceptual understanding and independent problem-solving skills. As a result, students experience difficulty in grasping basic accounting concepts. often participants educate depend on educator and difficulty to developing independent understanding in learning (Aryanto, Farida & Maulidah, 2023).

In such conditions, a learning approach that provides more space for students to explore the material independently is essential. with approach flipped learning or learning upside down through reciprocal teaching is highly relevant because it shifts the paradigm from teacher-centered to student-centered learning. With the reciprocal teaching model, students not only learn to receive information but are also trained to process, discuss, and convey what they understand to their peers. This contributes to increased self-confidence, critical thinking skills, and team collaboration (Sabaniah, Ramdhan & Rohmah, 2021:59).

This research has high urgency because it offers alternative solutions to overcome low student learning outcomes in subjects accountancy financial management. Furthermore, this research contributes to enriching innovative learning models that can be implemented by other educators to improve the quality of accounting learning in vocational schools. Therefore, the purpose of this study is to examine the extent of the influence of the *reciprocal teaching learning model* on improving the accounting skills of 11th-grade accounting students at SMK Bina Jaya Palembang. It is also hoped that this will contribute to the improvement of accounting skills of vocational high school students. can open outlook new about practice learning accountancy Which more effective, active, and oriented on humanity. However, part big study Previously, research focused solely on increasing motivation or conceptual understanding. Research specifically examines the influence of the reciprocal teaching model on accounting skills, including aspects of recording, analyzing, and presenting financial information. holistic is still limited, especially in the context of the Independent Curriculum and problem-based accounting learning. practice. Therefore, this study aims to examine the effect of the *reciprocal teaching learning model* on improving accounting skills.

## METHODS

This research uses a quantitative approach with a quasi-experimental design. type one group pre-test and post-test design. Sample consists of from 52 The subjects were 11th grade Accounting students of SMK Bina Jaya Palembang who were randomly selected. The main instrument was a financial accounting essay test with inventory card material that had been validated by experts and external validation, the results of which showed that 12 questions were suitable for use. In addition, the researcher also conducted a reliability test which showed that  $r_{11} = 0.634 > r_{tabel} = 0.2681$ , which indicated a reliable instrument. The test instrument included three skill indicators: recording, analyzing, and presenting financial information. Data analysis was carried out using a t-test. pairs to find out the significant differences between the pre-test and post-test results.

## RESULT AND DISCUSSION

**First**, the results of the study indicate that students' accounting skills improved after the implementation of *reciprocal teaching* in the learning process. This study was conducted on 52 11th-grade Accounting 2 students at SMK Bina Jaya Palembang. The main instrument was a descriptive test covering indicators of skills in recording transactions, analyzing transactions, and presenting financial information.

Following is data results pre-test And post-test skills accountancy :

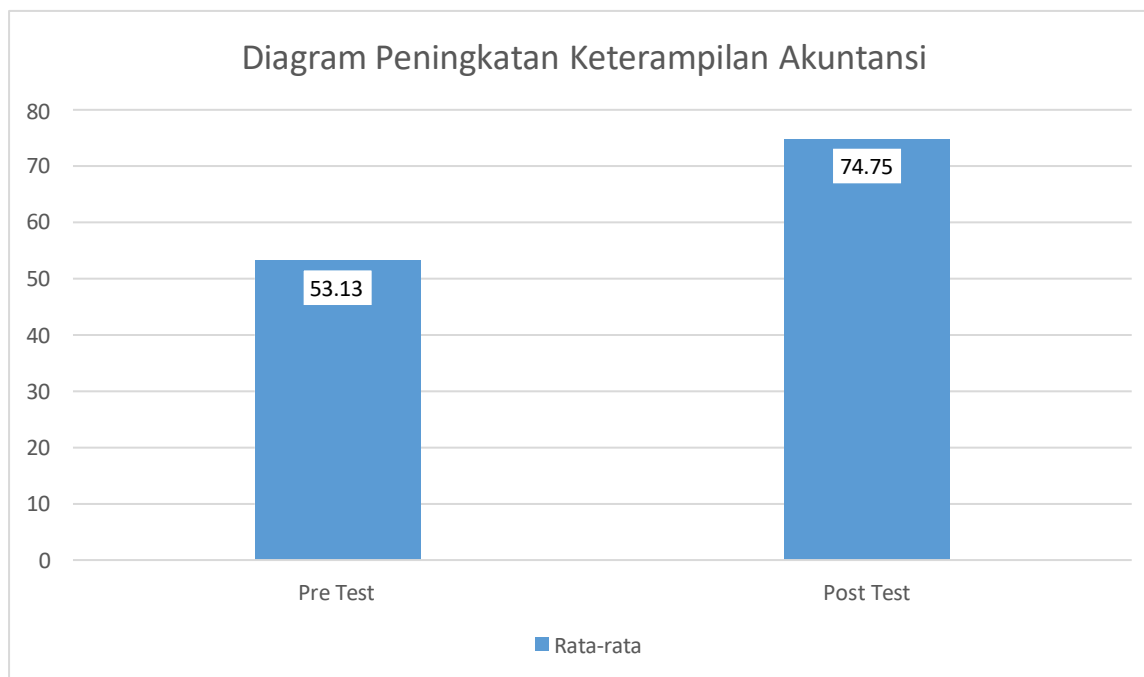
**Table 1. Average Mark Skills Accountancy Before And After Treatment**

Type test	Score smallest	Score highest	Average
Pre- test	25%	73.33%	53.13%
Post- test	31%	96.66%	74.75%

Source: Data primary Which processed, 2025

Based on **Table 1**, it can be seen that the smallest score from the data pre-test 25% and post-test 31%, both of which are categorized as very poor, the highest pre-test score of 73.33% is categorized as sufficient good and the highest post test score of 96.66% is categorized as very good,

the average pre test is 53.13% which shows the very poor category while the average post test score is 74.75% which is categorized as sufficient Good. From the data Which served show improvement from skills accountancy after *treatment* .



Source: Data primary Which processed, 2025

The line chart above shows the average increase in participants' accounting skills. students from pre-test 53.13% indicating a very poor category to post-test 74.75% categorized as quite good. It can be concluded that there is an increase in accounting skills students after implementing the *reciprocal teaching model* .

Based on indicator skills accountancy, improvement happen on all over aspect, the details are as follows :

**Table 2. Presentation Improvement Indicator Skills Accountancy**

Indicator	Pre-test (%)	Post-test (%)	Improvement (%)
Take notes transaction	74.48	85	10.52%
Analyze transaction	47.69	78.26	30.57%
Presenting financial information	37.23	61	23.77%

Source: Data primary Which processed, 2025

From the table above, we know that the average percentage of students' accounting skills indicators has increased. The indicator for recording transactions during *the pre-test* was 74.48%, which is categorized as quite good, and during *the post-test* it became 85%, which is categorized as good. This shows that the first indicator has increased by 10.52%. The indicator analyzes transaction on *pre -time test* show mark 47.69% categorized very not enough good and *post test* 78.26% is categorized as good, this shows that the second indicator has increased by 30.57%. On indicator presenting financial information, *pre The test* showed a value of 37.23% which was categorized as very poor and *post 61% of the test was categorized as less than good, this is* The results showed that the third indicator increased by 23.77%. Researchers also conducted

prerequisite tests and hypothesis tests. The prerequisite test was conducted to determine whether the data was normally distributed. After conducting the test, the results showed that for the pre-test data,  $X^2_{hitung} = 2.814998 < X^2_{tabel} = 9.487729$  which indicates that the pre-test data shows that the distribution is normal, while for the post-test data, the test results show  $X^2_{hitung} = 2.054193 < X^2_{tabel} = 9.487729$  which indicates that the *post-test data* is also normally distributed. For the hypothesis test, a paired t-test was conducted to see whether the *reciprocal teaching learning model* has an influence on improving students' accounting, and after conducting the test, it showed that the results of the t-test  $t_{hitung} = 1.67528 < t_{tabel} = 5.49$  which indicates that the *reciprocal teaching learning model* has an influence on improving students' accounting.

**Second**, the results This study shows that model usage *Reciprocal teaching* has a positive impact on improving students' accounting skills. These results can be interpreted as indicating that students' active involvement in the learning process, through group discussions, question-making, material clarification, and re-presentation of learning outcomes to classmates, can significantly improve understanding and mastery of the material.

This learning model also facilitates the formation of independent learning, where students not only receive information from educators, but actively build knowledge. they Alone And test it in forum discussion (Sari, 2022:187). Results This Also This is reinforced by research by Sabani et al. (2021), which showed that *reciprocal teaching* increased students' active participation in social studies during the pandemic. Sari (2022) also found that this strategy effectively improved fifth-grade elementary school students' mathematics learning outcomes. Furthermore, Efendi et al. (2020) reported that students who used this approach demonstrated improved critical thinking skills and better conceptual understanding compared to conventional models.

This indicates that *reciprocal teaching* is flexible, applicable at various levels of education, and able to answer the needs of 21st-century learning, including in the field of accounting which requires a combination of logic, analysis, and presentation of financial information.

This finding aligns with research by Kurniawan and Istiningrum (2012), which found that 97.2% of students experienced improved conceptual understanding and 88.89% experienced increased learning independence after the implementation of *reciprocal teaching*. Within the structure of educational science, this finding reinforces constructivism theory, which emphasizes that students construct understanding through social interaction and independent reflection. Educators are no longer the sole source of knowledge, but rather act as facilitators who accompany students in the process of exploring knowledge. Through the application of this model, students are better able to integrate accounting theory with real-world practice and convey their understanding to others, ultimately strengthening their accounting skills. Theoretically, this study strengthens the argument that learning strategies based on collaboration and dialogue have been proven to improve higher-order thinking skills. This research also indicates that accounting learning can be developed not only through practice questions, but also with learning strategies that activate students as a whole.

The results of this study have important implications for education, particularly in teaching accounting at the vocational school level. Educators can use the *reciprocal model. teaching* as an alternative in delivering complex material such as financial accounting. This model has been proven to create a more active, dialogic learning atmosphere and motivate students to participate more. Schools can also consider developing teacher training in applying active learning models to adapt them to the independent curriculum, which prioritizes independent learning. In theoretical

development, the results of this study can be considered a modification of the *teacher-centered learning approach* to a *student-centered one*. Although not new globally, its application in a local context such as vocational high schools in Indonesia represents a relevant pedagogical adaptation and addresses the challenge of students' low accounting skills.

*reciprocal teaching* model is effective in financial accounting and significantly influences students' accounting skills. This underscores the importance of learning innovation in improving the quality of learning outcomes in 21st-century education.

## CONCLUSION

Based on the research results and discussions conducted, it can be concluded that the application of the *reciprocal teaching learning model* has proven effective in improving the accounting skills of 11th grade accounting students at SMK Bina Jaya Palembang. This is evidenced by the existence of average increase accounting skill score from 53.13% at the *pre-test* to 74.75% after *post-test* was conducted. The increase occurred in significant in three main indicators, that is ability to record transactions, analyze transaction, and present financial information that can understood. Model This Also encourage participants educate for more active, independent, and critical thinkers in understanding complex accounting concepts.

This research strengthens the idea that learning that actively involves students through discussions, presentations, and clarification can improve the quality of understanding. And skills practical in field accountancy. Findings This relevant with principle 21st-century learning and supports the implementation of the Independent Curriculum, which emphasizes independent learning and collaboration. As a follow-up to the results of this study, it is recommended that the *reciprocal teaching model* be applied more broadly to other subjects that are conceptual and applicable. Future research can examine the effectiveness of this model by comparing learning outcomes between experimental and control classes, or examining its impact on other variables such as learning motivation, communication skills, and long-term learning outcomes. Further research can also explore the integration of technology in the implementation of *reciprocal teaching* to support more interactive and flexible digital learning.

The researcher provides suggestions for further researchers that this research has limitations in terms of the use of materials, because accounting itself has several branches of science and here the researcher only uses the field of financial accounting with inventory card material, where this field is not only inventory card material, there are many other materials. Therefore, the researcher suggests that future researchers use other accounting materials or fields to measure accounting skills so that this research can be developed more broadly.

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