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Empowering Accounting Students With ‘Anak Takur Finger Code Model’: A Novel Approach to Journal Entry Skill

Adhelia Desi Prawestri
UIN Raden Mas Said Surakarta, Indonesia
Email: adhelia.dp@staff.uinsaid.ac.id

Abstract

This study investigates the impact of the "Anak Takur Finger Code Model" on enhancing students' comprehension of journal transaction recording, particularly among those from non-accounting educational backgrounds, as a vital preliminary step in financial statement preparation. Utilizing a Research and Development (R&D) approach guided by the ADDIE model, the research assesses the model's effectiveness in improving the understanding of first-semester accounting students across three distinct institutions. Results indicate that the "Anak Takur Finger Code Model" significantly enhances students' grasp of journal entries, demonstrated by notable improvements in pre-test and post-test scores and students' ability to articulate the method accurately. This success is attributed to its systematic approach and the integration of visual aids that facilitate the accounting learning process. It is recommended that the "Anak Takur Finger Code Model" be implemented across diverse educational settings to evaluate its effectiveness further.

Keywords: Anak Takur Finger Code Model, Research and Development (R&D) Method, Transaction Recording, Accounting Education, Learning Effectiveness

INTRODUCTION

One significant global issue in accounting education is the increasing complexity of financial systems and the need for individuals to manage financial data. effectively (Ningrum et al., 2025). This issue is compounded by the rapid technological advancements and evolving business models that continuously shape the global financial landscape. Students entering accounting programs often come from varied educational backgrounds, such as general high schools, vocational schools, and religious institutions, leading to disparities in their foundational knowledge. This diversity results in challenges, especially for students from non-accounting backgrounds, who may struggle to understand basic accounting principles, including the fundamental concepts of debit and credit and the classification of accounts.

Education serves as a cornerstone in the development of human resources, acting as the primary mechanism for cultivating individuals equipped with the knowledge, skills, and attitudes essential for contributing to society (Juita et al., 2024; Mustari, 2022;

Swargiary, 2024). As a lifelong journey, education not only enhances intellectual and practical capabilities but also plays a critical role in shaping the character and integrity of learners (Raudiyah & Santiani, 2024). Within formal education, particularly in higher education, students are challenged to acquire in-depth expertise in their chosen fields to prepare them for the demands of the professional world and broader society. Academic programs in universities are meticulously designed to foster specialized competencies tailored to the needs of specific professions (Amalia, 2022; Junaidi et al., 2020; Mulyasa, 2021). Among these disciplines, accounting stands out as a field that demands precise skills and profound understanding, where the ability to record and manage financial data accurately is fundamental to professional success.

Accounting education plays a crucial role in higher education, particularly in accounting programs, as it aims to develop students' abilities to understand fundamental concepts essential for recording transactions and preparing financial statements. (Prawestri et al., 2015; Ratnaningrum et al., 2022). Despite its importance, mastering the process of recording transactions in general journals often presents significant challenges for students due to the complexity inherent in accounting systems. These difficulties are especially pronounced during the initial stages of study, where students enter with diverse educational backgrounds, ranging from general high schools (SMA) and vocational schools (SMK) to religious schools (MA), each providing varying levels of foundational knowledge in accounting.

Students with little or no prior exposure to accounting, such as those from science-focused high schools, religious studies programs, or vocational tracks in fashion design, culinary arts, automotive, or networking, often face additional hurdles. (Boulianne, 2014). Their limited familiarity with core accounting concepts and techniques makes it harder for them to grasp the fundamental principles of journal recording. Consequently, these students require tailored support and additional effort to adapt to the demands of accounting education at the university level. (Wibawa, 2020). Addressing this skills gap is critical to ensuring equitable learning opportunities, enabling all students to engage effectively with the curriculum and achieve the competencies required for success in the accounting field. (Prawestri et al., 2015; Ratnaningrum et al., 2022).

Preliminary observations indicate that many students face challenges in accurately recording transactions in the general journal. These difficulties primarily arise from a limited understanding of essential accounting concepts, including the classification of accounts and the fundamental principles of debit and credit, the cornerstone of the recording process. Moreover, students often struggle with following a systematic approach to transaction recording, resulting in errors in identifying and documenting transactions by standard accounting practices. These gaps in understanding hinder their ability to produce accurate financial statements and impede their progress in achieving the core competencies required in accounting education. These problems will impact students' understanding of accounting theory and practice. (Utomo et al., 2022).

Students frequently encounter challenges in identifying the correct accounts for transactions and determining their proper classification as debits or credits. As the

foundational step in the accounting cycle, transaction recording plays a pivotal role in ensuring the accuracy of financial statements (Satria & Fatmawati, 2021). Proper recording at this stage is crucial, as it sets the stage for subsequent processes, such as account classification and financial reporting, to function seamlessly and produce reliable and accurate financial information (Ratnaningrum et al., 2022). During this initial step, errors compromise the accuracy of financial statements and disrupt students' comprehension of the entire accounting cycle, making it harder for them to grasp the interconnectedness of its components (Prawestri, 2024).

The "Anak Takur Finger Code Model" was developed as an innovative educational tool to address accounting students' common challenges in recording transactions. This method uses a unique finger-based coding system to help students more effectively grasp and retain the sequence of transaction recording in a practical, visual manner. By systematically associating finger positions with account categories and their corresponding debit or credit roles, the model simplifies the often confusing task of journal entry. Not only does this approach streamline the learning process, but it also enhances students' confidence in independently and accurately recording transactions, while demystifying accounting complexities.

This exemplifies Creative Problem Solving, an essential approach educators must embrace when guiding their students. By implementing innovative and adaptive strategies, teachers can address individual learning challenges, fostering a deeper and more effective understanding of the material. Creative Problem Solving encourages students to think critically, engage actively with the content, and develop practical skills, empowering them to overcome obstacles and thrive in their academic journey. (Sumaryati et al., 2022).

In addition to enhancing students' understanding of transaction recording, the "Anak Takur Finger Code Model" is designed to boost their confidence in applying fundamental accounting principles to real-world scenarios. By understanding the recording process, students are expected to record transactions more accurately and efficiently, positively impacting their academic performance. (Ratnaningrum et al., 2022; Wibawa, 2020). Mastering the fundamentals of transaction recording from the outset will equip students with a solid grasp of the accounting cycle, ensuring they are well-prepared to tackle academic and professional challenges in the accounting field. (Prawestri, 2024).

The urgency of this research is underscored by the need to address the ongoing difficulties faced by students from non-accounting backgrounds in mastering the fundamental skills required in accounting education. As the foundation of financial reporting, transaction recording cannot be overlooked, and errors at this stage can have far-reaching consequences for students' academic success and future careers. The Anak Takur Finger Code Model provides a timely and innovative solution that could revolutionize accounting education by making it more accessible and effective for all students, regardless of their prior knowledge. The novelty of this research lies in its application of the Anak Takur Finger Code Model, a tool that has not been previously employed in accounting education. Unlike traditional methods that rely heavily on

theoretical explanations, this model offers a more interactive and intuitive learning experience. Linking abstract accounting concepts with physical gestures helps students bridge the gap between theory and practice, ultimately improving their ability to record transactions accurately and confidently.

This study explores the impact of the "Anak Takur Finger Code Model" on students' understanding of transaction recording in journals. The significance of this research lies in identifying effective teaching strategies to overcome the challenges faced by students, particularly those from non-accounting backgrounds. Recording transactions in the journal is a foundational step in preparing financial statements, and errors at this stage can undermine the accuracy of the entire financial report, as each stage is interconnected. This study's findings are expected to contribute to developing more innovative and practical accounting education methods, ultimately enhancing students' comprehension. The novelty of this research is in the application of the "Anak Takur Finger Code Model," a method not previously used in accounting education, offering a fresh perspective that has the potential to improve the effectiveness of learning in this field.

RESEARCH METHODS

This study is a Research and Development (R&D) type of research. According to Sugiyono (2016)The R&D method creates a specific product and assesses its effectiveness. In this study, the procedure follows the ADDIE development model, which includes five stages: analysis, design, development, implementation, and evaluation. (Almomen et al., 2016).

In the implementation phase, the developed method was tested on first-semester accounting students from three institutions: the public university UIN Raden Mas Said Surakarta, the private university Universitas Perwira Purbalingga, and the vocational institution LP3I Purwokerto. The results of this trial will be evaluated to assess the method's effectiveness in enhancing students' ability to record transactions in the journal.

RESULTS OF ANALYSIS AND DISCUSSION

Transaction recording in the journal is a critical first step in the accounting cycle, forming the foundation for the subsequent stages of financial statement preparation. (Biehl et al., 2024). Accuracy and attention to detail are essential, as errors at this stage can impact the entire cycle. Correct recording leads to reliable and precise financial reports, providing clear and accurate information to stakeholders. Therefore, a simple yet effective method is needed to help students understand the recording process, reduce errors, and enhance efficiency, ultimately boosting their confidence in producing accurate financial statements. This is achieved through the ADDIE development model, which consists of analysis, design, development, implementation, and evaluation. (Almomen et al., 2016).

Analysis

The analysis phase of the ADDIE model's first stage involves identifying the challenges students face in recording transactions in the journal.. (Dilaines et al., 2024). This analysis was conducted on students from three institutions: the public university UIN Raden Mas Said Surakarta, the private university Universitas Perwira Purbalingga, and the vocational institution LP3I Purwokerto. The initial analysis revealed that most students come from diverse high schools and academic backgrounds.

Based on the results of the initial pre-test conducted with the students, the challenges stemmed from the fact that they were starting the Introduction to Accounting course and had diverse educational backgrounds. These included general high schools (science and social studies tracks), vocational schools offering majors such as Accounting, Marketing, Office Administration, Fashion Design, Automotive Engineering, and Computer Networking, and Madrasah Aliyah with science, social studies, and religious studies tracks. Due to this diversity, most students did not understand the procedures for recording transactions in the journal. This poses a significant challenge, as transaction recording is a crucial first step in the accounting cycle and serves as the foundation for creating accurate and reliable financial statements.

Building on the analysis of the challenges students face in transaction recording, the identified need is for a teaching method that simplifies the journal entry process and helps students grasp the fundamental principles of accounting more easily. Students require a tool to easily recognize account groups, identify debit and credit positions, and follow the correct sequence of entries. This need is particularly crucial given the students' diverse educational backgrounds and their varying levels of understanding of accounting.

This analysis phase aims to design an effective method to enhance students' fundamental understanding of transaction recording. This method should simplify learning and empower students to record transactions confidently and accurately, providing a solid foundation for preparing reliable financial statements.

Design

In the second stage, the design phase of the ADDIE model, this research outlines the structure and key steps to be implemented in the method, aimed at helping students understand transaction recording in a more straightforward, more accurate, and precise manner. Based on the analysis, students' primary challenge is identifying the correct account type and determining the appropriate debit or credit position. To address this, the method introduces a systematic guide in three steps: (1) ANAK (Account Analysis), which involves identifying the correct account for each transaction; (2) TAKUR (Add-Subtract), which helps determine whether an account value increases or decreases; and (3) the Finger Code Model, which provides a hand gesture guide for establishing the accurate debit and credit positions.

As part of the design phase, the learning strategy developed in the "Anak Takur Finger Code Model" incorporates visual and tactile aids to help students grasp the concept of transaction recording more quickly. Physical tools, such as the fingers in the Finger

Code, are designed to represent the positions of debit and credit, offering an intuitive way for students to remember the location of each account easily. Additionally, practice scenarios and transaction simulations are created to strengthen students' understanding of various types of transactions. Students can refine their account analysis skills through these exercises and accurately record transactions following the correct procedures.

Development

In the development phase of the ADDIE model, the creation and organization of the learning product, as previously designed, takes place. In the context of the "Anak Takur Finger Code Model," this phase involves developing modules, instructions, and visual aids to support students' understanding of transaction recording in the journal. Before implementing the method, students must understand the five primary account categories in accounting: assets, liabilities, equity, revenue, and expenses. Students must also become familiar with the specific types of accounts within each of these categories. The "Anak Takur Finger Code Model" consists of three main interconnected stages:

1. ANAK Stage (Account Analysis)

The first stage is Account Analysis, where students identify the relevant accounts involved in a transaction. Indonesia's transaction recording system follows the double-entry bookkeeping principle, meaning that every transaction must be recorded in at least two accounts, one on the debit side and one on the credit side. For instance, in a transaction involving the purchase of an asset or the payment of a debt, students must understand which accounts are affected and whether the transaction will impact the debit or credit position.

2. TAKUR Stage (Add-Subtract)

In the second stage, students analyze the accounts to determine whether they have increased or decreased due to the recorded transaction. This step is vital for ensuring accurate entries. For example, if a transaction involves the purchase of machinery, the machinery asset increases, while cash decreases. This step aids students in understanding how each account's value changes as a result of the transaction.

3. FINGER CODE MODEL Stage

The third stage involves using the "Finger Code Model," a visual tool that associates the five account groups with the hand's five fingers. In this method, each finger represents a specific account group: the thumb for assets, the index finger for liabilities, the middle finger for equity, the ring finger for revenue, and the pinky for expenses. To help students remember the rules for recording debits and credits, the thumb and pinky are bent to indicate the debit position when assets or expenses increase. Conversely, when liabilities, equity, or revenue increase, they are recorded on the credit side.

For example, let us consider a company purchasing machinery for IDR 500,000,000 in cash. The "ANAK TAKUR Finger Code Model" steps are applied as follows. First, ANAK (Account Analysis): students identify the two accounts involved in the transaction. The machinery purchase means the "Machinery" account is affected as an asset acquired, and the cash payment means the "Cash" account is reduced as the

funding source. Second, TAKUR (Add-Subtract): the "Machinery" account increases because it is a newly acquired asset, while the "Cash" account decreases as it is used to pay for the machinery. Third, Finger Code Model: using the finger guide, students determine that "Machinery," which belongs to the Asset group, increases and is recorded on the debit side. At the same time, "Cash," also an Asset, decreases and is recorded on the credit side. By applying this method, students can accurately record the machinery purchase: a debit of IDR 500,000,000 to the "Machinery" account and a credit of IDR 500,000,000 to the "Cash" account. The "Anak Takur Finger Code Model" aids students in intuitively grasping the double-entry principle, minimizing errors, and enhancing precision in the accounting cycle, ultimately resulting in accurate and reliable financial statements.

Implementation

In the implementation phase of the ADDIE model, the "Anak Takur Finger Code Model" is implemented during learning activities to assess its effectiveness in real-world scenarios. This method is applied to first-semester accounting students from three different institutions, each representing distinct educational contexts. The first institution is UIN RM Said Surakarta, a public university, with 120 students. The second is Universitas Perwira Purbalingga, a private university with 35 students; the third is LP3I Purwokerto, a vocational school, with 82 students, totaling 237 students.

During the implementation phase, students participated in two in-person sessions designed to introduce and practice the Anak Takur Finger Code Model for journal entry recording. In each session, the instructor began with a theoretical explanation of the importance of accurate journal entries within the accounting cycle. The instructor then provided a step-by-step breakdown of the Anak Takur Finger Code Model, starting with the account analysis stage (ANAK), followed by determining whether the account increases or decreases (TAKUR), and concluding with the application of the Finger Code Model to identify the correct debit or credit position for each account.

After explaining the theoretical concepts, the instructor provided practical examples, such as simple transaction cases, to give students a clear, hands-on understanding of how the method works. Students were then guided through each Anak Takur Finger Code Model step, practicing it gradually with the instructor’s support. Throughout the process, the instructor offered constructive feedback to ensure that each student comprehended both the concepts and the correct application of the method.

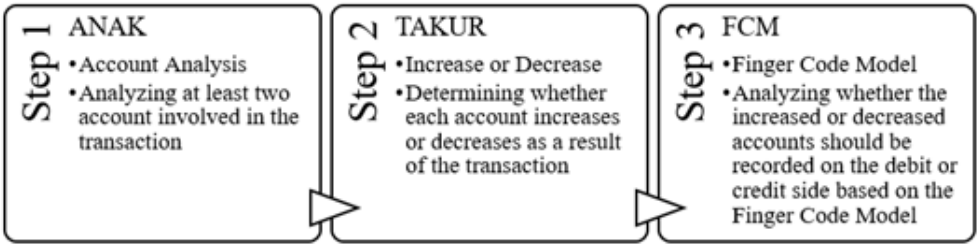

Figure 1. Illustration of the Use of the Anak Takur Finger Code Model Method (Source: Data Proceed, 2025)

In addition to the in-person sessions, the instructor provided supplementary learning resources, including a YouTube "Accounting and Education" video that explained the method in detail. This video acted as a visual aid and a supplement to the classroom material, allowing students to review the content independently outside class hours. Students were encouraged to watch the video to reinforce their learning, enabling them to grasp better and retain the steps of the Anak Takur Finger Code Model when recording transactions in the journal.

In addition to the lecturer's explanations and guidance, students were given practice exercises designed to deepen their understanding of journal entry recording. These exercises covered a wide range of everyday accounting transactions, enabling students to independently apply the steps of the Anak Takur Finger Code Model. By working through these exercises, students could practice each phase of the method, including account analysis, determining account changes, and identifying the correct debit or credit position. The exercises also served as a valuable self-assessment tool, helping students identify and correct any errors in their journal entries before the final evaluation. Combining theoretical explanations, hands-on classroom practice, and additional learning resources, this approach aims to significantly enhance students' proficiency in journal entry recording.

Evaluation

After the implementation phase, student learning outcomes will be analyzed in the evaluation phase. This phase aims to assess the effectiveness of the Anak Takur Finger Code Model in improving students' understanding of journal entry recording. The analysis will compare pre-test and post-test results and evaluate student feedback on the method. The evaluation phase will provide valuable insights into how well the method has enhanced students' skills and whether any modifications or further development are required for better results.

Table 1. Students' Understanding of the Anak Takur Finger Code Model

Institutions	Correct Explanation		Incorrect Explanation		Total	
	Amount	Percentage	Amount	Percentage	Amount	Percentage
UIN Raden Mas Said Surakarta	110	91,7%	10	8,3%	120	100%
Universitas Perwira Purbalingga	29	82,9%	6	17,1%	35	100%
LP3I Purwokerto	70	85,4%	12	14,6%	82	100%
Average		86,6%		13,4%		

Source: Processed Data, 2025

The initial evaluation of the method's implementation was conducted using a questionnaire to measure students' understanding. According to the results presented in

Table 1, 86.6% of students could accurately explain the Anak Takur Finger Code Model. This indicates that most students can comprehend and effectively apply the method in journal entry recording. However, 13.4% of students still encountered challenges in explaining its usage. This feedback suggests that while the method is mainly practical, there is room for further refinement. Additional support may be needed for the 13.4% of students to ensure they can fully grasp and apply the method confidently.

At the start of the course, a pre-test was administered to assess students' baseline understanding of journal entry recording. Following the pre-test, the learning material was delivered using the Anak Takur Finger Code Model over two sessions. This approach was designed to improve students' understanding of journal entry procedures. After the material was presented, a post-test was conducted to evaluate students' ability to record transactions, measuring the method's effectiveness. The results of the pre-test and post-test are presented in Table 2 below.

Table 2. Descriptive Statistics of Pre-Test and Post-Test Results

Descriptive Statistics					
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**
Pretest	237	40,2110	44,62126	,00	100,00
Postest	237	85,0211	27,50384	10,00	100,00

Source: Processed Data, 2025

Table 2 presents the results of the pre-test and post-test for 237 students. The average pre-test score was 40.21, while the post-test score rose significantly to 85.02, indicating a marked improvement in students' understanding after learning with the Anak Takur Finger Code Model method. The pre-test had a higher standard deviation (44.62) than the post-test (27.50), reflecting a more significant variation in students' initial understanding. However, post-test scores were more consistent. The minimum pre-test score was 0.00, while the minimum post-test score was 10.00, with both tests having a maximum score of 100.00. Notably, no student scored zero in the post-test, demonstrating the positive impact of the method on students' ability to record journal transactions. This data underscores the method's effectiveness in improving students' proficiency in transaction recording.

Table 3. Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
Postest - Pretest	Negative Ranks	0[a]	,00	,00
	Positive Ranks	181[b]	91,00	16471,00
	Ties	56[c]		
	Total	237		

a. Posttest < Pretest

b. Posttest> Pretest

Ranks
c. Postest = Pretest

Source: Processed Data, 2025

Table 3 presents the results of the Wilcoxon Signed Ranks Test and compares the pre-test and post-test outcomes to assess significant changes after implementing the Anak Takur Finger Code Model. The data shows that in the Negative Ranks category (Post-test < Pre-test), no students scored lower in the post-test than the pre-test (N=0), with both the mean rank and sum of ranks equal to 0.00, indicating no decline in performance. In the Positive Ranks category (Post-test > Pre-test), 181 students demonstrated improvement, with a mean rank of 91.00 and a total sum of ranks of 16,471.00. This indicates that most students experienced a significant increase in their understanding following the application of the method. These results suggest that the method improved students' ability to understand and apply journal entry principles.

Table 4. Test Statistics

Test Statistics[a]	
	Protest – Posttest
Z	-11,726[b]
Asymp. Sig. 92-tailed)	,000
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks.	

Source: Processed Data, 2025

Table 4 from the Wilcoxon Signed Ranks Test shows a significant difference between the pre-test and post-test scores, with a Z value of -11.726 and an asymptotic significance (2-tailed) of 0.000, below the 0.05 threshold. This result indicates a substantial improvement in students' performance after applying the Anak Takur Finger Code Model, confirming that the method greatly enhances students' understanding of journal entry recording.

The analysis results demonstrate that the Anak Takur Finger Code Model method greatly enhances students' understanding of journal entry recording. As reflected in the comparison between pre-test and post-test results, the significant improvement in the students' performance underscores the method's success. This improvement highlights how effectively the method aids students in mastering essential concepts, particularly in accurately identifying, classifying, and recording accounts. Ultimately, the method has proven valuable for enhancing students' competency in journal entry recording.

Furthermore, most students could accurately explain the method, demonstrating a deeper understanding of the journal entry process. The Anak Takur Finger Code Model not only simplifies the technical aspects of recording transactions but also offers visual aids and structured steps that guide students in grasping the underlying principles of transaction classification. As a result, this method is a practical and accessible approach for teaching accounting, especially for students who are just beginning to learn about journal entries.

The Anak Takur Finger Code Model method also offers significant flexibility for students, allowing them to learn transaction recording through various media. Supplementary resources, such as explanatory videos on YouTube and practice exercises, allow students to engage with the material beyond class hours. This enables them to study independently and revisit concepts as needed, reinforcing their understanding. By combining theoretical knowledge with practical exercises, the method not only improves comprehension but also hones practical transaction recording skills. These positive outcomes suggest that the Anak Takur Finger Code Model is a versatile and adaptive learning tool, fostering a deeper understanding of accounting and supporting students in building their competencies, engagingly and holistically.

CONCLUSION

The Anak Takur Finger Code Model method has proven highly effective in enhancing students' understanding of journal transaction recording. By implementing this method, students can master the fundamental concepts of journal entries more systematically, as evidenced by significant improvements in post-test results. Furthermore, integrating a visual approach, clear step-by-step instructions, and supporting learning media makes it easier for students to grasp and apply journal entry techniques. As a result, this method holds great potential as a valuable alternative for teaching basic accounting. For future research or articles, it is suggested that this method be applied to a more extensive and more diverse sample or across different educational institutions with varying levels of student understanding. Further studies could also examine the long-term effectiveness of the method and its application in online learning environments. Additionally, developing more interactive and technology-driven training modules could provide a valuable enhancement, further optimizing the effectiveness of the Anak Takur Finger Code Model in improving students' accounting competencies.

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