



## Application of Accounting Scaffolding Learning Using Fingertips to Increase Learning Result

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### Abstract

The research aim to improve the student learning outcomes. Accounting scaffolding using fingertips is learning with scaffolding approach based on Zone of Proximal Development concept which uses the learning strategy/support given during a learning process based on Mnemonic Akrostik and Loci technique using fingertips that is applied at the accounting learning on journal material. This research used Classroom Action Research approach which conducted in two cycles and used the qualitative descriptive research method. The results of applying the scaffolding learning accounting using the fingertips are learning runs very well, unified nature of accounting scaffolding using the fingertips helps engaging the students and they are very active, enthusiastic/motivated and reduce frustration. It is an effective learning and it improves the students' understanding to be more independent to achieve the learning objectives; application of accounting scaffolding learning using fingertips improves learning outcomes. The improved learning at cycle I, 78,1% is a good criteria and at cycle II, 90.6% is a good criteria, and the students' activity at cycle I, 77% is a good criteria and at cycle II, 84% is a good criteria; and student response to learning is good because it is fun and can improve comprehension.

### How to Cite

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## INTRODUCTION

Accounting is a lesson integrated with economic subject, which focuses on the behavior of accounting services and trade. In this case the learners are required to understand the financial transactions of service and trading companies and to record them in an accounting system to be prepared in the financial statements. To be able to record in a single accounting system, in learning the students are required to truly understand and master the composition and basic framework of accounting in order to have a foundation for understanding the next materials and and apply the basic concepts, principles and procedures of accounting correctly. There are some difficulties in understanding the basic concepts for conducting a transaction analysis on Journal material. The difficulties encountered are the understanding of the concept of account classification, the concept of debit and credit mechanisms, also some terms as the terminology in the field of accounting, although many terms in accounting are not foreign words at all for the general public, which is used as a standard term in accounting.

All this time the teaching and learning conducted by the teacher does not meet the needs of students and is not oriented to the curriculum target. Learning is conducted by explaining the concepts quickly with the limitations of teaching materials and assigning tasks in the class that must be completed and paying less attention to the students to understand the materials. Sometimes the assistance provided does not pay attention to the students' difficulties or the way to make the students easily understand. It pays less attention whether the students have sufficient resources to make learning progress and whether they can get the resources from other places such as other adults like parents, peers, books and other sources. This causes many students in class XI IPS-1 have low learning results.

To improve the success in learning and learning results of students needs a change in learning strategies that adopt student-centered learning based on Vygotsky's approach with the provision of guidance and assistance structure or scaffolding given to the students to improve the their understanding on journal materials so that they can improve their learning results. Scaffolding means giving the individual a large amount of help from a teacher or other people that is more capable during the early stages of learning and then reducing the help and giving the students opportunity to take greater responsibility after they have completed it independently.

The important principle of Vygotsky's theory, first, it emphasizes on the social nature of learning, students learn through interaction with more capable adults and peers. Their learning is influenced by social interaction, which takes place in a meaningful context. Social interaction of children with others who are more capable and with their environment significantly affect their way of thinking. A child develops or intellectualizes through the internalization of concepts based on his own interpretations of activities occurring within the social environment and the interpretation of the situation. Communication that occurs with more capable people (parents, teachers, peers, others) helps children build understanding of concepts, (Bransford, Brown, & Cocking, 2000). Both learnings occur when the child is working or learning to handle tasks that have not been studied but the tasks are still within the range of capabilities or those tasks are within the Zone of Proximal Development. Ellis, Larkin, Worthington, and Principle 5, Research Section, para.1) in Rachel R. Van Der Stuyf. ZPD "... is that area between what the learner can do independently (level of mastery) and what can be achieved with the help of competent adults or peers (instructional level)". Vygotsky believes that every child can be effectively taught any subject using scaffolding techniques by applying in the ZPD. "Teachers activate this zone when they teach the students the exact concept of a level of knowledge above their current abilities, which motivates them to excel beyond their current level of skill", (Jaramillo, 1996). Students are guided and supported through activities that serve as interactive bridges to gain knowledge to the next level. Thus learners develop or build new understandings by elaborating on their previous knowledge through the others' more capable support (Raymond, 2000). An important aspect of scaffolding instruction is that scaffolding is temporary. When the student's ability increases, the scaffolding is progressively drawn. Finally the learner will be able to complete the task or to master the concept independently, (Chang, Sung, & Chen, 2002).

Wood, Bruner and Ross in 1976 introduced the first scaffolding term in an article titled 'The Role of Tutoring in Problem Solving' (in Anghileri, 2006). They believe that the process of acquiring a child's skills is an activity where relevant skills are combined to be higher skills higher as a condition of completing a complex new task. This activity will succeed if there are other people's intervention as tutor. Assistance provided by the teacher can be a guide, a warning,

a push to break the problem into another form that allows the students to be independent. According to Hartman (2002), assistance includes various tasks and activities such as signal or quick modeling, partial solutions, direct instructions. If the students have not been able to achieve independence in learning, the teacher returns to the support system to help the students reach their progress until they are truly capable of achieving independence.

Similarly, according to McKenzie (2000), scaffolding is: (1) Providing clear direction and reducing student confusion - Teachers anticipate any problem the students may encounter and then develop step-by-step instructions that explain what a student should do to meet expectations; (2) Clarifying purposes - Scaffolding helps the students understand why they are doing the work and why it is important; (3) Keeping the students on task - By providing structures, lessons or providing a scaffolding of project research, providing pathways for learners. Students can make decisions about which paths are chosen or what things to explore along the way but they cannot go beyond the prescribed path given to them; (4) Clarifying expectations and combining assessment and feedback - Since the beginning of the learning activities, the students are given examples, rubrics and standards of excellence; (5) Directing the students to the appropriate resources - Teachers provide resources to reduce confusion, frustration, so students then may decide which one of these resources to use; (6) Reducing uncertainty, surprise, and disappointment - Teachers evaluate lessons learned to determine possible problems and then improve lessons to eliminate difficulties so that learning is maximized; (7) Scaffolding delivers efficiency - Scaffolding gives efficiency, where the learning process is conducted according to the lesson plan and doing the tasks on time and in accordance with the may shown so that what they try can run in accordance with the expected goals; (8) Scaffolding creates momentum - in the learning process many teachers provide assistance not only for problem solving but also for encouragement or motivation when the students experience frustration in doing difficult tasks so that students are easier to perform the difficult tasks because of the assistance (McKenzie, 2000).

Teachers can use a variety of scaffolding to accommodate different levels of students' knowledge. More complex material may require some scaffolding given at different times to assist the students master the material (Alibali, 2006).

This research refers to the successful app-

lication of learning with scaffolding strategy in accounting subjects, which can be seen from the research of Setyowati, Arini Tri (2012), Application of Scaffolding Learning Approach in Accounting Subject as Efforts to Improve Learning Results (Study on Students of Class XI IPS SMAN I Kepanjen ). It is noted that the students experience improvement in the learning results in the cognitive aspects of the written test after the implementation of learning with scaffolding learning approach.

Similar research conducted by Pardosi, Leny (2012) with Collaboration Implementation of Number Head Together (NHT) Learning Model with Scaffolding Approach to Improve Motivation and Learning Results of Students in Accounting Lesson in Basic Competency of Basic Equation of Accounting in SMA Santo Yoseph Medan TP 2012/2013.

A similar research is conducted by Sirait, Monika (2012), Application of Constructivism Learning Model with Scaffolding Approach in Efforts to Increase Activity and Learning Results in Accounting Lesson at Class X AKSMK YAPIM 2011/2012. It is concluded that applying constructivism learning model with scaffolding approach may increase the activity and learning results on Accounting at class X AK on the competency of completing the accounting cycle of service and Trade Company in SMK YAPIM Medan 2011/2012.

Meanwhile, a research conducted by Cowen, Janet., Blair., Sharon (2011), The Use of Scaffolding in The Financial Planning Classroom, stated that with the use of Instructional Scaffolding, learning becomes positive, useful, and provides valuable experience. With scaffolding the material understanding becomes stronger and it helps the students more effectively than the knowledge they know and it reduces concerns on tasks, increases the students' motivation and reduces frustration. The uniqueness of scaffolding helps to involve the students; they do not only passively sit while listening to the explanations but they actually do something. For teachers, the approach to scaffolding learning is more interesting, challenging and beneficial. By scaffolding the teacher does not only understand the complex factors affecting the learning in the context of the material being taught but it also helps the teacher identify the students' weaknesses and the technical misunderstandings of matter.

With the implementation of strategy of accounting scaffolding learning using fingertips, it is expected to improve the students' learning results on Journal material.

## METHODS

The Classroom Action Research approach refers to the Kemmis & McTaggart Model, which consists of four components: planning, action execution, observation and reflection, carried out in two cycles.

This research is collaborative. The presence of researcher is as planner, teacher, observer, data collector, data analyzer and research result reporter. Before the research is conducted, the collaborator is given an explanation of the steps of learning accounting scaffolding using fingertips.

The Application of Accounting Scaffolding Learning Using Fingertips on Journal Material is conducted at class XI IPS-1 SMAN 5 in Jl Thamrin no 7 Kota Kupang East Nusa Tenggara 2014/2015. The subjects of research are the students of class XI IPS -1, which amounted to 32 students, consisting of 14 male students and 18 female students. This research was conducted in the even semester of academic year 2014/2015 with Journal material.

Data are in the form of initial test answers, final tests, observations, field notes and interview results. Data sources: students, subject teachers, observers, researchers. Instrument of data collection with initial test sheet and final test of each cycle, observation sheet, field note and recording during learning. Data collection techniques use observation sheets for observation of learning activities during learning and student learning activities, tests to determine students' cognitive abilities in the form of preliminary and final tests, recording / field notes to collect data relating to classroom or subject situations, the interview is to explore evaluation information Learning in cycle I and response from students to scaffolding accounting learning using fingertips.

### The strategic steps of accounting scaffolding at the fingertips.

#### a. Early Activities

Step I : Implementing the initial capability assessment and the level of development of each student to determine the Zone of Proximal Development (ZPD), which is the area of student development that is still potential to be improved and optimized through the assistance of teachers, peers, or specific learning environments.

1. Initial assessment (outside and inside the classroom)
2. Preparing the class to begin the lesson with greetings, presences and prayers.
3. Delivering learning objectives to be achieved

4. Reviewing the material discussed earlier
5. Delivering the meaning of the subject matter discussed in the lesson and relating to the previous material

6. Motivating students by conveying the benefits of learning done.

#### b. Core Activity

Step II : Describing the tasks and learning activities in details so as to help students see the zones that need to be scaffolded. Students are asked to read accounting handouts at the fingertips.

7. Asking to read the handout
8. Describing the material by providing an easy technique to journal and describe the tasks that will be given verbally
9. Asking about material difficulties that students do not understand

Step III : Presenting the structure / task of learning clearly and gradually in accordance with the level of students' development, which can provide examples (*modelling*)

10. Giving examples of problems and working with students (modeling)

11. Providing practice on each student's work.

Step IV : Encouraging the students to complete their learning tasks independently.

12. Encouraging the students to complete tasks by group / collaborating independently
13. Providing other necessary support the students need during the learning process. Providing guidance can be clarity, clues, keywords, motivation / positive feedback both verbal and non verbal according to the needs of students who can help students towards independence.
14. Directing students with higher ZPD to help their friends who have not been able to complete the task (tutor friend)

#### c. Closing

15. Discussing the correct steps and answers the task given as a learning conclusion.

16. Closing with prayer.

Techniques used in learning is an acrostic mnemonic technique and an accounting loci using fingertips.

*Acrostic Mnemonic* is stringing words into unique sentences to make it easy to remember. This technique is used to remember the accounts / group accounts of property:

Current Treasure: KaNk E SelTa PiUsDa  
Dia PerBan Dimuka = **Kas**, **baNk**, **Efek**, **weSel**  
**Tagih**, **Piutang Dagang**, **perseDiaan**, **Perlengka-**  
**pan**, **beBan** dibayar **Dimuka**

(Cash, Bank, Effects, wesel tagih, Accounts Receivable, Supply, Equipment, Paid in Advance)

Long-term investments: SaBliTa LuPa =  
**Saham**, **oBligasi**, **Tanah** **beLum** **diPakai**

(Shares, Obligation, Land Unused)

Fixed Treasure: TanDa Dung SinTa = pera-  
la**Tan**, ken**Daraan**, ge**Dung**, me**Sin**, **Tanah**  
(Tools, Vehicles, Building, Machine, Land)

Intangible Property: Cipta PaMerDa WillFruncce  
= hak **Cipta**, hak **Paten**, **Merk Dagang**, Good-  
**will**, **Frunchice**

(Copyright, Patent Rights, Trademark, Goodwill,  
Frunchice)

Other Treasures: Gedang Dibangun MesTi Di-  
gunakan = **Gedung sedang Dibangun Mesin Ti-**  
**dak Digunakan**

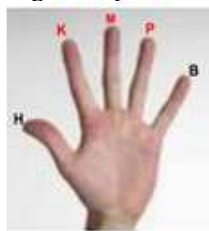
(Building Under Construction, Machine Not  
Used)

*Mnemonic Loci* is Connecting information  
by visualizing a memorable place. In this case is  
the fingers function as placing the position of ele-  
ments of financial statement.

#### (1) Account classification

Account classification can use our five fin-  
ger as follows:

Fingers Represent Types of Accounts



#### Explanations:

H = Treasure  
K = Obligation  
M = Capital  
P = Income  
B = Burden

#### Account Grouping Fingers

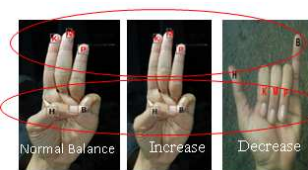


Real Account

Nominal Account

#### (2) Debit and Credit Mechanism

Debit and Credit Mechanism Fingers



Credit Position

Debit Position

Data implementation of learning and learn-  
ing activities are found from the observations  
during the learning process that are analyzed by  
the formula:

$$NR = J/s \times 100\%$$

Learning results are measured from the  
final test results. Indicator of cognitive ability  
is KKM as indicator of research success deter-  
mined by the researcher as 70 with 80% classi-  
cal completeness. The determination of KKM is  
based on the students' condition and initial abi-

lity. To calculate the classical completeness is in  
the following:

$$\% \text{ Classical KKM} = (\sum \text{students completed}) / (\sum \text{all students}) \times 100\%$$

The collected data will be analyzed desc-  
riptively, both quantitative and qualitative ddescrip-  
tive. The data analyzed descriptively is about  
the implementation of learning and student learn-  
ing activities in the form of observation rubric  
and data about the value of the initial test and  
the final test achieved by the students. Qualitative  
data is in the form of observation notes and recor-  
ding documents in the learning and the interview  
results will be analyzed by the qualitative analysis  
through data reduction stages, data exposure, and  
inferences of analysis results.

## RESULTS AND DISCUSSION

### Description of Data

Because of the absence of the number of  
subjects in the data analysis, there were 25 stu-  
dents and on the analysis of the students' learn-  
ing activity in cycle I at meeting 2, there were  
16 students with the limit of research subject 25  
students in the cognitive aspect.

### Cycle Data I

Based on the results of observation, the  
learning activity during the activity took place  
from the action activities observed in the learn-  
ing process in four steps in scaffolding learning  
with 16 items as follows: 1) Student assessment  
conducted before the learning and continued by  
action in the class, 2) Preparing the class to start  
the lesson by saying greetings and praying, 3)  
Delivering the learning objectives to achieve, 4)  
Reviewing the material discussed earlier, 5) Deli-  
vering the main material that will be discussed in  
the lesson and linking with the previous material,  
6) Motivating the students by conveying the bene-  
fits of the learning, 7) Requesting to read the han-  
dout, 8) Explaining the material and outlining the  
assigned tasks verbally, 9) Asking about the mate-  
rial difficulties that the students have not under-  
stood yet, 10) Giving examples of exercises that  
are done together with the students, 11) Giving  
exercises that are done by each student in groups  
independently, 12) Encouraging the students to  
complete the tasks in groups / collaborate inde-  
pendently, 13) Providing any support the students  
need during the learning process by giving posi-  
tive feedback in the form of explanations, clues,  
keywords, motivation both verbal and non verbal  
according to the students' needs, 14) Directing

the students who have higher ZPD to help their friends who cannot complete the task (tutor friends), 15) Discussing together the steps and the correct answers from the task given and making conclusions, 16) Closing with prayer.

**Table 1.** Observation Result of Implementation of Learning Cycle I

Cycle I				
Meeting	Score	Maximum Score	% Success	Criteria
I	24	32	75%	Good
II	24	32	75%	Good
III	27	32	84.4%	Good
Total	75	96	78.1%	Good

Source : Processed research data

The Table 1 shows the application of accounting learning using the fingertips cycle I from each meeting. The percentage of learning implementation at the first meeting is 75% with good criteria, the second meeting is 75% with good criteria, and the third meeting is 84.4% with good criteria. The percentage of implementation of overall application of accounting scaffolding learning using fingertips in cycle I is 78.1% with good criteria. This shows that teacher activity in applying the accounting scaffolding learning using fingertips has been successfully implemented although there are still deficiencies that need improvement of its implementation.

To see students' learning activeness in a classical manner is whether the actions taken in the teacher's learning are done by the students as expected. Learning activities observed in the learning process include four items: 1) reading handouts, 2) paying attention to teacher's explanations, 3) doing tasks, 4) being sensitive to feedback / answering question.

The Table 2 shows the application of accounting learning using the fingertips cycle I. The percentage of learning activities at the first meeting is 74% with good criteria, the second meeting is 80% with good criteria, and the third meeting is 78% with good criteria. The percentage of the students' active learning at the accounting scaffolding learning using fingertips in cycle I is 77% with good criteria.

folding learning using fingertips in cycle I is 77% with good criteria.

**Table 2.** Observation Result of Students' Learning Activity Cycle I

Cycle I				
Meeting	Score	Maximum Score	% Activity	Criteria
I	149	200	74%	Good
II	103	128	80%	Good
III	156	200	78%	Good
Total	406	528	77%	Good

Source: Processed research data

The students' cognitive learning results in cycle I are found from the initial test scores and the final test of cycle I.

The Table 3 shows that the average value of the students' learning results and the percentage of classical completeness has increased from pre-action to cycle I. The average value of the students' learning results increased from 44.4 to 57.2, With KKM guidelines of 70, the classical learning completeness increases from 4% to 40%. It means the of the total 25 students there is 1 student who has completed in the initial test of cycle I, 10 students at the end of cycle I. 80% of classical completeness cannot be achieved in the learning cycle I.

#### Data of Cycle II

The Table 4 shows the application of accounting scaffolding learning using the fingertips cycle II of each meeting. The percentage of implementation at the first meeting is 84.4% with good criteria, the second meeting is 93.8% with very good criteria, and the third meeting is 93.8% with very good criteria. The percentage of implementation of the overall application of accounting scaffolding learning using fingertips in cycle II is 90.6% with very good criteria. This shows that the activity of researchers in the application of accounting scaffolding learning using the fingertips has been implemented very well.

The Table 4 also obtains that the data implementation of learning implementation has

**Table 3.** Observation Result of Learning Result of Initial and Final Tests Cycle I

Explanations	Early Test	Criteria	Final Test	Criteria
Average Score	44.4	Very less	57.2	Very less
Percentage of Classical Learning Completeness	4%	Very less	40%	Very less

Source : Processed Research Data



improved from cycle to cycle. The data shows the percentage of implementation of 78.1% with the percentage of criteria of 90.6% with very good criteria.

The Table 5 shows the application of learning scaffolding accounting using fingers cycle II. The percentage of student learning activities at the first meeting is 83% with good criteria, the second meeting is 84% with good criteria, and the third meeting is 86% with good criteria. The percentage of student learning activities of the overall application of learning accounting Scaffolding using fingertips in cycle II is 84% with good criteria. This shows that the actions taken in the learning makes the students active in learning with good criteria.

The Table 5 also obtains data that the student learning activities in learning in cycle I has increased in cycle II with percentage of 77% with good criteria, in cycle II becomes 84% with good criteria.

The Table 6 shows that the average value of student learning results and the percentage of classical completeness has increased from cycle I to cycle II. The mean score before the corrective action of the students' learning results of 57.2 increased to 76.8 after the improvement. With the guidance of Minimum Criterion of 70, the completeness of classical learning has increased from 40% to 92%. It means that at cycle I of the overall 25 students 10 students have completed while 15 students have not completed yet. At the end of cycle II, 23 students have completed, while two students have not.

The interview to the students of class XI IPS-1 resulted in 26 of 32 students who were successfully interviewed to know their response to the application of learning scaffolding learning accounting using fingertips. The 26 respondents interviewed all stated that the learning was fun and easy and helped them understand the material.

**Table 4.** Observation Result of Implementation of Learning Cycle I & II

Meeting	Cycle I				Cycle II			
	Score	Maximum Score	% Success	Criteria	Score	Maximum Score	% Success	Criteria
I	24	32	75%	Good	27	32	84.4%	Good
II	24	32	75%	Good	30	32	93.7%	Very Good
III	27	32	84%	Good	30	32	93.7%	Very Good
Total	75	96	78.1%	Good	87	96	90.6%	Very Good

Source : Processed Research Data

**Table 5.** Table of Observation Result of Students' Learning Activity Cycle I & II

Meeting	Cycle I				Siklus II			
	Score	Maximum Score	% Success	Criteria	Score	Maximum Score	% Success	Criteria
I	149	200	74 %	Good	165	200	83%	Good
II	103	128	80%	Good	168	200	84%	Good
III	156	200	78%	Good	173	200	86%	Good
Total	406	528	77%	Good	507	600	84%	Good

Source: Processed Research Data

**Table 6.** Observation Result of Final Test Cycle I & II

Explanations	Pre Action		Cycle I		Cycle II	
	Early Test	Criteria	Final Test	Criteria	Final Test	Criteria
Average Score of Learning Result	44.4	-	57.2	-	76.8	-
Percentage of Classical Learning Completeness	4%	Very less	40%	Very less	92%	Very good

Source : Processed Research Data

## Discussion

The application of learning accounting scaffolding using the fingertips run well. This is due to the actions taken during the learning process by providing scaffolding in the form of strategies, methods, techniques, media and other support needed during the learning in the form of positive feedback to meet the students' needs.

The application of accounting scaffolding learning at the fingertips makes the students enthusiastic, motivated, reduces frustration, and the learning becomes effective. The scaffolding brings more understanding of the material. The unified nature of accounting scaffolding using the fingertips help engaging the students, they become more active and are able to achieve the learning objectives. This is consistent with the results of research conducted by Cowen, Janet., Blair, William., Sharon (2011) Mc Kenzie (1999).

The benefits of scaffolding provided in learning with accounting scaffolding strategy using fingertips can be described as follows:

Successful activities at the beginning of learning will determine the next lessons. Initial steps taken are assessment both outside and inside the class that is determining / mapping the initial ability and level of development of each student / determining Zone of Proximal Development (ZPD), which is the area of student development that is still potential and has opportunity to be improved and optimized, and the students' attitude trends. A comprehensive assessment is needed to find out the weaknesses and strengths of children, knowing information about the knowledge, skills and attitudes of each student so that it can make a decision to prepare the lesson to be undertaken as well as students with low ZPD enables special attention or support during the learning process so that teaching will be more effective.

The beginning of the learning step is the importance of success creating conditions that are conducive. The success of connecting new concepts / knowledge with the one mastered by the students will facilitate the understanding so that the students will be ready to follow the lesson. The learning process will be more effective and fun using the experience (integration of the new teaching materials with the old ones). Experience is the best teacher. The success of integrating previous impressions either past shadows or responses that have been associated with happy and unhappy creates a conducive learning atmosphere so that the students will feel that they can learn the new material at the beginning of

learning so eagerly that they are motivated to study enthusiastically. This step has an important and influential position for the learning process that will be carried out next. The creation of a conducive atmosphere of learning begins by greeting to open the meeting, the presence brings direct contact and recognition of students and the prayer leads to a religious atmosphere helping to create the students' readiness for learning, and the attribution of materials taught with the knowledge that students have / experienced by the students and the environment can improve the students' positive response.

The most important thing in the learning process is the achievement of the goal to make students able to understand something based on the learning experience. The ability of understanding is a very basic thing, because understanding will reach the realm of higher knowledge. Understanding the concept means the ability of students in the form of mastery of a number of subject matter where the students do not only know or remember a number of concepts learned, but are also able to re-express in other forms that are easy to understand, it also means providing interpretation of data and being able to apply the concepts in accordance with the cognitive structure owned. The level of understanding of this concept determines the success of students in learning. To achieve an understanding of the concept is done individually. Each learner has different abilities in understanding the concepts in journal material. By scaffolding the students is given new knowledge in the form of understanding of basic concepts in journal and journal steps with easy technique, which will be used for learning resources for students in completing the tasks in learning. This technique is an easy and fun way. The mnemonic accounting technique using the fingertips makes the students easily remember and helps improving their understanding. The students feel happy, excited / enthusiastic and motivated and with the ease provided, the tools are simple and accessible because of using their own fingers. Students feel capable of completing the task. This assistance is temporary; if the students have gained a permanent understanding, the assistance will be eliminated.

Efforts to gain knowledge of understanding on how to journal, students are given the learning experience through reading accounting handouts at the end of fingers, providing material explanations and outlining tasks that will be given verbally to ask for difficulties / materials that students have not understood.

The objectives of giving the handouts in



this case is to facilitate and help information or learning materials as a grip / learning resources, to support the explanation of teachers / researchers, so with the handout the students do not need to record again and can reopen it when they forget. By reading the students get information and gain an understanding of the concept of journaling that will be studied in order to solve / complete the task given.

Conceptual understanding can be obtained from explanations. With a statement that is not so convoluted that students can grasp the meaning easily and do not have a false picture of the material familiar to the ears of the students so that they can get an understanding of what is being learned at the early knowledge, why and when the knowledge is used and how it is used. At the beginning of learning, explanations are given and repeated. When the students have experienced something, the explanation is just a hint or keyword so that students can recall important information. At the end the explanation is abandoned. Explanation is done by the varied lecture method with question and answer involving students so that the interaction and involvement of students become active. The explanation is done through powerpoint media to increase the students' interest and a whiteboard both in the form of charts, tables, drawings by showing the relationship between the concepts so that students can see the big picture not just partial. Besides, the students have a description of how easy it is to dig down. That way is with mnemonic technique. Mnemonics is a memorable aid with the principle of association between a memorable form that is reconnected with data to be remembered. It usually often uses verbal tools, visual tools, kinestetik, or audio. In this case an acrostic mnemonic technique is used to memorize classes of asset accounts with verbal tools and mnemonic loci to remember normal balances and debit and credit placements with visual tools. Acrostic mnemonics are stringing words into unique phrases that are easy to remember. The mnemonic technique loci connects information by visualizing a memorable place. In this case, the fingers are to place the position of elements of financial statements. The advantages of this mnemonic technique are as follows: it is easily remembered, the tools used will never be missed, it is easy and fun, and this technique improves memory in the long run. To keep the incoming information in mind takes a lot of practice, because to store information into long-term memory at least takes a lot of repetition. When the students have had explanatory experience only in the form of instructions or keywords so they can

recall important information, in the end the explanation is abandoned.

To provide a clear picture and clear directions to the students of anything they will do in completing tasks is by outlining the tasks that will be given verbally. To clarify the understanding students have gained is by asking questions of difficulty or of what have not been understood. The answers / responses the students give will help to know which zone that needs to be scaffolded to facilitate the provision of assistance that has not been mastered by the students.

The next scaffolding presents the structure / task of learning clearly and gradually according to the level of students' development, which can be done through explanation, encouragement (motivation) and modeling. In this case scaffolding technique given is technique of modeling a certain behavior with a combination of explaining and inviting the students' participation. Scaffolding techniques model certain behaviors with the modeling of think-aloud modeling, Think-aloud modeling is the verbalization of thinking processes used to solve certain problems. Talk-aloud modeling means demonstrating task completion along with verbalization of thought processes. Explaining means the expressed statements commonly known to students so that students can elicit an understanding of what is being learned, why and when knowledge is used and how knowledge is used. Inviting student participation technique means engaging the students in completing their task in order to know the steps to accomplish the task with their own learning experience. Modeling with completion steps provides a clear direction and reduces students' confusion to complete the task.

To strengthen the understanding, the tasks / exercises (assignments) are delivered to complete independently. The assignment means involving the students to actively complete the task. By completing the exercise the students may integrate the new knowledge in the forms of concepts into the problems. So students can see the relationship of conceptual knowledge with the problems to be solved. From this activity involving students, by doing the assignments by their own, the students will better understand their own teaching materials according to the knowledge so that the knowledge will stay long in memory, develop self-power, initiative, creative, responsible, and independent, motivate them to perform individual or group activities. At this stage the teacher must constantly check on the students' understanding and provide assistance as often as possible.

In the aspect of the presentation of the ex-

ercises, it presents the structure / task of learning clearly and gradually according to the level of students' development. For this purpose, the presentation of the problem should be clear not to give a double / ambiguous understanding and be done gradually for the difficulty level of the problem according to the students' ability and easily according to the students' point of view.

To further enhance the students' ability, any support encourage them to complete learning tasks independently. Scaffolding is given for the independence of students in the completion of tasks with groups independently and provides opportunities for students to get positive feedback in the forms of explanations, clues, keywords, motivation both verbal and non verbal according to the students' needs.

The actions are taken for the students' independence in the completion of tasks in groups / collaborative independently. Collaboration involves the students. This fosters them to work together in small groups to achieve the same goals. In the group there is no competition but more on cooperation for the achievement of learning goals. Collaboration focuses on the success of the process. The goal is to provide the students with opportunities to build their knowledge through dialogue, sharing information between students and teachers, even though there is a tendency to imitate the work of others. Collaboration is seen as a process of building and maintaining the same conception of a problem, from this point of view with collaborative learning being efficient because members of the group are required to think interactively with others and the environment. In the formation of groups the students are given the freedom to form their own groups without distinction based on their interests or characteristics and reduce the opportunity of students to learn with other students, and each student is given the responsibility to complete the task.

Other supports are given in the form of positive feedback such as explanation, clues, keywords, motivation both verbal and non verbal according to the needs of students. Constructive feedback must be on time, informative, and suggest ways how the students can move forward, ease worries and frustrations. How responses are delivered and the language used is as important as what is included in the feedback. Improper feedback can have a negative effect on student learning. Positive feedback forms can be true criticism, appropriate compliments and comments. With praise for positive student actions, they will feel happy and motivated. Because it is considered to have the ability to cultivate initiative and

spirit of self-confidence in students, they will feel proud of the results of their work, they will be satisfied with their completing task because the greatest source of strengthening is a sense of pride for oneself.

By going around the class to a particular student or group, the teacher is trying to have direct contact as much as possible with the students in order to have the opportunity to reinforce the desired response and help them to get an answer / problem solving or clarity of the materials. By going around the class the teacher can also give enough attention to the students with all their potential by giving encouragement / motivation when they feel frustrated in doing difficult tasks so that they will work more easily because of the assistance provided. Assistance in the forms of explanations, clues, and keywords are given when the students have difficulty in understanding the terms for analysis in the journal. Contextual explanations associated with them facilitate the students to understand the transaction analysis. Assistance is given individually and when considered difficult for many students, it will be delivered in a classical manner. The assistance can also help the students who sit behind to get the information when the teacher speak less hard so that students who sit behind cannot listen to explanations. Followed by the support of creating fun conditions and consequence, the students will continue to learn and learn if the learning condition is fun, comfortable, far from the painful behavior that may hurt their feelings. Learning involves feelings. A pleasant learning environment is necessary for the brain because the brain will not work optimally when feeling depressed. Conducive learning situation creates good interaction among the students, also between the researchers and the students.

The next scaffolding is by utilizing the advantages of learning with peers, in which the students who have higher Zone of Proximal Development (ZPD) can help the students with low ZPD. A friend tutor can eliminate the awkwardness; weak students will have no ashamed feelings to frankly tell their tutor that one is not clear yet. Sometimes the result is better for some students who have feelings of fear or reluctance to the teacher. Peer tutors eliminate any fear caused by differences in age, status, and background between the students and their teachers. Friend tutor will bring easy cooperation and communication because peer language is more easily understood and friend tutor can be patient with the students who are slow in learning.

The act of providing confirmation of ans-

wers to the work completed by the student is a form of responsibility by discussing the correct steps and answers of the tasks required by the students. Confirmation gives students an opportunity to receive feedback on their performance to reduce uncertainty and as a source of learning. Students will know their weaknesses or faults that may lead them to build the power to improve their learning.

In the implementation in cycle I there are still deficiencies. First, in the application of learning on the explanatory action, many students are still lack of focus to follow the explanations given so they have less memorizing and less understanding of the concept given to journal. This can be seen when in completing the tasks the students are not skilled using the techniques given because they have still not memorized and less understanding of the techniques provided that cause them complete the task very slowly. Second, when completing the task independently they look active and focused on completing the task, but the classroom seems so noisy because some students are passing by trying to complete their task by asking for help to another friend of the group. During the process of completing the task there are still some students who do not get help maximally because there are still many students who have low ZPD causes insufficient time provided by students in completing in the classroom. Third, in the preparation / presentation of the question, the structure is still too long for the students, although according to the researcher, it facilitates the students' understanding, it is still confusing for them. There are some languages / terms in practice and difficulty level of problems that require higher reasoning is still considered difficult for the students especially those with low ZPD to perform the analysis. This means there are some weaknesses in the application of accounting scaffolding learning at fingertips. First, the teacher is less able to do correctly in explaining the material for having the students' understanding, second, in the implementation it spends and needs a lot of time, and third, it describes the difficulty of mapping ZPD of the students. This is in line with the opinion of Lipscomb et.al (2005), also the individual assistance in the classroom with the large number of students challenging Rachel R. Van Der Stuyf (2002).

The result of observation shows that teacher performance from cycle I to cycle II has improved with the improvements made, and the student learning activities become active with the actions taken during the learning process.

Success in achieving goals in learning de-

pends on the success of any action decisions taken in the learning process. Success is due to the successful implementation of the strategy used. This is due to the accounting scaffolding strategy using fingertips: (1) Providing a reasonable source by providing handouts, non-convoluted explanations, examples, confirmation of tasks done by students and teachers who are more capable as a mentor; (2) Reducing uncertainty by doing confirmation of the student's work to know the mistakes and to eliminate the existing difficulties; (3) Learning becomes effective with assessment / success at the first step of learning and collaborating and tutor friend done in learning; (4) Providing convenience with a given mnemonic technique; (5) Increasing spirits and reducing frustration with the amount of help provided for difficult tasks, and positive feedback; (6) Guiding to reduce confusion with the steps and instructions given during the lesson.

From the results of research, it is known that students' cognitive aspect ability is still below KKM. After doing the action with the application of learning scaffolding accounting using the fingertips in the first cycle, it has increased although not reached the determined classical completeness yet. Based on the results of reflection on the implementation of learning cycle I, it performed improvement of the deficiencies in the implementation. The result shows that the learning result of cognitive aspect of student increase reaching KKM and has exceeded classical completeness as indicator of research success. The results of research are in line with the research of Widhiatmoko and Khafid (2014), which stated that based on the descriptive analysis of post-test data it is known that there is a significant increase in the accounting student learning outcomes between the time the cooperative learning method is given. It is also reinforced by a research by Khanalaya and Kusmuriyanto (2017), which stated that the cooperative script method is effective to improve the students' understanding on the subjects of accounting.

Based on the interviews, the students' respond to the application of learning scaffolding accounting using the fingertips on journal material is that the students feel happy / they have fun learning because learning scaffolding accounting using the fingertips will make the students easier to understand the material, especially with mnemonic accounting techniques using fingertips and to facilitate to complete the task given. The exposure of the discussion of research results is in line with the results of research by Winarti (2013), which stated that the activity or attention of stu-

dents at the time of KBM is very influential on their achievement. Therefore, it needs a selection of the right type of learning and varied that the students become interested and pay attention to KBM. It is also reinforced by the results of research by Triani and Arief (2016), which stated that the results of learning of Accounting subject is influential to remember that to work in the field of accounting, students must have sufficient stock in the aspects of knowledge and skills according to their fields.

## CONCLUSION

The application of accounting scaffolding learning using fingertip runs very well, with the unified nature of accounting scaffolding using fingertips to help the student's engagement, students become active, enthusiastic / motivated, and reduce frustration, learning becomes effective and can improve students' understanding in order to be more independent to achieve learning objectives.

It can be concluded that the application of accounting scaffolding learning using fingertip can improve the student learning achievement in the Journal material of class XIIPS-1 SMAN 5 Kupang Nusa Tenggara Timur.

Similarly, the students' responses to the application of accounting scaffolding learning using the fingertips are good because it is fun and can improve understanding.

For teachers, the accounting scaffolding learning using fingertips can be used as an alternative to innovative accounting learning strategies on journal materials to improve the learning achievement in classes with low Zone of Proximal Development (ZPD).

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