

## MODEL-BASED ACCOUNTING RESEARCH STUDY OF CONCEPT MAP

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**Abstract :** The research aims to implement the Concept MAP model in accounting research. The model is expected to improve the student's ability in conducting accounting research stages. This study was conducted on students of the Uniba Surakarta Accounting study Program of 6 years of doctrine 2018/2019 taking accounting research courses. The Concept Map Learning Model (concept map) is a term about the strategy teachers use to help students organize the concepts of lessons that have been studied based on the meaning and relationship between their components (Novak, 1984 and G Awith, 1988). The relationship between one concept and the other concept is known as a proposition. The concept map is an effective tool presenting visually the generalization-generalization hierarchy and to express the interconnectedness of the proposition in the system of interconnected concepts. The results showed there was a difference in the student's value in conducting accounting research before and after implementing the Concept Map learning method. Using the concept map method, learning to improve students' ability to perform research stages.

**Keywords:** *Learning Methods, Concept Map*

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### 1. Introduction

We have known together that the graduation requirement of an S-1 scholar is to compose the final assignment in the form of thesis. The thesis for most students is considered a frightening scourge.. The learning method of accounting research courses that have been implemented in UNIBA accounting Progdil Surakarta is still limited to lecture methods, awarding assignments and demonstrations. However, the use of this method is still not able to support the success of students in gaining the competencies that are expected especially when completing the thesis. This is evident when students compose the thesis, many of which have difficulty through the stages of the thesis, ranging from preliminary research to the prose dissemination and publication.

Based on the above, it should be sought to develop effective learning methods and able to cope with the learning problems faced by students. The Concept Map Learning Model (concept map) is one of the contextual learning strategies that can be used to overcome learning difficulties related to the ability to draft concepts in a Course (Novak, 1984). The concept map will create a meaningful series, so the memory is stronger to save it, and it is unlikely that one can connect something (concept) if people do not understand the concept correctly. A person who has been able to relate the concepts shows the person has understood correctly with the concept he is working on, because the concept map illustrates how the concepts are intertwined or related.

Learning models The concept map is suitable for students' learning in higher education, considering the high level of students' thinking, which is the formal operational level, so they are able to find their own concepts from the source Desired. In addition to increasing students' understanding of concepts, concept maps can also improve students' ability to learn.

The formulation of the problem in this research is: (1). How the Concept MAP model is applied to the study of accounting research. (2). Whether the application of the Concept MAP model on the study of accounting research courses is able to improve the ability (UTS and UAS values) of students in conducting phases in accounting research.

### **State Of The Art**

Novak (1984) and Gawith (1988) Define concept maps (concept map) is a term about strategies used by teachers to help students organize the concepts of lessons that have been studied based on the meaning and relationship between components Yes. The relationship between one concept and the other concept is known by the proposition. The concept map is an effective tool presenting visually the hierarchy of the generalization and to express the interconnectedness of the proposition in the system of interconnected concepts.

Novak and Gowin (1985) Raise an idea that the concepts of students (students) are more meaningful to be used with mapping concept. New knowledge or concepts will be learned memorized when in the cognitive structure of students there are no relevant concepts. Zaini (2002) reviewed from the expertise based-teaching side and interpreted the concept map as an alternative way of organizing the material in the form of a map (image) holistically, interrelated and comprehensive.

Gawith (1988) and Sia (1995) stated the benefits of concept maps for students as follows: (1). Help to identify key concepts, assess/estimate the relationship of understanding and assist in further learning, (2). Help make SUS The concept of the lesson to be better so easy for exam purposes, (3). Help provide a thought to connect the concept of learning, (4). Help to think deeper with the idea and make a true understanding of the knowledge gained, (5). Clarify ideas that have been collected on something in the form of a catagate, (6). Create a structure of understanding of how all the facts (the new and the exist) are linked to the next knowledge, (7). Learning how to organize things from information, facts, and concepts into a context of understanding, thus forming a good understanding and writing them right.

## **2. Research Methods**

This type of research is an eperimentalary research by adopting the Elliot class action research model (Hopkins, 1993). Research begins by analyzing the situation of the problem. The situation of the problem encountered in accounting research teaching is the lack of mastery of basic concepts by the students. This deficiency results in the difficulties of students understanding the next material. Based on this condition then before the action is conducted, it is necessary to be conducted analysis to know the difficulties students understand the concepts taught. For that, the preliminary test is to know the student difficulties as well as the cause factor. Based on preliminary test results are formulated while the alleged basis for the reference to the preparation of action to be performed.

The research is comprised of two cycles and is an independent, reflective, self-service investigation process that aims to make improvements to the system, how it works, processes,

content, or and punctuation. This study was conducted in the University of UNIBA accounting in Surakarta, even semester 2018/2019, which followed the study in accounting research.

### **Description of General Data research**

The accounting program of Uniba Surakarta is a progdi under the Faculty of Economics. Currently accreditation of Uniba in Surakarta accounting is A. The vision of undergraduate study Program of economics Faculty of UNIBA Surakarta is: Realizing one of the leading entrepreneurship based accounting courses with Integrate Islamic values. Meanwhile, his mission is: (a) to conduct education and teaching economics, especially in the field of accountancy-based entrepreneurship integrating Islamic values, (b) conducting research on economic sciences, especially science With an entrepreneurship-based accounting that integrates Islamic values, which is accommodating and beneficial for the development of the business and science and Technology, and (c) organizing devotion to society in Economic sciences Especially in the field of accounting which is based on Islamic values and in accordance with the development of community needs.

In order to obtain a bachelor degree, a student must complete a minimum of 144 credits consisting of 135 credits for a nationally valid core curriculum and at least 9 credits of elective courses. The end of the learning process of the accounting students is obliged to make thesis-shaped final assignments (6 credits) guided by expert advisers and retained in front of testers to determine graduation. The average student can complete the Education 8 semester (4 years), with an average Cumulative Achievement Index above 3.00.

**Table 1**  
**Number of research respondents**

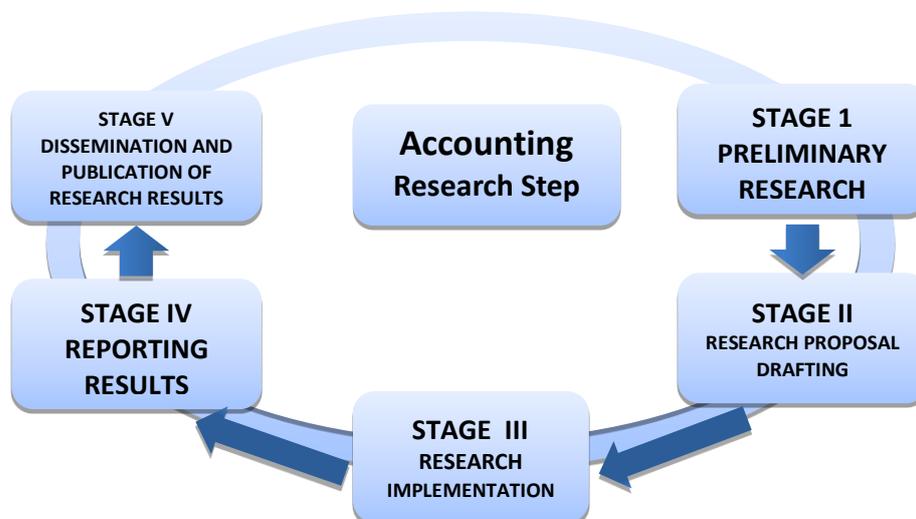
Class	Number of student
6A1	51
6A2	43
6A3	42
6A4	40
6B1	49
6B2	38
<b>Total</b>	<b>263</b>

### **Concept Model Map of study courses in accounting research**

Accounting research process is a series of activities conducted by researchers describing the stage that should be done from the beginning or before researching to the end. The stages in the research described in a concept map are as follows:

- a) Phase introduction
- b) Proposed drafting phase
- c) Research implementation phase
- d) The reporting phase of research results
- e) Dissemination and publication stage

The stage is depicted in the Model Concept Map as follows:



Picture 2. Concept MAP Accounting Research

### Phase 1: Preliminary research

Preliminary research phase is theoretically called Preliminary Research, which is the initial stage that researchers should have done before before conducting a scientific research. At this stage there are a few things that researchers have to consider among the following:

- a) Determining the research Area
- b) Read and study critical research articles.
- c) Accounting Research Ideas
- d) Determination of research topics
- e) Determination of problem formulation

Table. 3

Mapping a reference journal to determining research ideas

Remarks/Journals	International 1	International 2	National	Pra Proposal
Title				
Theoretical thinking frameworks				

From the journal mapping above, students can find the research idea by looking at three similar accounting research (replication concept). The methods taught in this concept are:

- a) by looking at the variables of the previous three similar studies, it can be formulated new research titles by combining the third variable of the study:

Table. 4.  
Combine research variabel

Remarks/Jo urnals	International 1	International 2	National	Pra Proposal
Title	Influence A,B,C against Y	Influence D Dan E against Y	Influence A, E, F, and G against Y	Influence A,B,C,D,E,F,G against Y
Theoretical thinking frameworks	<pre> graph LR     A --&gt; Y     B --&gt; Y     C --&gt; Y             </pre>	<pre> graph LR     D --&gt; Y     E --&gt; Y             </pre>	<pre> graph LR     A --&gt; Y     E --&gt; Y     F --&gt; Y     G --&gt; Y             </pre>	<pre> graph LR     A --&gt; Y     B --&gt; Y     C --&gt; Y     D --&gt; Y     E --&gt; Y     F --&gt; Y     G --&gt; Y             </pre>

- b) By looking at the variables of the previous three similar studies, it can be formulated new research titles using variables containing research gaps

Table. 5.  
Finding a research Gap

Remarks/Jo urnals	International 1	International 2	National	Pra Proposal
Title	Influence A,B,C against Y	Influence A, B,C,D Dan E against Y	Influence A, B, C, dan D Dan G against Y	Influence A,C,D against Y
Theoretical thinking frameworks	<pre> graph LR     A --&gt; Y     B --&gt; Y     C --&gt; Y             </pre>	<pre> graph LR     A --&gt; Y     B --&gt; Y     C --&gt; Y     D --&gt; Y     E --&gt; Y             </pre>	<pre> graph LR     A --&gt; Y     B --&gt; Y     C --&gt; Y     D --&gt; Y     G --&gt; Y             </pre>	<pre> graph LR     A --&gt; Y     C --&gt; Y     D --&gt; Y             </pre>
Gap Riset	A : Influential B : Influential	A : Influential B : Influential	A: Influential B : Influential	Gap Research: A

	C: No effect	C: Influential D : Influential E : T Influential	C: Influential D : T Influential G: Influential	C D
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- c) By looking at the variables of the previous three similar studies, it can be formulated new research titles with different research methods.

Table. 6.  
Different methods of combining research variables

Remarks/Journals	International 1	International 2	National	Pra Proposal
Title	Influence A, B, C against Y at A Banking Company	Influence of D and E against Y in manufacturing company	Influences A, E, F, and G against Y on Automotive Company	Y value difference in manufacturing and banking companies
Theoretical thinking frameworks				

Table. 7.  
Different methods with variable con Gap research

Remarks/Jo urnals	International 1	International 2	National	Pra Proposal
Title	Influence of A, B, C againts Y at banking Company	Influence A, B,C,D Dan E against Y at Automotive Company	Influence A, B, C, D and G against Y in mining companies	The influence of A, C, D against Y on Banking and non banking companies
Theoretical thinking frameworks				
Gap Riset	A : Influential B : Influential C : No effect	A : No effect B : Influential C : Influential D : Influential E : No effect	A: Influential B : Influential C: Influential D : No effect G: Influential	Gap Riset: A C D

**Phase 2: Research proposal drafting**

The research proposal phase is arranged in Tuga or four chapters, namely:

- a) Introduction/Introduction
- b) Review or study literature
- c) Numerals theory and hypotheses formulation
- d) Research methods.

At this stage, in the concept map model, the pre proposal generated from the previous stage, then created an outline that serves as the map/instructions in writing the proposed research (proposal). The outline format is as follows:

**Table 8**  
**Outline Form**

Title (submitted from the pre-Proposal title)	:	
Background problems	:	<ul style="list-style-type: none"> <li>✓ Fenomena</li> <li>✓ Gap Research</li> <li>✓ Gap Theory</li> </ul> Can choose one or all approaches
Problem formulation	:	
Research objectives	:	
Manfaat Penelitian	:	<ul style="list-style-type: none"> <li>✓ Academics</li> <li>✓ Institutions</li> <li>✓ Community</li> </ul>
Theory Review		<ul style="list-style-type: none"> <li>a) Relevant accounting theory</li> <li>b) Theories of variables studied</li> <li>c) Teor that forms a research model</li> </ul>
Previous research		
Theoretical thinking frameworks		
Hypothesis		
Research methods		<ul style="list-style-type: none"> <li>a) Types of research</li> <li>b) Variables and measurements</li> <li>c) Population and sampling</li> <li>d) Data sources and respondents</li> <li>e) Research instruments</li> <li>f) Data analysis Techniques</li> </ul>

After the idea of Pra – Proposal is outlined in the form of an outline, the next step develops the outline in the form of proposed research or proposal

**Phase 3: Research implementation**

The implementation phase of the research is done after the proposal or proposal has been approved or declared worthy to proceed in the implementation stage. At this stage, researchers begin to complement the data that has been confirmed can be obtained when preliminary research is conducted, conducting data testing and analysis, interpretation of analysis results, discussion or discussion on the conclusion and Recommend the Peneitian results for further researchers.

The steps in implementing the research are as follows:

- a) Data collection, population determination and sample selection
- b) Testing data

- c) Data Analysis
- d) Interpretation of analysis results and discussion
- e) Simpulan, limitation and recommendation.

At this stage began collecting data, determining the population and selection of samples. Once the data is collected, it is analyzed, analyzed and interpreted as a result of analysis and improvement. And then conclude, to act on the limitations of research and to advise.

#### Stage 4: Reporting of research results

The reporting phase is to write down the entire series of studies from Chapter 1 Introduction up to Chapter 5 limitation of conclusion, limitation and suggestion. In addition, the report also comes with a referral list and attachments that support research results.

#### Stage 5: Dissemination of research results

The final stage in accounting research is dissemination of research results. In this step, the research report is summarized to be made by the article to be published in the study journal or dissemination at the conference/call paper. The articulated writing Format follows the cowardly style of publication.

#### Differences in the student's ability to conduct accounting research before and after the implementation of the Concept MAP model.

Assessment of students ' ability to be educated in UTS and UAS assessments. At the time of UTS, the Takehome examine in the form of research articles based on 3 research journal reference (2 international journals and 1 journal) without first described Concept Map of accounting research. While the UAS students are doing the same task, but already described how concept Map in accounting research. The Matrik assessments are as follows:

No	Accounting Research Step	Value	Asesment Criteria	
			UTS	UAS
1	Preliminary research	20 %	<ul style="list-style-type: none"><li>• Value of 85-100 = if able to refer 2 international journals and 1 Journal of Fate and correct in composing maping, neat writing format</li><li>• Value 75-84 = If it is able to refer 2 international journals and 1 Journal of Fate and correct in composing maping, the writing format is not neat</li><li>• Value 65-74 = If able to refer 2 international journals and 1 Journal of Fate, wrong in composing maping, and writing format is not neat</li><li>• Value &lt; 65 = If not able to refer 2 international journals and 1 Journal of Fate, wrong in composing maping, and the writing</li></ul>	

			format is not neat	
2	Research proposal Drafting	20 %	<ul style="list-style-type: none"> <li>Value 85-100 = If able to outline correctly, apply in proposal correctly, and format the writing neatly</li> <li>Value 75-84 = If able to outline correctly, apply in proposal correctly, and write format is not neat</li> <li>Value 65-74 = If able to outline correctly, apply in the proposal incorrectly, and the writing format is not neat</li> <li>Value &lt; 65 = If not able to outline correctly, apply in the proposal incorrectly, and the writing format is not neat</li> </ul>	
3	Pelaksanaan Riset	20 %	<ul style="list-style-type: none"> <li>Value 85-100 = If able to render data tabulation properly and correctly, using the appropriate Analyissi tools, presenting the results of data analysis neatly</li> <li>Value 75-84 = If able to render data tabulation properly and correctly, using the appropriate analysis tools, presenting the results of data analysis untidy</li> <li>Value 65-74 = If able to render data tabulation properly and correctly, using an analysis tool that is not tepatt, presenting the results of data analysis unneatly</li> <li>Value of &lt; 65 = If not able to render data tabulation properly and correctly, using an analysis tool that is not tepatt, presenting the results of data analysis is not neat</li> </ul>	
4	Research Report			
5	Dissemination of research results (research article creation)	40%	<ul style="list-style-type: none"> <li>Value 85-100 = If the value of Plagiation is 0 – 20%, able to mention the relevant and correct accounting theory, article writing as per format and neat</li> <li>The value of 75-84 = If the value of plagiation 21 – 40%,, able to mention the relevant theory of accounting is not precise, article writing in accordance with untidy format</li> <li>Value 65-74 = If the value of Plagiation is 41-60%,, able to mention the relevant theory of accounting but not appropriate, the article writing is not format and untidy</li> </ul>	<ul style="list-style-type: none"> <li>Value 85-100 = has been dissemination/published in research journals</li> <li>Value 75-84 = If it has gained LOA seminar/research Journals</li> <li>Value 65-74 = If it has gotten Submitted in seminar/research journals</li> <li>Value of &lt; 65 = if newly created article</li> </ul>

			<ul style="list-style-type: none"> <li>Value of &lt; 65 = If the value of plagiatio &gt; 60%,, not able to mention Releva accounting theory, article writing is not as format and untidy</li> </ul>	
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The results of the student's ability to perform the research stage before being taught concept map that is recorded in the UTS value and after obtaining the concept folder in the UAS value, presented in the following table:

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Sebelum Consept Map & Setelah Consept Map	263	,772	,000

Table 9. Paired Sample Correlations obtained a correlation value of 0.772 with a significance value of 0.000. This indicates that there is a strong relationship between the UTS value & UAS before the concept map and after the concept map was taught.

Table. 10  
Paired Sample Test

		t hitung	t tabel	Sig. (2-tailed)	Standar	Keterangan
Pair 1	Sebelum Consept Map - Setelah Consept Map	-12,588		,000	0,05	Ada perbedaan nilai UTS Dan UAS sebelum dan sesudah diajarkan consept map

The results of the test paired sanple T test above mentioned that there are differences in student capabilities that are reflected in the values of UTS and UAS before the concept map is taught. The value in UTS reflects the students ' ability to perform research stages without first being taught concept map. Meanwhile, the value of UAS describe the ability of students to perform research stages of concept map. The ability of the student has increased, it can be seen from the average value of the UAS higher than UTS.

### **3. Conclusion**

The Concept Map Learning Model (concept map) is a term about the strategy teachers use to help students organize the concepts of lessons that have been studied based on the meaning and relationship between their components (Novak, 1984 and G Awith, 1988). The relationship between one concept and the other concept is known as a proposition. The concept map is an effective tool presenting visually the generalization-generalization hierarchy and to express the interconnectedness of the proposition in the system of interconnected concepts. This research aims to implement the Concept map model (concept maps) in the study of accounting research. Accounting research courses have a very important role in providing students with the ability to face the thesis, because in this course students will learn to do the stages of accounting research. With the application of learning methods Concept Map (concept map) is expected to improve students' ability in conducting research phases in a simple and systematic manner. This study was conducted on the student accounting study Program of Surakarta University year 2018/2019 even Semester that follows the accounting research course in Semester 6. The results showed there was a difference in the student's value in conducting accounting research before and after implementing the Concept Map learning method. By using the concept map method, learning to improve students' ability to perform research stages,

### **Limitations**

The results of this research are limited to accounting research courses and have not been applied to other courses, so the results have not been generalized for all courses offered at the Uniba accounting program in Surakarta

### **Advice**

For further studies, it is necessary to test for other courses, so that the result can be generalized.

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