

Analysis of Implementation in Accounting Learning Model based Scientific Approach: Naturalistic Qualitative Study at SMK PGRI Turen Malang

Yunia Rohmatin, Sunaryanto, Puji Handayati*
Universitas Negeri Malang

Keywords: Implementation of Learning Model, Scientific Approach, SMK PGRI Turen Malang

Abstract: This study aims to determine how teachers understand the meaning of learning *scientific approach*, implementation of scientific learning approaches (planning, implementation, and evaluation), and implementation of learning models based on scientific approaches (*scientific approach*) at SMK PGRI Turen Malang. This study uses a qualitative approach design with a type of phenomenological research based on Dyer theory. The results of the study show (1) The learning *scientific approach* at the SMK PGRI Turen Malang means the teacher of the learning process using a scientific approach is the implementation of learning between existing theories and then connected with daily life (the environment) of students. (2) The learning process using the scientific approach carried out by accounting teachers at SMK PGRI Turen Malang was considered not optimal by researchers in implementing the 2013 Curriculum. (3) Implementation of two learning models namely *inquiry-based learning (IBL)* and problem-based learning (*problem-based learning / PBL*) has been implemented even though it has not been maximized and the project-based learning model (project-based learning has not been implemented at SMK PGRI Turen Malang. The renewal of this research for the first time is to determine the extent of implementation of scientific approach learning accounting models.

1 INTRODUCTION

Educational activities compiled in a programmed manner with the curriculum In Law No. 20 of 2003, the curriculum is a set of plans and arrangements regarding the purpose, content, and material of learning and the methods used to guide the implementation of learning activities to achieve certain educational goals. rump and Dalmeida F. Miller (in "improvement secondary school", 1973), curriculum is a method of teaching, and learning, how to evaluate students and all programs, changes in teaching staff, guidance and counseling, supervision and administration and structural matters regarding time, number of rooms and the possibility of choosing subjects. In the 2013 curriculum, the learning process used uses learning with a *scientific approach*. The Scientific Approach (*scientific Approach*) is a distinctive feature and becomes a distinctive strength of the existence of the 2013 Curriculum. Hosnan (2014: 34) states that a scientific approach is a learning approach that directs students to actively construct concepts, laws or principles through scientific stages. Some

learning models, strategies, or methods can be applied by the teacher by integrating elements of the scientific approach to learning. Learning models with scientific approaches namely *inquiry-based learning, problem-based learning (PBL), and project-based learning (PjBL)* (Sani, 2014: 76). Based on Dyer theory (in Sani, 2014: 53), the scientific approach (*scientific approach*) in learning has components of the learning process, among others, observing, asking questions, trying / gathering information, reasoning/association, and forming networks (communicating). To apply the components in the learning process, an educator needs a plan of learning activities or commonly called a learning training plan (RPP). According to Minister of Education and Culture No. 65 of 2013 concerning Process Standards, Learning Implementation Plans (RPP) are plans for face-to-face learning activities for one or more meetings. A good lesson plan is a learning plan that must have three main points, among others; 1) learning planning, 2) learning implementation, and 3) learning evaluation. As well as developing in detail from a subject matter or a particular theme that

refers to the syllabus so that learning takes place interactively, inspirational, fun, challenging, efficient, motivates students to actively participate, and provides sufficient space for initiative, creativity, and independence according to talent, interests, and physical and psychological development of students. In the learning implementation plan, educators also need to determine the learning model that is in accordance with the scientific approach. Will it use *inquiry-based learning*, *problem-based learning (PBL)*, or use *project-based learning (PjBL)*?

If seen from previous research, Rahmawati et al (2015) completed their research with focus on one learning model that is problem-based learning (PBL), while in this study, researchers focused on three learning models to find out the lesson plans for learning (RPP), whether or not they have met the components of learning in accordance with Dyer's theory. (*natural*) the conditions and activities of teaching and learning activities at SMK PGRI Turen Malang and focusing on "How Implementation of the Accounting Learning Model Based on Scientific Approach in SMK PGRI Turen Malang?" with sub focus research is as follows:

1. How is the teacher's understanding of the meaning of learning *scientific reach* at SMK PGRI Turen Malang?
2. How do teachers implement the scientific learning approach at SMK PGRI Turen Malang when viewed from the process of planning, implementation, and evaluation?
3. How is the implementation of the learning model based on a scientific approach (*scientific approach*) at SMK PGRI Turen Malang?

2 RESEARCH DESIGN AND METHODOLOGY

2.1 Data Collection

Based on the focus of the problem under study, this research is included in qualitative research. The type of research used in this study is phenomenology. The research is intended to uncover phenomena and orient the subjective experience of accounting educators at SMK PGRI Turen Malang. The purpose of this study is to get a clear and real picture of the results of data analysis by researchers about the implementation of abased accounting learning model *scientific approach*. In this study, researchers acted as instruments as well as data collectors. Researchers as planners, implementers of data

collectors, analysis, data interpreters, and in the end he became the reporter of the results of his research. In this study the researchers participated passively, the researchers were present but were not involved, meaning the researchers came at the place of activity of the people being observed but were not involved in the activity (Satori, 2010: 115).

The data source of this study consists of primary data sources and secondary data sources. The primary data source is obtained directly from the original source, namely the researcher informants through interviews with accounting educators at SMK PGRI Turen Malang. Whereas for secondary data in the form of documentation in the form of syllabus and learning implementation plan (RPP) made by accounting teacher of SMK PGRI Turen Malang. The procedure for collecting data in this study uses a systematic procedure with observation, interviews, and documentation. Observations were made in 5 observations in a face-to-face class that began the first week of April to the first week of May. Then interviews are conducted via email, social media and via mobile phone. The researcher conducted interviews with three informants in depth with the research subject, Dra. Sri Jonari M.Sc., Drs. Kusnadi and Wahyu Khoiril Hidayat SE, S.Pd. And the documentation in this study uses learning tools in the form of syllabus and learning implementation plans (RPP) made by accounting teachers at SMK PGRI Turen Malang.

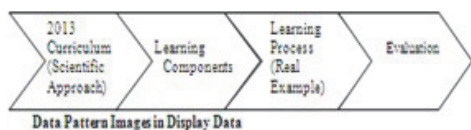
2.2 Data Analysis & Measures

In this study, researchers adopted data analysis techniques proposed by Miles and Huberman (in Satori, 2010: 221), namely:

1. Data Reduction

Researchers provide an overview of the data analysis process that departs from data obtained from the field, then data reduction, then display the data in the form of a pattern until the conclusion is drawn.

- a. Primary data, the primary data source comes from in-depth interviews with informants. Data is collected without the addition and subtraction of interview results.
- b. Data reduction, done by summarizing the results of interviews in the form of certain points or classification.
- c. Display Data, the presentation of data is presented in the form of a pattern, then the data is described again in narrative form.



2. Presentation of Data (Display Data)
Presentation of data in this study is carried out in the form of narrative/description. The researcher displays data by connecting one phenomenon with another phenomenon.
3. Withdrawal of conclusions in this study is carried out after the data analyzed has finished. From this conclusion, patterns, models, themes, and other relationships are supported. Mechanical checks the validity of the data include a test of credibility (*credibility*), dependence test (*dependability*), the test of certainty (*confirmability*).
 - 1) Test credibility (*credibility*)
Test conducted to determine the level of confidence in the data examined.
 - a. Extension of Observation, the researcher carried out an extension of observation by following the research subjects in teaching in the classroom for 3 weeks with 6 meetings.
 - b. Perseverance Observation, researchers make observations more carefully and continuously. explain in detail and systematically in accordance with the focus of the problems in the study. Perseverance of observation alone is solely to deepen the contents of the problem under study.
 - c. Triangulation technique, researchers use triangulation techniques by checking data to the same source with different techniques. For example, data obtained by interviews, then checked by observation, documentation, or questionnaire.
 - 2) Addition Test (*dependability*)
To know the whole set of research, it is also necessary to test the dependence (*dependability*). Testing by independent auditors is done to obtain an objective picture of the research process carried out by the researcher, both when determining the problem, entering the field, determining the data source, analyzing the data, testing the validity of the data, and finding results in the study. In this research, what is meant by independent auditors is the process of consultation with the supervisor.

- 3) Test Certainty (*confirmability*)
The results should be appropriate procedures and in accordance with the conditions of the field or can describe fully the actual situation. Another thing that is also important in the certainty test is that the research process does not exist, but the results are there. This will result in a loss of trust level.

3 RESULT & DISCUSSION

3.1 Result and Discussion

- A. Teacher's understanding of the meaning of the learning *scientific approach* at SMK PGRI Turen Malang

Based on the results of research with informant 1, informant 2, and informant 3 it can be seen that the scientific approach is interpreted by the teacher at SMK PGRI Turen Malang with a learning process that has a theme, this theme or competency in the process of implementing the learning will be connected with the daily life/situation of the students. As an educator, nature is only guiding and directing so that the hope is that students develop their abilities more and can provide advice/solutions to the problem formulation that is being raised as a special discussion. Besides that, the scientific approach itself for the teacher has the purpose of how to make the students always feel curious and challenged by the curiosity in every material that will be delivered. The scientific approach is interpreted as daily learning.

"The scientific approach related to what is conveyed in theory can be applied in the outside world, connected with everyday life. Suppose accounting records are financial. What we can do is related to the theory that exists with our daily lives. For example, recording a journal, recording a journal in this theory, we do it. We get pocket money from our parents, what allowance, we spend on anything, all of us take notes. If bookkeeping is done, there will be income and expenditure. That is the same as learning by using a scientific approach that is scientific in nature and is in the daily scope. "

In the scientific approach, there are 5 components of learning that are used as the basis for implementing a scientific-based learning

model. These five components are the process of observing, asking, trying / experimenting, associating, and communicating (5M). From the results of the study with the three informants mentioned that the observing process becomes dominant to do because both the teacher or students develop a pattern of thinking by learning to pay more attention to one particular thing by making warmth during the learning process. This is in accordance with the opinion of Abdul Majid (2014: 214) which reveals that the process of observing is a process when a teacher trains students to pay attention (see, read, hear) from an object or object. The form of implementation of 5M at SMK PGRI Turen according to the informant:

"Observing we often do and become dominant, especially if we have talked about public sector accounting and accounting fields. What kind of observation? Yes, for example, if someone builds a mosque or other public service place. There must be budget allocations and budget plans. To get into the realm of what our costs are is not possible. So my children told me to make a budget then at the end I told them to present the results of the observation. Starting from the relocation of the budget, what is up to good government, transparency etc. I deliberately did not focus on the budget discussion. What for? Yes, solely so that children can develop their thinking patterns more and have the assumption that all the real sciences are interconnected with each other. "

From the above screenshot, the teacher can see from the level of concentration and calm of the students. Then in the realm of knowledge can be seen from the results of the report or not in carrying out the tasks given by the teacher. When the work is seen coherently means students can be said to master the material.

B. Implementation of the scientific learning approach at SMK PGRI Turen Malang when viewed from the process of planning, implementing and evaluating learning

Implementation of the scientific approach in Curriculum 2013 (K13) is inseparable from the three learning processes namely the process of planning, implementing and evaluating learning. The results of the study with informant 1, informant 2, and informant 3 states that the

learning planning process begins with making a Learning Implementation Plan (RPP) then three learning activities (introduction, core, closing) and evaluation of learning with authentic assessment. The following is an interview quoted by the Informant related to learning planning.

"The preparation is to make lesson plans, semester programs, annual programs then breakdown to RPP then implemented in gradual learning, but ideally when the semester program has been designed but the material is made in semester one or odd, for example, this material is submitted to the allocation amount so many hours. There, it can be designed at meetings to so many. Just at the time of execution and suppose we have not made the lesson plan at least we have completed before the learning time. So the learning time, the lesson plan has been completed and in the semester program at least there is also already. If we finish it right at the beginning of the semester it is also difficult, then in the RPP there will also be developed, for example, we make lesson plans, then there are new developments and information during the learning process. From there it can be added again in the lesson plan. "

The next step is the process of implementing learning. The implementation of learning itself is divided into three activities including preliminary activities, core activities, and closing activities. Preliminary activities usually contain the perception of the material to be discussed, meaning that the teacher gives a little description of the material to be discussed in the next few hours. Giving a general description (a perception) to students can be done in different ways. This depends on the creativity of each teacher/teacher. Entering the classroom with a pleasant face and a warm smile that is charming becomes its own advantages to attract the attention of students.

After the preliminary activities, the next stage is the core activities whose implementation is more focused for some time because accounting requires high concentration so that there are times when the learning atmosphere must be truly conducive so that students are more focused. But after the material was delivered and the time the students who did the task, the atmosphere relaxed again even in the core activities if the atmosphere was not supportive with hot weather, the informant as the instructor teacher

gave an offer by playing music as an encouragement.

And last is the closing activity usually contains a review of the material that has been delivered when the learning takes place. Review conclusions in the form of core keywords in the material discussed. The keywords were chosen so as to facilitate the difficult and minimize the discussion.

The planning and implementation stages of learning have been carried out, and the last is an evaluation of learning. Evaluation of learning in the scientific approach is an evaluation process that is more directed at process evaluation. The final score in the exam is not a determinant of whether students are capable and whether they master or accept material in learning. In its implementation, learning evaluation also requires schools to develop the ability to create a framework/model of assessment even though at the end of the final form/model remains the stipulated conditions. The following is an explanation of the Informant about the process of conducting the assessment.

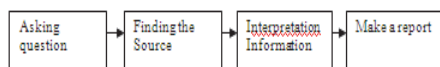
"For the evaluation/assessment model, schools make their own, the guidelines for each basic competency (KD). Every KD must be evaluated but we (the teacher) remain on the existing signs, meaning that for example, this child does not reach the minimum completeness criteria (KKM) this child should have remedies, enrichment etc. Then there is the final evaluation with the value in the form of practical value and the final value combined but the process value yes every KD and practice is also the value of the process practice is also indirect because it is gradual. "

C. Implementation of learning models based on scientific approaches (*scientific approach*) at SMK PGRI Turen Malang

There are three learning models in the implementation of learning models based on a scientific approach namely *inquiry-based learning*, *problem-based learning*, and *project-based learning* (Sani, 2014: 76).

1. Inquiry-Based Learning (*inquiry-based learning*)

Inquiry-based learning (IBL) is learning that engages learners in formulating questions directed to conduct an investigation in an effort to build new knowledge and meaning. stations in an effort to build new knowledge and meaning.



Details of the Inquiry Process

Learning is learning that can be done individually, generally, the analysis or experiment conducted by students is simple and can be answered immediately. As has been done by the following informant who discussed the issue of concepts and implementation of the environment. The environment is not only interpreted based on the theory of this A and B like this. But a discussion about the environment towards how to protect the environment and what if the environment is polluted, what impacts will occur later.

The following is an interview quoted by the Informant.

"For example, discussing environmental issues in professional ethics, children not only know the theory that the environment is interpreted as an explanation but how I make children have their own understanding of the purpose and purpose of the existence of a balanced environment amidst many industrial factories. "

From the above question, it can be seen that informant 2 as an educator tries to develop the ability to analyze students in understanding learning material. Students are required to speak up, seek, ask, analyze and convey. This is felt to be enough to hone the mindset of students so that the inquiry learning model is used as a learning model based on the scientific approach.

2. Problem Based Learning (problem-based learning / PBL)

learning *Problem Based Learning* (PBL) was first popularized by Barrows and Tamblyn (1980) at the end of the 20th century (Vienna Sanjaya, 2007). *Problem Based Learning* (PBL) is a learning approach that begins with solving a problem, but to solve the problem students need new knowledge to be able to solve it (Hamruni, 2009) in Suyadi (2003: 129). The syntax relevant to teacher behavior is as follows.

Table 1.5 PBL Syntax and Relevant Teacher Behavior

Phase	Teacher Behavior
Phase 1: Conduct problem orientation to students	Teachers Deliver learning objectives, explain logistics (materials and tools) what needs to be needed for problem-solving and provide motivation to students pay attention to problem-solving activities.
Phase 2: Organizing students for learning The	The teacher helps students define and organize learning so that it is relevant to problem-solving.
Phase 3: Support then in group	Teachers encourage students to seek out the appropriate information, conducting experiments, and seek explanations and troubleshooting.
Phase 4: Develop and present assignments and exhibit them The	Teacher assists students in planning according to the tasks given such as reports, videos, and models, and helps them share with each other about their work.
Phase 5: Analyzing and evaluating the problem-solving process The	The teacher helps students to reflect on the results of their investigation and the learning processes that have been carried out.

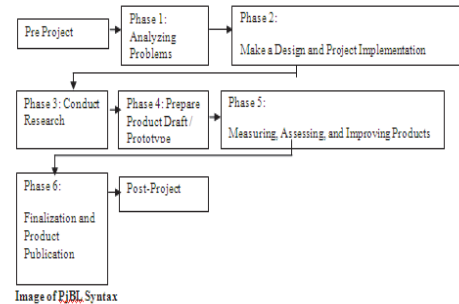
Examples of learning problems made by informants (accounting teachers) at SMK PGRI Turen Malang, following excerpts from interviews conducted by researchers.

"I, if learning is based on problems, usually my children give a case, I make groups and I ask to observe and understand the cases. I provoked a number of questions and I asked for an analysis of several aspects that would have entered into daily life. For example, in terms of social, economic, psychological etc. Or if they have more opinions than I specify, I invite you. New for the next meeting is the practice of doing journaling to financial statements. "

Based on the information above, it is known that informant 1 tried to invite students to think more critically in addressing what was seen and found. Informant 1 teaches how to analyze and work on a more complex problem. So that children develop a slightly longer thinking pattern.

3. Project-based learning (PjBL)

PjBL is defined as learning with long-term activities that involve students in designing, making, and displaying products to overcome real-world problems. The syntax of PjBL according to Abidin (2014: 172) is as follows.



Implementation of a project-based learning model is the most difficult learning to be carried out according to informants. This is felt reasonable because it requires a long time and really needs more ability for each student. It's not easy, but every school has its own way of doing it. Like what was done by informants, in the implementation, the informants collaborated with the entrepreneurship program. Although it has not been effective, at least students can carry out analysis from the start and make products. What is accounted for in accounting is how much has been used up to make one product, where the market prey, what goods are sold is not approximately, attractive or not, has economic benefits or not etc. From there, students will present their results. The following is an interview quoted by the Informant.

"The most difficult thing is communicating. We collaborate with entrepreneurship programs. Now entrepreneurship makes a product, where we insert it into it. Just don't synergize with teaching, so getting into accounting like you make this product runs out if you sell it doesn't sell. Not just finished, if possible, it must have a sale value. So that it is more productive and has economic benefits. What economic benefits? At their end, I told them to present the results of each group. "

4 CONCLUSION

1. The importance of thinking that is open to a teacher in implementing learning uses a scientific approach. This is important because

the problem faced by teachers is how to process and develop existing ideas to be more creative, innovative and productive for students. Therefore, the more emotional closeness between teachers and students is necessary for its implementation.

2. Good communication between teacher and students in the implementation process in the preliminary, core and closing activities is the key to the success of learning. Thus, it is hoped that mutually beneficial cooperation will be established while simultaneously encouraging new ideas to emerge from both students and teachers.
3. Three learning models in the scientific approach do not have to be forced into the implementation of the scientific approach. But the learning model is seen by informants as a tool to facilitate the delivery of material. Various types of learning activities make the learning process more inspirational and fun, of course.

REFERENCES

- Al-Tabany, Trianto Ibnu Badar. 2014. *Designing Innovative, Progressive, and Contextual Learning Models*. Jakarta: Prenadamedia Group.
- Bogdan, RC & Biken, SK 1992. *Qualitative Research for Education: An Introduction to theory and methods*. USA: Printed in the United States of America.
- Dance, Donni Juni. 2015. *Learner Management and Learning Models*. Bandung: CV. Alfabeta.
- Hosnan, M. 2014. *Scientific and Contextual Approach in 21st Century Learning*. Bogor: Ghalia Indonesia Publisher.
- Kunandar. 2013. *Authentic Assessment (Assessment of Student Learning Outcomes Based on 2013 Curriculum)*. Jakarta: Rajawali Press.
- Majid, A. & Rochman, C. 2014. *Scientific Approach in Implementation of 2013 Curriculum*. Bandung: PT Adolescent Rosdakarya Offset.
- Majid, A. 2014. *Integrated Thematic Learning*. Bandung: PT Adolescent Rosdakarya Offset.
- Majid, Abdul. 2015. *Authentic Assessment: Process and Results*. Jakarta: Rosda.
- Moleong, Lexy, J. 2014. *Qualitative Research Methodology*. Bandung: Rosda.
- Mulyasa, E. 2015. *Teacher in 2013 Curriculum Implementation*. Bandung: PT Remaja Rosdakarya.
- Conscience of Soyomukti. 2015. *Educational Theories: From Traditional, (Neo) Liberal, Marxist-Socialist, to Postmodern*. Yogyakarta: Ar-Ruzz Media.
- Poerwati, L. & Amri, S. 2013. *Guide to Understanding 2013 Curriculum*. Jakarta: PT. Workshop achievements.
- Dance, Donni J. 2015. *Student Management and Learning Models*. Bandung: CV. Alfabeta.
- Rohman, Arif. 2009. *Understanding Education and Education*. Yogyakarta: Mediatama.
- Sadiman, Arief S, et al. 2014. *Media Education: Definition, Development, and Use*. Jakarta: Rajawali Press.
- Sani, Ridwan A. 2014. *Scientific Learning for the Implementation of 2013 Curriculum* (print 2). Jakarta: Bumi Aksara.
- Shoimin, Aris. 2014. *68 Innovative Learning Models in 2013 Curriculum*. Yogyakarta: Ar-Ruzz Media.
- Soyomukti, Nurani. 2015. *Educational Theories: from Traditional, (Neo) Liberal, Marxist-Socialist, to Postmodern*. Yogyakarta: Ar-Ruzz Media.
- Suyadi. 2013. *Character Education Learning Strategies*. Bandung: PT Adolescent Rosdakarya Offset.
- Malang State University. 2010. *Guidelines for Writing Scientific Works: Thesis, Thesis, Dissertation, Articles, Magazines, Final Projects, Research Reports*. Malang: Malang State University
- Warsono & Haryanto. 2012. *Active Learning*. Bandung: PT Adolescent Rosdakarya Offset.

Rahmawati, et al. 2013. *Analysis of Problem Based Learning Mathematics with a Scientific Approach in Jogoroto 1 Public High School Class X Ngawi District 2013/2014 Academic Year*. Electronic Journal, Vol 3, (Online) (<http://www.journal.fkip.uns.ac.id/index.php/s2math/article/viewFile/6683/4548>)

Utami, Budhi Ika. 2015. Thesis. Implementation of Scientific Approach in 2013 Curriculum for Class II Students at SDN Prembulan, Pandowan, Galur, Kulon Progo. (Online) in (http://eprints.uny.ac.id/17977/1/Ika%20Budhi%20Utami_111082241107.pdf)

Wulansari, Zakiyah. 2015. Thesis. Implementation Of Scientific Approach And Authentic Assessment In Islamic And Budi Pekerti Religion Education Lessons In Curriculum 2013 "(Case Study in Telecommunications Tunas Vocational School, Hope Hear Semarang District and State Public Religion 1 Hear Semarang District). (Online) in (<http://perpus.iainsalatiga.ac.id/docfiles/fulltext/6622745976.pdf>)

Law Of The Republic Of Indonesia Number 20 Of 2003 Concerning The National Education System. (Online) in (http://kelembaraan.ristekdikti.go.id/wp-content/uploads/2016/08/UU_no_20_th_2003.pdf)

Regulation Of The Minister Of Education And Culture Of The Republic Of Indonesia. (Online) in (<https://luk.staff.ugm.ac.id/atur/bsnp/Permendikbud81A-2013ImplementasiK13Lengkap.pdf>)