Implementation Of Learning Models In The Merdeka Curriculum: Perception Of Vocational High School Accounting Teachers In The Special Region Of Yogyakarta

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Abstract: Education plays a crucial role in shaping the quality of human resources and societal development. Effective learning processes, significantly influenced by teacher performance, are vital for achieving quality education. This research explores the challenges faced by vocational high school teachers in implementing the Merdeka Curriculum, which aims to address learning disruptions caused by the Covid-19 pandemic and align with the demands of Industry 4.0. The study employs a qualitative case study design involving interviews and observations of 10 accounting teachers from five vocational high schools in Yogyakarta. Findings reveal that while various learning models, including Problem Based Learning (PBL), Project Based Learning (PjBL), and Teaching Factory (TEFA), are utilized, their implementation is often hindered by limited teacher training, inadequate resources, and insufficient understanding of the curriculum. PBL faces difficulties in Vocational High School A and Vocational High School D due to a lack of training. PjBL is effectively used in Vocational High School C and Vocational High School D for real-world projects, whereas TEFA is constrained by limited support. The study highlights that teachers struggle with adapting to the Merdeka Curriculum, particularly senior educators, and emphasizes the need for professional development, improved infrastructure, and additional training to meet the curriculum's requirements. Key barriers include inadequate professional support, high administrative burdens, and resistance to change. This research underscores the importance of enhancing teacher readiness and adapting learning models to align with the Merdeka Curriculum effectively.

Keywords: Merdeka Curriculum, vocational education, learning models, curriculum implementation, educational challenges.

Implementasi Model Pembelajaran Dalam Kurikulum Merdeka: Persepsi Guru Akuntansi Sekolah Menengah Kejuruan Di Daerah Istimewa Yogyakarta

Abstrak: Pendidikan memainkan peran penting dalam membentuk kualitas sumber daya manusia dan pembangunan masyarakat. Proses pembelajaran yang efektif, yang secara signifikan dipengaruhi oleh kinerja guru, sangat penting untuk mencapai pendidikan yang berkualitas. Penelitian ini mengeksplorasi tantangan yang dihadapi oleh guru sekolah menengah kejuruan dalam mengimplementasikan Kurikulum Merdeka, yang bertujuan untuk mengatasi gangguan pembelajaran yang disebabkan oleh pandemi Covid-19 dan menyelaraskannya dengan tuntutan Industri 4.0. Penelitian ini menggunakan desain studi kasus kualitatif yang melibatkan wawancara dan observasi terhadap 10 guru akuntansi dari lima sekolah menengah kejuruan di Yogyakarta. Temuan menunjukkan bahwa meskipun berbagai model pembelajaran, termasuk Problem Based Learning (PBL), Project Based Learning (PjBL), dan Teaching Factory (TEFA), telah digunakan, implementasinya sering kali terhambat oleh pelatihan guru yang terbatas, sumber daya yang kurang memadai, dan pemahaman yang kurang memadai tentang kurikulum. PBL menghadapi kesulitan di Sekolah Menengah Kejuruan A dan Sekolah Menengah Kejuruan D karena kurangnya pelatihan. PjBL efektif digunakan di Sekolah Menengah Kejuruan C dan Sekolah Menengah Kejuruan D untuk proyek-proyek dunia nyata, sedangkan TEFA terkendala oleh dukungan yang terbatas. Studi ini menyoroti kesulitan guru dalam beradaptasi dengan Kurikulum Merdeka, terutama para pendidik senior, dan menekankan perlunya pengembangan profesional, peningkatan infrastruktur, dan pelatihan tambahan untuk memenuhi persyaratan kurikulum. Hambatan utama termasuk dukungan profesional yang tidak memadai, beban administratif yang tinggi, dan resistensi terhadap perubahan.

Penelitian ini menggarisbawahi pentingnya meningkatkan kesiapan guru dan mengadaptasi model pembelajaran agar selaras dengan Kurikulum Merdeka secara efektif.

Kata kunci: Kurikulum Merdeka, pendidikan kejuruan, model pembelajaran, implementasi kurikulum, tantangan pendidikan.

INTRODUCTION

Education is something that every human being must get that can change the quality of a country. Education will have an impact on humans to develop and master various skills that can change their lives for the better. Quality education needs to be organized to form quality human resources. One of the ways quality educations can be achieved is through a quality learning process. The quality of the learning process cannot be separated from the role of the teacher. Teachers determine the quality of learning in the classroom because teachers have full authority in implementing learning (Mas, 2017). Therefore, quality learning can be carried out with professional teachers. Professional teachers are teachers who are able to educate their students to become a generation that is able to compete and has good morals (Illahi, 2020). Professional teachers are teachers who have the ability to carry out their main tasks which include planning, implementing, and evaluating learning. From these three tasks, teacher performance is assessed (Ministry of Empowerment of State Apparatus and Bureaucratic Reform, 2009) To carry out these three main tasks, teachers are required to have pedagogical, personal, professional, and social competencies (Government of the Republic of Indonesia, 2005) In addition to having the competencies as required by Law No. 14 of 2005, professional teachers are teachers who have adaptive transformative traits (Timperley, 2013). Teachers are required to be able to adapt to changes in education that change along with changes that occur in society. Changes that occur in the world of education include changes in the curriculum that change along with changes that occur in society. Teachers as curriculum implementers are required to always be able to adapt to changes so that learning can run effectively. For example, currently there is a change in the current curriculum, from the 2013 curriculum shifting to the Merdeka Curriculum. The Merdeka Curriculum is an adaptation as an effort to restore learning due to learning loss during the Covid-19 pandemic. In addition, the Merdeka Curriculum facilitates the achievement of society 5.0 which has an orientation to solving all problems and challenges by using various innovations that were born in the era of the industrial revolution 4.0 (Indarta et al., 2022). An Merdeka Curriculum is needed considering that Indonesia has long been in a learning crisis where the level of literacy and numeracy skills is still concerning, in addition to the large educational gap in various regions in Indonesia (Ministry of Education and Culture, 2020).

activities in educational units that implement the Merdeka Curriculum must pay attention to the principles stated in the Decree of the Minister of Education, Culture, Research, and Technology Number 56/M/2022 concerning Guidelines for Implementing the Curriculum in the Context of Learning Recovery, namely 1) learning is designed by considering the developmental stage and level of achievement of current students, in accordance with learning needs, and reflects the characteristics and development of diverse students so that learning becomes meaningful and enjoyable; 2) learning is designed and implemented to build capacity to become lifelong learners; 3) the learning process supports the development of students' competencies and character holistically; 4) relevant learning, namely learning that is designed according to the context, environment, and culture of students, and involves parents and the community as partners; and 5) learning is oriented towards a sustainable future. In the implementation of the Merdeka curriculum, teachers are required to develop students' skills in the 21st century, namely Critical Thinking, Creativity, Communication, and Collaboration, which are often abbreviated as 4C. Classroom learning must

use a learning model that facilitates the formation of 4C skills (Sri Nopiani et al., 2023). The shift in the curriculum to the Merdeka curriculum has resulted in changes in the work and duties of teachers. Various obstacles then arise and overshadow the work of teachers due to the lack of teacher experience in learning independence, limited references, unequal access to learning, inadequate competence and suboptimal time management (Jannah & Fathuddin, 2022). In addition, teachers still have to grapple with administrative work, both related to compiling learning devices and preparing them. Furthermore, mastery of the four competencies is also still lacking, for example teachers do not master information technology that can be used in learning.

In relation to the various obstacles faced by teachers in implementing the curriculum, the researcher intends to find out the challenges faced by teachers in implementing the Merdeka curriculum, especially in implementing classroom learning, namely related to the use of learning models as an effort to improve 4C skills in students. The importance of this study is to find out whether the learning models used by Accounting Vocational School teachers are in accordance with the demands of implementing the Merdeka curriculum. In addition, the obstacles and needs of teachers in applying learning models in the implementation of the Merdeka curriculum will be explored.

METHODS

Research Design

This study uses a case study research design with a qualitative approach (Creswell, 2014). A case study is a design for examining a situation (with a specific scope) or case using scientific and systematic methods starting from observation, data collection, information data analysis, and reporting. As a result, a deep understanding of why something happens will be obtained and can be the basis for further research. The research period has been completed from May to August 2024. The stages of this research go through the stages of making proposals, making research instruments, collecting research data, processing research data, and making research reports and publication manuscripts. The research location has been carried out at 5 Vocational High Schools in the accounting expertise program in the Special Region of Yogyakarta.

The third part of the manuscript, "Method, Data, and Analysis" is designed to describe the nature of the data. The method should be well elaborated and enhance the model, the approach to the analysis and the step taken. Equations should be numbered as we illustrate. This section typically has the following sub-sections: Sampling (a description of the target population, the research context, and units of analysis; the sample; and respondents' profiles); data collection; and measures (or alternatively, measurements). The research subjects consisted of 10 Accounting teachers of Vocational High Schools.

Data Collection Technique

Data collection techniques were carried out by interviewing and observing classroom learning. Interviews were used to determine the application of learning models in the Merdeka Curriculum according to teacher perceptions. Observations were used to determine the description of the application of learning models and to determine the suitability of information obtained from interviews with teachers with implementation in the classroom.

Data Analysis Technique

Qualitative data analysis using interactive analysis by(Miles et al., 2014) consisted of data condensation, data display, and drawing/verifying conclusions. The data analysis process flow began with interviews with 10 Vocational High School Accounting teachers. The results of the interviews were recorded in the form of conversation recordings, then converted into interview transcript notes. The researcher cross-checked with the results of observations made based on the statements of the interviewees. The researcher carried out the process of selecting, interpreting answers, matching data, the results of which were then reviewed by several researchers involved so that the results were presented and conclusions were drawn objectively.

RESULT AND DISCUSSION

This study explores the application of various learning models in accounting subjects in vocational schools in the context of implementing the Merdeka Curriculum. The results of the study indicate that the application of learning models in various vocational schools is still diverse and not fully in accordance with the principles of the Merdeka Curriculum which emphasizes student-centered learning through problem-solving, collaborative, and contextual approaches (Ministry of Education and Culture, 2020).

1. Application of Learning Models in the Merdeka Curriculum

Based on the results of interviews and observations, the following data was obtained regarding the application of learning models in accounting subjects.

Table 1. Application of Learning Models in the Merdeka Curriculum

Aspects Studied	Findings
Learning models that teachers often apply	Vocational High School A : Teacher 1: More often uses practice questions and discussions. Has not implemented Merdeka Curriculum models. Learning focuses more on the teacher's explanation of the material, with students tending to be passive. The TEFA model has been implemented, although there are several obstacles. Teacher 2: Uses the Problem Based Learning (PBL) model to direct students to solve problems. However, the process of implementing this model is not specifically explained. Vocational High School B : Teacher 1: Often uses practice questions in accounting material. Students are given cases to be solved individually and then discussed together. Teacher 2: Uses a cooperative model when teaching theory, by forming small groups for discussion. Although the teacher tries to make students active, learning in small groups has not been seen. Vocational High School C : Teachers: Uses Project Based Learning (PBL) in vocational competency subjects, such as accounting. Students are involved in field practice, such as preparing financial reports for MSMEs. Vocational High School D :

Aspects Studied	Findings
	Teacher 1: Uses several learning models, including Project Based Learning by analyzing MSME transactions and preparing financial reports. The TEFA model is also implemented in collaboration with the post office. Teacher 2: Has not implemented a learning model according to the Merdeka Curriculum, uses more lectures and questions from books. Vocational High School E : Teachers more often uses the Direct Instruction Model in learning.
Reasons why teachers choose the learning model applied in class	Vocational High School A: Teachers face obstacles in implementing the Merdeka Curriculum learning model due to lack of time and understanding. Teachers choose Problem Based Learning (PBL) because it is considered suitable for accounting subjects that require students' ability to solve problems and analyze cases. Vocational High School B: Teachers prefer practice questions for accounting material, with the aim of improving student skills and the results of the Expertise Competency Test (UKK). The Merdeka Curriculum learning model is considered less effective for calculation material because it takes time, but for theory, discussion and student independence are encouraged. Vocational High School C: Teachers rely on Project Based Learning because it is relevant to accounting vocational competencies. Students are involved in real projects such as compiling financial reports from direct company data, which helps them think critically, logically, and practically. Vocational High School D: Teachers hope that students will be more active with the projects given, especially for the accounting cycle in MSMEs. However, teachers still use conventional learning models and have not fully implemented the Merdeka Curriculum method due to lack of understanding. Vocational High School E: Learning is adjusted to the characteristics of students who are mostly male and very active. Teachers use interactive media such as videos in addition to lectures, and have students review the material to teach the accounting cycle effectively.

Research shows that the learning models applied by teachers in vocational schools vary, ranging from Problem Based Learning (PBL), Project Based Learning (PjBL), to Teaching Factory (TEFA). For example, in Vocational High School A and Vocational High School D, several teachers claim

to use PBL, which emphasizes learning based on solving real-world problems (Hmelo-Silver, 2004). However, the implementation of PBL has not been fully effective due to limited teacher understanding and lack of training. On the other hand, Project Based Learning (PjBL) is implemented in Vocational High School C and Vocational High School D, which allows students to work on real projects, such as creating MSME financial reports, to improve critical and collaborative thinking skills (Blumenfeld et al., 1991). The Teaching Factory (TEFA) model, implemented in Vocational High School A and Vocational High School D, integrates industrial practices into the learning process, although its implementation has not been optimal due to limited support for facilities and teacher training (Dewi, 2018)

2. Teacher Perceptions of the Implementation of Learning Models in the Merdeka Curriculum

Based on the results of interviews and observations, the following data was obtained regarding the teacher perceptions of the implementation of learning models in the Merdeka Curriculum.

Table 2. Teacher Perceptions of the Implementation of Learning Models in the Merdeka Curriculum

Aspects Studied	Findings
Teachers' opinions regarding the application of learning models in the implementation of the Merdeka Curriculum	Vocational High School A: The Merdeka Curriculum is seen as having good objectives, but its implementation is challenging, especially for senior teachers who feel pressed for time and need to relearn. Many teachers do not fully understand the concepts and teaching models required by the Merdeka Curriculum, making its application less than optimal. Vocational High School B: Teachers believe that the learning models of the Merdeka Curriculum cannot be applied to all subjects. For practical accounting, problem-solving exercises are more suitable, while theoretical subjects like banking can use cooperative learning models or PBL. Vocational High School C: The learning models of the Merdeka Curriculum should be differentiated based on students' abilities and backgrounds. Teachers, especially in remote schools, need to be more creative, dynamic, and continuously upgrade their knowledge to meet the curriculum's demands. Vocational High School D: The applied learning model is considered effective for improving students' skills, but the teacher has not provided much feedback on the Merdeka Curriculum as they are still unfamiliar with its concepts and appropriate learning models. Vocational High School E: Initially, the implementation of the Merdeka Curriculum felt hindered by administrative burdens and the use of digital media like

Aspects Studied	Findings
	the internet. However, over time, the teacher has adapted and become more comfortable with the curriculum's requirements.

Based on interviews with teachers in several Vocational High Schools, there is a perception that the implementation of the Merdeka Curriculum still faces various challenges. Senior teachers have difficulty adopting a new curriculum that requires a more innovative and flexible learning approach (Hargreaves, 2003). Vocational High School B and Vocational High School C indicated that the learning model needs to be adjusted to the type of material and student characteristics, for example using practice questions for practical accounting and PBL for more theoretical material. The results of the study indicate the importance of professional support and ongoing training for teachers to be better prepared to implement this curriculum (Guskey, 2002).

3. Barriers to Implementing Learning Models in the Merdeka Curriculum

Based on the results of interviews and observations, the following data was obtained regarding the Barriers to Implementing Learning Models in the Merdeka Curriculum.

Table 3. The challenges faced by teachers in implementing learning models in the Merdeka Curriculum

Aspects Studied	Findings
The challenges teachers face in planning learning models for accounting education.	Vocational High School A: The school needs to adjust to the curriculum change from Curriculum 2013 to the Merdeka Curriculum. The differences initially confused the teachers. There is a lack of facilities, such as computers for computerized accounting practice, and most students (more than 80%) do not own laptops to support learning. Another challenge is the difficulty teachers face in finding or creating video tutorials or PowerPoint presentations to help explain computerized accounting material. Vocational High School B: Time constraints prevent teachers from fully designing and implementing learning activities in accordance with the Merdeka Curriculum. Vocational High School C: There are no significant obstacles as the teacher is able to fully understand the learning tools and how to translate the Learning Outcomes (CPMK) into learning objectives, allowing the learning model to be implemented effectively. Vocational High School D: The shift from Curriculum 2013 to the Merdeka Curriculum requires teachers to adjust. The biggest challenge for teachers in planning lessons according to the Merdeka Curriculum is their limited

Aspects Studied	Findings
	understanding of the learning models, which many teachers at the school have not yet fully grasped. Vocational High School E. Challenges include teachers' limited understanding of translating Learning Outcomes (CP) into learning objectives, difficulty in selecting appropriate learning models and assessments, a lack of references for learning models, time constraints in lesson planning, and challenges in using educational media applications.
The challenges teachers face in implementing learning models.	Vocational High School A: The school has not yet implemented learning models according to the Merdeka Curriculum. Most activities involve question-and-answer sessions and problem-solving exercises. The teachers themselves lack full understanding of the learning models required by the curriculum, preventing them from executing the process in detail. Vocational High School B: Due to limited effective teaching time, especially for 12th-grade students who undergo a 6-month internship, teachers focus on ensuring students master competencies. As a result, students are mostly given assignments and problem-solving tasks. Vocational High School C: The challenges include inadequate facilities such as LCD projectors and other necessary infrastructure. Additionally, the heterogeneous abilities of students, economic disparities, and differing intelligence levels pose challenges for teachers in applying the required learning models of the Merdeka Curriculum. Vocational High School D: Teachers still heavily rely on conventional methods. The main challenge is their lack of understanding of the appropriate learning models for the Merdeka Curriculum era, and they have not yet applied the curriculum's demands in their teaching methods. Vocational High School E: The main obstacles include inadequate school facilities and equipment, teacher readiness, and limited time.

This study also identified several major barriers to implementing effective learning models under the Merdeka Curriculum. These barriers include lack of professional training and support, limited adequate resources and facilities, high administrative burdens, and resistance to change among

teachers and school management (Darling-Hammond, 2000; Fullan, 2007; McMillan & Schumacher, 2006). These barriers affect teachers' ability to adapt and implement more interactive and technology-based learning models.

4. Teachers' Suggestions and Needs in Implementing the Merdeka Curriculum

Table 4. Identification of teachers' needs in implementing learning models under the Merdeka Curriculum

Aspects Studied	Findings
Suggestions to support the implementation of learning models in the Merdeka Curriculum.	Vocational High School A: The school is performing well but still faces many challenges with teachers. There is a need for guidance and training to help teachers implement learning models according to the Merdeka Curriculum. Teachers need training on different learning models in the Merdeka Curriculum era and how to apply them effectively in the classroom. Vocational High School B: The school is doing well, but the demand for using learning models needs to be adjusted to the conditions in the field and the characteristics of the learning materials. Vocational High School C: There needs to be training on the learning models that can be used in accordance with the Merdeka Curriculum and how to implement them in teaching. Vocational High School D: Teachers need training, as they often lack time to design lessons according to the Merdeka Curriculum. Time constraints are especially challenging for teachers nearing retirement, who also face difficulties with technology. No suggestions have been provided yet, as the teachers are not fully familiar with the applicable learning models. Vocational High School E: Many teachers are unprepared for changes in the learning approaches introduced by the Merdeka Curriculum. Training is needed to help teachers adopt easier teaching techniques.
Teachers' needs in the implementation of the Merdeka Curriculum	Vocational High School A: Teachers need training and engaging learning materials. Training should focus on learning models and their application in teaching. Vocational High School B: Requirements include student handbooks, improved internet connectivity, and teacher training.

Aspects Studied	Findings
	Vocational High School C: Teachers need LCD projectors and other facilities to support the implementation of learning models in line with the Merdeka Curriculum. Vocational High School D: Students need LKPD workbooks, and teachers need books to enhance their knowledge and specific training on learning models suitable for the Merdeka Curriculum. Vocational High School E: Teachers require training for both lesson administration and the implementation of teaching processes under the Merdeka Curriculum.

Teachers from various vocational schools expressed the need for further training on relevant learning models and how to implement them effectively. For example, in Vocational High School A and Vocational High School C, teachers felt the need to receive more in-depth training on the implementation of learning models according to the Merdeka Curriculum (Rahmawati & Mulyadi, 2023; Sulistyaningsih & Hidayat, 2022). In addition to training, infrastructure support, such as learning media and handbooks, is also considered important to assist teachers in designing appropriate learning (Baitul Hamdi & Tika Widyastuti, 2021).

CONCLUSION

The research reveals that the learning models applied by vocational schoolteachers vary, including Problem Based Learning (PBL), Project Based Learning (PjBL), and the Teaching Factory (TEFA). However, the implementation of these models is often hindered by limited teacher training and understanding. PBL is utilized in Vocational High School A and Vocational High School D but faces challenges due to lack of training, while PjBL is used in Vocational High School C and Vocational High School D to engage students in real-world projects. The TEFA model, though present in some schools, is constrained by insufficient resources and support.

Teacher perceptions of the Merdeka Curriculum implementation highlight ongoing challenges, particularly for senior educators, who struggle with adopting more innovative approaches. It is crucial to adapt learning models to the specific subject matter and student characteristics, as seen in Vocational High School B and Vocational High School C There is a strong demand for professional development and continuous training to enhance teacher readiness for the new curriculum.

Key barriers to successful implementation include insufficient professional support, inadequate resources, high administrative demands, and resistance to change. Teachers also express the need for better infrastructure and additional training to effectively apply learning models aligned with the Merdeka Curriculum.

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