



FREE CURRICULUM MANAGEMENT BASED ON CONSTRUCTIVIST THEORY

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Abstract:

This research aims to describe the Free Curriculum based on Constructivism Theory at SMK Negeri 1 Rancaekek. The research employs a qualitative approach with data collection methods through interviews and observations. The results indicate that in curriculum planning, teachers formulate learning outcomes based on student needs in accordance with constructivist principles. The implementation of the free curriculum is carried out by applying a student-centered approach and involving interaction with the environment. Teachers also act as facilitators who support students' knowledge construction. Learning evaluation includes self-reflection and a review of materials to assess students' understanding. The main challenge is the lack of facilities and infrastructure, which is addressed by optimizing resource utilization. In conclusion, the application of constructivism theory in the Free Curriculum at SMK Negeri 1 Rancaekek has successfully created adaptive and student-centered learning.

Keywords: *Free Curriculum, Constructivism, Vocational School (SMK), Educational Management.*

INTRODUCTION

The current education system faces significant challenges in adapting curricula and learning processes to remain relevant in today's rapidly changing world. Rigid, teacher-centered curricula are no longer suitable for addressing the era of the Fourth Industrial Revolution, marked by rapid technological advancements. Students need to acquire 21st-century skills such as critical thinking, creativity, communication, and collaboration to be prepared for future challenges (Trilling & Fadel, 2009).

Therefore, the government has introduced the 'Merdeka Belajar' (Freedom of Learning) policy, allowing educational institutions and teachers the flexibility to develop curricula according to students' needs and local contexts. However, the implementation of this free learning curriculum requires an appropriate curriculum management approach to ensure educational goals are achieved. One relevant approach is the constructivist theory, emphasizing the active learning process of students in building knowledge based on experiences (Suparno, 2001).

The application of constructivism-based free curriculum management is necessary for students to learn actively and be relevant to their interests and needs. Teachers play a role as facilitators, creating a conducive learning environment for students to construct knowledge. Evaluation also needs to be adjusted to measure 21st-century skills. Thus, education can produce competent graduates ready to face contemporary challenges.

The application of the constructivist approach in free curriculum management requires a paradigm shift from both teachers and schools. Teachers are no longer the

sole authorities determining learning materials; instead, they facilitate student learning activities. Meanwhile, students must actively learn and participate in determining learning materials and activities according to their interests and needs.

However, the challenge lies in teachers and schools being accustomed to centralized and uniform curricula. A change in mindset and school culture is needed for the optimal implementation of the constructivism-based free curriculum. Teachers need training to develop competencies as facilitators and student mentors. Schools must create an academic climate that empowers students to actively participate in determining their learning processes (Wina, 2008).

SMK Negeri 1 Rancaekek is a vocational school aiming to produce graduates ready for the workforce in line with their expertise. However, the development of the Fourth Industrial Revolution demands curriculum and learning adjustments to develop 21st-century skills among students. This aligns with the government's 'Merdeka Belajar' policy, providing flexibility in curriculum development for educational institutions (Kemendikbud, 2020).

SMK Negeri 1 Rancaekek offers the Computer and Network Engineering (TKJ) program with the goal of producing graduates ready for employment in the IT field. However, the rapid technological advancements and required skills in the IT sector necessitate curriculum adjustments to meet industry needs. Therefore, the implementation of a free curriculum with a constructivist approach, focusing on students, is crucial for Class XI TKJ.

TKJ students need to be actively involved in the learning process based on their interests and needs. For example, they should be given the opportunity to choose relevant programming materials to study. Teachers act as facilitators by providing various learning resources and guiding students in the knowledge-seeking process. Evaluation should also measure 21st-century skills such as critical and creative thinking.

However, the challenge lies in changing the teaching methods of TKJ teachers accustomed to lecture-based approaches. Training is necessary for TKJ teachers to implement constructivist learning. With a constructivism-based free curriculum, it is expected that TKJ students can learn optimally and graduate with competencies aligned with current IT industry demands.

The research questions to address the above issues are: 1. How is the planning of the free curriculum at SMK Negeri 1 Rancaekek, especially in Class XI TKJ? 2. How is the implementation of the free curriculum in productive and adaptive learning at SMK Negeri 1 Rancaekek, particularly in Class XI TKJ? 3. How does the application of constructivism theory support the free curriculum in productive and adaptive learning at SMK Negeri 1 Rancaekek, especially in Class XI TKJ? 4. What are the challenges faced by teachers in implementing the free curriculum at SMK Negeri 1 Rancaekek, particularly in Class XI TKJ?

The research objectives focus on the aforementioned problems: 1. To analyze the planning of the free curriculum at SMK Negeri 1 Rancaekek, especially in Class XI TKJ. 2. To analyze the implementation of the free curriculum in productive and adaptive learning at SMK Negeri 1 Rancaekek, particularly in Class XI TKJ. 3. To analyze the application of constructivism theory in the free curriculum for productive and adaptive learning at SMK Negeri 1 Rancaekek, especially in Class XI TKJ. 4. To analyze the challenges faced by teachers in implementing the free curriculum at SMK Negeri 1 Rancaekek, particularly in Class XI TKJ."

RESEARCH METHODS

This research employs a qualitative approach with a descriptive research design. Qualitative approach aims to provide detailed descriptions of findings related to observed phenomena (Creswell, 2016). Descriptive research is an exploration and understanding of meanings derived from various individuals or groups related to social issues (Guba & Lincoln, 2005).

Time and Place of Research Data collection was conducted in November 2022 at SMK Negeri 1 Rancaekek. Research Subjects The subjects of this study are teachers involved in the implementation of the free curriculum at SMK Negeri 1 Rancaekek.

Research Instrument. The primary instrument in this research is the researcher supported by field notes. Data Collection Technique. Data collection is carried out through unstructured interviews with the research subjects. Data Analysis Technique The collected data are described descriptively. All data are systematically collected, studied, and described."

RESULTS AND DISCUSSION

Planning for the Independent Curriculum at SMK Negeri 1 Rancaekek, especially in Class XI TKJ

The planning of the independent curriculum is carried out by developing Learning Outcomes (LO) and Learning Task Analysis (LTA) according to students' needs. This is in line with the basic concept of curriculum management that emphasizes planning based on the needs of learners (Mahrus, 2021). There is collaboration between adaptive and productive subjects to support learning. This aligns with the theory of progressive curriculum that emphasizes collaboration in curriculum planning (Badrudin & Rayan, 2019). The main challenges faced are related to the lack of facilities and infrastructure. This is consistent with the challenges of resource limitations in the implementation of a new curriculum (Ida Bagus Nyoman Mantra, 2022).

The evaluation of learning involves assessment and exams. This corresponds to the evaluation concept in curriculum management (Badrudin, 2015). The evaluation results show that students are able to understand the material. Follow-up evaluations include self-reflection and a review of the material. This aligns with the concept of evaluation in the curriculum for continuous improvement. The suggested recommendation is to improve facilities and infrastructure. This is in line with the challenges of resource limitations in the new curriculum.

The planning of the Independent Curriculum, the development of LO and LTA based on students' needs reflects the constructivism approach, where each student is considered to have their own uniqueness. The curriculum is designed to support the construction of their knowledge. This is in line with the Independent Learning Curriculum that gives freedom to students to learn according to their interests and needs (Jannatul Wardiyah, 2023).

Collaboration between productive and adaptive teachers is an implementation of the constructivism concept. Interactions between teachers create an environment that supports the development of ideas and solutions found together. Teachers contribute to the formation of collective knowledge that impacts the improvement of curriculum organization. This aligns with the role of teachers as facilitators in constructivist learning (Ndaru Kukuh Masgumelar, 2021).

Implementation of the Independent Curriculum, assessments, and exams help measure students' understanding as a result of the construction of their own knowledge, in line with constructivism. This evaluation measures students' ability to apply knowledge, as authentic assessment in constructivist learning (Sartini, 2022).

Learning evaluations involving reflection and a review of the material by students support the constructivist process. Students are encouraged to reflect on their understanding and build new understanding through evaluation. This aligns with the concept of learning as an active process in constructivist theory (Ndaru Kukuh Masgumelar, 2021).

Follow-up in the form of improving character education shows that teachers consider character is also formed through the construction of values and positive attitudes from learning experiences. This is in line with constructivism that emphasizes learning through meaningful experiences (Ndaru Kukuh Masgumelar, 2021)."

The Implementation of the Independent Curriculum in Productive and Adaptive Learning at SMK Negeri 1 Rancaekek, especially in Class XI TKJ."

The implementation of the Independent Curriculum at SMK Negeri 1 Rancaekek has been ongoing for 2 years at the X and XI grade levels, involving all subjects, including productive and adaptive learning.

In productive learning for TKJ (Computer and Network Engineering), the methods utilized are practical work and projects to directly train students' skills in the context of the ICT (Information and Communication Technology) field. Adaptive learning leverages technology and algorithms to tailor the content and learning activities to the learning styles and abilities of each individual student.

The implementation of the Independent Curriculum at SMK Negeri 1 Rancaekek, particularly in the productive and adaptive learning of Class XI TKJ, has employed a constructivist approach. In this approach, students actively construct their own knowledge and skills through direct interaction with the learning environment.

The concept of the Independent Curriculum, which grants autonomy to schools in developing the curriculum based on the characteristics of the learners, aligns with the constructivist perspective that emphasizes knowledge construction by individuals through interaction with the environment (Ndaru Kukuh Masgumelar, 2021). Therefore, the application of the Independent Curriculum at SMK Negeri 1 Rancaekek, especially in Class XI TKJ, has implemented productive and adaptive learning based on the constructivist approach.

In productive TKJ learning, students engage in practical activities to build ICT systems and solve real-world problems in their surroundings (Sadikin, 2020). This aligns with constructivism, emphasizing active experience in knowledge construction. Students are also trained to develop creativity and innovation in addressing challenges, following the principles of constructivism.

Meanwhile, in adaptive learning, the content and learning activities are tailored to the learning styles and abilities of individual students using technology (Nurcahyo, 2021). This allows students to actively construct knowledge through interaction with a learning environment adapted to their individual characteristics (Relita Buaton, 2022).

Thus, the implementation of productive and adaptive learning based on the constructivist approach in the Independent Curriculum at SMK Negeri 1 Rancaekek can enhance students' engagement and motivation, equipping them with relevant skills to face challenges in the digital era.

The application of constructivism theory supports the Independent Curriculum in productive and adaptive learning at SMK Negeri 1 Rancaekek, particularly in Class XI TKJ.

The implementation of constructivism theory supports the Independent Curriculum in productive and adaptive learning at SMK Negeri 1 Rancaekek, particularly in Class XI TKJ, through: 1.) Teachers acting as facilitators, encouraging students to actively engage in building their own knowledge. This aligns with the principles of constructivism. 2.) Collaboration among teachers enriches students' learning experiences, allowing them to build knowledge from various perspectives in accordance with constructivism. 3.) Learning evaluations involving reflection and review of material by students support the constructivism process. 4.) Follow-up evaluations, such as character education improvement and infrastructure support, contribute to the formation of student knowledge in line with constructivism. 5.) Adaptive teachers utilize the achievement analysis approach, providing space for students to actively participate in building understanding in accordance with constructivism. 6.) Curriculum organization allows students the freedom to learn according to their individual learning styles, aligning with constructivism. 7.) The use of technology and active student learning supports the independent construction of student knowledge in line with constructivism. 8.) Evaluation methods such as project assignments support the construction of knowledge and its real-world application according to constructivism. 9.) Follow-up evaluations involving learning improvements create an adaptive and responsive learning environment for students in line with constructivism.

According to Ndaru Kukuh Masgumelar (2021), the independent curriculum aligns with constructivism theory, emphasizing the active role of students in building their own knowledge. Therefore, the implementation of the independent curriculum at SMK Negeri 1 Rancaekek, particularly in productive and adaptive learning in Class XI TKJ, has applied the constructivism approach.

In productive TKJ learning, using methods such as practicum and projects, students build understanding and ICT skills through direct interaction with ICT systems in solving real-world tasks (Sadikin, 2020). This aligns with constructivism, emphasizing the role of concrete experiences in shaping knowledge.

Meanwhile, in adaptive learning, the adjustment of content and learning activities to individual student learning styles is made possible by leveraging technology (Nurcahyo, 2021). This provides each student with the flexibility to actively construct their understanding through personal interaction with a relevant learning environment.

Thus, the independent curriculum at SMK Negeri 1 Rancaekek, especially in productive and adaptive learning in Class XI TKJ, has been successfully implemented by emphasizing the principles of constructivism, where knowledge is actively constructed by students themselves through meaningful interaction with the learning environment.

The challenges faced by teachers in implementing the independent curriculum at SMK Negeri 1 Rancaekek, especially in Class XI TKJ.

According to Ida Bagus Nyoman Mantra (2022), the main challenges faced by teachers in implementing the independent curriculum are understanding new concepts, developing instructional materials, and resource limitations. This is also experienced by teachers at SMK Negeri 1 Rancaekek in implementing the independent curriculum in Class XI TKJ.

Teachers are confronted with the challenge of understanding the concept of the independent curriculum, which gives students greater autonomy. They also need to develop suitable instructional materials amid limited references on the independent curriculum. Other challenges include insufficient and inadequate facilities and infrastructure, lack of skills in utilizing technology, and changes in mindset and traditional teaching approaches.

To overcome these challenges, teachers at SMK Negeri 1 Rancaekek strive to enhance their understanding through collaboration and discussions with colleagues. They also participate in training to sharpen their competencies in facilitating independent learning. Teachers utilize achievement analysis to ensure the relevance of materials and implement authentic assessments to measure students' understanding comprehensively.

Support from school management and collaboration among teachers is crucial for the effective implementation of the independent curriculum. Regular evaluation and adjustments to the curriculum are also important to ensure the quality of learning is consistently maintained and improved.

CONCLUSION

The curriculum planning for the Independent Curriculum at SMK Negeri 1 Rancaekek has adopted a constructivism-based approach, where learning outcomes are designed based on the students' needs, enabling them to construct knowledge independently.

The implementation of the Independent Curriculum, especially in the productive and adaptive learning of Class XI TKJ, has successfully created an interactive learning environment, empowering students to build understanding through direct experiences.

The effective application of constructivism theory supports the implementation of the Independent Curriculum at SMK Negeri 1 Rancaekek, evident in the role of teachers as facilitators, evaluation methods involving reflection, and the continuous improvement of teaching quality.

The primary challenge in implementing the Independent Curriculum is the limitation of facilities and infrastructure, which is addressed through optimizing the utilization of existing resources with the support of collaborative efforts among teachers. Overall, the application of constructivism theory in the Independent Curriculum at SMK Negeri 1 Rancaekek has successfully created adaptive learning centered on students to construct knowledge according to their individual characteristics.

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