



BLOCK SYSTEM CURRICULUM MANAGEMENT AND IMPLEMENTATION OF PROJECT-BASED LEARNING TO IMPROVE THE SKILLS COMPETENCY OF STUDENTS AT SMK NEGERI 1 SANGATTA UTARA

Paridah¹, A Azainil², M Bahzar³, Nurlaili Nurlaili⁴, K Khairuddin⁵, U Haryaka⁶

^{1,2,3,4,5,6}Faculty of Teacher Training and Education, Mulawarman State University, Indonesia

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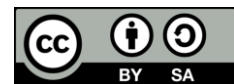
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ABSTRACT

Improvement competence skill student School Intermediate Vocational (SMK) becomes demands it is important that graduates capable fulfil the needs of the business world and the industrial world. However, there are still there is gap between competence vocational school graduates and needs industry so that required innovation in management curriculum. Research This aim analyze management curriculum system blocks and implementation Project Based Learning (PjBL) in increase competence skill students at State Vocational School 1 North Sangatta. Research use approach qualitative with design studies case. Data collection was carried out through interviews, observations, and documentation with informant head school, deputy principal school field curriculum, head of expertise program, and teachers. Data analysis was carried out through data reduction, data presentation, and data extraction conclusion with validity test through triangulation. Research results show that management curriculum system integrated block with PjBL implemented through function planning, organizing, implementing and monitoring as well as supported by teacher competence, facilities infrastructure and partnerships industry. Conclusion study shows that implementation system blocks and PjBL capable increase competence skill as well as readiness Work student.

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Corresponding Author:

Paridah
Faculty of Teacher Training and Education
Mulawarman State University
paridahpaaridah@gmail.com

1. INTRODUCTION

Improvement competence skill student School Intermediate Vocational (SMK) is matter important in education vocational education for graduates own appropriate abilities with the needs of the business world and the industrial world (DUDI). The government has set various policy for strengthen education vocational, such as Regulation of the Minister of Education and Culture Number 34 of 2018, Instruction President Number 9 of 2016, and Regulations President Number 68 of 2022 which emphasizes importance suitability vocational school curriculum with need industry. Policy the confirm that vocational school graduates must own competence relevant attitudes, knowledge and skills with the world of work.

However, in reality Still there is gap between competence vocational school graduates with need industry. Data from the Central Statistics Agency show that level unemployment open vocational school graduates still be the highest compared to level education other. Conditions This show that development relevant curriculum and learning strategies with need industry Still need reinforced.

One of approaches that can done is through implementation curriculum system blocks and learning based Project Based Learning System block allows learning implemented in a way more focused with grouping eye lesson based on competence certain in more time intensive. Meanwhile that is, Project Based Learning emphasize student - centered learning through activity related projects with problem real so that can develop skills think critical, collaboration, and creativity.

State Vocational School 1 North Sangatta is one of the schools that implement system block for support learning based project. Implementation system This allows student own more time adequate in finish project practice so that learning become more contextual and approaching practices in the industrial world. In addition, that, the school also establishes partnership with industry as well as utilise available facilities and infrastructure for support activity learning based project.

Although a number of studies previously show that system block and Project Based Learning can increase results learning and participation students, studies about management curriculum that integrates second approach the in-increase competence skill student Still limited. Therefore that, research This aim For analyze management curriculum system blocks and implementation Project Based Learning in increase competence skill students at State Vocational School 1 North Sangatta through aspect planning, organizing, implementing, and supervising.

2. RESEARCH METHODS

Study This use approach qualitative with design descriptive for understand in a way deep management curriculum system block in implementation of Project Based Learning (PjBL) and his contribution to improvement competence skill students at State Vocational School 1 North Sangatta. Research held at State Vocational School 1 North Sangatta from November 2025 to January 2026.

Research data sources consist of from primary data and secondary data. Primary data is obtained through interview with informant primary data, while secondary data obtained from document school like curriculum system block, schedule learning, devices learning based projects, as well as report evaluation learning. Informant study chosen use purposive sampling technique, namely election informants who are considered own knowledge and experience related topic research. Informant study consists of from head school, deputy principal school field curriculum, head of expertise program, productive teachers, and students.

Data collection was carried out through triangulation technique, namely observation, interview in-depth, and documentation. Observation used for observe in a way direct implementation system blocks and implementation PjBL in the learning process. Interview done semi - structured for dig information related planning, organizing, implementing and monitoring system block. Documentation used for obtain supporting data in the form of document curriculum, devices learning, as well as report activity learning.

Instrument main in study This is researchers as a human instrument, supported by instruments complement in the form of guidelines interview, sheet observation, and documentation checklist. Data analysis was carried out in a way interactive using the Miles, Huberman, and Saldaña model, which includes data reduction, data presentation, and withdrawal conclusion. For ensure data validity, research This use triangulation sources and techniques and member check to informant study.

3. RESULT AND ANALYSIS

The research results show that the integrated block system curriculum management with the implementation of Project-Based Learning (PjBL) at SMK Negeri 1 Sangatta Utara is implemented through four management functions: planning, organizing, implementing, and monitoring, with reference to the 7Ms: people, money, materials, machines, markets, and time.

The block system curriculum planning and project-based learning implementation phase is conducted collaboratively, involving all school elements and the Industrial and Business (DUDI) in a systematic and directed manner, as needed. The human element is supported by competency development through technical guidance and teacher internships. The financial element is funded through BOS (School Operational Assistance) and BOSPROF (Professional Operational Assistance) funds. The materials element is supported by the preparation of practical materials and industry-based teaching modules by aligning the curriculum with DUDI (Indonesian Industrial and Business). The equipment element is planned based on the needs of each expertise program, coordinated by the head of the expertise program. The learning method planning element utilizes project-based learning integrated with the block system curriculum. The market element is implemented through collaboration with the Industrial and Industrial Industries (DUDI). The time element is implemented through a block system curriculum schedule and a project implementation schedule contained in the project-based learning tools.

The organizational stage in the human element is implemented through a clear division of tasks and responsibilities between the principal, the vice-curriculum head, the head of the expertise program, and the productive teachers. In the financial element, the head of the expertise program submits a budget according to the needs of the expertise program and is also responsible for managing finances and funds sourced from the school through BOS and BOSPROF funds. In the DUDI-based learning element, learning materials are grouped into learning tools, and practical materials are organized by type according to the project. In the equipment element, the equipment is organized according to the type of equipment needed to complete the project according to the schedule, with the head of the expertise program and the team responsible. In the method element of project-based learning, teachers design learning activities that enable students to work on projects collaboratively within a specific timeframe, integrated with the block system curriculum schedule. In the market element, this is implemented by assigning students projects relevant to industry projects so that the project results meet DUDI standards. The time element is integrated with the block system curriculum schedule and the project implementation schedule contained in the DUDI-based learning tools.

The supervision stage is carried out based on the human element through learning supervision activities, monitoring project implementation, and evaluating student learning outcomes. Meanwhile, the evaluation stage not only assesses project results, but also student work processes, teamwork, creativity, and responsibility. This evaluation process is used as a basis for improving the implementation of the block system curriculum and project-based learning. In the financial element, supervision is carried out through budget usage reports, evaluation of practical learning activities, and audits of financial administration related to the procurement of materials and maintenance of practical equipment. In the material element, supervision is carried out by checking its quality. In the equipment element, supervision is carried out before and after the practice to ensure that all facilities and infrastructure used in learning are in good condition and can be used optimally. The head of the expertise program and the team monitor the use of laboratories and other practical equipment. In the method element, supervision is carried out to determine whether the implementation of project-based learning integrated with the block system curriculum in learning is running effectively. The head of the expertise program coordinates learning outcomes during learning evaluation meetings and sometimes also via WhatsApp. Supervision is carried out from project planning, project implementation, to presentation of project results to ensure whether this method can improve student competency. In the market element, supervision is conducted to determine whether student project results align with industry standards. Teachers in the expertise program conduct quality control on student work. Most have produced projects that meet DUDI standards. In the time element, supervision is conducted to ensure that the block system is running according to the predetermined schedule. Furthermore, supervision is also conducted on the project work process to ensure students are completing projects within the schedule. Teachers supervise the project process from planning to completion. Some students still have not completed their projects within the timeframe set in the planning process.

Supporting factors in the implementation of the block system curriculum and project-based learning include teacher competence, availability of practical facilities and infrastructure, the implementation of project-based learning, block system curriculum management, and partnerships with industry, which can improve student competency. Meanwhile, inhibiting factors identified include limited funding, limited practical tools in some expertise programs, and time management that still needs to be adjusted to the needs of learning projects.

Research findings indicate that implementing a block system curriculum integrated with Project-Based Learning can create more focused and contextual learning. The block system provides longer learning periods, allowing students to delve deeper into the material and complete projects more optimally. From a management perspective, the success of the block system implementation is influenced by the systematic application of management functions, including planning, organizing, implementing, and monitoring. Collaborative planning enables the development of learning programs aligned with industry needs. Clear resource organization also supports the smooth implementation of project-based learning.

Project-based learning provides a more authentic learning experience for students because they are directly involved in the design, implementation, and completion of projects. Through these activities, students develop not only technical competencies but also critical thinking skills, creativity, collaboration, and responsibility. Furthermore, supporting infrastructure and partnerships with industry are crucial factors in the successful implementation of project-based learning. These partnerships enable learning to be more relevant to the needs of the workplace, thereby enhancing students' job readiness. Thus, the integration of block system curriculum management and Project-Based Learning can be an effective learning strategy for improving students' skills competencies in vocational education.

4. CONCLUSION

The research results show that the block system curriculum management integrated with Project-Based Learning (PjBL) at SMK Negeri 1 Sangatta Utara is implemented through management functions that include planning, organizing, implementing, and supervising. Planning is carried out through the development of a block system schedule, the development of project-based learning tools aligned with industry needs, and the

strengthening of teacher resources and practical facilities. Organization is carried out through a clear division of roles between the principal, vice principal for curriculum, head of expertise program, and productive teachers. During the implementation stage, the block system provides more intensive learning time, thus supporting optimal PjBL implementation. Supervision is carried out through monitoring activities, supervising learning, and evaluating student project outcomes.

The research findings indicate that the implementation of the block system combined with project-based learning can improve student competency, particularly in practical skills, critical thinking, collaboration, and work readiness. Therefore, the integration of the block system and the implementation of project-based learning can be an effective strategy for improving the quality of learning in vocational education.

Based on the research findings, vocational schools are advised to optimize the management of the block system curriculum by strengthening collaboration with the business world and industry in designing project-based learning. Teachers also need to continuously improve their competencies in designing and managing project-based learning to make the learning process more contextual and relevant to industry needs. Furthermore, further research could examine the effectiveness of block systems and PjBL quantitatively or in different school contexts to strengthen the generalizability of findings and develop learning models in vocational education.

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