

Implementation of the Independent Curriculum Using the CIPPO Model at Vocational High Schools in Makassar

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ABSTRACT

This study is evaluation research using the CIPPO model, which aims to evaluate the implementation of the Merdeka Curriculum in vocational high schools (SMK) in Makassar, considering four aspects: context, input, process, product, and outcome. The subjects of this study consist of school supervisors, principals, vice principals in charge of curriculum, teachers, and students selected using purposive sampling techniques. Data collection techniques include interviews, questionnaires, and documentation. The data was obtained by distributing questionnaires online through Google Forms. The data analysis technique used is descriptive analysis. The study results indicate that: (1) Context evaluation covering two indicators achieved a percentage of 97 percent, with a criterion of excellent. (2) Input evaluation covering four indicators achieved a percentage of 89 percent, with a criterion of excellent. (3) Process evaluation covering three indicators achieved a percentage of 93 percent, with a criterion of excellent. (4) Product evaluation covering three indicators achieved a percentage of 97 percent, with a criterion of excellent. (5) Outcome evaluation covering three indicators achieved a percentage of 92 percent, with a criterion of excellent. Based on the results of the study, it can be concluded that the evaluation of the implementation of the Merdeka Curriculum in vocational high schools in Makassar is considered excellent.

I. INTRODUCTION

Curriculum changes in education are an adaptive response to the needs of the times and societal demands. The curriculum serves as a primary guideline for achieving national education goals, aiming to enhance the quality of human resources (HR). In the context of globalization and the Industrial Revolution 4.0 era, education is expected not only to produce individuals with knowledge but also skills relevant to industrial needs and strong character values [1]. The integration of STEM in the Merdeka Curriculum mirrors global trends in advancing education through science and technology [2].

One significant innovation in Indonesian education is the implementation of the Merdeka Curriculum, introduced as a reform measure from previous curricula. This curriculum aims to provide flexibility for educational institutions in designing learning activities tailored to students' potential and needs, while emphasizing character development through the Pancasila Student Profile [3]. Additionally, project-based learning approaches and the integration of technology are key features of the Merdeka

Curriculum, designed to enhance student engagement in learning and foster independent learning skills [4].

However, the implementation of the Merdeka Curriculum faces complex challenges, especially at the Vocational High School (SMK) level. These challenges include infrastructure readiness, teacher competencies, stakeholder involvement, and strengthening the synergy between education and the workforce [5]. The emphasis on teacher autonomy and competency in the Merdeka Curriculum reflects the approach Finnish educational model [6]. As vocational education institutions, SMKs play a strategic role in producing graduates capable of competing in the job market. Therefore, evaluating the implementation of the Merdeka Curriculum is crucial to assess the extent to which this policy can meet the needs and expectations of society [7].

This study employs the CIPPO (Context, Input, Process, Product, Outcome) evaluation model, which offers a holistic evaluation framework. By assessing dimensions such as program context, inputs, implementation processes, outcomes, and long-term impacts, this model enables a comprehensive analysis of the

effectiveness of the Merdeka Curriculum implementation [8]. Through this approach, the study aims to provide strategic recommendations to enhance the quality of the Merdeka Curriculum implementation in SMKs in Makassar, particularly in supporting the sustainability of 21st-century learning

II. METHODS

This program evaluation study uses the CIPPO (Context, Input, Process, Product, Outcome) model developed by Stufflebeam with a "quantitative" approach. "Quantitative" is a mixed-method approach combining quantitative and qualitative research [8]. The quantitative approach is used to test the research findings from different perspectives. This combined approach is applied when the researcher has questions that need to be examined from both outcomes and processes, combining quantitative and qualitative methods within a single study [9]. The research design involves collecting quantitative and qualitative data simultaneously, analyzing both datasets separately, and then comparing the results to determine whether they support each other. Quantitative data is gathered using questionnaires, while qualitative data is collected through direct interviews and documentation.

This study utilizes an evaluation research design to collect data and provide accurate and objective information regarding evaluating the "Merdeka Curriculum" implementation at SMK Laniang Makassar. The research design is based on the CIPP (Context, Input, Process, Product) evaluation model developed by Daniel Stufflebeam in 1967 at Ohio State University, which focuses on four interrelated components. These four evaluation components are described as follows:

A. Context evaluation.

Assesses all factors that precede or are antecedent to a program and have implications for the program's success or failure. In this context evaluation study, the elements evaluated include the Educational Unit Operational Curriculum (EUOC) and Learning Outcomes (LO).

B. Input evaluation

Considers all factors that support the implementation of a program. In this study, input evaluation includes the involvement of stakeholders such as teachers, students, parents, and the community in curriculum planning, facilities, teacher competencies, and student responses to learning within the Merdeka Curriculum.

C. Process evaluation

Seeks to assess the implementation of a program plan and interpret its benefits. In this study, process evaluation includes teaching strategies and methods, the use of information technology, assessment, and reflection.

D. Product evaluation

Focuses on the outcomes or achievements of a program, aiming to assist decision-making about the results achieved and what to do after the program's execution. In this study, product evaluation includes assessing the attainment of learning objectives, fulfilment of learning needs, and character development aligned with the Pancasila student profile.

E. Outcome evaluation

It is the final impact of a program, project, or intervention, reflecting changes after the program. Outcome in the context of evaluation can measure the extent to which the program's long-term objectives and goals have been achieved, and claims can be made about how the program has influenced participants or the community over a certain period. Outcomes tend to encompass broad and sustainable impacts, such as changes in behaviour, skills, or social and economic benefits. In the CIPPO model, outcome refers to the long-term effects, sustainability, and lasting benefits assessed by participants or the community post-program.

Based on the research findings on implementing the Merdeka Curriculum at SMK Makassar, using the CIPPO model, which adds the Outcome dimension, provides a more comprehensive view of the program's long-term impact and sustainability.

III. RESULTS

The type of research used in this study is evaluation research employing the CIPPO (Context, Input, Process, Product, and Outcome) evaluation model to assess the implementation of the Merdeka Curriculum at vocational high schools in Makassar, specifically SMK Negeri 2 Makassar and SMK Laniang Makassar. The CIPPO evaluation model focuses on five interrelated aspects. Based on the evaluation conducted using these five model components, the following results were obtained:

A. Context Evaluation

According to Arikunto [10], context evaluation supports planning decisions, helps decision-making, identifies the program's goals, and defines the program objectives [8]. Context refers to the environment in which the program is implemented. It includes factors such as program objectives, related policies, and the social, economic, and political conditions in which the program operates. Context evaluation aims to understand these factors and how they impact program implementation. It also identifies and assesses the underlying needs that the program seeks to address. Context evaluation can determine the entire program, identify strengths and weaknesses, diagnose issues, and seek solutions. Additionally, it evaluates whether the established goals and priorities meet the needs of the program's target groups.

This study's context evaluation includes the Educational Unit Operational Curriculum (EUOC) and Learning Outcomes (LO). The results of the context evaluation aspect are illustrated in Figure 1.

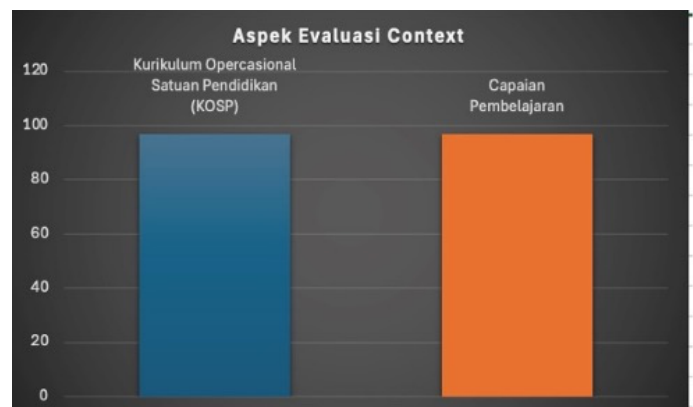


Fig. 1. Percentage Results of Context Evaluation Aspects

Figure 1 shows that the context evaluation aspect includes indicators of the Educational Unit Operational Curriculum (EUOC) rated as "very good" with a percentage of 97%. The indicator for Learning Outcomes also received a 97% rating, categorized as "very good." These results indicate that the context evaluation aspect of the Merdeka Curriculum implementation at vocational schools in Makassar achieved a 97% rating of "very good." This finding is reinforced by interviews with school supervisors, the principal, and teachers who stated that:

According to the principal, the context evaluation of the Merdeka Curriculum implementation aligns with the Educational Unit Operational Curriculum (EUOC). The EUOC serves as a guideline for schools in implementing the curriculum, including the Merdeka Curriculum. Therefore, the EUOC is a crucial part of the school for organizing all programs based on the school's characteristics, vision, mission, objectives, organization, planning, and evaluation of learning. One significant feature of the Merdeka Curriculum is its emphasis on project-based learning, which encourages students to engage in real-world problem-solving and collaborative activities. Deep learning through such approaches not only enhances academic understanding but also fosters essential 21st-century skills, such as critical thinking and teamwork [11]

According to the school supervisor, the curriculum is the essence of the school. The EUOC is essential as a reference and guide for the operational implementation process at the school. If the school does not have an EUOC, it will be ineffective. The EUOC must be developed based on the National Curriculum tailored to the school's needs. The development and implementation of the EUOC indeed involve school members to enhance motivation and commitment to the learning process. The learning outcomes taught have been established by the teachers, who only formulate objectives and create a pathway for the objectives, leading to teaching modules as learning guides in the classroom.

According to the vocational teacher acting as a facilitator, the EUOC is a dynamic operational document that is continuously updated. The EUOC serves as a reference for daily procedures at the school. The school's vision, mission, and objectives are essential components that significantly influence the development of the EUOC. Teachers play a role in preparing learning plans outlined in the program.

Learning planning includes identifying the achievements / competencies that students must attain. The learning outcomes focus on individual progress to observe students' development directly according to the competencies set out in the EUOC. We compile the learning outcomes into teaching modules, and to evaluate these outcomes, we use learning results, student work, and classroom observations.

Based on the interviews, it can be concluded that the implementation of the Merdeka Curriculum is evaluated by the Educational Unit Operational Curriculum (EUOC). The EUOC serves as a guideline for schools in implementing learning that is aligned with the applied curriculum. The development and implementation of the EUOC involve school members, which includes learning outcomes in the form of competencies that students must achieve.

B. Input Evaluation

Input Evaluation aims to assist decision-making in determining strategies to achieve objectives [4]. Input refers to the resources used to implement the program, such as budgets, personnel, and facilities. The purpose of input evaluation is to assess whether these resources are sufficient to achieve the program's objectives and whether the resources are used effectively. Input evaluation also identifies problems and opportunities to aid decision-making and determine goal achievement strategies. This research examines input evaluation for decision-making based on indicators of infrastructure, related parties, teacher competencies, and student responses to learning in the Merdeka Curriculum. The results of the input evaluation aspect are illustrated in Figure 2. Figure 2 shows the input evaluation aspect, with the infrastructure indicator achieving a percentage of 82% (excellent criteria), involved parties at 87% (excellent criteria), teacher competencies at 97% (excellent criteria), and student responses to learning at 90% (excellent criteria). Based on these results, it can be concluded that the input evaluation aspect of the Merdeka Curriculum implementation in SMK Makassar is functioning very well, with a percentage of 89%.



Fig. 2. Percentage Results of Input Evaluation Aspects

This result is reinforced by interviews with school supervisors, the principal, and teachers who stated that. According to the school supervisor, the availability of infrastructure is quite good and meets established standards, allowing for optimal use by students and teachers. Infrastructure cannot be separated from the learning process; it is essential and must be adapted to existing conditions. Infrastructure serves only as a supporting factor in the learning process. Therefore, teachers are encouraged to continue innovating and creating. The school can form a learning community through the PMM application as a platform for teachers to share experiences or best practices in teaching.

According to the principal, regarding input, the infrastructure supports the school's readiness to implement the Merdeka Curriculum, although there are still limitations in usage. Implementing the curriculum involves all school members, so everyone is obligated to understand the curriculum used in the school. The school continually supports training/workshop activities for teachers to enhance their competencies. Teachers perform their duties effectively in planning lessons, mastering subject matter, managing classrooms, utilizing technology, communicating and interacting, and conducting evaluations. They are willing to continue learning and developing themselves through training, workshops, and seminars.

According to the vocational teacher, the infrastructure meets operational standards; however, as vocational teachers, we must be creative and innovative in teaching, especially with practical materials, because the available equipment is limited, which requires more time to complete a single topic. Sometimes, the available equipment does not match the learning outcomes to be taught, which certainly presents a challenge for us.

Based on the interview results, it can be concluded that the school is well-prepared to implement the Merdeka Curriculum in terms of input, consisting of four perfect indicators. By conducting interviews, the researcher obtained accurate information from each input evaluation indicator.

C. Process Evaluation

Process refers to how a program is implemented, including the strategies used, activities performed, and interactions between personnel and program participants. Process evaluation aims to assess whether the strategies and activities implemented effectively achieve program goals and whether the interactions between personnel and program participants are positive. Process evaluation identifies the implementation of a program plan and interprets its benefits. In this study, process evaluation includes learning strategies and methods, the use of information technology, assessment evaluation, and reflection. The research results on the process aspect are illustrated in Figure 3.

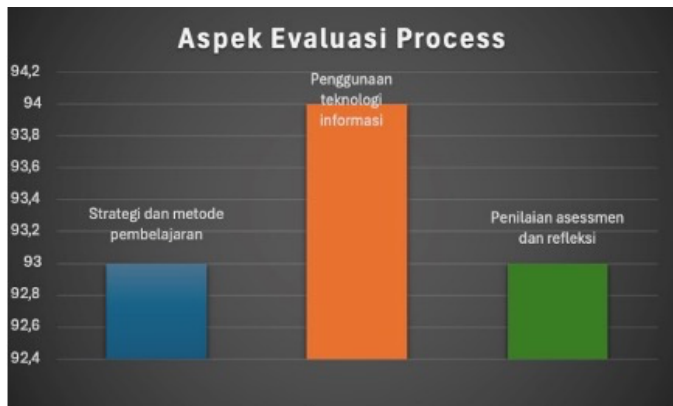


Fig. 3. Results of the Percentage of Process Evaluation Aspects

Figure 4 shows that the aspects of process evaluation, including the indicators of learning strategies and methods, achieved a percentage of 93% with an excellent criterion, the use of information technology reached a percentage of 94% with an excellent criterion, and assessment and reflection obtained a rate of 93% with an excellent criterion. Based on these results, it can be concluded that implementing the Merdeka Curriculum in vocational schools in Makassar has excellent ratings in the process evaluation aspect, resulting in a percentage of 93%. This result is supported by interviews with the school principal and teachers, who stated that:

The school principal said that when planning lessons with the Merdeka Curriculum, we must consider the learning outcomes, learning objectives, the flow of learning objectives, create teaching modules, carry out the learning process, and then conduct evaluations or assessments. In the assessment process, we observe

how the learning takes place and evaluate the reflective results provided at the end of the lesson.

According to the vocational teacher, the results of the lesson planning process involve looking at the learning outcomes and objectives. These steps are then adjusted to ensure the implementation aligns with the plan. The lesson planning strategies can also be adapted to the way students learn. The current Merdeka Curriculum allows diagnostic assessments to identify deficiencies or capabilities in the learning process. The assessment results are used to determine teaching strategies that can be applied. As teachers, we act as facilitators in the learning process, conveying the learning objectives and providing students with worksheets because the learning is student-centred. We utilize information technology in learning media to make learning easier for students. Afterwards, we evaluate the student's learning outcomes based on the reflection results we provide to the students at the end of the lesson.

Based on the interview results, it can be concluded that the process evaluation, which consists of learning strategies and methods, the use of information technology, and assessment and reflection, aligns with the implementation guidelines of the Merdeka Curriculum applied at the school. The interviews were conducted to obtain more accurate results.

D. Product Evaluation

Product refers to the results achieved by a program. Product evaluation aims to assess whether the program has met its established objectives and whether the outcomes achieved align with expectations. Product evaluation assists in making decisions regarding the results that have been attained and what actions should be taken after the program has been implemented. The results can determine whether the program should be continued, modified, or even terminated. Product evaluation in this study includes indicators of the achievement of learning objectives, the fulfilment of learning needs, and the cultivation of the Pancasila student profile character. The research results on the product aspect are illustrated in Figure 4.

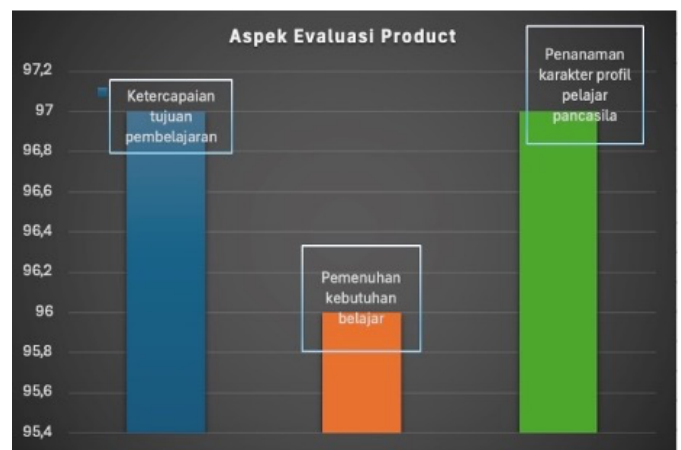


Fig. 4. Percentage Results of Product Evaluation Aspects

Figure 5 shows that the product evaluation aspect includes indicators of learning goal achievement with a percentage of 97% rated as very good, meeting learning needs with a percentage of

96% rated as very good, and instilling the character of the Pancasila student profile with a percentage of 97% rated as very good. Based on these results, it can be concluded that the product aspect of implementing the Merdeka Curriculum in SMK Makassar achieved a percentage of 97%, which is categorized as very good. Interviews with the principal and teachers support this result.

According to the vocational teacher, the learning objectives are formulated based on the established learning achievements, and then the criteria for achieving these learning objectives are set. The achievement of the learning objectives can be seen by comparing the students' learning outcomes with the established criteria. The students' learning outcomes have been achieved according to the learning objectives set by the teacher, based on the learning achievements and meeting the KKTP (Kriteria Ketuntasan Minimal) because the students participate well in the learning process. Learning is conducted in a differentiated manner, ensuring that the learning needs of students are met. Each day before the learning starts, students engage in morning prayers and literacy activities on Fridays as a form of character education.

Meanwhile, according to the principal, the students have achieved good results in learning and are in line with the established criteria. Learning needs are adjusted to the student's learning styles while still considering the development of the Pancasila student profile character in every learning activity. Based on the interview results, it can be concluded that the student's learning outcomes are excellent according to the established criteria, supported by the fulfilment of the student's learning styles, which also fosters the character of the Pancasila student profile through habitual activities and literacy.

E. Outcome Evaluation

Outcome refers to the final results or impacts of a program, project, or intervention that reflect the changes occurring after the program. In terms of evaluation, outcomes can be measured regarding the extent to which the program's goals and long-term objectives have been achieved and claims about how the program affects participants or the community over a specific period. Outcomes tend to encompass broad and sustainable impacts, such as changes in behaviour, skills, or social and economic benefits. In the CIPPO model, outcomes are long-term impacts, sustainability, and benefits that remain assessed by participants or the community after the program.

Based on the evaluation of the implementation of the Merdeka Curriculum at SMK Makassar, the use of the CIPPO model, which adds the dimension of outcomes, provides a more complete picture of the long-term impacts and sustainability of the program.

From the results, 97% of respondents reported that the Merdeka Curriculum had achieved the established learning goals. Additionally, 94% of respondents indicated that students can learn independently, which means long-term success. From these results, it can be stated that the Merdeka Curriculum has an effective learning system for fostering independent and critical-thinking students. This aligns with the Pancasila student profile, where students are expected to adapt to challenges. This outcome indicates that the program provides long-term rather than short-term effects.

Regarding the program's sustainability, 85% of respondents stated that the teaching methods implemented in the Merdeka Curriculum, such as align learning, continue to be used after the program concludes. Furthermore, the use of technology in education remains an integral part of the educational process at the school. The program's sustainability shows that it succeeded in its implementation and managed to be integrated into everyday practices at the school. With high teacher and student engagement in using technology, the Merdeka Curriculum has successfully encouraged ongoing innovation. This sustainability is crucial to ensure that the positive changes resulting from the program can continue and provide long-term benefits, in line with the principles of 21st-century education that emphasize adaptability to technological changes.

On the indicator of impact on participants, 93% of respondents stated that the applied teaching strategies enhance students' critical and collaborative thinking skills. Students also showed increased motivation to learn with an approach that was more relevant to real life. This outcome indicates that the program effectively develops the skills needed in the modern era, including critical thinking, problem-solving, and teamwork. The increase in student motivation to learn also serves as an important indicator that the contextual and project-based approaches used in the Merdeka Curriculum make learning more meaningful and engaging for students. Thus, the program meets academic learning targets and prepares students to face real-world challenges.

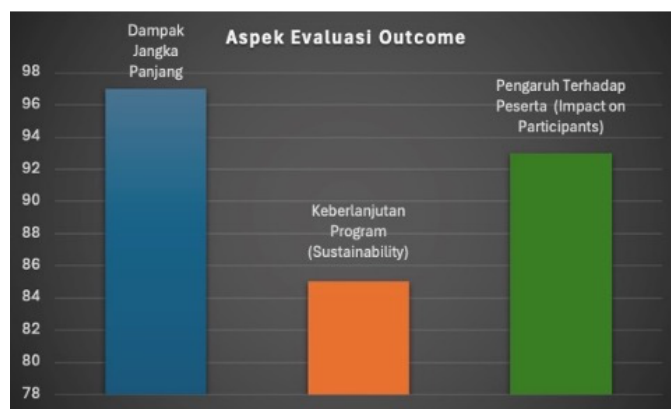


Fig. 5. Percentage results of the outcome evaluation aspects.

IV. CONCLUSION

The evaluation of the implementation of the Merdeka Curriculum at SMK Makassar using the CIPPO model shows excellent results in all aspects. The context evaluation scored 97% (very good), covering the operational curriculum of educational units (KOSP) and learning outcomes, which have been implemented comprehensively. The input evaluation scored 89% (very good), including infrastructure, stakeholder involvement, teacher competencies, and student responses, all supporting curriculum implementation. The process evaluation scored 93% (very good), focusing on teaching strategies, the use of information technology, assessments, and reflections that align with the guidelines. The product evaluation scored 97% (very good), indicating the achievement of learning objectives, fulfilment of learning needs, and reinforcement of the Pancasila Student Profile.

The outcome evaluation scored 92% (very good), highlighting the need for regular monitoring to measure student development.

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