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CIPP-Based Evaluation of Physical Education, Sports, and Health Learning Implementation in a Vocational Secondary School

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ABSTRACT

Physical Education, Sports, and Health (PJOK) in vocational high schools often occupies a complementary role despite its important contribution to students' physical, social, and psychological development. This study evaluates the implementation of PJOK learning at SMKN 6 Padang, Indonesia, using Stufflebeam's Context, Input, Process, and Product (CIPP) evaluation model. A descriptive design was employed with a population of 997 Grade X and XI students and PJOK teachers. A sample of 90 students was selected through stratified random sampling using the Slovin formula ($d = 0.1$). Data were collected through validated Likert-scale questionnaires (teacher reliability = 0.940; student reliability = 0.790) and semi-structured interviews with three PJOK teachers, then analyzed using descriptive percentage analysis. The findings indicate that 78.9% of students rated PJOK implementation as "good," 15.6% as "very good," and 5.6% as "enough," with no negative ratings. Teacher interviews confirmed that learning planning was aligned with the Merdeka Curriculum, teaching methods incorporated varied physical activities, and assessment covered cognitive, affective, and psychomotor domains. However, implementation was constrained by limited sports facilities, scheduling issues, weather conditions, and large class sizes. This study provides empirical evidence on PJOK implementation in vocational high schools and extends the CIPP evaluation literature by triangulating quantitative student perceptions with qualitative teacher perspectives under the new national curriculum. The findings also offer implications for teaching practice, school policy, and future evaluative research.



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Introduction

Is also in line with various physical education studies: innovative pedagogical approach such as flipped learning has been found to integrate cognitive, affective, and psychomotor domains simultaneously thus supporting the whole development of students (Østerlie et al., 2023), while learning through activities that are contextually based are linked to the improvement in all three domains (Bakar et al., 2025).

Despite this normative consensus, the implementation of physical education policy into everyday learning practice is still uneven, and this is most felt at the vocational high school level. Vocational High Schools (SMK) are explicitly designed to be oriented towards occupational competencies, and this focus tends to place physical education (PJOK) as secondary, or even often only administrative in the learning schedule (Taufiq et al., 2025; Yaakop et al., 2025). In fact, the physical and psychological demands of various vocational skill areas, beauty

cosmetology, cooking, fashion, hospitality, etc., could make a good physical education (PJOK) more relevant instead of less, since fitness and mental toughness developed through structured physical activities are among the human capital that students will carry into physically demanding jobs in the future. The tension between curricular marginalization and occupational relevance is the practical problem underlying this research.

The vocational dimension of this issue deserves more attention than is usually given in the PJOK literature. Vocational education and training (TVET) systems in various countries are typically evaluated mainly based on competency-based outcome indicators and labor market, a framework that structurally places subjects like PJOK, which are not directly mapped to specific occupational competency standards, at a lower priority. This gap is not merely a local suspicion: a recent international systematic review of eleven studies from Europe, South America, Asia, and North Africa/Middle East concluded that PJOK in vocational education institutions is consistently challenged by five categories of constraints, physical inactivity and health problems, intervention and implementation barriers, structural-institutional limitations, ideological-cultural influences, and teacher capacity limitations, and that research on PJOK at the vocational level is still far less than that at the general education level (Yaakop et al., 2025). These findings confirm that SMKN 6 Padang is not a unique case but rather an example of a global pattern of PJOK marginalization in vocational education. On the other hand, the existing vocational fields at SMKN 6 Padang, culinary, hotel, beauty, fashion production, require standing for a long time, repeated fine and gross motor skills, and tolerance to physically demanding rotating work, all of which are reasonably benefited by fitness, coordination, and body awareness developed through structured PJOK. The mismatch between the way the vocational curriculum is evaluated (competency achievements) and the physical needs of SMK students (fitness and movement competencies that can be transferred to occupational performance) are rarely explicitly discussed, both in the PJOK evaluation literature and vocational education policy, and this has become part of the contextual reasons why SMKN 6 Padang is seen as a location of substantial evaluation not just administrative.

From an empirical viewpoint, structural barriers repeatedly surfaced in international literature about the Physical Education, Sports and Health (PJOK) implementation in schools. Lack of facilities and equipment was reported as the major barrier to quality physical activity programs in both high and low resource environments (Nagrale & Jiandani, 2024), and specifically in the Indonesian context, it was found that insufficient sports facilities demotivated and disengaged students and consequently hampered the achievement of learning objectives (Pasek Wiguna et al., 2021). Scheduling was the second main recurring challenge: Physical Education classes that are scheduled at less than ideal times during the day, for instance, right after a full day of academic or vocational learning, have been linked to diminished student readiness and engagement (Soares et al., 2021). Class size ranked as the third barrier very relevant to the context of vocational high schools, which often have large student cohorts; excessively large PE classes have been found to undermine teacher-student interaction, quality of supervision, and depth of teaching (Yan et al., 2024), a pattern which UNESCO (2024) notes is generally due to the reduced opportunity for dialogue caused by large groups for both teachers and students. Besides those logistical pressures, teachers themselves reported high work stress levels when institutional support for physical education was inconsistent, resulting in a detrimental effect on teaching quality (Martin, 2024).

SMKN 6 Padang, a large public vocational high school in West Sumatra, Indonesia, showed all of these problems at once. Initial observation identified a multipurpose field that was very narrow and did not have separate volleyball, basketball, or badminton courts; availability of balls, mats, and athletic equipment was not equal to the number of students; the schedule for physical education classes was put at noon (13.45), after a whole day of vocational learning, when the hot condition and fatigue were reported to reduce participation level; and the regular practice of combining several classes in one physical education session, which limited the ability of the teacher to teach, supervise, and assess effectively. These conditions collectively led to a question whether, and how well, the actual goals of physical education were achieved in this school, thus spurring the need for a systematic evaluation, not just anecdotal, of this educational program.

In answering the question, this study uses the Context, Input, Process, and Product (CIPP) evaluation model developed by Daniel Stufflebeam. The CIPP model is one of the program evaluation frameworks most widely used in the field of education because it evaluates programs comprehensively through four interrelated dimensions, appropriateness of goals and needs (context), adequacy of resources and strategies (input), exactness of implementation (process), and achievement of results (product), at the same time serving both formative and summative evaluation functions (Stufflebeam & Coryn, 2014). Its ability to be adapted according to context has made this model choice that is repeatedly used to evaluate curriculum reform in Indonesian schools, including the recent implementation of the Independent Curriculum in the context of PE learning (Wahidah et al., 2023).

A review of previous studies on CIPP-based physical education evaluation showed a consistent set of evidence, though specific to certain levels and areas. Raibowo and Nopiyanto (2020) who evaluated physical education in junior high schools throughout the Mukomuko district found that the overall quality of the program

was at the "poor" level with the context component rated as "poor" (44.5%), input "fair" (59%), process "fair" (58.15%), and product "not good" (45.1%). Alaswati (2016), who reviewed the implementation of the 2013 Curriculum for Physical Education in the junior high schools in Kendal district, found that generally the implementation of the activities went well, however, there was some weakness in assessment techniques and availability of facilities. Maduran et al. (2025) studying the implementation of the Freedom Curriculum for Physical Education at the school level in Jombang found that the difficulties lied in teacher readiness, facilities, and continuity of evaluation. Fadillah et al. (2025), who evaluated the physical education of special needs students at inclusion schools in Medan using the CIPP model, reported that the context component was in the "good" category (average score 3.24) but input only "fair" (2.78), while process (2.15) and product (2.02) were in the "poor" category. Anaktototy et al. (2022) found that physical education teachers at the senior high school level in Ambon showed less than 51% ability to prepare lesson plans, a finding that is relevant to both the input and process dimensions of the CIPP evaluation.

From the collection of these studies, three research gaps appeared. First, most of the previous evaluations of PJOK based on CIPP were centered on elementary and junior high school levels, or on the context of inclusive education; evaluative evidence of senior vocational high school (SMK), a level with different curricular orientations, student populations, and institutional pressures, was still very limited. Second, most previous studies only focused on curriculum implementation or teacher competency partial, instead of integrating context, input, process, and product into a single coherent evaluation, as designed by CIPP model. Third, the shift in national education policy through the implementation of Merdeka Curriculum has created policy discontinuities that make the picturing of evaluative studies of the previous era of Curriculum 2013) become less directly relevant to present practices; up-to-date evaluations are needed to find out how PJOK in reality is planned, implemented, and assessed under this new curriculum regime, together with the accompanying problems.

This study fills the three gaps by investigating Physical Education learning at SMKN 6 Padang through CIPP model, combining students' questionnaire with large sample and semi-structured interviews with teachers to capture phenomenological perspective of students and operational perspective of teachers. The novelty of this study is the positioning of CIPP evaluation in the specific institutional environment of vocational secondary education under the Merdeka Curriculum, as well as the triangulation of student-reported learning outcomes with teacher-reported planning, implementation, and assessment practices. The findings of this research are intended for three groups of stakeholders: PJOK teachers who need evidence-based directions for teaching improvement; the school and the education office who are responsible for investment of facilities and scheduling policy; and international literature of physical education evaluation, which, through this study, obtains a data point from the vocational education sector that has been underrepresented so far. Based on this, this study is intended to describe: (a) the aspect of context of PJOK learning at SMKN 6 Padang, including the alignment of learning objectives with national education policies and students' needs; (b) the aspect of input, including teacher qualification, students readiness, curriculum, and availability of facility and infrastructure; (c) the aspect of process, including planning, implementation, and assessment of learning; and (d) the aspect of product, including learning outcomes and achievement of learning objectives. With these objectives in mind, this research follows a descriptive quantitative-qualitative mixed methods approach that incorporates a stratification and random sampling strategy (90 students were interviewed out of a total population of 997 students, using Slovin's formula: $n = \frac{1}{e^2}$, where a minimum error margin of 10% was considered, that is $d=0.1$). The questionnaire was a Likert-type scale borrowed mainly from Sani (2023). Semi-structured interviews were also conducted with three Physical Educational and Sports (PJK) teachers. The author believes that with 90 students, the results would already be quite representative for a descriptive study involving only one educational institution. It must be emphasized, however, that the research was not designed to test hypotheses or to make statistical inferences beyond the surveyed population. It was a descriptive study. Limitations of the research methods including the sample size are described once again in the Research Limitations section.

Physical Education as an Imperative for Education and Development

In a conceptual way, physical education is broader than simply engaging in physical exercises: it is a learning process intentionally and systematically designed to train physical competence; impart knowledge; develop social attitudes; enhance physical fitness; and character (Suyedi, 2023). The Indonesian legal framework affirms this point, Law No. 20 of 2003 on National Education System regards physical education as a compulsory subject from elementary to secondary level, while the Ministry of National Education Regulation No. 22 of 2006 defines the objectives of PJ as development of moving skills, physical health, sportsmanship, life skills, healthy habits, and active lifestyle. This national directive is consistent with the position internationally taken: UNESCO (2024) reasons that access to quality physical education is a child's right related directly to the health, education, and social well-being pillars of the Sustainable Development Goals (SDGs), at the same time linking the decrease in provision of PE/Health Education with increase in sedentary behavior generally among youth worldwide.

WHO's Global Physical Activity Level Report (2022), estimates that about four out of every five adolescents worldwide are not meeting recommended physical activity levels, a statistic that clearly illustrates why PEAt school, which is often the only opportunity for structured physical activity for adolescents, should not be seen as the leftover subject of the curriculum.

Development arguments for PE teachers have crossed fitness results to the point of moral and social realms. Dudley (2025) proposed a pedagogical model in which a quality PE teacher shapes moral character through activities that instill sportsmanship, responsibility, and honesty in the framework of holistic education, while the systematic review by Jadwiszczak et al. (2025) concluded that physical education plays an important role in the moral and social development of adolescents, because sports-based activities promote empathy, discipline, and constructive competitive behavior. In line with this, Habyarimana et al. (2022) asserted that physical education and school sports cross-contribute to the cognitive, physical, affective, social, and moral domains, are directly related to the achievement of various Sustainable Development Goals, and at the same time, noted that this basic right to physical education has actually been neglected since the end of the 20th century. A study based on structural equation modelling by Sun et al. (2024) of 549 secondary school students in China further found that health education has a significant impact on students' psychological well-being, with sustained sport participation and physical activity serving as moderators that strengthen the relationship, providing additional empirical evidence that the benefits of PE to student well-being are real and measurable, not just normative claims. Overall, this literature positions PE not as a peripheral subject competing for limited timetable space, but instead as a separate developmental mechanism that is actually required, not dispensable, by a vocational curriculum oriented to occupational competencies, given the physical and psychological demands of many vocational skill areas.

This literature also reminds that the value of PE should not be taken for granted as realized merely because the subject is listed in the schedule. Bakar et al. (2025) point out that the design of learning through contextual activities is the factor that translates the theoretical promise of physical activity into measurable cognitive, affective, and psychomotor gains; PE learning conducted without adequate facilities, proper scheduling, or controlled class sizes cannot be assumed to produce development results. Systematic review by Caracuel-Cáliz et al. (2025) regarding active methodology based on physical activities for primary school students (2018-2024) further confirm that the benefits of the active approach towards the holistic development of students very much depend on the quality of the pedagogical design, not merely the existence of the physical activity itself. A scoping review by Kingston et al. (2023) of quality PE programs in international primary schools reinforces this conclusion by showing that the positive results of PE on students' attitudes, physical activity, mental well-being, and academic achievements consistently depend on the fidelity of program implementation, not just its presence in the curriculum. On the other hand, a literature review by Lambert et al. (2024) on the relationship between PE and academic achievement in other curriculum areas found mixed results, some studies reported positive effects, some found no effects, and still others were inconclusive, which supports the fact that the benefits of PE on achievements beyond its own domain greatly depend on the quality of implementation, not just the curricular time allocation. This qualification is very relevant for the SMK context, where, as will be explained in the next literature review section, these three supporting conditions are often not met. The theoretical argument for the importance of PE and the empirical note on the limitations of its implementation need to be read together rather than separately: a program can on one hand have a strong theoretical foundation but on the other hand lack resources in practice, and an evaluative framework such as the CIPP model is there precisely to reveal this duality, not to solve it rhetorically one way or the other.

Structural Obstacles in the Implementation of Physical Education

Despite the normative consensus, empirical notes on the implementation of PJOK in schools consistently point towards a series of recurring structural constraints, three of which are very relevant to the research context of this study. The first constraint is the limitation of facilities and equipment. Nagrale and Jiandani (2024), in a narrative review of barriers to school-based physical activity research, identified infrastructure deficits as a persistent and cross-country observed barrier to both implementation and study of PE. More specifically in the Indonesian context, Pasek Wiguna et al. (2021) revealed that inadequate sports facilities and equipment directly lowered student interest and participation, with subsequent impacts on learning achievement, a finding that can be directly tested through the contextual data and research products of this study on the population of vocational high schools.

The second obstacle has to do with scheduling. Soares et al. (2021) document that scheduling Physical Education during the less ideal part of the school day results in a mismatch that weakens the students' readiness to participate in physical activity; placing Physical Education after a whole day of academic classes when the students are tired and especially in the tropical climate- the temperature is going up, that is a perfect reflection of such mismatch. The third problem is the class size. Yan et al. (2024), who explored teachers' and students'

perceptions of the setting of Physical Education in Chinese primary schools, found that larger class grouping was associated with fewer teacher-student interactions and lower teaching quality; UNESCO (2024) see this as a structural issue rather than merely a problem of individual teacher skills since class sizes over approximately 35 students measurably limit dialogic and individual teaching which are required by effective Physical Education pedagogy. Martin (2024) offer teacher's perspective, indicate that inconsistent institutional support for Physical Education correlates with the increase of work stress among physical education teachers, with reasonable consequences on teaching quality but which cannot be captured solely through student questionnaires one of the reasons why this research also included teacher interviews in addition to student questionnaires.

The three problems--facilities, scheduling, and class sizes--are not merely the list of complaints; all three, in fact, relate to the input and process dimensions of the CIPP model used in this study, and therefore provide an a priori theoretical basis for interpreting the findings of this study in the light of the already existing international evidence.

CIPP Evaluation Model

Program evaluation, according to Stufflebeam and Coryn's (2014) formulation, is a systematic inquiry into the value and utility of an object, which operationally is a process of describing, obtaining, and applying descriptive information and judgment to guide decision-making, accountability, and understanding. In the learning context, explicitly, evaluation is aimed at measuring the effectiveness and efficiency of the learning system, purpose, materials, methods, media, learning resources, learning environment, and the assessment system used (Arifin, 2012), thus stakeholders can get an accurate picture of the quality of learning and direct effort to improvement in a very targeted manner. Evaluation, in this sense, is not simply measurement activity but a mechanism for producing relevant information for decision-making (Widoyoko, 2013).

One of the significant breakthroughs in evaluation that is still relevant today in many disciplines is Charles Stufflebeam's CIPP evaluation model. Since 1966, the model has been elaborated upon, with the latest major publication in 2014. Stufflebeam and his colleague, Coryn (2014), indicated that the major functions of a program evaluation should include the provision of information to support program management, help to achieve decision making, and provide stakeholders with a suitable basis for program accountability. They would like to choose the CIPP model because it shifts the focus from judging merit and worth to providing information to help with decision making. They believe CIPP enables program managers to obtain information to improve their programs. They also believe that internal and external evaluators consider both intended and unintended consequences of the program, which guide the program managers." The model logically realizes the premise in four components: context, input, process, and product evaluations. Context evaluation determines the needs, problems, assets, and opportunities of a program environment, which also helps decision-makers formulate goals and priorities; when applied to Physical Education Instruction, this includes the alignment of learning objectives with national education policies and the needs of learners. Input evaluation measures the availability of resources, strategies, and planning to achieve the set objectives, which include teacher qualification, curriculum, student readiness, and availability of facilities and infrastructure. Process evaluation tracks and records a program's implementation in such a way that any obstacles encountered can be quickly identified and handled; covering learning planning, teaching methods, teacher-student interaction, and ongoing assessment. Product evaluation gauges, interprets, and assesses the program outcomes, both planned and unplanned, such as the extent to which learning objectives have been achieved (Stufflebeam & Coryn, 2014). The superiority of this model over a design of evaluation focused only on results is in its integration of formative and summative functions in one framework: the four components at the same time can guide program decision-making in real-time (formative function) and provide a summative accountability record for stakeholders (Stufflebeam & Coryn, 2014).

The flexibility of this model, its ability to be adapted to specific indicators of the program being evaluated, is what makes this model still widely used in educational evaluation research in Indonesia, including the latest application to the evaluation of Kurikulum Merdeka in PJOK learning (Wahidah et al., 2023) and the evaluation of vocational education and higher education programs in a more general. Specifically in the case of physical education, gym, and health (PJOK) subject, this flexibility allows the evaluation to go beyond cognitive learning outcomes only to include teacher readiness, adequacy of facilities, teaching methods, student involvement, and the effect of learning on physical fitness and healthy lifestyle behavior of the students- the scope that has been rightly adopted in this research.

Research Synthesis and Positioning

When read together, the theoretical and empirical literature reviewed above produce a consistent expectation: PJOK has normative and developmental values substantially, however the regular implementation of it has been compromised by the constraints of facilities, scheduling, and class size which have been well documented internationally, but rarely evaluated systematically using the integrated four-dimensional framework, in the

specific institutional context of vocational secondary education. The Indonesian CIPP-based PJOK evaluation (Raibowo & Nopiyanto, 2020; Alaswati, 2016; Maduran et al., 2025; Fadillah et al., 2025; Anaktototy et al., 2022) previously served as a comparison basis, but none of them were conducted in the SMK context or under the current Kurikulum Merdeka policy regime. This study was designed to fill that gap, using SMKN 6 Padang as the research site.

The conceptual framework of this research, which outlines how the four CIPP dimensions are operationalized and the data sources used for each dimension, is shown in Figure 1.

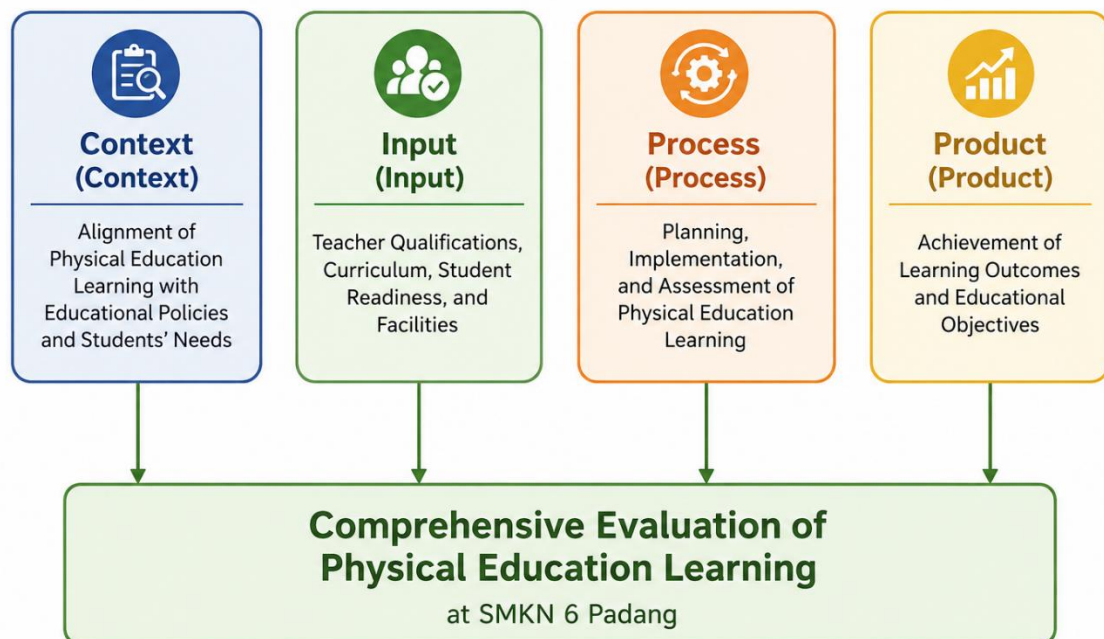


Figure 1. Conceptual Framework for the CIPP Evaluation of Physical Education, Sports, and Health (PJOK) Instruction at SMKN 6 Padang.

As illustrated in Figure 1, the context dimension was evaluated by interviewing the teacher, while the input and process dimensions were assessed by combining teacher interviews and student questionnaire. Meanwhile, the product dimension was evaluated by questionnaires to 90 students. The dotted line at the bottom of the diagram depicts the formative function of the CIPP model, i.e., feedback from product evaluation results to context and input for continuous improvement of PJOK learning programs.

Method

Research Design

The present study is a descriptive design that targets to systematically record the phenomenon as it is without any manipulation of variables (Arikunto, 2018). This design fits the evaluative research goal: to describe, not to experimentally test, the implementation of Physical Education, Sports, and Health (PJOK) learning at SMKN 6 Padang along the four dimensions of CIPP. The quantitative data (structured student questionnaire) were supplemented with qualitative data (semi-structured teacher interview) in order to triangulate evidence from the same phenomenon by two stakeholders' perspectives.

Research Location

This research was conducted at SMKN 6 Padang, a public vocational high school in Padang City, West Sumatra, Indonesia in the academic year 2025/2026. The school runs various skills majors, including beauty care, fashion design, culinary arts, hotel management, computer network and telecommunication engineering (TJKT), and clothing services (ULP).

Population and Sample

Research population consists of PE teachers and all 997 students of class X and XI of SMKN 6 Padang, who are distributed in 29 study groups of different expertise fields, such as Beauty, Fashion, Culinary, Hotel, Computer Network and Telecommunications Engineering (TJKT), and Tourism Service Business (ULP). Populations are dominated by female students (853 students, 85.6%) over male students (144 students, 14.4%),

which reflect gender compositions commonly seen in vocational programs at this school as illustrated in Figure 2.

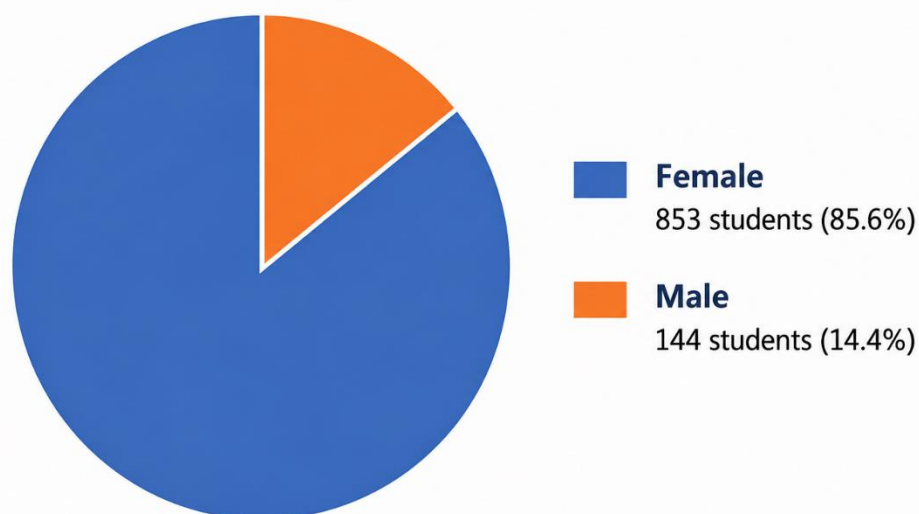


Figure 2. Gender Composition of the Student Population in Grades X and XI at SMKN 6 Padang (N = 997)

A sample of 90 students was determined using Slovin's formula, $n = N / (1 + N \cdot d^2)$, where N is the total population and d is the level of precision, which was set at 0.1 (90% confidence level):

$$n = 997 / (1 + 997 \times 0,1^2) = 997 / 10,97 \approx 90 \text{ responden.}$$

The 29 class groups became the sample allocation through stratified random sampling technique proportionally, where each class contributed the number of respondents proportional to its contribution to the total population ($\text{class size} \div 997 \times 90$), and further stratified by gender within each class. This procedure resulted in a final sample of 90 students spread over all class groups of grades X and XI, consistent with the population structure.

This allocation procedure is chosen because the population of SMKN 6 Padang is heterogenous in terms of their skills and gender composition some vocational programs (e.g. Beauty, Fashion) are almost entirely female students while other programs (e.g. Computer Network and Telecommunication Engineering) have a higher proportion of male students. Therefore, proportional stratification by class and gender is required so that the sample of 90 students reflects the underlying population structure, rather than over or under-representing certain skills, which if not would lead to a bias in perception data towards a few skills with possibly different access to facilities or scheduling.

Operational Definition

The variable investigated was the implementation of PJOK learning evaluation at SMKN 6 Padang, operationally defined by five indicators: evaluation planning, evaluation implementation, data processing, data interpretation, and result reporting (Arikunto, 2006). This variable was measured using a structured questionnaire.

Research Instrument

This research uses two data sources. Primay data were collected through a tier-scaled questionnaire was distributed directly to the sample of students with a modified four-point Likert-type response format and semi-structured interviews with three physical education teachers. Secondary data the students' data by class and gender were obtained from the school administration.

The student questionnaire was adapted from the instrument developed by Sani (2023), who reported Cronbach's alpha coefficients of 0.940 for the teacher's questionnaire version and 0.790 for the student's questionnaire version. Besides, content and construct validity of the instrument were set through expert judgment by lecturers who have relevant competence in the field of educational evalution. They stated that the instrument is valid for the research purposes. Each item was using a four-option response scale (strongly agree, agree, disagree, strongly disagree), with the scores 4-3-2-1, respectively, for positive statements and the reversed scoring for the negative statements (Sugiyono, 2019).

The instrument grid operationalized three out of four CIPP dimensions through 16 questionnaire items: Input evaluation was represented by the availability of facilities and infrastructure (five items) as well as the

characteristics of students (three items); process evaluation was represented by implementation of teaching (two items) and students' learning activities (three items); and product evaluation was represented by learning outcomes (three items). The context dimension, which concerned the alignment of PJOK goals with national policies and students' needs, was qualitatively assessed through teacher interviews, rather than student questionnaires, in line with the operational focus of the adapted instrument.

Semi-structured interviews with the three PE teachers covered five thematic areas: lesson planning, lesson delivery, lesson evaluation, facilities and infrastructure, as well as supporting/obstructing factors, which allowed the teachers' operational perspectives to directly complement the quantitative data reported by the students.

The reliability coefficients reported for the adapted instruments (0.940 for the teacher instrument, 0.790 for the student instrument) both exceeded the conventional internal consistency threshold that is considered acceptable in survey research in the field of education and social sciences, thus supporting the feasibility of the instruments for the descriptive-evaluative purpose of this research. The choice to operationalize the context dimension qualitatively, through teacher interviews and not the student context subscale, reflects the substantive consideration of the competence of the respondents: X and XI grade students are able to report their own experiences related to facilities, learning processes, and learning outcomes quite well, however, it is not quite proper for them to judge the alignment of program objectives with national education policy, a judgment that is more accurately elicited from teachers who are directly responsible for curriculum planning. Cross data source evaluative task division is an intentional design feature, not an instrumentation flaw, and this has been disclosed transparently so that it can be replicated in future SMK-based CIPP evaluation.

Data Collection Procedures

Data collection was carried out through five sequential stages: (a) gaining a letter of research permission from the faculty; (b) obtaining a letter of research permission from SMKN 6 Padang; (c) distributing questionnaires to selected respondents; (d) collecting filled questionnaires and transcribing responses; and (e) drawing conclusions and making suggestions based on the data collected.

Data Analysis Techniques

The survey data was analyzed using descriptive percentage analysis, with categorization based on mean and standard deviation (Sugiyono, 2007). Percentage scores were calculated using the formula $P = (f/n) \times 100\%$, where P is the percentage, f is the observed frequency, and n is the number of respondents. The scores obtained were classified into five categories according to Azwar's (2016) scoring norms: 86, 100% ("very good"), 71, 85% ("good"), 56, 70% ("fair"), 41, 55% ("poor"), by below 40% ("very poor"). Interview transcripts were analyzed thematically following the above-mentioned five domains of the interview. Coding was cross-checked independently by two different members of the research team, and any inconsistencies were settled by discussing to strengthen analytical consistency. and the findings were triangulated with the quantitative questionnaire results.

Results and Discussions

Teacher Perspective: Planning, Implementation, and Evaluation of Physical Education Instruction

The interviews with three PE teachers (IF.1, IF.2, IF.3) have yielded convergent findings on five thematic domains.

Learning planning. The three teachers reported that they prepared instructional tools, Learning Objective Flow (ATP), teaching modules, and Lesson Plan (RPP), at the beginning of the semester or school year, directly referring to the learning outcomes set in the Independent Curriculum and adjusted to the characteristics of the students. The teachers depicted discussion with colleagues during this process. All three stressed that the learning objectives formulated were aligned with the current curriculum. The reported constraints in planning include limited time for preparing administrative documents, the need to adjust materials to the available facilities, differences in students' abilities, as well as disturbances caused by ongoing changes of curriculum policies.

Learning Implementation. Teachers describe the implementation of learning as "quite good" and "quite effective," adjusted to the weather conditions and school schedule. The most frequently used teaching methods are demonstration, direct practice, and small group discussion. Learning reportedly takes place more in the field than in the classroom, reflecting the emphasis of PJOK on physical activities and mastery of movement skills. Student participation and enthusiasm were described as quite high, especially in team game materials such as soccer, although some students were reported to be not confident or less actively involved. Recurring constraints of the implementation include rainy weather, limited sports equipment, and differences in students' physical conditions and abilities.

Assessment of learning. All three teachers reported that they use a wide range of assessment tools--performance tests, attitude assessments, written knowledge tests, observation, and assignments--that simultaneously cover the cognitive, affective, and psychomotor domains. The major problem reported was how to objectively assess skills of a large number of students within a limited time considering that psychomotor assessments require direct and individual observation.

Facilities and infrastructure. The teacher described the condition of the facilities as "quite good, " but at the same time admitting that some equipment balls, mats, and athletic equipment needs repair or addition, and that not all specific sports facilities (e.g. separate volleyball and basketball courts) are available. However, the teacher reported trying to get the most out of the existing facilities by rotating and scheduling between classes.

Supporting and inhibiting factors. The supporting factors reported included support from school and school principal, cooperation among teachers, as well as the enthusiasm and motivation of students, together with the professional development opportunities for teachers. The inhibiting factors reported were focused on the lack of facilities and equipment, unpredictable weather, and the large number of students in one session, which all together limited not only the teaching execution but also the individual evaluation depth.

Student Perspective: Questionnaire Results

Table 1 presents the distribution of student assessment frequencies regarding the Evaluation of Physical Education, Sports, and Health Teaching at SMKN 6 Padang, based on answers from a sample of 90 students.

Table 1. Distribusi Frekuensi Penilaian Siswa terhadap Evaluasi Pembelajaran PJOK di SMKN 6 Padang (n = 90)

Category	Score Range	Frequency	Percentage (%)
Very good	86–100%	14	15,6
Good	71–85%	71	78,9
Enough	56–70%	5	5,6
Not enough	41–55%	0	0,0
Very less	<40%	0	0,0
Total		90	100,0

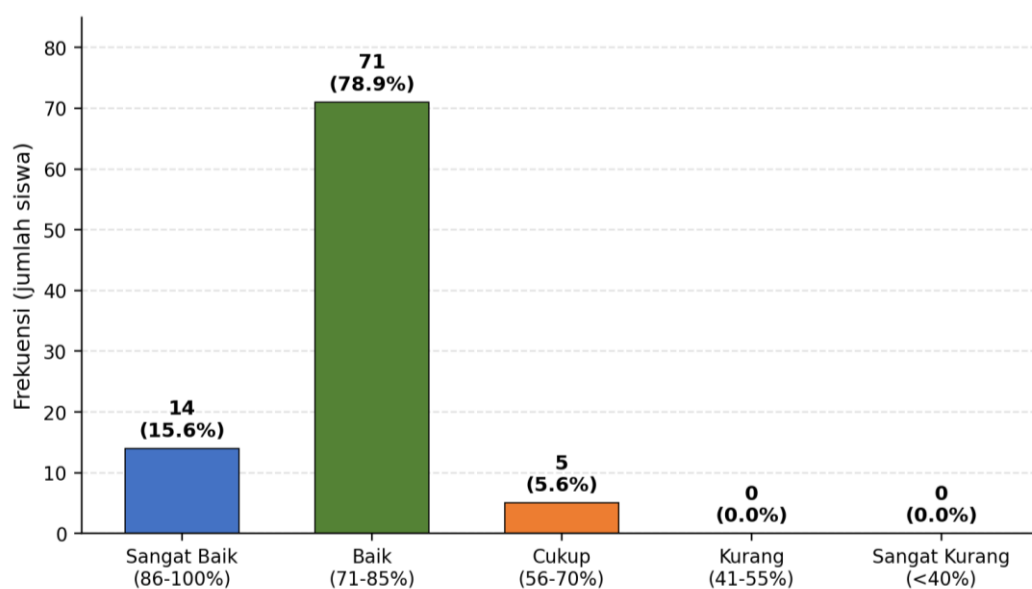


Figure 3. Frequency distribution graph of student ratings regarding the evaluation of Physical Education (PJOK) learning at SMKN 6 Padang (n = 90)

The most frequent rating (mode) was the "good" category (71 students, 78.9%), followed by "very good" (14 students, 15.6%) and "enough" (5 students, 5.6%). No student rated the implementation of physical education learning evaluation in the "poor" or "very poor" categories. In total, 85 out of 90 students (94.5%) gave a rating in the "good" or "very good" category, indicating that the dominant perception of students is positive towards the way physical education learning is being evaluated at the school.

The absence of judgment in the category "less" or "very less" is indeed a feature of the distribution that should be noted on its own, because it indicates that there is a lower limit of quality perception of the program throughout the population of the sample, which covers all 29 learning groups and both class levels. The concentration of ratings in the "good" category, as compared to the more even spreading between "fair" and "very good," further reflects that there is a high-level agreement among the students about the adequacy, though not necessarily excellence, of the current practice of Physical Education (PE) learning evaluation. The item-level response in the underlying raw tabulation data (ranging from 39 to 58 raw scores out of 64 maximum for the 16-item instrument) is in line with this pattern, showing that even respondents with the lowest scores were still within the "fair" category and not below it; neither were there any aggregate respondent scores near the lower half of the scale.

CIPP Evaluation Scores Based on Multiple Information Sources

A methodological note must be made before the following substantive discussion. Most of the PJOK evaluation literature based on the CIPP that exist use only one group of respondents by default, usually students or teachers, for all four evaluative dimensions, which is risky to mix up what a program should be delivering (by the report of the party responsible for implementing it) with what is perceived to be delivered by the program (by the report of the party receiving it). The design used in this study, where the context dimension and most of the input dimensions were obtained from teacher interviews whereas the product dimension and part of the input/process dimension were obtained from an independent student sample, allows both of these notes to be checked against each other rather than assuming them to be the same. As shown in the sections below, this process of checking has revealed both convergence (teacher-reported practices being broadly consistent with positive student assessments) as well as productive tension (teachers report resource constraints that would not be revealed only through student questionnaires focused on results alone), and it is this combination that has given interpretative depth to this evaluation. Taking into account that only three teachers were involved in the interview, one should consider the qualitative part merely as an example presenting the converging patterns among informants but not the full thematic saturation by the wider teaching staff as a limitation the constraint of low number of informants will be discussed in Section Research Limitations

Convergence between Teacher and Student Notes

students' positive feedback. Teachers describe systematic planning and aligned curriculum (ATP, teaching module, lesson plans), instructional methods that are varied with emphasis on practice and demonstration, and multi-faceted assessment covering the cognitive, affective, and psychomotor outcomes; students, on the other hand, evaluate the experience of learning evaluation predominantly as "good" to "very good" (94.5% combined). This convergence provides a degree of internal validation to the findings of this study that cannot be claimed by the evaluation of PJOK with only one source of information, and it distinguishes relatively better the case of SMKN 6 Padang compared to the previous school-based CIPP PJOK evaluation reporting overall quality of the program that was weaker (Raibowo & Nopiyanto, 2020; Fadillah et al., 2025). Instead of interpreting the convergence of the findings as a statistically verified index, this qualitative interpretation reflects the convergence of opinions by a teacher ($n = 3$) and students ($n = 90$) who gave answers at their own level, and since no correlation coefficient or Cohen's kappa was possible to be computed, the researcher had to go without it. Moreover, there being social desirability bias is likely behind the teachers' mostly favorable self-reports.

Nonetheless, the lack of less or very less assessments should not be interpreted as evidence that PJOK learning at SMKN 6 Padang is without problems. On the contrary, qualitative data from the teachers revealed a program that runs adequately in a structurally limited environment one that is shaped by limited facilities, less than ideal scheduling, and large class sizes thus indicating that the "good" assessment reflects the successful adaptation to the limitations, rather than the absence of limitations itself.

Input Constraints: Facilities and Infrastructure from International and National Perspectives

The condition of facilities reported at SMKN 6 Padang the availability of balls, mats, and athletic equipment that were insufficient and the lack of separate volleyball, basketball, and badminton courts clearly aligns with the narrative review findings of Nagrle and Jiandani (2024) identifying infrastructure deficit as a persistent and cross-country documented barrier against quality school-based physical activity; as well as with Indonesia's evidence by Pasek Wiguna et al. (2021) where measured limitation of physical facilities depressed students' interest and weakened learning achievement. One of the other findings in this study on product dimension, that most students still gave positive appraisal, makes it difficult to simply interpret a cause-effect relationship: at SMKN 6 Padang, space limitations go alongside students' positive perceptions, suggesting that the teachers' rotation and resource optimization strategies may have to some extent counterbalanced the negative effects of limitations found in other physical environments. However, this counteracting probably has its limits; qualitative data show that even the teachers consider current facilities still inadequate to "cover all sports," indicating that upgrading the quality of the program may be dependent on infrastructure investment, rather than merely on

teaching efforts. The pattern is consistent with recent CIPP evaluation evidence from the elementary and secondary school contexts in Indonesia where adequacy of facilities and infrastructure was identified as one of the components requiring continued institutional attention even though the program was overall being rated positively (Wahidah et al., 2023).

Process Constraints: Scheduling and Class Size

Scheduling PJOK sessions in the afternoon, after a full day of vocational study, aligns with the mismatch documented by Soares et al. (2021), where less than ideal learning time measurably lowered students' readiness to be physically engaged. However, the questionnaire in this study did not isolate scheduling as a separate quantitative variable, teacher interviews independently strengthened this concern by pinpointing fatigue and heat as recurring contextual barriers to student participation, a pattern that indicates that scheduling reform, shifting PJOK sessions to earlier times of the school day if scheduling allows, would be a low-cost and high-leverage policy maverick that is worth trying out at SMKN 6 Padang as well as other similar vocational institutions.

Merging several classes in one PE session is similar with the findings of Yan et al. (2024) that a very large PE class erodes teacher-student interaction and the depth of teaching, and also with the broader observation of UNESCO (2024) that class size more than about 35 students structurally limits the opportunity for dialogue between the teacher and students. Teachers in this study explicitly related large group size to difficulty in achieving objective and individual skill assessment—a process/input constraint that directly affects the accuracy of product level evaluation, since psychomotor assessment by its nature requires close and per-student observation which is logistically impossible to maintain in a large group within the limited learning time.

Product Outcomes from a Comparative Perspective

If it is positioned against PJOK evaluation based CIPP in Indonesia previously, finding product dimension at SMKN 6 Padang is still relatively better. Raibowo and Nopiyanto (2020) reported overall program quality "not so good" with the product component in the "not good" category (45.1%) accordance; Fadillah et al. (2025) similarly report scores of process (2.15) and product (2.02) within the range of "less" for the learning of PJOK for special needs students. On the other hand, 94.5% of SMKN 6 Padang samples evaluate their experience of PJOK learning evaluation as "good" or "very good." A reasonable explanation for this difference is different education levels (vocational high school compared to junior high school or inclusive schools at the foundation level), different evaluative focus of evaluation (just simply the faithfulness of the curriculum implementation manuals versus evaluation of teaching and learning practices, therefore this study), as well as actual difference in the quality of program that can be attributed to teachers, given the multi-method and multi-domain assessment practices that teachers described in the interviews raised.

Better product results are also in line with the moral development arguments put forward by Dudley (2025) and Jadwiszczak et al. (2025): the use of group practice activities (such as football) reported by teachers as a means of student engagement is consistent with the wider claim that structured physical activity, when well facilitated, not only develops motor competence but also social-emotional engagement which underlies student positive learning perceptions.

Gender Composition and Areas of Expertise as Contextual Moderators

Data on population as reported in Section 3.3 reflects a school population dominated by girls (85.6%), which is in line with a concentration of beauty, fashion, and culinary skills at SMKN 6 Padang. The composition is also quite relevant to the interpretation of findings related to the product dimension for at least two reasons. First, international evidence of PE participation often reports different patterns of involvement by gender, with some studies noting girls' low confidence in sports-related contexts such as team or competitive sports; teachers in this study specifically pointed out that "some part of the students are not confident" involving in sports activities, a finding that makes sense, given the fact that the school composition is dominated by girls although this research design did not provide a formal disaggregation of the questionnaire-based assessment by gender. Second, the dominant area of expertise in the school which is mostly oriented towards service requiring fine motor control, aesthetic precision, standing for long periods of time as opposed to heavy physical exertion etc., can shape students' expectations of the relevance of PE as well as the pedagogical emphasis of the teachers, a subtle interpretative element that cannot be fully captured by the aggregate CIPP scores being reported here. Future CIPP-based PE evaluation in the context of vocational high schools should explicitly report gender-disaggregated product dimension results as well as disaggregation by areas of expertise, which is not supported by this research dataset given the descriptive percentage analysis approach used, but a natural extension of this research design.

Theoretical Implications

Findings of this study extend the research on evaluation of physical education program (PEP) based on CIPP in three aspects. First, this study revealed that the CIPP model still has explanatory and diagnostic values when it is implemented in vocational secondary education, level which is structurally different from the elementary and junior high levels that dominate the existing CIPP-PEP literature, thus supporting the argument regarding the adaptability of the model across levels of education (Stufflebeam & Coryn, 2014; Wahidah et al., 2023). Second, this study illustrates the analytical value of triangulation of the quantitative data of the product level (student assessment) with the qualitative data of the context/input/process (teacher interviews): the positive evaluation of students alone would underestimate the structural constraints accompanying the achievement of those positive results, meanwhile teacher interviews alone would lose the validation of the result level provided by the product dimension. Third, the occurrence of disjunction between input/process being limited and product assessment being positive suggests that CIPP evaluations of the PEP program can benefit from mentoring explicitly teacher's adaptive capacity as a mediation mechanism between limited resources and students' perception of quality results, a mechanism not highlighted by the four basic CIPP components themselves, but made visible by the qualitative interview data in this research.

Practical and Policy Implications

For PE teachers, this finding supports the continuation and expansion of using practice and demonstration-based teaching methods, combined with a deliberate focus on students who report lower confidence or engagement, especially in the context of team sports. Further diversification of assessment methods, as well as the exploration of low-cost digital tools for practical and written assessments, could help overcome the time and objectivity challenges that teachers identified when assessing large groups of students.

For the school side, the constraints of facilities and scheduling identified here, insufficient availability of equipment, no special field, and daylight schedule that is less than ideal, are the targets that can be directly followed up. Gradual investment in equipment (balls, mats, athletics equipment) and revising the PJOK schedule with regard to the vocational learning block are short-term intervention which can be carried out; investing in a special sports field is a long-term infrastructure priority.

If I were the Education Department of Padang City, I would consider the relatively positive results of SMKN 6 Padang, achieved even though there were constraints on resources, to show that teacher capacity development and the best use of resources rather than only investing in facilities have quite a significant impact in maintaining the quality of Physical Education in Vocational Schools under resource constraints; policy attention to spreading such practices throughout the network of vocational schools in the city, accompanied by targeted facilities investment, could be a cost-efficient upgrading strategy. A concrete first step is an equipment audit and a scheduling at the department level in all vocational schools, referring to the CIPP input and process indicators used in this research, to find out which schools are facing the most acute shortages of equipment or the most less-than-ideal scheduling of Physical Education, so that the limited capital and professional development budgets can be targeted to the schools and problems that have the greatest potential for return on investment.

More broadly, repeated issues of infrastructure, scheduling, and class size strongly featured across all international literatures reviewed in Section 2, from Portugal (Soares et al., 2021) to China (Yan et al., 2024) and Indonesia (Pasek Wiguna et al., 2021; Nagrale & Jiandani, 2024), demonstrate that these issues are not the characteristics of only one school system but are structural features regarding how PE usually gets resourced and scheduled relative to academic and vocational subjects worldwide. Cross-country consistency in this case strengthens the argument for treating PE resourcing as a policy variable worthy of explicit attention in the school accreditation and quality assurance framework rather than being just an issue left entirely to schools' discretion.

Research Limitations and Suggestions for Future Research

Some limitations should be considered in interpreting the findings of this study. First, the descriptive design and reliance on self-report data (student questionnaire) and informant report (teacher interview) mean that this study documents the learning outcomes that are perceived, not the ones that are observed or tested objectively and independently; there was no achievement test or direct assessment of skills administered as part of this evaluation. Second, the research sample was limited to one vocational school, thus limiting the generalization of the findings to other vocational schools with different profiles of facilities, student populations, or curricular emphases. Third, only three PE teachers were interviewed, and although their records converged closely, this qualitative sample does not allow claims about the variation in teacher practices across the wider school staff. Fourth, through the questionnaire, the input, process, and product dimensions of CIPP were operationalized but the context dimension was only indirectly assessed, via teacher interviews, rather than through a context-focused instrument given to students or school leaders.

Next research should extend this evaluative design to various vocational high schools institutions (SMK) so as to facilitate comparative analysis of how the profile of facilities, vocational skills fields, and school leadership practices moderate the quality of physical education programs (PJOK). Including direct measurement of students' motor competence or fitness, apart from perception-based instruments, would strengthen the product dimension in the next CIPP evaluation. Next research should also examine teacher competence, use of learning media, learning environment, and school policy as explanatory factors underlying the variation in the quality of physical education programs (PJOK), and it should broaden the evaluative window to various educational levels to test the generalization of patterns identified in this study.

Conclusions

This study evaluates the PE program learning at SMKN 6 Padang through CIPP framework referring to the sample of 90 students taken through stratified random sampling (from 997 population) and semi-structured interview with three PE teachers. Teachers reported curriculum-aligned learning planning, practice-based implementation methods, and comprehensive cognitive, affective, and psychomotor assessments, carried out in the context of limited facilities, less-than-ideal scheduling, and large class sizes. On the other hand, students also mostly assessed the implementation of the PJOK learning evaluation in grades as "good" (78.9%) or "very good" (15.6%), with only 5.6% giving "fair" and no one "poor" or "very poor" ratings. These are just descriptive frequencies instead of inferentially tested statistics; no statistical significance testing across class strata or formal teacher-student concordance analysis was conducted, and this is considered a limitation instead of being a statistically proved result. These findings suggest that the evaluation of PJOK learning at SMKN 6 Padang has been running well from both students' and teachers' perspectives, while simultaneously identifying provision and maintenance of facilities, management of class size, and scheduling as the main levers for further quality improvement of the PJOK program. On the one hand there are limits of resources yet, for the most part, teachers' students are positive, which seems to indicate that the scarcity of resources is being handled creatively by the educators rather than that a greater need for money is the only thing they lack. By placing CIPP-based evaluation in the context of vocational education under the Indonesian Merdeka Curriculum, this study provides empirical evidence that contributes to the provides a limited evaluation paper on physical education in vocational secondary school and presents an example of context specific reference based on this work which can be repeated in other schools.

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