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Original Article Research

Development of a Practice-Based PKG PJOK Module to Improve Elementary School Teacher Competence

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Abstract

The limited availability of practice-based professional development materials has hindered efforts to improve the competence of elementary school Physical Education, Sports, and Health (PJOK) teachers. This study aimed to develop a practice-based PKG PJOK module and evaluate its validity, practicality, and effectiveness. A Research and Development design using the ADDIE model was employed. Participants included material, media, and instructional design experts, as well as elementary school PJOK teachers involved in field testing. Data were collected through validation sheets, questionnaires, observations, and competency assessment instruments, then analyzed using descriptive quantitative and qualitative techniques. The findings indicated that the module was highly valid, practical, and effective in improving teachers' pedagogical and professional competence. The study concludes that the developed module is a feasible professional development resource and provides an evidence-based learning model to strengthen teacher competence in elementary physical education.

Keywords: module development, teacher competence, PKG PJOK, elementary school, practice-based learning

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1. INTRODUCTION

Teachers' competence is one of the most influential factors in determining the quality of learning outcomes in schools. In Physical Education, Sports, and Health (PJOK), teachers are expected not only to possess strong pedagogical and professional competence but also to demonstrate practical teaching skills that enable students to achieve cognitive, affective, and psychomotor learning outcomes. Continuous professional development is therefore essential to

ensure that teachers can adapt to curriculum changes, implement innovative learning strategies, and conduct authentic assessments. However, many professional development programs remain dominated by theoretical content, providing limited opportunities for teachers to strengthen practical teaching competence (Thomas, 2019). In Indonesia, the implementation of Teacher Performance Assessment (Penilaian Kinerja Guru/PKG) has become an important mechanism for evaluating teacher competence and supporting professional career development. Despite its strategic role, many elementary school PJOK teachers still struggle to understand the performance indicators and translate them into classroom practice. Preliminary observations and informal discussions with teachers in Soromandi District revealed that most available PKG learning resources focus primarily on administrative requirements and conceptual explanations, while practical guidance, examples of lesson implementation, assessment procedures, and reflective teaching activities remain limited. Consequently, teachers often rely on personal experience rather than standardized professional development resources when preparing for PKG implementation.

A preliminary needs assessment conducted prior to this study further confirmed these problems. Teachers reported that existing modules were difficult to apply in real teaching situations because they lacked contextual examples, practical exercises, classroom scenarios, and competency-based evaluation instruments. Most respondents expressed the need for a module that systematically integrates PKG indicators with authentic PJOK learning practices, enabling teachers to improve their professional competence through direct application rather than theoretical understanding alone. These findings indicate a substantial gap between the competencies expected by educational standards and the professional learning resources currently available to teachers.(Faizatun, 2024).

Previous studies have demonstrated that instructional modules can improve teacher competence, learning effectiveness, and professional confidence. Nevertheless, most existing studies have focused on digital learning media, curriculum implementation, or general teacher training modules. Research specifically addressing the development of a practice-based PKG PJOK module for elementary school teachers remains very limited. Furthermore, previous modules generally emphasize theoretical knowledge instead of competency-based practical activities that directly support teachers during PKG implementation. This indicates a clear research gap regarding the availability of validated learning resources specifically designed to improve the competence of elementary PJOK teachers through practical learning experiences.les (Pahwa, 2018).

From a methodological perspective, previous development studies have primarily evaluated product validity and user satisfaction, with relatively limited attention to integrating expert validation, teacher needs assessment, practicality testing, and effectiveness evaluation within a comprehensive development framework. Consequently, there remains a need to develop an instructional product that not only meets content validity standards but also demonstrates practical usability and measurable effectiveness in improving teacher competence(Poplawska-Domaszewicz, 2024). To address these gaps, this study developed a Practice-Based PKG PJOK Module using the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) instructional design model. The module was designed based on teachers' needs, current PKG performance standards, and authentic classroom practices in elementary physical education. The development process involved expert validation, limited field testing, and effectiveness evaluation to ensure that the resulting product fulfilled the criteria of validity, practicality, and effectiveness.

Therefore, this study aimed to develop and evaluate a practice-based PKG PJOK module to improve the pedagogical and professional competence of elementary school teachers. The expected contribution of this research is twofold. Theoretically, it enriches the literature on competency-based professional development in physical education. Practically, it provides an empirically validated module that can be utilized by teachers, schools, and educational authorities as an innovative resource for sustainable professional development and the implementation of teacher performance assessment.

2. METHOD

This study employed a Research and Development (R&D) method to develop a practice-based Teacher Performance Assessment (PKG) module for Physical Education, Sports, and Health (PJOK) teachers at the elementary school level(Muruganantham, 2015). Research and Development is a systematic method used to produce educational products and test their effectiveness in improving learning outcomes and professional competence(Abdussamad, 2022).

The development of the module followed the ADDIE model, which consists of five sequential stages (Hasan et al., 2023) Research Setting and Participants, The research was conducted in the Soromandi District, Bima Regency, West Nusa Tenggara, Indonesia. The participants consisted of elementary school Physical Education, Sports, and Health (PJOK) teachers who actively implemented the independent curriculum and participated in teacher performance assessment activities. Twenty PJOK teachers from several elementary schools were involved as research subjects during the implementation stage (Yuyun et al., 2021). In addition, the validation process involved three experts consisting of a learning media expert, a PJOK subject matter expert, and an instructional design expert. Their roles were to evaluate the quality of the module regarding content relevance, language, presentation, and practical applicability (Kurniawati & Ekayanti, 2020).

2.1. Research Setting and Participants

The research was conducted in Soromandi District, Bima Regency, West Nusa Tenggara, Indonesia. The participants consisted of elementary school PJOK teachers implementing the Independent Curriculum and participating in Teacher Performance Assessment (PKG) activities. Twenty PJOK teachers were purposively selected as research participants during the implementation stage.

To evaluate the feasibility of the developed module, expert validation was conducted involving three validators comprising one learning media expert, one PJOK subject matter expert, and one instructional design expert. These experts assessed the module in terms of content relevance, instructional design, language clarity, presentation, and practical applicability (Kurniawati & Ekayanti, 2020).

2.2. Development Procedure

The development procedure followed the five stages of the ADDIE model.

2.3. Analysis Stage

The analysis stage aimed to identify teachers' needs and problems in implementing Teacher Performance Assessment (PKG). Data were collected through classroom observations, semi-structured interviews, and needs analysis questionnaires distributed to elementary school

PJOK teachers. The analysis focused on identifying challenges related to lesson planning, instructional implementation, classroom management, and learning assessment.

2.4. Design Stage

Based on the findings of the needs analysis, the module framework was designed by determining learning objectives, module structure, learning activities, practice tasks, assessment instruments, and evaluation procedures. The module emphasized integrating theoretical concepts with practical teaching experiences to support teachers' professional competence.

2.5. Development Stage

The initial module draft was developed in accordance with the established design. Subsequently, the module underwent expert validation to evaluate the quality of the content, instructional design, language, presentation, and usability. Suggestions from validators were incorporated into the revision process to improve the overall quality of the module before field implementation.

2.6. Implementation Stage

The revised module was implemented among twenty elementary school PJOK teachers in Soromandi District. During this stage, teachers used the module as a practical guide for planning, implementing, and evaluating PJOK learning. Feedback regarding module practicality and usability was collected through teacher response questionnaires.

2.7. Evaluation Stage

Evaluation was conducted continuously throughout the development process. Formative evaluation was carried out during each ADDIE stage to identify weaknesses and revise the product, while summative evaluation was conducted after implementation to determine the feasibility and effectiveness of the developed module.

2.8. Research Instruments

Data were collected using several research instruments, including observation sheets, semi-structured interview guides, expert validation questionnaires, teacher response questionnaires, and teacher competence assessment sheets. Observation and interview instruments were used during the needs analysis stage, whereas validation questionnaires were employed to assess module feasibility. Teacher response questionnaires measured the practicality of the module, while competence assessment sheets evaluated improvements in teachers' pedagogical and professional competence before and after implementation.

All questionnaire instruments employed a five-point Likert scale ranging from 1 (very poor) to 5 (very good). Prior to implementation, the validation instruments were reviewed by experts to ensure content validity.

2.9. Data Collection

Data collection employed four techniques: observation, interviews, questionnaires, and documentation. Observations were conducted to examine existing learning practices, while interviews explored teachers' experiences and challenges in implementing PKG. Questionnaires were administered to experts and teachers to assess the module's feasibility and practicality. Documentation was used to record research activities and support qualitative findings.

2.10. Data Analysis

Qualitative and quantitative analyses were employed in this study. Qualitative data obtained from observations, interviews, and expert comments were analyzed using the interactive model of Miles and Huberman, consisting of data reduction, data display, and conclusion drawing. This analysis was used to identify teachers' needs and provide the basis for module revision.

Quantitative data from expert validation sheets, teacher response questionnaires, and competence assessment results were analyzed using descriptive statistics (Jati, 2024). Percentage scores were calculated using the following formula:

$$P=f/N\times100\%$$

Where:

P = percentage score

f = obtained score

N = maximum possible score

The interpretation criteria were as follows:

Percentage	Category
81–100%	Very Feasible
61–80%	Feasible
41–60%	Fair
21–40%	Less Feasible
0–20%	Not Feasible

The effectiveness of the developed module was determined by comparing teachers' competence scores before and after implementation. Improvements in competence were interpreted as evidence of the effectiveness of the practice-based PKG PJOK module in supporting teachers' professional development.

2.11. Research Ethics

Participation in this study was voluntary, and all participants provided information willingly. The confidentiality of respondents' identities was maintained throughout the research process. Data collected were used exclusively for academic purposes and reported objectively to ensure the credibility and integrity of the study.

The ADDIE model was selected because it provides a structured framework for developing instructional materials that are relevant, practical, and applicable in real educational settings(Nadiyah & Faaizah, 2015). This model also allows researchers to conduct continuous

evaluation and improvement throughout the development process(Li & Cheong, 2023).

The research design focused on developing a practical learning module that integrates theoretical knowledge with real teaching practices. The developed module was expected to support teachers in improving their competence in planning, implementing, and evaluating PJOK learning based on PKG standards(Ranuharja et al., 2021).

3. RESULTS

3.1. Needs Analysis Results for the Development of the Practice-Based PKG PJOK Module

The needs analysis stage was conducted to identify the problems and challenges faced by elementary school PJOK teachers in implementing Teacher Performance Assessment (PKG). Data were collected through observations, interviews, and questionnaires distributed to PJOK teachers in the Soromandi District. The analysis results indicated that teachers experienced several difficulties related to teaching preparation, learning implementation, and performance assessment. These challenges were mainly caused by limited access to practical learning resources and insufficient training on PKG implementation(Soleah et al., 2022).t

Based on the interview results, most teachers expressed a need for a structured, practical guide to help them understand PKG procedures and improve their teaching competence. Teachers also emphasized the importance of learning materials that include real teaching examples and practical activities. The questionnaire results further confirmed the need for a practice-based module. The majority of teachers reported that they required additional support in developing lesson plans, conducting student assessments, and implementing effective teaching strategies in PJOK learning.

Table 1.

Needs Analysis Results of PJOK Teachers in Soromandi District

No	Identified Problem	Percentage (%)	Category
1	Difficulty in preparing lesson plans	85	High
2	Limited understanding of PKG procedures	82	High
3	Difficulty in conducting student assessments	78	High
4	Lack of practical teaching guidance	88	High
5	Limited training opportunities	80	High

The data in Table 1 show that all identified problems fall into the high category, indicating a strong need for the development of a practice-based PKG PJOK

3.2. Development Results of the Practice-Based PKG PJOK Module

The development process produced a practice-based PKG PJOK module designed to improve teacher competence through practical learning activities. The module was developed based on curriculum standards, PKG guidelines, and teacher needs identified during the analysis stage. The module consists of several main sections that guide teachers step by step in implementing effective PJOK learning and performance assessment. These sections include

learning objectives, competency indicators, instructional planning procedures, classroom implementation strategies, authentic assessment techniques, reflective practice activities, and performance evaluation instruments. Practical examples, case-based learning tasks, observation sheets, and self-assessment checklists are also incorporated to facilitate teachers' understanding and application of PKG standards in real classroom settings. The systematic organization of the module enables teachers to integrate theoretical knowledge with practical teaching experiences, thereby fostering continuous professional development. Overall, the module provides a comprehensive and user-friendly learning resource that supports the improvement of pedagogical and professional competence among elementary school PJOK teachers.

Figure 1.

This is the development result of the practice-Based PKG PJOK module.

3.3. The Structure of the Developed Module

The module emphasizes hands-on practice and real teaching scenarios to enhance teacher competence and confidence. Rather than focusing solely on theoretical concepts, it provides teachers with opportunities to apply PKG standards through simulated classroom activities, lesson planning exercises, authentic assessment practices, and reflective teaching tasks. This practical approach enables teachers to develop instructional skills that are directly applicable to everyday classroom situations while strengthening their ability to solve teaching-related problems effectively. In addition, the integration of real-life examples and structured practice activities encourages active learning, critical reflection, and continuous self-improvement. As a result, the module supports the development of both pedagogical and professional competencies, increasing teachers' confidence in delivering high-quality PJOK instruction and implementing teacher performance assessment in accordance with national standards.

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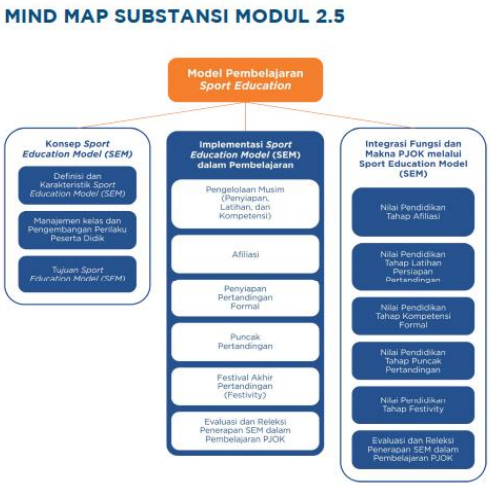
Figure 2.

This is the structure of the developed module



3.3. Expert Validation Results

The developed module was evaluated by three experts to determine its feasibility before implementation. The validation process focused on content quality, instructional design, and practical usability to ensure that the module met both academic standards and classroom needs. The experts involved in the validation process included an educational expert, a PJOK subject matter expert, and an instructional design expert, each providing comprehensive feedback based on their respective areas of expertise. The educational expert assessed the relevance of the module to teacher competency development, the PJOK expert evaluated the accuracy and appropriateness of the learning content, while the instructional design expert examined the organization, presentation, and usability of the module. Suggestions from the validators were used to revise and refine the product before field testing. Overall, the validation results indicated that the module fulfilled the criteria for academic quality, instructional effectiveness, and practical relevance, confirming that it was appropriate for implementation as a professional development resource for elementary school PJOK teachers.

Table 2.

Expert Validation Results

No	Validation Aspect	Score (%)	Category
1	Content relevance	92	Very Feasible
2	Instructional design	90	Very Feasible
3	Language clarity	88	Very Feasible
4	Practical applicability	91	Very Feasible
5	Presentation quality	89	Very Feasible

Average Score: **90%**

Category: **Very Feasible**

These results indicate that the developed module is suitable for implementation in elementary school PJOK learning.

The high validation scores demonstrate that the module meets the criteria of content validity, instructional feasibility, and practical usability. In addition, expert feedback confirms that the module is relevant to the needs of elementary school PJOK teachers and aligns with the standards of Teacher Performance Assessment (PKG).

The module provides clear guidance, practical learning activities, authentic assessment instruments, and reflective exercises that can be directly applied in classroom practice. Its systematic organization enables teachers to understand and implement competency-based PJOK learning more effectively.

Therefore, the developed module can be considered a feasible and reliable professional development resource for improving the pedagogical and professional competence of elementary school PJOK teachers while supporting the consistent implementation of PKG standards in teaching and learning activities.

3.4. Teacher Response Results to the Developed Module

After the validation stage, the module was implemented with elementary school PJOK teachers in the Soromandi District. Teachers were asked to provide feedback on the usability and effectiveness of the module.

The results showed that teachers responded positively to the module and found it helpful in improving their teaching competence. Teachers particularly appreciated the practical teaching examples and clear step-by-step guidance provided in the module.

Table 3.

Teacher Response Results

No	Evaluation Aspect	Percentage (%)	Category
1	Module clarity	93	Very Good
2	Content relevance	91	Very Good
3	Ease of use	90	Very Good
4	Practical usefulness	94	Very Good
5	Overall satisfaction	92	Very Good

Average Score: **92%**

Category: **Very Good**

The data indicate that the developed module was well received by elementary school PJOK teachers and was perceived as a useful professional development resource. Teachers reported that the module was easy to understand, relevant to classroom practice, and helpful in improving their teaching performance. These findings suggest that the module has strong practical value in supporting more effective and competency-based physical education instruction.

3.5. Results of Teacher Competence Improvement

The effectiveness of the practice-based PKG PJOK module was measured by comparing teacher competence before and after using the module. The evaluation focused on key aspects of teaching competence, including lesson planning, teaching implementation, classroom management, and student assessment. The results showed significant improvements in teacher competence following the module's implementation. Teachers demonstrated better ability to design competency-based lesson plans, apply student-centered instructional strategies, manage learning activities more effectively, and conduct authentic assessments aligned with the learning objectives. The findings indicate that the module not only enhanced teachers' understanding of PKG performance indicators but also strengthened their ability to apply these standards in real classroom practice. These improvements suggest that the module is an effective professional development resource for enhancing the pedagogical and professional competence of elementary school PJOK teachers..

Table 4.

Improvement of Teacher Competence

Competence Aspect	Before (%)	After (%)	Improvement (%)
Lesson planning	72	88	16
Teaching implementation	70	86	16
Classroom management	74	89	15
Student assessment	69	87	18
Professional reflection	71	90	19

Average Improvement: **17%**

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The data in Table 4 indicate that the implementation of the module significantly improved teacher competence in all evaluated aspects. Improvements were observed in lesson planning, instructional delivery, classroom management, and student assessment, reflecting the comprehensive impact of the developed module on teachers' professional practice. The consistent increase across all competency indicators suggests that the module effectively supports teachers in translating PKG standards into authentic classroom implementation. Furthermore, the findings demonstrate that practice-based learning activities, supported by structured guidance and reflective exercises, enable teachers to strengthen both their pedagogical and professional competencies. Overall, these results confirm that the developed module is an effective tool for promoting continuous professional development among elementary school PJOK teachers.

3.6. Results of Module Effectiveness Testing

The effectiveness of the module was also evaluated using teacher performance assessment data collected after the implementation stage. The results showed that most teachers achieved higher performance scores after using the module. The improvement was evident across multiple dimensions of teacher performance, particularly in instructional planning, classroom implementation, learning evaluation, and professional responsibility. Teachers demonstrated greater confidence in applying competency-based teaching practices and aligning classroom activities with the indicators of the Teacher Performance Assessment (PKG). These findings suggest that the module not only enhanced teachers' instructional competence but also contributed to better overall teaching performance. Therefore, the practice-based PKG PJOK module can be considered an effective professional development resource for supporting continuous improvement in the quality of elementary school physical education.

Table 5.

Teacher Performance Categories

Performance Category	Number of Teachers	Percentage (%)
Very Good	8	40
Good	10	50
Fair	2	10
Poor	0	0

The data show that 90% of teachers achieved performance levels categorized as good or very good after using the module. This finding demonstrates that the practice-based PKG PJOK module had a positive impact on teachers' ability to implement effective and competency-based instruction. The high proportion of teachers reaching these performance categories indicates that the module successfully supported the development of pedagogical and professional competencies required in elementary physical education. Moreover, teachers were able to apply PKG standards more consistently in planning lessons, managing classroom activities, conducting authentic assessments, and reflecting on their instructional practices. These results provide strong evidence that the module is an effective professional development tool for improving teacher performance and fostering continuous quality improvement in elementary school PJOK learning.

3.7. Final Product Results

The final product of this research is a Practice-Based PKG PJOK Module designed to

improve the competence of elementary school teachers in the Soromandi District. The module has been validated, tested, and revised based on expert feedback and teacher responses. It comprises structured learning materials, competency-based lesson planning guidelines, practical teaching scenarios, authentic assessment instruments, reflective activities, and self-evaluation components aligned with the Teacher Performance Assessment (PKG) standards. The development process ensured that the module met the criteria of validity, practicality, and effectiveness through expert validation, limited field trials, and implementation testing. Teacher feedback indicated that the module was easy to understand, relevant to classroom needs, and applicable to everyday teaching practice. Consequently, the final product serves as a comprehensive professional development resource that supports elementary school PJOK teachers in enhancing their pedagogical and professional competence while promoting the consistent implementation of PKG standards in classroom instruction.

The characteristics of the final product include: Practice-based learning activities, Clear instructional guidelines, Real teaching examples, Assessment and evaluation tools and Reflection and self-assessment activities

The module is designed to be used as a teacher training resource, A professional development guide, A teaching reference for PKG implementation, A learning support material for PJOK teachers.

4. DISCUSSIONS

4.1. The Need for a Practice-Based PKG PJOK Module in Improving Teacher Competence

The findings of this study indicate that elementary school PJOK teachers in the Soromandi District experience significant challenges in implementing Teacher Performance Assessment (PKG) and managing effective learning activities. These challenges include difficulties in preparing lesson plans, conducting student assessments, and applying appropriate teaching strategies. The needs analysis results demonstrate a strong demand for structured and practical learning resources to support teachers in improving their competence (Poplawska-Domaszewicz, 2024).

This finding is consistent with the theory of professional development, which states that teacher competence improves when teachers are provided with systematic guidance and opportunities to practice real teaching skills(Kiayias, 2015). In the context of PJOK learning, practical competence is particularly important because teaching involves movement demonstrations, classroom management in physical environments, and safety considerations. Therefore, the availability of a practice-based module becomes essential to support teacher performance and professional growth(Alutfi, 2024).

Furthermore, the need for a practical module reflects the changing demands of modern education, where teachers are expected to adopt innovative teaching strategies and implement performance-based assessment systems(Mahmudah, 2022). The integration of practical learning activities into teacher training programs can enhance the relevance and effectiveness of professional development initiatives. This finding suggests that educational institutions should prioritize developing practice-oriented learning materials to improve teacher competence and learning quality (Souisa et al., 2025). The findings of this study indicate that teachers prefer learning resources that provide direct examples and opportunities to practice instructional

procedures. This result is consistent with experiential learning theory, which emphasizes that knowledge is effectively acquired through concrete experience and reflective practice. Therefore, the development of practice-based modules represents a strategic effort to bridge the gap between theoretical understanding and practical application in schools (Zhao, 2020).

Furthermore, the urgency of developing practice-based modules is closely related to the current transformation of education, which requires teachers to become reflective practitioners capable of adapting to curriculum changes and educational innovations. Thus, the module developed in this study is not merely an instructional product but also a medium for strengthening teacher professionalism and promoting sustainable competence development.

4.2. The Effectiveness of the Developed Module in Supporting Teacher Professional Development

The results of this study demonstrate that the developed practice-based PKG PJOK module was categorized as very feasible based on expert validation and teacher responses. The high validation scores indicate that the module meets academic standards and aligns with the needs of teachers in real teaching situations. This result confirms that systematic instructional design plays a critical role in ensuring the effectiveness of educational products(Rukavina, 2025).

The effectiveness of the module can be attributed to its structured content and practical orientation. The module provides clear guidelines for lesson planning, teaching implementation, and assessment procedures, which help teachers perform their duties more confidently and effectively. In addition, the inclusion of practical teaching scenarios allows teachers to develop their skills through experiential learning, which is widely recognized as an effective approach in teacher training (Karmila et al., 2025).

This finding supports previous research showing that instructional modules can significantly improve teacher competence and teaching performance. Modules provide consistent learning materials that teachers can use independently, enabling continuous professional development beyond formal training sessions. As a result, the use of modules can reduce dependency on external training programs and promote self-directed learning among teachers(Herold, 2021).

4.3. Improvement of Teacher Competence Through Practice-Based Learning

One of the most significant findings of this study is the improvement in teacher competence after the implementation of the practice-based PKG PJOK module(Lu et al., 2020). The results show measurable improvements in key competence areas, including lesson planning, teaching implementation, classroom management, student assessment, and professional reflection. These improvements indicate that practice-based learning activities are effective in enhancing teacher performance (Boiliu & Polii, 2020).

Practice-based learning emphasizes active participation, skill development, and problem-solving in real teaching situations. This approach enables teachers to apply theoretical knowledge directly in practice, which leads to better understanding and skill mastery. In the context of PJOK learning, practical competence is essential because teaching involves physical demonstrations, student supervision, and safety management. Therefore, providing teachers with opportunities to practice teaching skills can significantly improve their performance (Salam et al., 2019).

The improvement in teacher competence observed in this study also highlights the

importance of continuous professional development in education. Teacher competence is not static but evolves through training, practice, and reflection. By engaging in structured practice activities, teachers can identify their strengths and weaknesses and develop strategies to improve their performance. This process contributes to the development of professional identity and teaching confidence (Swami, 2018). Another important aspect contributing to the feasibility of the module is the use of practical examples and structured learning activities (Bellomarini, 2023). These components help teachers understand concepts more easily and provide guidance for implementing learning activities in real classroom situations. Previous studies have demonstrated that instructional modules designed systematically can significantly improve teacher competence and facilitate self-directed learning (Chen, 2020).

Moreover, the positive responses from teachers indicate that the module is user-friendly and applicable in daily teaching activities. The simplicity of language, clarity of explanations, and relevance of content contribute to the acceptance of the module among teachers. Therefore, the developed module has the potential to become an alternative resource for teacher professional development programs.

4.4. The Role of Instructional Modules in Enhancing the Quality of PJOK Learning

Instructional modules play a crucial role in improving the quality of learning in schools. The findings of this study show that the developed module not only improved teacher competence but also enhanced the overall quality of PJOK learning. Teachers reported increased confidence in conducting learning activities, managing student behavior, and evaluating learning outcomes. They also demonstrated greater competence in designing lesson plans aligned with curriculum objectives, implementing student-centered instructional strategies, and conducting authentic assessments that reflected students' cognitive, affective, and psychomotor achievements. The practice-based structure of the module enabled teachers to bridge theoretical knowledge with real classroom application, making professional learning more meaningful and sustainable. Furthermore, reflective activities and practical teaching exercises encouraged continuous self-evaluation and instructional improvement. These findings suggest that the module serves not only as a professional development resource but also as an effective instructional tool that supports higher-quality teaching practices and promotes improved learning experiences for elementary school students in PJOK (Rutkowska, 2020).

The use of modules can standardize teaching practices and ensure that learning activities are conducted according to established educational standards (Fang, 2016). In addition, modules provide clear instructions and structured learning materials that help teachers deliver consistent and effective lessons. This consistency is particularly important in PJOK learning, where safety and proper technique are essential for preventing injuries and ensuring positive learning experiences for students (Lu et al., 2020).

Another important contribution of the module is its role in supporting teacher autonomy and independence. Teachers can use the module as a reference for planning and implementing learning activities without relying solely on external training programs. This flexibility allows teachers to adapt learning strategies to the specific needs of their students and school environments.

4.5. Implications for Educational Practice and Policy

The findings of this study have several important implications for educational practice

and policy. First, the development of practice-based learning modules can serve as an effective strategy for improving teacher competence and professional performance(Boiliu & Polii, 2020). Educational institutions should consider integrating such modules into teacher training programs and professional development initiatives (Lutfi, 2020).

Second, school administrators and education authorities should provide continuous support for teacher professional development through structured training programs and learning resources. The availability of practical learning materials can help teachers adapt to changing educational demands and improve the quality of learning outcomes (Nurcahyo & Yulianto, 2021).

Third, policymakers should recognize the importance of performance-based assessment systems such as PKG in promoting teacher accountability and professional growth. However, the successful implementation of such systems requires adequate support, including training materials, mentoring programs, and evaluation tools. The findings of this study demonstrate that a practice-based PKG PJOK module can serve as an effective support resource by helping teachers understand performance standards and apply them consistently in classroom practice. Therefore, educational authorities should integrate similar modules into continuous professional development programs to ensure that teacher performance assessment is accompanied by meaningful learning opportunities rather than functioning solely as an evaluation mechanism. In addition, policymakers are encouraged to strengthen collaboration among schools, teacher education institutions, and local education offices to provide sustained mentoring, regular monitoring, and follow-up evaluation. Such comprehensive support systems are expected to enhance the effectiveness of PKG implementation, foster continuous professional improvement, and ultimately contribute to higher-quality physical education teaching and improved student learning outcomes (Muniarty et al., 2021).

Finally, the results of this study highlight the need for further research on the development of innovative teaching resources in the field of Physical Education, Sports, and Health (PJOK). Future studies can explore the integration of digital learning technologies, collaborative learning strategies, and competency-based assessment methods to enhance teacher performance and student learning outcomes. Researchers are also encouraged to investigate the effectiveness of technology-enhanced PKG modules, such as web-based platforms, mobile applications, and learning management systems, to provide more flexible and accessible professional development opportunities. In addition, future research should involve larger and more diverse participant groups from different educational levels and geographical regions to improve the generalizability of the findings. Comparative and longitudinal studies are also recommended to examine the long-term impact of practice-based professional development on teacher competence, instructional quality, and student achievement. Such research will contribute to the continuous improvement of evidence-based professional development models and support the sustainable implementation of teacher performance assessment in physical education.

4. CONCLUSIONS

The findings demonstrate that the practice-based Teacher Performance Assessment (PKG) module for elementary school PJOK teachers, developed through the ADDIE model, is valid, practical, and effective in improving teacher competence in lesson planning, instructional implementation, classroom management, student assessment, and professional reflection. These results imply that integrating practice-based learning resources into continuous professional

development programs can strengthen the quality of teacher performance and classroom instruction. Nevertheless, this study was limited to elementary school PJOK teachers in the Soromandi District with a relatively limited number of participants, which may restrict the generalizability of the findings. Future studies should involve broader research settings, larger samples, and digital or technology-enhanced modules to examine long-term effectiveness. This study contributes to the literature by providing an empirically validated practice-based PKG module that can serve as a reference for teacher professional development and future instructional innovation in physical education.

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