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Developing an Integrated Tax Administration Module Based on Latest Regulations to Improve Accounting and Finance Vocational High School Students' Understanding

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ABSTRACT
Tax regulations in Indonesia have experienced dynamic developments since the enactment of the Law on Harmonization of Tax Regulations (UU HPP). This condition necessitates the availability of up-to-date teaching materials in Vocational High Schools (SMK) for the Accounting and Institutional Finance Skill Program. This study aims to develop a Tax Administration learning module integrated with the latest regulations and to analyze its feasibility, practicality, and effectiveness in improving student understanding. The Research and Development (R&D) method utilizing the ADDIE model was applied to 32 eleventh-grade students at a Vocational High School in Pasuruan, East Java. Data were collected through expert validation sheets, response questionnaires, and learning outcomes tests. The results showed that the module was highly feasible (material expert 80%, media expert 82%) and highly practical (85%). The effectiveness test using N-Gain obtained a score of 0.4 (medium category), indicating an improvement in student understanding. Therefore, the Tax Administration learning module integrated with the latest tax regulations is considered feasible, practical, and effective as a learning resource for improving vocational high school students' understanding of taxation.

Keywords: *learning module, tax administration, education, vocational high school student understanding, research and development*

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INTRODUCTION

Tax regulations in Indonesia continue to undergo significant developments in line with national and global economic dynamics. One of the important milestones in tax reform is the enactment of Law Number 7 of 2021 concerning the Harmonization of Tax Regulations (UU HPP), which brought fundamental changes to various aspects of taxation in Indonesia, including changes in Value Added Tax (VAT) rates, adjustments to Income Tax (PPh) rates, and the introduction of the voluntary disclosure program (Ministry of Finance of the Republic of Indonesia, 2021). These changes have a direct impact on the need to update tax learning materials at various educational levels, especially vocational education. Vocational education, particularly Vocational High Schools (SMK) in the Accounting and Institutional

Finance Skill Program, plays a strategic role in preparing skilled workers ready to enter the workforce in the finance and accounting sectors. In the SMK curriculum structure, the Tax Administration subject is one of the core competencies that students in this skill program must master. However, the availability of teaching materials that accommodate the latest changes in tax regulations remains a separate challenge for educators and students (Mulyasa, 2022).

The results of initial observations conducted at SMK Negeri Prigen, Pasuruan Regency, East Java, showed that most of the teaching materials used still refer to the old tax regulations and have not integrated the provisions within the UU HPP. The teacher of the Tax Administration subject acknowledged a gap between the available teaching materials and the currently applicable regulations. This condition implies a lack of student understanding regarding actual and relevant tax rules, so that SMK graduates may experience difficulties in facing a working world that has adapted to the latest regulations (Prastowo, 2021).

The concept of student understanding focused on in this study refers to the cognitive domain according to Anderson & Krathwohl's (2001) taxonomy, specifically at the C2 level (Understanding). This level requires students to be able to interpret, exemplify, classify, and explain tax rules and concepts in accordance with the latest regulations. This serves as a measurable basis for collecting student learning outcome data.

The development of teaching materials in the form of modules is one solution that can be taken to overcome these problems. Modules, as a form of teaching material, have characteristics that allow students to learn independently and in a structured manner (Majid, 2017). A module developed systematically and integrated with the latest regulations will be able to provide a comprehensive and contextual learning experience for students. Various previous studies have proven the effectiveness of using modules in improving student understanding and learning outcomes in various subjects, including those related to taxation (Daryanto & Dwicahyono, 2018).

In the context of developing teaching materials, the ADDIE (Analyze, Design, Develop, Implement, Evaluate) model is one of the widely used models due to its systematic, structured, and measurable results-oriented nature. This model provides clear guidance for teaching material developers at each stage of development, starting from needs analysis to the evaluation of the resulting product (Branch, 2009). The use of the ADDIE model in the development of learning modules has been widely used and proven to produce high-quality and effective products (Wahyuningsih & Makmur, 2019).

Based on the background described, the objectives of this study are: (1) to develop a Tax Administration learning module integrated with the latest tax regulations, specifically UU HPP; (2) to analyze the level of module feasibility based on the assessments of material and media experts; (3) to assess the level of module practicality based on teacher and student responses; and (4) to evaluate the module's effectiveness in improving the understanding of students at SMK Negeri Prigen in the Accounting and Institutional Finance Skill Program.

RESEARCH METHODS

This study employed a Research and Development (R&D) approach, aiming to produce a specific product and test its effectiveness (Sugiyono, 2019). The development model utilized was the ADDIE model, consisting of five stages: Analyze, Design, Develop, Implement, and Evaluate.

Analyze Stage

The analysis stage was conducted to identify gaps between existing conditions and expected conditions. Activities carried out in this stage included: (1) curriculum analysis to identify basic competencies and learning objectives that must be achieved; (2) needs analysis to identify problems faced by teachers and students regarding the availability of teaching materials; (3) student characteristic analysis to determine learning styles and students' initial capability levels; and (4) material analysis to identify content that needs updating according to the latest tax regulations.

Design Stage

In the design stage, researchers formulated a module framework encompassing: (1) a concept map of the material; (2) a competency map; (3) learning objectives; (4) a module display and layout design; and (5) the evaluation instruments to be used. The module design adheres to good teaching material development principles, covering content, linguistic, presentation, and graphical aspects (BSNP, 2014). (PERMEN Number 137 of 2014 — National Standards for Early Childhood Education, 2014).

Develop Stage

The development stage involves the module production process according to the planned design. The developed module encompasses the core materials of Tax Administration updated according to UU HPP, including: (1) basic concepts of taxation; (2) Individual and Corporate Income Tax (PPh) according to the latest provisions; (3) Value Added Tax (VAT) with the new 11% rate; (4) procedures for filling out and reporting Annual Tax Returns (SPT); and (5) other relevant tax provisions. (President of the Republic of Indonesia Ratifies the Law on Harmonization of Tax Regulations, 2021). After the module was fully developed, validation by material and media experts was conducted to assess its feasibility before being tested.

Implement Stage

In the implementation stage, the module design that had been validated and revised began to be applied in actual classroom learning processes. The module was distributed to students to test its practicality in order to evaluate whether the product could optimally facilitate the learning process.

Evaluate Stage

The evaluation stage was carried out to measure the effectiveness of the implemented module. Formative evaluation was applied to assess the improvement in students' understanding of the Tax Administration material based on the latest regulations before and after using the developed module.

Research Subjects and Data Collection Techniques

The trial subjects in this study were 32 eleventh-grade students of the Accounting and Institutional Finance Skill Program at a vocational high school in Pasuruan Regency, East Java Province. The selection of the research location was based on the consideration that the SMK was still using teaching materials that did not contain the latest materials, namely the newest tax regulations.

Data collection techniques used in this study included: (1) material expert and media expert validation sheets, to measure module feasibility from the aspects of content/material and display/media; (2) teacher and student response questionnaires, to measure module practicality; and (3) learning outcomes tests in the form of multiple-choice pre-tests and post-tests using a 0-100 scale, to measure the module's effectiveness in improving student understanding. The research instruments used had gone through a validation process to ensure their validity and reliability.

Data Analysis Techniques

Data obtained from expert validation sheets and teacher/student response questionnaires were analyzed using the percentage technique with the formula: $\mathbf{P = (\sum x / \sum xi) \times 100\%}$. Where P is the percentage, $\sum x$ is the total score obtained, and $\sum xi$ is the maximum total score. The percentage interpretation criteria refer to Riduwan's (2015) scale, namely: very feasible/very practical (81%–100%), feasible/practical (61%–80%), quite feasible/quite practical (41%–60%), not feasible/not practical (21%–40%), and highly not feasible/highly not practical (0%–20%). The module's effectiveness was measured using the N-Gain index (Hake, 1999) calculated based on the difference between students' pre-test and post-test scores. The N-Gain value interpretation criteria are: high **(>0.7)**, medium **(0.3–0.7)**, and low **(<0.3)**.

RESULTS AND DISCUSSION

Module Development Results

The Tax Administration learning module developed in this study consists of three main chapters. Chapter I presents the basic concepts and general provisions of taxation. Chapter II discusses Income Tax (PPh) in accordance with the latest UU HPP regulations, while Chapter III discusses Value Added Tax (VAT) with the updated rates. Each chapter contains learning objectives, material explanations, example questions, exercises, and a self-evaluation component.

This module demonstrates several advantages compared to existing teaching materials, such as the direct integration of the latest regulatory content into each sub-chapter, the inclusion of contextual taxation case studies relevant to the industrial sector, and real-application-based practice questions. Furthermore, this module is equipped with an interactive digital guide accessible via computers and tablets, and it supports both independent and group learning. The module's display is designed by taking into account visual design principles that are attractive and readable. The use of colors, fonts, and illustrations was carefully selected to support the readability and appeal of the module for SMK students. In addition to the print version, the module was also developed in a digital version accessible via computer or tablet.

Module Feasibility Validation Results

The module feasibility validation was conducted by two experts: a material expert who is an Accounting Education lecturer with expertise in taxation, and a media expert who is an Educational Technology lecturer. The material expert validation results showed an average percentage of 80%, falling into the feasible category. This assessment covered aspects of material completeness, accuracy, up-to-dateness, and alignment with learning objectives. Meanwhile, the media expert validation results showed an average percentage of 82%, falling into the very feasible category. (Kamilah & Susanti, 2022, pp. 2612-2623). Both validators provided revision notes that were addressed by the researchers before the module was tested on students.

Table 1. Summary of Module Feasibility Validation Results

Validator	Assessed Aspects	Percentage	Category
Material Expert	Completeness, accuracy, and up-to-dateness of material	80%	Feasible
Media Expert	Design, readability, and ease of use	82%	Very Feasible
Average		**81%**	**Very Feasible**

Module Practicality Test Results

The module practicality test was conducted by collecting responses from the subject teacher and eleventh-grade students as research subjects. The teacher response questionnaire results showed a percentage of 87%, which fell into the very practical category. Student responses to the module also showed positive results, with an average percentage of 83%, categorized as very practical. Overall, the average module practicality based on teacher and student responses reached 85% with the very practical category. (Zulkifli et al., 2021).

Aspects receiving the highest ratings from student responses included the ease of understanding the language used, the attractiveness of the module's display, and the relevance of taxation case examples to real-life situations. Students stated that the material in the module was easier to understand compared to previous learning resources because it was accompanied by detailed explanations and relevant application examples.

Module Effectiveness Test Results

The module effectiveness test was conducted by administering a pre-test before module usage and a post-test after the module was used. The pre-test results showed an average student score of 52.3, while the post-test results showed an average score of 75.8. The N-Gain index calculation produced a value of 0.4, which is in the medium category (0.3–0.7) (Susetyo & Lie, 2025). These findings indicate that the developed learning module is effective in improving student understanding, although the rate of improvement is still limited. The statistical analysis used was descriptive, comparing pre-test and post-test scores and calculating the N-Gain index. Inferential statistical tests, such as the t-test, were not performed, so conclusions regarding this module's effectiveness are based entirely on descriptive analysis of student test results.

Table 2. Student Pre-test, Post-test, and N-Gain Results

Component	Pre-test Average	Post-test Average	N-Gain (Category)
Class XI AKL SMK Negeri Prigen	52.3	75.8	0.4 (Medium)

Discussion

The study results show that the Tax Administration learning module integrated with the latest tax regulations was successfully developed with a quality that meets the standards of feasibility, practicality, and effectiveness. These findings align with previous studies proving that developing modules using the ADDIE model produces high-quality and effective products in improving student learning outcomes (Wahyuningsih & Makmur, 2019; Sukmadinata, 2017).

The module feasibility percentages from the material expert at 80% and the media expert at 82% indicate that the developed module has adequate content and display quality to be used as teaching material. This is supported by a systematic development process based on a comprehensive needs analysis, and aligns with findings regarding e-module validity in similar studies (Nursanni et al., 2021, pp. 123-130). These results are also consistent with Prastowo's (2021) study, which states that learning modules developed with structured procedures tend to obtain high feasibility ratings from experts.

The module's practicality level, reaching 85% in the very practical category, indicates that the module is easily used by teachers and students without requiring much adjustment. This positive response is relevant to the ease of using structured practicum modules in the teaching-learning process (Resmana et al., 2020, pp. 368-375). The positive responses from students also show that the module was designed with language and displays suitable for the characteristics and graphic needs of SMK students (Majid, 2017; Depdiknas, 2008), akin to the importance of teaching materials' readability aspects in motivating learning (Marwanto, 2008, pp. 1-10).

The N-Gain value of 0.4, which falls into the medium category, shows an improvement in student understanding after using the module. This improvement in understanding corresponds to the foundation of Anderson & Krathwohl's (2001) cognitive theory indicator at level C2 (Understanding), where students become more proficient in interpreting and explaining the latest tax regulations that were previously purely conceptual. This fact is linear with prior studies emphasizing the importance of updating instructional materials to mature the achievement of theoretical understanding indicators for vocational students. Although it is in the medium category, this value shows that the module is effective in improving student understanding of Tax Administration material integrated with the latest regulations. Several factors that may have contributed to the medium

N-Gain value include the complexity of tax material requiring longer time for comprehensive understanding, limited implementation duration, and diverse initial student capabilities. With further refinement and wider implementation, this N-Gain value has the potential to reach a high category (Hake, 1999).

To overcome study limitations and strengthen evidence of the module's effectiveness, future research is suggested to involve multi-site studies with additional schools from various regions to obtain more representative data. Longitudinal research tracking student learning outcomes over a longer period will provide clearer insights into the module's impact on understanding and mastering tax material. Experimental studies with randomized control designs or inter-group comparisons are also recommended to assess the module's effectiveness more thoroughly. The integration of UU HPP and its derivative regulations into the learning module has been proven to increase the relevance and up-to-dateness of teaching materials, which ultimately contributes to improving student understanding of the currently applicable Indonesian taxation system (Mardiasmo, 2022; Ministry of Finance of the Republic of Indonesia, 2021).

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the results of the research and discussion, several conclusions can be drawn as follows:

1. The Tax Administration learning module integrated with the latest tax regulations (UU HPP) was successfully developed using the ADDIE model, covering basic taxation concepts, PPh, VAT, and SPT reporting procedures according to applicable provisions.
2. The module is declared feasible for use as teaching material based on the assessment of material experts with a percentage of 80% (feasible category) and media experts with a percentage of 82% (very feasible category).
3. The module is declared highly practical for use in the learning process based on teacher and student responses, with an average percentage reaching 85%.
4. The module proved effective in improving student understanding with an N-Gain value of 0.4, which falls into the medium category.

Although this study was conducted at one school with a limited number of subjects, these findings have the potential to be applied in other vocational high schools sharing similar characteristics, both in other regions in Indonesia and in general accounting and finance study programs.

Suggestion

Based on the conclusions above, the following are recommended:

1. For teachers and prospective teachers of productive subjects to adopt this developed module as a reference or primary teaching material in learning Tax Administration.
2. For teachers and prospective teachers of productive subjects to selectively conduct periodic reviews and updates of teaching materials, ensuring that the materials used are always aligned with the latest provisions

and the needs of the Business and Industrial World (DUDI).

3. Future research should ideally be conducted involving multi-site studies and a broader population of school backgrounds to ensure the relevance and generalization of findings on a national scale.
4. The development of similar modules can be carried out for other productive subjects within the SMK Accounting and Institutional Finance Skill Program.

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