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Instructional Model Development for a Competence-Based Taxation Course

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Abstract:

The purpose of developing the instructional model is to change knowledge, attitudes, and behaviors that become essential competencies to support success in doing work and achieving graduates' required curriculum competencies. Higher education environment State Universities and Private Universities must prepare competently and quality graduates. The efforts of lecturers in improving the quality of graduates who are competent in their fields must change learning patterns with curriculum compatibility; this can affect the development of non-technical abilities of students. The Banten College of Administrative Sciences problem is that there is no Instructional model systematically designed by lecturers, so it is interesting to be investigated in developing learning models. The authors conducted a preliminary study of learning models to research and develop instructional models with the "ADDIE Model" in Competency-Based taxation subjects. The research method used is the research and development (R&D) approach. The number of respondents in this study was 35 people. Sampling techniques with purposive sampling techniques are first-rate students following the tax learning process. Based on the pre-test and post-test results, students have an average value increase of 9.8 points. The novelty of the research is developing a digital module as a guide for educators in improving student tax competence. Based on the research results on competency-based learning models, the authors conclude that they effectively improve students' competence in taxation.

Keywords: instructional model, competence-based learning, taxation course.

以能力为本的税务课程教学模式开发

摘要:

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开发教学模式的目的是改变知识、态度和行为，这些知识、态度和行为成为支持成功完成工作和实现毕业生所需的课程能力的基本能力。高等教育环境国立大学和私立大学必须为毕业生做好准备。讲师在提高各领域胜任毕业生素质方面的努力，必须改变学习模式，与课程相适应；这会对学生非技术能力的发展。万丹行政学院的问题是没有讲师系统设计的教学模型，因此在开发学习模型时进行调查很有趣。作者对学习模型进行了初步研究，以“阿迪模型”在基于胜任力的税收科目中研究和开发教学模型。所使用的方法是研究与开发(研发)方法。本研究的受访者人数为35人。具有目的性抽样技术的抽样技术是遵循税务学习过程的一流学生。根据前测和后测的结果，学生的平均得分提高了9.8分。该研究的新颖之处在于开发了一个数字模块，作为教育工作者提高学生税务能力的指南。基于基于能力的学习模型的研究结果，作者得出结论，它们有效地提高了学生的税务能力。

关键词：教学模式，基于能力的学习，税务课程。

1. Introduction

The change in learning orientation begins with the research results of a primary education teacher in developed countries on better teaching methods (Bulgren et al., 2000; Çoklar & Yurdakul, 2017). One finding is shifting the learning approach from previously teacher-centered to student-centered. This approach has now been widely applied at the level of higher education. In learning, what method motivates students to study on their own? This question changed the roles of lecturers and students. Lecturers are no longer the only source of knowledge, and students must change from passive to active in finding additional information and expertise.

Responding to the changes that occur, the government has required all universities to apply the principle of student-centered learning. For this reason, the government provides training materials for implementing new learning methods that are student-centered. However, it is unfortunate that most of the material available is a copy of training material developed abroad without the knowledge gained from scientific research on what happens in Indonesian tertiary classes. When learning is centered on lecturers, they are considered a source of truth and knowledge. The lecturer gives the lecture, and the student records as many words as the lecturer says. It is rare or not found that students criticize or oppose lecturers' opinions based on the knowledge or information obtained by themselves (Brown & Green, 2018; Mitton-Kükner & Murray-Orr, 2018). In a learning system centered on students, the role of the lecturer is changed to become a facilitator while still mastering the field he is currently in. In addition, the teaching material changed. Previously the teaching material was centered only on knowledge. Now, lecturers must teach students to have the ability to learn on their own, think critically, write, be entrepreneurial, and be proficient in communication. One way to increase the quality of education is to improve the curriculum.

In its journey, the government's development of the tertiary curriculum is directed with increasingly stringent arrangements where compliance is ensured through an assessment for accreditation, which is carried out by the National Accreditation Board. According to the Ministry of National Education,

"higher education curriculum is a plan and arrangement regarding the content and material of studies and lessons as well as ways of delivery and assessment used as guidelines for the implementation of teaching and learning activities in higher education" (No. 232/U/2000). Others said that the curriculum was a pursuit of the goals of the teaching-learning process at the level of the study program conceptually. Therefore, the achievement is carried out as an objective and is still broken down into traits, which become guidelines for designing course teaching programs which now consist of Teaching Program Outlines, Syllabus, and the Teaching Event Unit, applying a student-centered learning method. Initially, Law 22/1961 (concerning tertiary institutions) was determined, which laid the foundation of the tertiary structure as we know it today. A critical requirement was the necessity of a curriculum designed based on the Pancasila and the Political Manifesto of the Republic of Indonesia as stipulated in Presidential Decree 19/1965 and Presidential Regulation 14/1965.

Since the beginning of this century, there has been a shift in higher education's teaching and learning process. It can be said that the fundamental change lies in the focus on the process, which leads to thinking, as stated by Galileo Galilei (1564–1642). Previously, teaching was centered on teachers in primary and secondary education and lecturers at the tertiary level because they were considered "omniscient" and conveyed their knowledge to their listeners. The Comprehension-Based Curriculum paradigm changed the teaching objectives to focus on the needs of the listeners or students to have competence when graduating.

The paradigm shift from being centered on teachers and lecturers to students and students (from teacher-centered to student-centered learning) is not a new phenomenon. Only, student-centered teaching and learning methods are increasingly widely accepted and applied and are believed to be the directors for the future. The superiority of this new paradigm in Indonesia is also thought of by the government that developed it. However, it is unfortunate that changes are only based on regulations without knowing the prevailing conditions based on data obtained scientifically as done and carried out abroad. There has

not been any scientific research on the benefits of changing the paradigm of teaching and learning processes and procedures. What is being issued is a barrage of regulations without knowing the results of the previous changes. In reality, not many lecturers see the meaning of the new learning method, which lecturers and students should do. Especially again there is no information about the advantages and disadvantages for lecturers and students from the old to the new method.

The higher education curriculum is now a guideline for study programs, as explained in the Minister of Education 232/U/2000. The higher education curriculum is a plan and regulation regarding the content and material of studies and lessons and the methods of delivery and assessment used as guidelines for implementing teaching and learning activities in tertiary institutions. This definition implies that the study program determines in advance the education purpose, guided by the vision and mission of a larger institution. These goals define the course (or choice of course groups) and what other requirements students must complete graduating. The fundamental change from the direction above lies in the understanding that the curriculum is a plan and an arrangement. This was said because previously, it was often heard how new doctors promised to procure new courses, it was uncertain about building unity with other existing systems. This is a sign of how the higher education market is a bargaining market. The determinants are those who know tradable commodities.

Based on understanding the description of the character of the resources above, lecturers must understand various knowledge groups to understand students. The optimal management of resources requires knowledge, skills, mental attitudes, and ethics based on commendable characters. Then, all science fields can be delivered with lecture material considered most appropriate in an integrated learning framework, including the integration of the *Tridharma* component, interdisciplinary completion, and seeding of three aspects of IKS (Science, Skills, and Attitudes) with orientation attitudes leading to the formation of the character of the state, which has established six knowledge clusters for the categorization of groups of sciences developed and practiced in achieving sustainable quality communities whose manifestations are reflected in the national ideals whose summary is expressed as the Preamble of the Basic Law 1945. The knowledge groups are religious studies, humanities, social sciences, natural sciences, formal sciences, and applied sciences. Competencies are developed based on the feedback and contribution from all stakeholders involved: students, teachers, and community partners (Johnstone & Soares, 2014; Gervais, 2016; Secretary-General of the European Commission, 2018).

Curriculum changes also mean changes in learning. With the above concepts, the learning process carried out in higher education is not just a transfer of knowledge but is equipping in the form of inquiring

someone competent in working in the community. Thus it will be seen that the change in the curriculum from a curriculum based on mastery of science and skills following KEPMENDIKBUD No.056/U/1994, according to KEPMENDIKNAS No. 232/U/2000, has several expectations of excellence: "Outcomes of educational outcomes (outcomes) are expected to be following societal needs, industrial/business needs, and professional needs; with the understanding that outcomes are the ability to integrate intellectual skills, knowledge, and practice into behavior as a whole.

Graduates' competency can be obtained through a study of three elements, namely the values proclaimed by universities (university values), the scientific vision of the study program (scientific concept), and the needs of community stakeholders (need assessment). This competency is divided into three categories: main competency, supporting competencies, and other competencies, which eventually become the formulation of graduate competencies. As explained previously, the main competencies are the competence of the graduates of a study program, while supporting competencies are competencies added by the study program to strengthen the main competencies and characterize the study program's excellence. Other competencies are those of graduates determined by universities/study programs as characteristics of their graduates, providing them with breadth in choosing areas of life and improving their quality of life.

The research was carried out to improve the quality of learning in the problem of the learning process in Banten College of Administrative Sciences. The development of competency-based learning models in taxation subjects motivates lecturers and students in the learning process to achieve competencies and learning objectives. The approach in the learning process is centered on students and lecturers as facilitators and effective learning strategies. The importance of research in the development of learning models lies in: 1) increasing the ability of students in each component of the learning design; 2) increasing student competence to meet design demands; 3) using teaching materials that students easily understand, and 4) increasing student competency in creative thinking and positive interactions with lecturers.

Novelty in research is a part that researchers in scientific dissertation papers must consider after reviewing several similar research results on developing competency-based learning models (Cheung, 2016). The ADDIE Model is used and applied for curricula that teach knowledge, skills, or attitudes. The Development of Message-Design Model in Blended Learning (Pérez et al., 2017; Kim & Thayne, 2015; Becker & Eube, 2018). Researchers find problems designing instruction that often ignores message design (Faulds & Mangold, 2014; Reiser & Dempsey, 2012). It focuses on syntax and learning systems, including innovative learning designs such as e-learning, online learning, blended learning, and mobile learning

(Arkorful & Abaidoo, 2014; Guo et al., 2014; Lou et al., 2012; Kitchenham, 2011).

Applying ADDIE learning models improves students' science process skills in linear motion kinematics material (Rosdianto et al., 2019; Aswirna & Ritonga, 2020). The research aims to describe the improvement of students' science process skills after applying the ADDIE model (McGriff, 2000). The ADDIE model is an iterative instructional design process, where formative evaluation results from each phase can direct instructional designers back to the previous stage. The final product of one step is the initial product of the next phase - formative evaluation in the ADDIE model.

Previous research studies on the development of the ADDIE model in learning; the research to be carried out by the authors is a new phenomenon in the development of competency-based learning models in taxation subjects by combining the ADDIE model approach with the Dick and Carey model approach. The novelty of research in the development of teaching materials (students), guidance for teaching staff (academics and practitioners), and in the product evaluation stage uses formative evaluation (Dick et al., 2015). The printed teaching materials developed contained content (curriculum structure, essential competencies, specific instructional objectives (ICT), course descriptions, student assignments, and practical training materials). Academic lecturer guide helps practicing lecturers present taxation courses at each face-to-face meeting, facilitating practical training. Researchers will carry out a formative evaluation following the stages.

The innovation development of the competency-based learning model of taxation subjects has become a new learning model in Banten College of Administrative Sciences to be implemented. The response from the leaders (Chair, Deputy Chair III, and Chair of the STIA Banten Department) was excellent regarding the development of tax subjects learning models to be implemented in the hope of helping the learning process. Students can participate in the tax competency certification test program organized by the Tax Competency Certification Institute to reach the graduation category with perfect criteria.

2. Methods

2.1. Research Approach

The research will be carried out with a mixed-method research approach, which combines a quantitative and qualitative method (Creswell, 2016). The research approach combines the two techniques (qualitative and quantitative) to develop learning models due to the close relationship between evaluation and systematic development (Gall et al., 2016). The research uses a research and development approach (Research and Development). We adopt the ADDIE approach model to develop competency-based learning models in taxation subjects (Branch, 2015).

According to Gall et al. (2016), "research and development is an industry-based development model in which the research findings are used to design new products and procedures, which then are systematically field-tested, evaluated, and refined until they meet the specified criteria of effectiveness, quality, or similar standards." Research and development are development models based on industrial models.

2.2. Type and Sources of Data

The type of data obtained in the study is qualitative data through interviews and questionnaires in the formative evaluation process. Questionnaires were distributed to respondents and colleagues in interviews with students as an evaluation. Quantitative data of student assessment are used to evaluate competence. Quantitative data can be obtained through tests (pre-test and post-test) when testing teaching materials. Data sources are categorized as follows: 1) based on data collection techniques, observation, interviews, and questionnaire distribution; 2) based on data acquisition sources: peers, experts, and students.

3. Results and Discussion

The field trials aim to assess the effectiveness of the learning model in achieving the learning objectives set before, to obtain information about learning components, material components, and display components. The trial was conducted with 35 students, adjusted to the number of students taking taxation courses at the Banten College of Administrative Sciences. The primary trial process was completed with Students given interventions with a complementary-based learning model online through Google Meet. Provide an opportunity to study the material to identify the shortcomings or weaknesses of the learning model. Identify materials, instructive objectives, and learning outcomes, following the main goals of developing learning models to improve competence in taxation.

In addition, the field trials are conducted in the form of tests to assess learning results. Before being intervened, a pre-test is undertaken to determine the initial state of the student before the intervention. At the end of the intervention, a final test will be conducted to determine the change after the intervention based on the responses of students following the learning. The comparison of the average value of this field test's initial and final results can be described in Table 1.

Table 1. Normality test results

	Pre-test	Post-test
N	35	35
Mean	73.31	83.00
Std. Deviation	6.768	4.332
T-statistic	0.198	0.129
Sig.(2-tailed)	0.061	0.154

Based on the normality test results (Table 1, the obtained Sig value. $0.154 > 0.05$), it can be concluded that the average distribution data can be continued with T Paired test, and the T Paired test results can be seen in Table 2.

	T-Paired
Mean	-9.685
Std. Deviation	3.367
df	34
Sig. (2-tailed)	0.000

Based on Table 2, the obtained value of Sig. (2-tailed), the probability value of the T-paired P-value test is 0.000. This means there is a difference between before and after treatment because the p-value value < 0.05 (95 % with a confidence level). The mean value of -9.6857 is negative, meaning there is a tendency to increase the post-test score after treatment. The average increase is 9.8; it can be concluded that the effective learning model for learning improves competence in taxation.

The pre-test and post-test results in field trials showed an increase in post-test results, so it can be concluded that the learning model can improve student learning outcomes. The learning model developed can improve the competence of the taxation field at the Banten College of Administrative Sciences. The learning process at the Banten College of Administrative Sciences in taxation courses still refers to the structure of a competency-based curriculum. The author collects some information in the learning process, and some problems must be given alternative solutions in the learning process. The issues identified include: 1) Lecturers have not used learning materials systematically in the learning process; 2) Using a collection of learning materials in the form of handouts; 3) Students do not understand taxation theory and calculation.

The review of some of the above problems by interviewing students and lecturers (tax course masters) is one of the alternative problem-solving means in the learning process by developing competency-based learning models in taxation courses. The purpose of developing the learning model is to change knowledge, attitudes, and behaviors that become essential competencies to support success in doing work and achieving graduates' required curriculum competencies. A person's competence in performing a job (performance) must be done following the predetermined conditions, and what is done meets the established requirements (standards). Students are expected to explore theories and practices in learning to achieve the competencies set by the campus in the curriculum and syllabus based on knit level from the Ministry of Technology on the criteria of graduate achievement.

The competency-based learning model in taxation courses is developed using ADDIE model approach. Development of learning models at the design stage, the author develops printed teaching materials for students and lecturer guidelines. The author will use a formative evaluation approach from the Dick and Carey model from each step at the evaluation stage. Academic demands for students of STIA Banten must have good graduate competence and have a certificate of competence as a graduation requirement (undergraduate) by cooperating with the Tax Competency Certification Body in the implementation of competency exams.

4. Conclusion

The learning process at the Banten College of Administrative Sciences in taxation subjects still refers to the competency-based curriculum structure (KBK). The author collects some information in the learning process; some problems must be given an alternative learning process. The identified problems include: 1) Lecturers have not used learning materials systematically in the learning process; 2) teaching materials using a collection of materials in the form of handouts; 3) students do not understand the concept of tax theory well and have difficulty in practicing tax calculations.

After examining some of the problems mentioned above by interviewing students and lecturers (in tax subjects), the authors determined that one alternative problem-solving means in the learning process is developing a competency-based learning model in taxation subjects. The development of learning models aims to change knowledge, attitudes, and behaviors, which are essential competencies to support success in doing work and achieving graduate competencies required by the curriculum. A person's competence in carrying out a job (performance) must follow the conditions determined, and what is being done must meet the requirements (standards) set. Students are expected to master the theory and practice of learning to achieve the competencies set by the campus in the curriculum and syllabus based on the KKNI level from the Ministry of Research, Technology, and Higher Education on the criteria for graduate achievement.

The novelty of this research is to develop a digital module as a guide in improving student competence in taxation. This research is guided by previous research, which only provides training to students but has not seen the competence of the educators.

The advantages of the results of this study are digital modules that are integrated with social media so that they are easy to store, use at any time, and make changes as needed. The weakness is that the research is conducted online; thus, it cannot see the participants' characteristics directly, so further research needs to be done by exploring more participants directly.

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