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THE LEARNING DEVELOPMENT OF OUTCOME BASED EDUCATION (OBE) DURING THE IMPLEMENTATION OF MBKM CURRICULUM IN THE INFORMATION SYSTEMS STUDY PROGRAM DHYANA PURA UNIVERSITY

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Abstract

Curriculum as guidance in education is useful for regulating the process of learning activities. The curriculum in higher education, especially at Undhira, is specifically designed to be able to help initiate and accompany all learning activities that are carried out. This can be seen from the seriousness of the institution to provide superior educational services, indeed it is not easy to design a curriculum. The Information System Study Program in this case develops an output-based curriculum as the way out of the MBKM curriculum and also as a form of responsibility to produce competent graduates. During the development process, the ADDIE method is carried out as one of the methods used, which it helps the study program to see in detail and structure so that the resulting curriculum can be used and goes hand in hand with the institution's plans. In addition to the methods used, the study program also looks at the design of the APTIKOM curriculum so that it is noticeable and relevant with the needs of the industrial world.

INTRODUCTION

Dhyana Pura University (Undhira) Information Systems (SI)) Study Program is one of the study programs at the faculties of health, science and technology. In line with the development of the SI study program, it provided many improvements in terms of curriculum based on character, culture, environment and people's understanding in the field of information technology. The curriculum designed by the SI Study Program follows Presidential Regulation Number 8 of 2012, Law Number 12 of 2012 concerning Higher Education and Higher Education National Standards (SN DIKTI) which was later derived and translated to become the basis for curriculum development in University Statuta as a requirement in created the Indonesian National Qualifications Framework (KKNI) and then became a policy which was developed into a MBKM design for the Undhira Campus. There have been many impacts, especially on the Information Systems Study Program, in the development of MBKM Undhira, which during the learning process that occurs, extraordinary support is needed from the Faculty as a Study Program Management Unit and the University as a whole. With the MBKM, there are a lot of linkages between study programs and the industrial world with the business world which aim to provide experience in applying the knowledge that has been learned during the learning process in the classroom., Tertiary institutions are given the freedom to design and develop curricula according to the fields of knowledge, competencies, industry needs, and society along with the KKNI, SN Dikti, and MBKM to create exemplary and superior graduates in the areas of competence of each study program. There are main problems encountered in the curriculum development process,

namely are many methods in good formulation and what considerations must be considered in the processing of graduate learning outcomes (CPL), course learning outcomes (CPMK), and indicators of learning success. It has been stated that the curriculum developed must be student-centered in the Higher Education Curriculum Development Guide published by the Directorate of Higher Education in 2020. However, not all courses can be directed to be student-centered, but process- or outcome-centered. The purpose of writing article is to understand and develop the needs of students in the information systems (IS) study program, as well as the factors that influence the success of the curriculum which was built in an era where students can study off-campus and use various online and blended methods added to character learning.

METHODS

Along with the existence of a new policy from the Ministry of Education, Culture, Research and Technology, the efforts are provided to increase skills and knowledge by making adjustments between the world of education and the world of industry as a process in reducing the number of unemployed. The policy in the form of the Free Learning - Independent Campus (MBKM) curriculum which was launched during the Covid-19 pandemic in 2020 is in accordance with Permendikbud no. 3 of 2020, provides opportunities for students to take part in the lecture process in other study programs at the same university or in study programs that are allied but at different universities, or take part in internship programs in industry. The existence of MBKM curriculum, specifically study programs had to make minor improvements to the learning process using this curriculum, even when the pandemic that was going through at that time provided opportunities to make improvements. Learning with the old curriculum must be improved and change the way students learn directly. Accordance with these, when the improvements were made, the teachers made many improvements which had previously been well implemented in learning, continued to be used and improved according to needs, as well as learning that was not good previously was given the opportunity to be further developed in order to compatible with the learning achievement.

Table 1 Curriculum Design with The ADDIE Method

	Curriculum SIS	Curriculum SIS17	Curriculum SISFO	Curriculum SISFO21
Analyze	The curriculum that is made still uses or incubates from the Information Systems Study program at	The curriculum was specifically designed considering to SIS curriculum that had been used and was successful, then adapted to the	The SISFO curriculum is an improvement curriculum which developed as an improvement	The SISFO21 curriculum is a development of SISFO where Competency and Expertise are demanded and used as a start in

	University of Indonesia	Association of Computer Science Colleges	from the SIS17 curriculum	adjusting to the industry.
Design	The curriculum is made by adjusting the Higher Education Statute with the University of Indonesia curriculum	By aligning the SIS curriculum with APTIKOM and Higher Education Statutes	In general, there is no differentiation from the SIS17 curriculum, it has just developed during panmic.	This curriculum is a development of the SISFO curriculum which is equivalent to the OBE used in the University MBKM Curriculum Concept
Develop	The curriculum is shorted to be taken and applied according to the competence of existing lecturers.	The SIS17 curriculum was developed by taking into account the developmental needs of APTIKOM	Generally, there is no change in the curriculum while the development is more directed to the competence and expertise of the students	The development has not changed too much, only a lot of additions and adjustments according to the statutes and university curriculum adjusted between MBKM DIKTI and APTIKOM.
Implement	The curriculum is designed to provide convenience in the lecturing process so that it continues to be adapted to industry needs.	The curriculum that has been adjusted to the conditions of 2017 where the curriculum should be more directed to student competencies in the implementation	The curriculum has no difficulty in implementing because during the pandemic students can truly receive development benefits, namely	This curriculum is easily accepted by students because the learning process has shown competence and expertise.

		process does not experience difficulties because a lot of material development has been carried out.	competence and expertise.	
Evaluate	This curriculum was used for 4 years which eventually changed to the SIS17 curriculum	This curriculum has been successfully used and continues to make improvements to the SISFO curriculum	This curriculum experienced unexpected things during implementation and was developed into the SISFO21 curriculum	Still in the process of adjustment

In designing the curriculum for the information systems study program, several instruments are considered, such as:

Table 2. Curriculum Development Instruments

Number	Development Instrument	Instrument Function
1	Analyzing Learning Achievement	Learning outcomes contain a set of competencies and scope of material that is comprehensively arranged in narrative form. The designed curriculum can give color to learning activities and learning objectives are more focused on the competencies and abilities that students will have by carrying out the CP analysis.
2	Developing Teaching Modules	The teaching modules development must be essential; interesting, meaningful, and challenging; relevant and contextual; and continuously. The aim is to provide signs in the learning process so that the

		material can be well understood by students
3	Learning Adaptation	Learning in each curriculum has its own paradigm, for this reason it is necessary to make adjustments to the stages of achievement and characteristics of students. In addition, the learning material must provide simple outcomes so that learning is declared successful, and educators must adjust the learning outcomes with the learning environment.
4	Learning assessment	a. Learning Assessment Planning Make a learning assessment plan that is suitable with the learning plan. b. Learning Assessment Processing The aim is to limit the learning assessment planning process in accordance with the expected learning outcomes. c. Implementation of Learning Assessment In the process of implementing the assessment, it must be carried out in stages so that at certain levels the learning outcomes can be measured in accordance with the initial learning plan and formed with the learning analysis.
5	Learning Progress Reporting	At this level, the function is to find out the level of learning achievement which is

		useful to see whether the course designed is in accordance with the needs of the competency and suitability of the course given. If it is not suitable, courses will be considered according to their needs.
6	Learning Evaluation	In evaluation, apart from students having learning evaluations carried out, courses also need to be evaluated which is collected from the results of student evaluations, and also in the learning process carried out by the lecturer. For this reason, learning evaluation is not only carried out for students but also at the lecturer level and the needs of the course.

RESULTS AND DISCUSSIONS

The assessment that carried out on the curriculum development of the Undhira Information Systems Study Program, it underwent many developments during the process and not the changes that are usually made to the curriculum. The curriculum development has experienced and been tested a lot so that in determining the new curriculum it is expected to be able to provide responses from industry to study programs from the results of tracer studies conducted so that the input provided can be considered in the future for curriculum development. It can be seen from the development map which has the following conclusions;

Figure 1 Information Systems Study Program Curriculum Development Map

Based on the results of the conclusions in Figure 1, it is obtained from the conclusions and activities carried out in the curriculum development carried out from 2011 to 2021 that have gone through developments which are carried out every 4 years by adjusting the curriculum designed by the study program with APTIKOM. Regarding to the curriculum designed by APTIKOM arranged by the study program, it is applied to adjustments in the SIS17 curriculum by taking into account the conditions in 2017 which experienced changes in learning conditions where more focus on the competence of each student was further improved. It was continuously done by looking at the competence of each student which is designed to be improved and the time to go until 2020 when a pandemic occurs. At that time, the Study Program was carrying out curriculum development again by creating the SISFO curriculum, where the curriculum was designed to meet pandemic conditions by taking into account the competencies that students must have. During the pandemic with the SISFO curriculum, the learning process could take place well because the curriculum was more designed with real conditions and improved the learning process provided by the lecturers. Due to the pandemic conditions and curriculum development in 2020, the curriculum is designed to prepare each student to have an understanding of the environment around them and to provide many developments to deal with conditions while in the industry. Indeed, conditions during a pandemic became unexpected conditions in all industrial sectors. Even during a pandemic, the curriculum that was affected was quite large so that students and lecturers had to experience changes in the way of learning. But with a specially designed curriculum, the SISFO curriculum provides new experiences in extraordinary ways of learning for students so that lecturers also experience changes in teaching methods which cause discussions to develop and improve the SIS17 curriculum so that the designed curriculum experiences improvements and adjustments to current conditions instead of forcing the existing curriculum to run continuously. The readiness of the Study Program to develop the curriculum to provide opportunities in 2021, make a new curriculum with the name SISFO21 curriculum which has included several important things in its design such as

development according to the MBKM Curriculum rules set by the university during a pandemic to pay more attention in competence, learning experience from students, opportunities for practitioners to provide learning experiences to students, and students are given the opportunity to study courses outside the study program both from the university itself and outside the university itself. With the SISFO21 curriculum which is designed and adapted to provide new experiences from student learning methods and also the competence development of the lecturers themselves. So that the learning that is carried out provides development results in the learning process received by students.

CONCLUSION

The curriculum is designed from the curriculum that is given the name of the study program is aims for monitor learning activities easily such as the SIS Curriculum, SIS17 Curriculum, SISFO Curriculum, and SISFO21 Curriculum and provide signs in organizing and carrying out the learning process. Regarding the signs that are designed or developed, it provides a learning process that has new experiences for students, especially in preparing students to be accepted by industry in general, which then also prepares students to be able to develop their theoretical knowledge when students enter the industrial world, especially in apprenticeship programs or field work practice. Apart from that, with a curriculum designed to make it easier for lecturers to develop their learning so that the goals to be achieved can provide a real form of competence possessed by students. Along with the competencies possessed by students, as well as with the competencies provided by lecturers through learning, the curriculum every year undergoes simple improvements so that each lecturer experiences competency development, not only students who develop their knowledge.

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