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Online Course Tailoring Design through Project-Based Learning Syntax in Fashion Studies

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Abstract. In learning Tailoring courses, understanding theory is a very important basis before students practice. Without a strong understanding of theory, tailoring practice will only be trial and error. Therefore, lecturers must ensure that each student really masters the basic concepts before stepping into the practical stage. This study aims to analyse the needs of fashion students in online-based tailoring learning. This research collaborates with 10 students who have taken tailoring courses and 10 students of class 2024. Participants in this study also involved tailoring lecturers. Data collection techniques were conducted through in-depth interviews, participatory observation and documentation. The results of this study show that online courses can bring success to student learning, making it more interesting and stimulating. Online courses also make it possible to replay materials anytime and anywhere, minimising misunderstandings and ambiguities. The development of online learning in Tailoring course will be done by using Moodle as a learning management system by applying Project Based Learning approach.

Keywords: Online course, Tailoring design, Project-based learning, Fashion studies.

1 Introduction

The teaching and learning process is a vital component in improving the quality of education. In education, learning activities consist of theory and practice[1]. This combination often faces obstacles, especially when the learning activities do not run effectively and efficiently. Two-way communication between students and lecturers is needed so that the material presented is truly understood[2]. However, what often happens is one-way learning from lecturers to students without any response back. This causes learning activities to tend to be passive and monotonous, which results in a decrease in student interest in learning in class. In addition, the lack of understanding of theory causes practice to be suboptimal[3].

Tailoring course learning in higher education has an important role in preparing students to become professionals in the fashion and garment industry[4]. This course combines comprehensive theory and practice to provide technical skills as well as an in-depth understanding of the fashion making process[5]. Students are taught to understand design concepts, sewing techniques, pattern making, and the use of textile tools

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and materials. This course focuses not only on technical aspects, but also aesthetics and creativity in producing quality fashion pieces[6].

In learning Tailoring courses, understanding theory is a very important basis before students practice[7]. Without a strong understanding of theory, tailoring practice will only be trial and error. Therefore, lecturers must ensure that each student really masters the basic concepts before stepping into the practical stage. These basic concepts include knowledge of body anatomy, measurement techniques, and basic principles in pattern making[8]. With a deep understanding, students can apply the theory effectively in sewing practice. The learning process in the tailoring course also includes various sewing techniques, ranging from basic techniques to advanced techniques. Students are taught how to sew neatly, make various types of stitches, and use sewing machines and other tools correctly. In addition, students also learn about special techniques such as draping, pleating, and smocking that are often used in fashion making[9]. These techniques require intensive practice and direct guidance from lecturers so that students can master them well.

In addition to sewing theory and techniques, students are also taught about the importance of quality and detail in every work. The quality aspect includes accuracy of size, neatness of stitches, and selection of appropriate materials. Students are encouraged to always pay attention to small details that can affect the overall result of the outfit. The evaluation process and feedback from lecturers are very important to help students improve the quality of their work. This evaluation is usually done through work presentation, practical assessment, and constructive criticism from the lecturer. However, the learning of tailoring courses in higher education still faces several obstacles. One of the main obstacles is the limited time, facilities for practice, and learning resources[10]. Tailoring practice activities require quite a long time and adequate facilities, such as sewing machines, cutting tools, and a large enough workspace. In addition, the large number of students can also affect the effectiveness of guidance from lecturers and inadequate learning resources. According to Rofiqodduri and Wahyuningsih [11], students always look for learning resources from the internet, especially on YouTube, Instagram, TikTok to find tutorials for sewing tailoring clothing. Then in this situation, innovative and effective learning methods are needed to overcome these obstacles and ensure that each student gets an optimal learning experience.

Optimal learning experience can be done through Learning Management System (LMS). Learning Management System is a term in the world of technology that is specifically created, designed, and developed for the management of online or virtual course systems because of its online nature, the learning process, delivery of learning materials, and forms of collaboration and interaction between students and teachers are all carried out through computing devices[12]. This application can be used across disciplines to manage learning activities, create learning materials, create assignments and tests, manage the results of learning activities, and interact[13]. LMS is a complete system that can accommodate online learning activities[14]. In the implementation of learning during a pandemic, most of which is carried out online, the LMS is the most popular choice as an intermediary medium in learning. LMS is a software application used by educators, both universities or colleges and also schools as a medium for

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internet-based online courses (e-learning). Therefore, this research is to analyse the needs of fashion students in online-based tailoring learning.

2 Method

This research uses qualitative methods based on Creswell[15]. This research tries to understand the needs of fashion students in providing convenience to learn tailoring material. Thus, a qualitative approach can be used as a method to analyse these needs. This research was conducted on students of fashion studies programme, Jakarta State University. The selection of participants was carried out using purposive sampling technique. Thus, participants were selected according to the criteria of research needs. The participants in this study were 10 students who had taken tailoring courses and 10 students of Batch 2024. In addition, the participants of this study were two lecturers of tailoring courses.

Data collection was conducted through in-depth interviews, participatory observation and documentation. The first step was to observe the tailoring learning process. Observation activities were carried out twice. After that, the second step was conducted in-depth interviews. The interviews were conducted around the campus of Jakarta State University. The interview process lasted for two months. Each participant had 100 minutes of interview time. The interview was conducted twice for each participant. To maintain the research code of ethics, researchers used pseudonyms in writing the names of participants, namely tailor student 1 to tailor student 20. While lecturers use the code tailor lecture 1 - tailor lecture 2. The characteristics of the participants generally have an age range of 18 to 20 years. In this study, smartphones were used as a tool to record the interview process and photograph the pictorial evidence at the research site. Documentation became a secondary data source collected by researchers through semester learning plans and learning modules. After the data had been collected, the researcher analysed the data through three stages, namely data reduction, data presentation and conclusion drawing and verification. Data reduction is done by summarizing and sorting out the data that has been collected in detail. The data collected is related to the learning needs of tailoring fashion studies students. The data that has been selected is then presented in the form of narrative text and diagrams to facilitate classification and arrangement of relationship patterns. The last stage is drawing conclusions that are in accordance with the analysis and formulation of the problem from the facts found.

3 Results and Discussions

Sewing comes from the French word tailer, which means to work on a limited number of clothes, for example work or party clothes that focus on male appearance[16]. Sewing technique is a fashion arrangement that involves the intricacies of stitches, many layers, seam tape, invisible machine stitches on the collar leaf and shoulder area, giving a slippery effect, not flexible, not wrinkled, a lot of pressing, and producing permanent clothing[17]. Examples of sewing garments are suits, shirts, patalons, and vests. In the manufacturing process, this clothing requires special attention to several things such as

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weariness, neatness, stitch strength, sewing ability, and lining materials which are very important to form a good outfit. Therefore, in making sewing clothes, hand skills, accuracy, diligence, strength and patience are needed to produce neat clothes. This ability is very necessary in making sewing clothes because there are parts that must be completed with special techniques, such as intrusive stitches or content stitches on the completion of the flap and lower collar, installation of layers on the base material and furing, installation of pads on the shoulders, and installation of collars and suits.
In today's technological era, innovation is needed in the learning process, not least in fashion education. Based on the results of the assessment document of students who had taken the tailoring course last semester, out of 10 people, only one received an A. While the other nine received a C+.

'Actually, we have a lack of learning resources. So, when we get assignments we have confusion in accessing information that is in accordance with the learning material.' (Interview result of tailor student 2, August 2024).

'During pattern making, I found it difficult to analyse shapes and sizes. However, there is no other reference learning resource that I can access.' (Interview result of tailor student 4, August 2024).

The interview results show that students who have taken tailoring courses have difficulty finding learning resources. In addition, the researcher asked about the students' understanding of the basics and concepts of tailoring before carrying out the practice. Of the 10 students in Batch 2024, only two understood the basics and concepts of tailoring beforehand. This is because both students have a vocational high school educational background with a major in fashion. So, they have learnt before about the concept of fashion sewing, the requirements of clothing materials for sewing and lining materials. Based on observations made by researchers, it can be concluded that some of the main causes of this failure are first, lack of understanding of theory, namely without a strong understanding of the theoretical basis, students only practice with the trial and error method. Secondly, improper pattern making because students often have difficulty in making the right pattern in terms of shape and size. Third, sewing techniques that are not mastered by students, especially with special sewing techniques and tidying up the stitches properly. This shows a significant value gap. Thus, learning materials that are packaged into an online course are needed.

'Actually, I am very happy if this tailoring material can be packaged into an online course. So, we can easily access the material. As a student, I can also learn independently about the concept of tailoring. Although the tailoring material is considered easy, I find it difficult to practice if I do not understand the basics and concepts of tailoring' (Interview result of tailor student 4, August 2024).

The results of this study indicate that online courses can be an alternative learning tool that can make tailoring courses more interesting and stimulating. This is also supported by students' previous educational background. Most students are not familiar with the

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basics and concepts of becoming. Thus, the introduction of an online course also makes it possible to replay the material anytime and anywhere, minimising misunderstandings and ambiguities. The online course developed through the LMS can provide access to students to view and download materials, submit assignments, conduct online tests, view assignment grades and rank by grade, view assignment lists and conduct discussions with lecturers and other students.

'Online courses can indeed be a suitable alternative for students' learning process. However, online courses alone are not enough because the material learnt is not only theoretical but also practical. So, online courses with project-based learning can be an alternative for students who will take tailoring courses' (Interview result of tailor lecture 1, August 2024).

Project based learning is an innovative learning method that emphasises situational learning through complex activities. Project based learning is a learning approach that has the following characteristics: students make decisions about their framework students have a problem or challenge, design a process for students to identify problems or propose solutions[18]. Students access information and solve problems, the assessment process is carried out continuously, students periodically reflect on the activities carried out, the final product of learning activities is assessed qualitatively, and situation learning is very tolerant of errors and changes. The role of the educator in the Project Based Learning method is to present the problem, ask questions and facilitate investigation and dialogue. Project Based Learning will not happen without the educator's skill in developing a training environment that allows for an open exchange of ideas and dialogue between trainers and participants[19]. Project-based learning should use real-world problems so that trainees learn, think, critically and skilfully solve problems and support the development of technical skills and the acquisition of in-depth knowledge[20].
The results of this study illustrate that the biggest difficulty for students is that each student's learning style affects their level of understanding when absorbing material, causing a decrease in understanding of the material and decreased motivation to learn. For this reason, a platform is needed in the form of an online course that is integrated, simple, and can be accessed anytime and anywhere to help students learn effectively and individually. This research is also driven by Rabiman et al. [21] where the use of LMS serves to increase learning satisfaction and quality. Moreover, LMS through Moodle has a positive impact on improving students' problem-solving skills and self-regulated learning [22]. Thus, the results of this study indicate that tailoring courses can be adapted to the learning needs of students who are accustomed to using technology. Therefore, the project based learning approach is one of the simple, effective, and practical approaches in its implementation to develop online course media with a learning management system[23]. Online course with project based learning approach is proven to make the material presented easier to understand and the learning is more flexible, allowing students to learn anytime and anywhere[24]. The aim is to find out whether online courses are suitable for supporting student-centred learning and online course media with a Project Based Learning approach.

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4 Conclusions

The results of this study concluded that students need learning resources that can make it easier for them to understand the concepts and basics of tailoring. Thus, Moodle LMS is one of the online courses that can make learning activities more interesting and stimulating. The use of Moodle LMS provides control of mater learning functionality, collaboration, student performance evaluation, student data recording and report generation that are useful for maximizing learning effectiveness. Therefore, this research has implications for the development of Moodle LMS based on project-based learning that can help students in tailoring learning. Thus, students are not only limited to sewing but also understand the basic concepts of tailoring. This research has limitations in research methods and the number of participants. So, future research can use mixed methods to analyse student needs more deeply. This research can also be a basis of reference for academics to be able to develop online courses using a project-based learning approach in tailoring courses. This is because the online course media for tailoring courses is suitable for use in the material of making fashion suits, because this material is not only in the realm of knowledge but also gives experience in the realm of skills to students.

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