



# Design and Assessment of Project-Based Learning (PjBL) for Improving Design Skill in Modest Fashion Design Course

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**Abstract.** Project-Based Learning (PjBL) has become one of the learning models that has been set by the Indonesian government as a learning model based on student centers. The purpose of the study was to describe how the design and assessment in the PjBL model to improve design skills in the Modest Fashion Design course. The learning design was set in online and offline form. The learning design in the Modest Fashion Design course starts from the theoretical concept then continues with fashion design skills which include making design concepts, design development, and the realization of fashion collections. Students pre-sented design concepts and developments in front of a professional fashion designer, so that they get feedback directly. The results showed that project-based learning helped im-prove the skills of designing fashion collections for fashion design students at the Voca-tional Faculty, Surabaya State University. There are three main learning outcomes through the PjBL approach: (1) critical thinking and problem solving; (2) project management skills; and (3) soft skills.

**Keywords:** Project-Based Learning (PjBL), Student-Centered Learning, Modest Fashion Design.

## 1 Introduction

Project-Based Learning (PjBL) has become one of the learning models that has been set by the government as a learning model based on student centers. In the main performance in-dicators of independent campuses learn to form collaborative and participatory classes, one of which is through the PjBL approach. Learning using this approach is expected to create more effective learning by encouraging each student to learn independently and more actively. Project-based learning is a form of student-centered instruction that is based on three constructivist principles: learning is a special context, students are actively in-volved in the learning process and they achieve their goals through social interaction and sharing of experiences [1].

A from the World Economic Forum states that the education system that exists today at all levels provides highly isolated training, which hinders progress in the current talent and labor market issues. To change this situation, it is recommended that students

be given the opportunity to participate in real problem solving and knowledge construction at school. One interesting way to achieve these goals is through project-based learning (PjBL). Some studies believe that cultivating students' minds can be done by engaging them directly and in an authentic environment, so as to solve problems cognitively and emotionally [2]. Guo et al state that in project-based learning can address the gap between what students study at university and what they need at work because students are given the opportunity to participate in real problem solving [3].

PjBL may be a promising student-centered approach, little is known about how best to support the implementation of PBL core practices by teachers or lecturers [4]. The success of the PjBL approach depends on the successful application of the practice by the teacher or lecturer of any intervention aligned with the objectives. There has been a lot of research on the application of project-based learning in various fields of science. Fashion Design is one of the fields of applied science that is very suitable using the PjBL learning model.

This study describes how PjBL was implemented in one of the modest fashion design courses for students majoring in fashion design. This research can be an inspiration for fashion design teachers who are developing project-based learning models. This research used a descriptive method. Descriptive research is a research method that shows the characteristics of the population or phenomenon being studied. This research method mainly focused on explaining the object of research and answering what events or phenomena occurred. The main purpose of descriptive research is to systematically describe the phenomena that exist under the study [5].

### **1.1 Modest Fashion Design Class**

The Modest Fashion Design Class is a mandatory class that must be taken by 4th semester (second year) students majoring in the Fashion Design, Vocational Faculty, Surabaya State University. This 4th semester student has taken courses in Fashion Design Concept, Fashion Pattern Construction and Sewing Techniques. The purpose of this course is for students to be able to master the basic concepts of modest fashion design, create modest fashion design collections according to trends, and show off collections through social media (Youtube).

This Modest Fashion Design class is carried out as a blended learning. The blended learning (BL) model is a learning method by combining face-to-face learning in the classroom with distance learning with technology mediation [6]. This class begins with distance learning to explain the projects that students will work on and the concept of Modest Fashion theory. Students are divided into four groups and discuss through technological media. Each group presented a design concept for a project to create a modest fashion collection in front of a teacher and a professional fashion designer using zoom meet. The lecturer and a professional fashion designer who we call lecturer from the industry evaluate the work of students.

## 2 Methods

### 2.1. *The initial phase*

The lecturer starts the semester by presenting a simple fashion course project with its learning objectives and evaluation. The lecturer said that the learning objectives were that students were able to make modest fashion collections according to trends, create fashion collections, and present the results in fashion show videos. Modest fashion course consists of 2 classes. One class is divided into 2 groups, so there are a total of 4 groups. Team members sign project contracts in the fourth week, including individual and team obligations and responsibilities. The lecturer delivered several types of projects which were assessed individually and in groups. Group scores consist of developing concepts and designs in fashion portfolios, evaluating presentations, and evaluating fashion collections used by models in video fashion shows. While individual assessment includes the value of participation, process assessment, and product assessment. These provisions are conveyed in the lecture contract held by the lecturer and class leader.

Next is to design a project schedule plan by involving students. The lecturer submits a progress assessment schedule both in groups and individually. The lecturer provides basic knowledge about the development of modest fashion to students so that the projects to be carried out are more focused and the results are as expected. At this stage, the lecturer also invited a professional fashion designer (Mr. Deden Siswanto) to convey fashion trends so that students had more in-depth knowledge about fashion trends. Then each group presented the design concept and design sketch to the fashion designer. Learning activities are carried out online for four meetings with a professional fashion designer only to discuss designs and improve every detail that will be realized later.

### 2.2. *The intermediate phase*

The intermediate phase consists of the planning and realization stages of the modest fashion collection. The planning stage includes analysis of the final design, making scale patterns, designing the main fabric and additional materials, and planning the selling price. The embodiment stage includes pattern making, fabric cutting, sewing, and finishing. In this phase, an individual assessment is carried out which includes an assessment of participation and product progress at each stage in accordance with the timeliness. Lecturers can use rubrics to record student learning progress through working on the project. Rubrics allow teachers to assess student learning against certain standards and provide effective feedback to individual students. Assessment assists students in improving their skills and thereby increasing their self-confidence [7].

In project-based learning, it is not easy to assess individual contributions in a team. For this reason, the design of the modest fashion collection project is also divided into individual projects, each two students have the responsibility to complete 1-look modest fashion. One look consists of the main outfit and complementary outfits, such as hijab and accessories. Every week the lecturer checks the progress of the progress of

making clothes. Students are told that the assessment is not only the result of the clothes, but also more progress assessments every week.

### 2.3. *The final phase*

This is the final step in PjBL which involves reflection on what worked and what did not during the entire completion process. Reflection is an important part of PjBL because it helps students to understand and internalize the learning they have experienced. Lecturers can also incorporate changes in their teaching strategies. At the end of this course, students have succeeded in creating a modest fashion collection which has been featured in a YouTube video at the following link <https://www.youtube.com/watch?v=FPHIkXz00mQ&t=299s>. The youtube video was uploaded on June 23, 2023. At this time, after 1 week, it has been viewed by 497 viewers. Each group has done shooting independently outside the classroom. There are 2 groups that have used the concept of shooting indoors and 2 groups outdoors.



Figure 1. Modest fashion collection

## 3 Findings and Discussion

This is the post-pandemic modest fashion class. Even though the pandemic has passed in Indonesia, online learning still provides many benefits such as inviting a professional fashion designer from out of town to teach remote students. The class ratio is 50% online and 50% offline. The results of the modest fashion collection, as shown in Figure 1, are quite good and meet expectations. There are three themes of PjBL learning outcomes studied: (1) critical thinking and problem solving; (2) project management skills; and (3) soft skills.

### 3.1. *Critical thinking and problem solving*

Students gain experience in planning and realizing modest fashion collections in this project. Although they often improve sketches according to input from a professional fashion designer, they also learn a lot in the design development process by applying design elements and principles. Students also learn how to determine the main fabric

and additional materials in their designs. They have critical thinking to realize clothes according to design. The accuracy of the selection of materials will affect the fall and fit of clothing. Students have also demonstrated critical thinking and logic coupled with innovation and creative problem solving. Students are required to make fashion collections that match market trends and needs. Even though this project has not been based on real client requests, but input from a professional fashion designer who has experience in dealing with clients and selling clothing collections for years, we assume that his judgment has represented market trends and demands.

### 3.2. *Project management skills*

Students have demonstrated their understanding of project management principles through generating ideas, creating plans, executing them through collaboration within teams, and finally assessing the results. Each student carries out the duties and tasks identified and aligned with the profession efficiently in this modest fashion collection project, through a team-project based learning.

### 3.3. *Soft skills*

Students noted the value and importance of recognizing personal limitations regarding project management and the means to compensate for those limitations through collaborative endeavors. PjBL involves teamwork, communication, and problem solving, which are important soft skills. Students can reflect on the development of these skills during the project and identify areas where they have improved. They can also reflect on how these skills can be useful in everyday life and in the future.

This class has been held in the even (4th) semester of 2022/2023. The classes are conducted using online and offline classes. Teaching this course is fun and challenging at the same time. The lecture involving a lecturer from industry or a professional fashion designer, so the lecturer must be able to encourage students to show their design skills as much as possible. Learning in modest fashion courses carried out with a project-based learning team learning model demands the ability of students to cooperate. Students gain experience in planning modest fashion collections, managing activities in realizing modest fashion collections and using budgets in modest fashion collection creation projects. For the presentation of works in fashion show videos, there are some students who demonstrate their work, some are also trying to find a suitable model so that the clothes look good on top of the model. Students demonstrate a critical attitude and logic coupled with innovation and creative problem solving. The student learns to create real projects that he will face in his career as a fashion designer.

Similar to the findings revealed in a literature search on the benefits of PjBL, students show better learning from conceptual knowledge and teamwork and enjoy gaining a variety of skills [8]. Siswa find value and can articulate the value of their work and its application to real-world settings [9]. PjBL helps flexible thinking skills that prepare students to become lifelong learners and adaptive experts [10]. PjBL provides an authentic experience that influences students' perceptions of the benefits of the course to reinforce their future career aspirations (Beier et al., 2019).

## 4 Conclusion

Learning using project-based learning is very suitable to be applied to the fashion design department. In this study, the application of project-based learning in the Modest Fashion Design course can improve collection design skills for students. Students are actively looking for the concept of sourcing ideas, realizing clothes according to design to making videos of designs used by models. Limitations in this study is not up to the sale of products. Suggestions for further research are to offer modest fashion products through digital platforms and obtain feedback from the public or potential customers.

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