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# Learning Model Project-based Learning ICT Assisted in the Facial Skin Care Course

Murni Astuti\*, Febri Silvia, Siti Hajar Thaitami

Faculty of Tourism and Hospitality, Universitas Negeri Padang

\*Corresponding author. Email: [murniastuti@fpp.unp.ac.id](mailto:murniastuti@fpp.unp.ac.id)

## ABSTRACT

This research was motivated by the low scores of students in the Facial Skin Care course and learning that was less interesting because they still used conventional learning project-based learning 3) improving student learning outcomes 4) analyzing student responses. This type of research is pre-experiment by design one shoot case study. The subjects in this study were 36 students consisting of 2 classes. Methods of data collection are using observation, tests, and questionnaires. Data analysis uses averages and percentages. The results showed that 1) the feasibility test of ICT media for Facial Skin Care was 92% which was categorized as very feasible. 2) Implementation of syntax project-based learning with ICT media in the Facial Skin Care competency, an average score of 3.55 means that it was carried out very well. 3) student learning outcomes can meet the KKM criteria, namely cognitive learning outcomes get an average score of 92 and psychomotor learning outcomes get an average score of 88.7 so that it can be said to be complete. 4) the response given by students to the model project-based learning very good, referring to all aspects that get a high rating, namely getting a percentage of 87.7%.

**Keywords:** Learning Model Project Based Learning, ICT, Facial Skin Care.

## 1. INTRODUCTION

In accordance with Government Regulation Number 81A of 2013 [1], that the learning process is required to be student-centered, able to develop children's creativity, contain ethical, aesthetic, logical, and kinesthetic values, create fun and challenging conditions, and provide diverse learning experiences. Project Based Learning (*Project Based Learning*) is a learning method that uses projects as learning media and is considered in line with government regulations. Students are required to explore, assess, interpret, synthesize, and information to produce various forms of learning outcomes. Educators only act as a facilitator.

Project-Based Learning aims to solve problems by lifting from everyday events where students have the opportunity to find new knowledge connected with prerequisite knowledge. According to Birgili [2] in project-based learning, students are required to participate actively in creating innovative solutions to problems through their experiences. Project-based learning demands collaborative learning. This certainly provides an opportunity to improve conceptual understanding and technical skills. Demanding internal

feedback that can sharpen thinking skills. The steps in implementing the Project-Based Learning model applied in this study refer to the steps adapted from Mergendoller, et al., [3], which include: (1) project planning (project planning), (2) project implementation (project launch), (3) guided inquiry and product creation (guided inquiry and product creation), and (4) project conclusion (Project Conclusion).

Teaching critical thinking skills can be carried out by educators by learning using constructivist learning strategies that have the potential to empower critical thinking skills, such as project-based learning. According to Ahlam and Gaber [4], learning to think critically makes students intervene to increase their curiosity and maturity. This proved to be a statistical increase in the total average score of knowledge acquisition and retention of the experimental group from the average total score of knowledge acquisition and retention of the control group. Through learning to think critically, it is expected to be able to integrate abilities such as observation, analysis, reasoning, judgment and decision making. This can be done by building a classroom atmosphere that can appreciate student thinking and analysis such as laboratory activities,

inventions, homework, even exams that include high-level questions.

One of the Facial Skin Care courses has a synopsis of critical thinking and is able to analyze the concept of manual facial skin care and facial skin anatomy, various types of skin and their characteristics and is able to diagnose facial skin, perform problematic facial skin care manually, identify types of -various tools, linen and cosmetics for facial skin care, performing facial skin care, performing manual skin care without problems using traditional cosmetics and modern cosmetics, performing manual facial skin care (acne, pigmentation, aging, dry/dehydrated).

Based on initial observations on learning Facial Skin Care, the learning process in the Department of Cosmetology and Beauty FPP UNP students have difficulty understanding the material and are less enthusiastic about learning and students' practical grades are low. This learning still uses conventional learning media such as lecture methods and direct learning models. This is thought to be due to not yet implementing innovative learning models and effective learning media that can increase enthusiasm for learning and understanding concepts.

From these observations, initial research was carried out in the form of distributing questionnaires to students regarding the need to update learning models and learning media. From the results of research on students as many as 30 respondents, 90% of students stated that learning was not interesting. Therefore it is necessary to apply the learning model Project Based Learning. Learning Facial Skin Care in the Department of Cosmetology and Beauty FPP UNP has not yet been implemented student center and student independence has not been seen. Students tend to imitate one another's answers and imitate answers on the internet and not make their own. Students have not been able to solve their own problems and hone their own knowledge.

Based on the results of distributing questionnaires to students regarding the use of learning media applied to the Facial Skin Care course, it was found that 87% of students felt bored with the learning media used by lecturers. The use of appropriate learning media will greatly assist in the learning process. Learning media are learning resources other than lecturers as distributors or liaisons for teaching messages that are held and or made in a planned manner by teachers or educators[8].

Based on some of the background descriptions of the problems above, the purpose of this research is to determine 1) ICT feasibility 2) the implementation of the syntax of implementing the PJBL model 3) student learning outcomes and 4) student responses to the application of the model Project Based Learning with ICT media.

Model Project Based Learning (PJBL), as defined by Darmadi (2017: 117), is a teaching and learning strategy in which students are faced with real world challenges to stimulate their curiosity and interest in learning. PJBL's goal is to equip students with the ability to analyze and solve problems, as well as the fundamental information they need to succeed in their chosen field. PJBL encourages students to think critically, trains them for independent learning, and gives them the opportunity to build their own knowledge as they work to solve problems posed by lecturers.

Internet-based educational facilities can be used as a means of delivering learning that relies on practicality and is easily accessible anywhere and anytime. In addition, the media allows distance learning or the delivery of information between lecturers and students[5].

ICT is a form of media that combines visual and aural elements to convey messages, these elements can be in the form of moving images, still images, or dynamic images, and the accompanying audio can take various forms. According to Sanaky (2013: 123), ICT is an audio-visual medium that displays moving images with accompanying sound, which can be transmitted over very long distances and has a slow motion mechanism to amplify the displayed action.

Cognitive learning outcomes are the final results achieved by students in understanding knowledge related to mental health (brain) processes and are the basis for mastery of knowledge that students must master after completing lessons. Meanwhile, psychomotor learning outcomes are learning outcomes related to the ability or ability to act on certain learning experiences, but the ability to remember material does not include psychomotor learning outcomes, but rather cognitive learning outcomes, namely the ability to remember.

Student responses are student opinions about learning after learning is complete. The answer is action resulting from the realization of memory. After completing teaching and learning, learning responses are observed which are referred to as changes in behavior or changes in performance (Anni, 2007: 5).

Facial Skin Treatment is an act of observing a person's condition by looking, touching, or holding to obtain accurate results about the type of facial skin and its abnormalities. The purpose of analyzing the facial skin is to find out the condition of the facial skin and its abnormalities before performing treatment. There are three techniques that must be understood in doing analysis, those are History, Inspection and Palpation.(Ermavanti & Susilowati, 2019).

## 2. METHOD

This type of research is pre-experimental research, in the form of a case study with one point of data collection. Participants in this study amounted to 30 people. Media Feasibility Test Sheets, Syntax Implementation Observation Test Sheets, and Test Sheets were used in this study, and student response questionnaires that were validated before the research was carried out by Education expert lecturers, material expert lecturers, Language expert lecturers, and by media experts to determine feasibility those instruments. The data collection method uses observation to observe the feasibility of ICT and the implementation of the model syntaxProject Based Learning , the test method to measure student knowledge after treatment, and student reactions to the use of the PJBL learning model with ICT in Facial Skin Care were collected using a questionnaire. ICT feasibility is usually averaged when using data analysis methods, implementation of syntax, and learning outcomes, then using percentages on student responses.

## 3. RESULTS AND DISCUSSION

Learning in this study is supported by interactive learning media. The display of interactive multimedia on facial skin care learning is as follows.

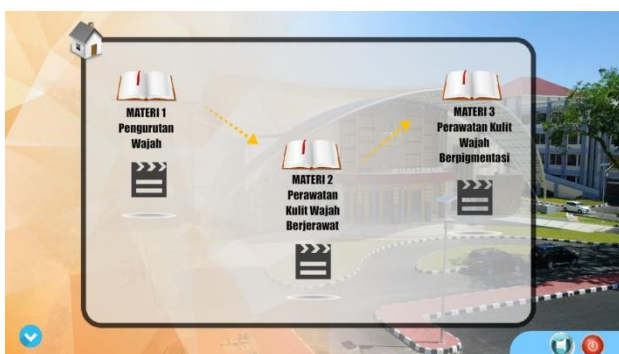
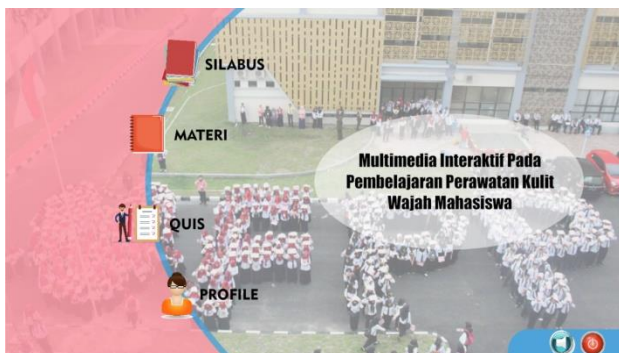


Figure 1. Display of Interactive Multimedia

The research findings are data collected during the research phase and analyzed using predetermined research data analysis procedures, and are related to the use of the PJBL model with ICT to improve students' abilities in Facial Skin Care at the Class X Cosmetology Department of UNP during Semester 2 odd 2022. The following is an analysis of the results of the ICT media feasibility test, observations of the PJBL teaching management model, student competencies, and student responses by observers.

### 3.1. ICT Media Feasibility Test Results

This report displays aggregate data from a questionnaire with expert validator values used to determine the feasibility of using ICT for Facial Skin Care. The attached diagram describes the results of the ICT content evaluation dedicated to studying facial skin care material.



Figure 2. ICT Feasibility Test Results The number of criteria assessed on ICT media

Facial Skin Care consists of 10 items with a composition of 6 items on statements regarding ICT formats and 4 items regarding statements on ICT content, with the following criteria:

**Table 1.** ICT Assessment Criteria

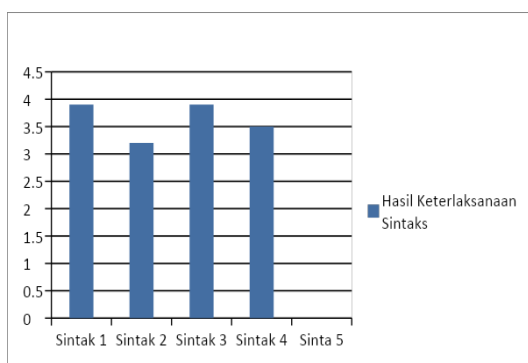
No	Rated aspect
<b>A. Format ICT</b>	
1.	Description in the form of writing / voice
2.	Tempo/movement speed of the video on ICT
3.	Image quality
4.	Lighting
5.	Dubbing (voice filling)
6.	Background audio/music
<b>B. ICT content</b>	
7.	The suitability of ICT content with analyzing material face skin
8.	Shows tools and cosmetics
9.	Facial Skin Care Steps
10.	Fill in the entire ICT Facial Skin Care

Figure 2 above shows the results of the ICT eligibility calculation which categorizes Facial Skin Care in ICT format showing a percentage of 90%, so it is very feasible based on the response percentage criteria. While 95% of ICT in the ICT content category met the eligibility requirements, this option is still very realistic due to the high percentage of responses it receives.

Based on the description above, the average result of the ICT feasibility test for Facial Skin Care by 5 expert validators is 92.5% which is categorized as very feasible.

### 3.2. Execution of Model Deployment Syntax Project Based Learning

Two lecturers and two female students from the Department of Cosmetology and Beauty UNP conducted research on the effect of the PJBL model syntax on students' ability to treat facial skin, and the results are depicted in the image below.



**Figure 3.** Syntax Implementation Results

### Information:

- Syntax 1: Project orientation for students
- Syntax 2: Organizing students to design projects
- Syntax 3: Monitoring and guiding students in completing projects
- Syntax 4: Presenting the project results
- Syntax 5: Evaluate the project

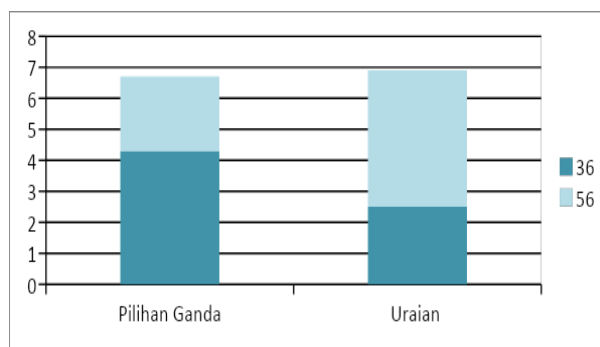
Based on Figure 2, the implementation of the PJBL model syntax with ICT shows that in phase 3 the inquiry guidance process for students is a prominent activity with the highest average of 3.9 with very good criteria. In contrast, the lowest average score of phase 2 (3.4) is owned by student organizing for learning. Based on these data, as a whole the observed aspects of the implementation of syntax obtained an average value of 3.55 included in the very good category.

### 3.3. Learning outcomes of facial skin care competencies

Students' cognitive and psychomotor learning outcomes are achieved through the learning process itself. Using the KKM assessment rubric, a score of 75 indicates that students have fully internalized the knowledge and skills needed to evaluate facial skin through the use of PJBL models and ICT media.

#### 3.3.1. Cognitive learning outcomes

The results of student cognitive tests in applying the PJBL model with ICT to the competence to analyze faces in class X students of the UNP Cosmetology Department of 35 students can be seen in the following figure:



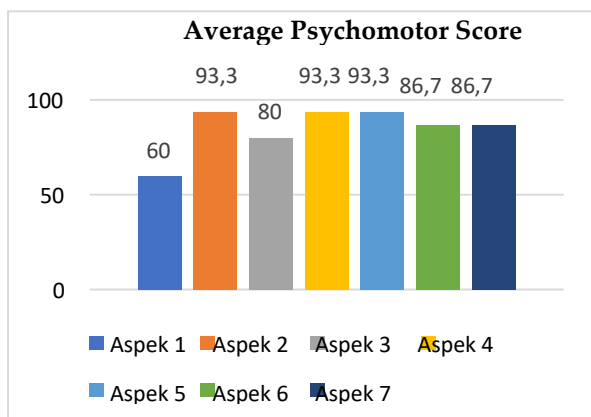
**Figure 4.** Cognitive Learning Outcomes

According to diagram 4.3 the cognitive learning outcomes of all students get an average of 92 which is obtained from the average multiple choice score of all students 36 and the average description score of 56 which means completeness on the cognitive test, because the score obtained is above the KKM score of 75.



### 3.3.2. Psychomotor learning outcomes

The results of student psychomotor tests in applying the PJBL model with ICT to the competence to analyze



faces in Semester 2 2 Students of the UNP Cosmetology Department totaling 35 students can be seen in the following figure:

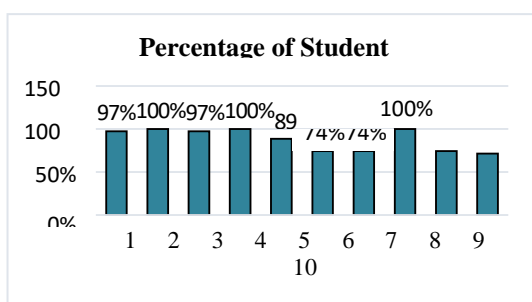
**Figure 5.** Psychomotor Aspects of Performance Test Results

Based on figure 4, aspect 2 cleans the face, aspect 4 performs facial analysis using inspection techniques, and aspect 5 performs facial analysis using palpation techniques to get the highest average score of 93.3. Whereas in aspect 1 preparation for work gets the lowest average score, which is 60. Based on these data, the average student psychomotor test results from aspects 1 to 7 get a score of 88.7 which means complete, because the score obtained is above the KKM score of 75.

Based on diagram 4.4 the percentage of student responses to the application of the PJBL model with ICT in the Facial Skin Care competency

### 3.4. Student Response

Student response questionnaires were given to 35 Semester 2 class students with 10 aspects of statements at the second meeting. The following are the results of Student responses to learning Facial Skin Care in the image below:



**Figure 6.** Percentage of Student Responses

The Student Response Aspect shows that in the aspect of statement 2, statement 4, and statement 8 the highest percentage is 100% which is categorized as very good. However, in aspect 10, the lowest percentage is 71.4%, which is included in the good category. According to these data, the average percentage of the 10 aspects of the statements submitted is 87.7%, this means very good.

## 4. CONCLUSION

The result of the ICT feasibility test for Facial Skin Care by 5 expert validators was 92.5% which was categorized as very feasible. So that it can be said that ICT for Facial Skin Care is very suitable for use as a learning medium.

The implementation of the syntax for applying the PJBL model with ICT in the Facial Skin Care competency got an average score of 3.55, meaning it was implemented very well. So it can be concluded that the PJBL model is suitable as a learning model update that makes students active, think critically, and solve their own problems.

Student learning outcomes can meet the KKM criteria, namely cognitive learning outcomes get an average score of 92 and psychomotor learning outcomes get an average score of 88.7 and can be said to be complete. So it can be concluded that the application of the PJBL model with ICT can improve the cognitive and psychomotor learning outcomes of Semester 2 2 Students of the UNP Cosmetology and Beauty Department.

The response given by students to the PJBL model was very good, referring to all aspects that received a high rating, namely getting a percentage of 87.7%. So it can be concluded that the average student gives a positive response to the application of the Project Based Learning model with ICT media.

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