

## Project-Based Learning during Covid-19 Pandemic

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### Abstract

*Project-based learning is a learning method that uses projects as a medium. This learning model can be used as an alternative during the pandemic. This study aims at identifying; 1) The implementation of PjBL during Covid-19 pandemic; 2) The advantages of PjBL during Covid-19 pandemic; and 3) The disadvantages of PjBL during Covid-19 pandemic. This research method is library research that collected the data from research articles in national and international journals. Articles are selected based on several criteria. The study found that (1) the implementation of PjBL covers three main steps, they are planning, implementing, and evaluation, (2) there is five advantages of the implementation of PjBL during covid-19, and (3) there is one disadvantage of the implementation of PjBL during covid-19.*

**Keywords:** Covid-19, Learning, Project-Based Learning

### Introduction

According to Lepp et al. (2021), teaching is a complex activity that involves a decision-making process in the lesson planning stage. Teachers need to have good autonomy in decision-making when designing learning activities in various situations, even in a pandemic situation. During Covid-19 pandemic learning strategy become the one of the important things in determining success in the learning process. Determining the use of learning strategies should not be arbitrary so that the targeted learning direction can achieve the desired goals.

Currently the world of education is experiencing challenges in the learning process during the pandemic, where students are challenged from an early age to learn independently by using various media and technology, cultivate a culture of group work, and be able to collaborate and be confident in their abilities (Abidah et al., 2020). This certainly makes teachers able to compile teaching strategy to face the challenges they face. Teachers are faced with a pandemic situation that causes them to be able to adapt in carrying out the learning process. This raises new problems in the learning process carried out remotely. Most students consider online learning to be more interactive and communicative which makes it easier for them to understand the lesson compared to online learning (Alchamdani et al., 2020). Therefore, it needs attention and monitoring, especially in adjusting the new teaching strategy.

The learning process during pandemic situation is carried out by emphasizing student-centered learning. However, in a pandemic situation that presents many challenges to the learning process, leading teachers to use learning models that can overcome existing problems. The learning models used can certainly help students learn independently or autonomous learner,

considering that the learning process during a pandemic situation cannot be done face-to-face. Students need to be helped to learn independently through guidance from parents. One of the alternatives that can be used today is the use of e-learning. E-learning can help teachers implement learning strategies through various platforms.

One of the learning strategies that can be implemented during a pandemic is project-based learning. This is learning model can help students learn independently. One of the important principles in PjBL is centrality, where students are the center in the learning process (Kavlu, 2017). This learning model involves student participation in the learning process, students are focused on the project being prepared, use critical thinking skills, and learn autonomously (Randazzo et al., 2021). In addition PjBL is a choice that can be applied to foster life skills of students at school (Arizona et al., 2020). During the COVID-19 pandemic, students need to increase their motivation in learning process. The project-based model has also been proven to be able to increase students' learning motivation during the pandemic (Lesnowati & Hafifi, 2021). Therefore, this learning model can be applied as an effective learning model during the pandemic. From the explanation above, the aim of this research is to identify project-based learning implementation during covid-19 pandemi. This research is limit to the implementation of PjBL in teaching EFL in developing country.

## **Method**

This research uses the library research method that uses books and other literatures as the main research object. Literature review is an important part of research that provides a description or description of the literature relevant to a particular field or topic (Harahap, 2014). This literature study consists of three stages, namely by knowing the type of literature, reviewing and collecting library materials, and presenting or drawing conclusions. At the stage of knowing the type of literature that sourced from primary sources in the form of the results of the researchers' understanding about the implementation of project-based learning model while for secondary sources, they come from books, articles and journals used by researchers to support this research.

## **Findings and Discussions**

### **1. How the English Teacher Implemented Project-Based Learning during Covid-19 Pandemic**

Online learning certainly has advantages and disadvantages in the process. Therefore, teachers must be able to adapt to the system by paying attention to the learning model that will be applied to their students. According to Yuliansyah & Ayu (2021), PjBL involves student activity, prior knowledge, willingness to learn, and ability to understand context. There are five features that become the general focus in implementing project-based learning, namely holding activities, assignments and investigations, availability of materials, collaboration, and reflection. According to Kim (2021), stated that the research results he got showed that the project-based learning model motivates students to study material in everyday life while increasing student creativity. These things can be used by teachers, especially in teaching EFL students, where this

learning model can train students to be more active and independent in the learning process. During the pandemic situation, teachers need to train students to be more active so they don't feel bored studying from home for months, so the learning process needs to be focused on students' independence in completing assignments or projects (Soleh, 2021).

According to Rahayu & Fauzi (2020), there are several stages of implementation carried out in applying the project based learning during pandemic situation, are: 1) the lectures gives a challenging statement related to the technological developments in the world of education related to technological development in education; 2) project planning, students and lecturer together make project plans; 3) compile schedules for project development, schedules that are made together are also arranged and mutually agreed; 4) supervise the preparation of the project, this process is carried out until the project can be completed through the use of Google Classroom; 5) the resulting project appraisal, the project appraisal is carried out after the student's project is completed with the agreed assessment indicators; 6) evaluation, at this stage students are given an evaluation with an observation sheet to measure students' abilities.

In addition, according to Kartikawati (2020), one of the learning methods that can be used during a pandemic to teach English is Project-Based research. There are several non-face-to-face applications that can be applied to help implement this method, namely Google Classroom, Seesaw, and Edmodo. These three applications are used in a similar way to implement the Project-Based Learning method in it. The steps taken by the teacher are: 1) Creating a virtual classroom with one of these applications and students' parents can also be connected to the classroom; 2) Distribute learning materials as well as quizzes/assignments to students; 3) In the application the teacher gives access to students to ask questions; 4) Teachers and parents of students can access or check student progress; 5) Students are provided with a room to upload/submit their assignments which can be accessed anytime and anywhere; 6) The teacher can provide feedback quickly on student assignments and students or parents can see the feedback.

During the pandemic, most schools implemented an online learning system, which included the application of learning methods which also carried out with an online system that used the internet as a learning model. Project-based learning during the pandemic situation can be done with several steps (Edy et al., 2020), namely; 1) The teacher divides the students into several groups and conveys the expected learning objectives; 2) Students do online learning by utilizing various platforms during the learning process; 3) Students discuss the learning outcomes and are accompanied by teachers to help students overcome problems during the learning process; 4) teachers and students study the learning outcomes together.

## **2. Advantages of using Project-Based Learning during Covid-19 Pandemic**

According to Ardhyantama et al. (2020), PjBL has several advantages, namely:

- Project-based learning shifting learning models that are more dominated by teacher, to student-centered.
- Project learning is full of ideas with clear objectives.

- Project procurement is a critical feature that is easy to remember.
- Designing and carrying out projects using a balanced collaborative use of theory and practice so that students not only know the subject matter and memorize it but are able to understand and apply it in their lives.
- Projects based learning can be carried out without the help of communication technology, as long as there are adequate learning resources are sufficient for students.
- Many students get inspiration on how to answer the problems that have been determined at the beginning of the lesson, as well as looking for the best, efficient and interesting way through shows available on online-based social media such as YouTube.
- Through project learning, there are many activities related to constructive search for knowledge through activities that hone students' skills both cognitively and psychomotor.
- Project-based learning has more value because it increases high order thinking skills, fun and sharpens the creativity.

According to Yustina et al. (2020), project-based learning has several advantages, namely:

- Facilitating students to collaborate with their friends in understanding concepts, involving previously acquired knowledge, and involving critical thinking.
- Give students the opportunity to demonstrate their abilities.
- Provide challenges for students to be able to solve real problems and can learn to be good collaborators.
- Motivate students.
- Can increase students' knowledge of learning content and help students improve their study skills.

According to Melinda & Zainil (2020), project-based learning has several advantages, namely:

- Can increase students' willingness to learn.
- Can foster problem-solving skills.
- Can make students more active and can solve complex problems.
- Can create cooperation between students, can motivate students to be able to build and apply communication skills.
- Can foster students' ability in processing learning materials.
- Can share knowledge with students in learning and implementation in constructing projects.
- Can make the learning environment fun, so that students or teachers can enjoy the learning process.

In addition, according to Aslanides et al., (2016) another advantage obtained from using the project-based model is that it can help students understand the information obtained. Students can easily understand something that is being done on a particular project, rather than just being

the recipient of lessons in class. This learning model also can motivate students in learning and provide opportunities for students to seek information independently from any source.

### **3. Disadvantages of using Project-Based Learning during Covid-19 Pandemic**

PjBL requires a lot of time to complete a project to become a product, requires quite a lot of tools and resources, and limited time becomes an obstacle for students to present their projects (Yusuf et al., 2021). According to (Mihic & Zavrski, 2017) project-based learning has several disadvantages, as follows:

- Project-based learning requires simultaneous changes in curriculum,
- Project-based models focus on too many goals,
- More cost increase compared to other learning models, which in this model require several needs for the project,
- Requires a long period of time,
- Requires resistance from teachers or students to change,
- Requires at least more than one teacher to help implement the project based model,
- Requires interest, cooperation and support from teachers and students,
- Teachers who do not have sufficient teaching skills will find it difficult to implement this learning model.

### **Conclusions and Suggestions**

The implementation of PjBL during pandemic Covid-19 can be done in several stages, namely: 1) Planning, in which before starting a learning process the teacher needs to prepare lesson plans and learning media; 2) Implementing, which consists of providing material to students, giving students the opportunity to ask questions related to the project, monitoring students in completing projects, and students submitting projects; 3) Evaluating, where teachers and students discuss the results of their projects and do self-reflection according to the feedback given by the teacher. Implementation of Project-Based Learning has several advantages including 1) Student-center, where students are the center in the learning process; 2) Creativity, students can fully express their ideas; 3) Collaboration skills, students can be better trained with their collaboration skills; 4) Flexible, the PjBL method can be used with and without technology information; 5) Students can train their higher order thinking skills or critical thinking. Project-based learning model can be an option used during the pandemic situation, but even so, this learning method also requires a lot of time to be applied, especially in the project completion process. So it takes a lot of time to implement this method so that it can be implemented properly.

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