

The Effectiveness Of The Project Based Learning Model In The Independent Learning Curriculum

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Abstract

This study aims to determine the effectiveness of the Project Based Learning learning model in the independent learning curriculum in schools. This research uses descriptive qualitative method through literature study. Data collection in this study was carried out by means of study and search from various relevant sources in the form of articles or results of previous research. The data are analyzed and studied in depth. There are two variables in this study, namely the Project-based learning (PjBL) learning model and the independent learning curriculum.

Keywords: PjBL Learning Model, Independent Learning Curriculum



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INTRODUCTION

Education has an important role in producing productive young people who have global competitiveness. The education system in Indonesia needs to strengthen and develop the competencies needed in the 21st century. In this regard, the curriculum needs to increase its focus on building these competencies, no longer studying the amount of subject matter that must be studied. The competencies needed in this global era are built from an in-depth learning process, where students have the opportunity to explore a concept, construct knowledge more freely and not in a hurry because they have to study other subject matter (Rusman, 2021).

Learning in the 21st century has the aim of developing students' intellectual abilities so that they can solve problems in the life around them. Today's intellectual abilities are not enough to just understand or understand, but are able to solve problems in their relevant and contextual environment. Septikasari & Frasandy (2018), explained that the development of 21st century skills in the learning process is expected to produce individuals who have the skills to face challenges and opportunities in the era of technological and information advancement. Where these skills are not only obtained through understanding the material. Contextual learning is able to train students' critical abilities, master technology, be able to work together, and collaborate with individuals around them to solve problems contextually. Education in Indonesia is still facing various challenges.

Based on the results of a survey of the world's secondary education system in 2018 published by PISA (Program for International Student Assessment) in 2019, Indonesia was ranked low at 74th out of 79 other countries (Kurniawati, 2022). Based on this, Indonesia is below the minimum competence in education, especially literacy and numeracy. The education system in the 21st century needs to prepare a generation that is able to respond to various challenges both nationally and globally.

Efforts to improve the quality of education in Indonesia to produce a generation that has global power, are carried out by the government through a new curriculum curriculum program that provides more curriculum for students to learn their abilities and speed, namely independence. In line with what Sufyadi et al. (2021), that in the independent curriculum

learning is designed by considering the development and students adapt to the needs of students so that learning becomes more meaningful and fun.

In terms of self-education, the PjBL (Project Based Learning) approach is often preferred. To face the challenges of 21st century learning, project-based learning has emerged as a powerful tool, as it involves the principles of critical thinking, communication, collaboration, and creativity. PjBL is an effective way to develop the skills needed in the 21st century, with critical thinking as well as problem solving, interpersonal communication, information and media literacy, collaboration, leadership and team work, innovation and creativity. PjBL is a learning model by involving students in designing, creating, and displaying products that are used to solve real-world problems (Dewi, 2022).

The effectiveness of the implementation of project-based learning in learning depends on the ability of teachers to condition learning effectively by motivating students, supporting and guiding students during learning. Effective PjBL learning instruction will help reduce the 'cognitive load' of students. This cognitive load is the burden of students in carrying out certain tasks that involve the cognitive system (Latifah et al., 2016). By reducing this cognitive load it will encourage learners to make small successful steps and eventually achieve 'cognitive growth beyond their reach'. This cognitive growth is related to the ability and mental activity of students in processing information, thinking skills, and solving problems (Khiyarusoleh, 2016).

Based on this explanation, a more specific study is needed to study the effectiveness of implementing the PjBL learning model. This is very important to be able to be input and reference in making the development of learning strategies both in terms of the process and the expected results. Therefore, the author is interested in writing this article which discusses the effectiveness of the PjBL learning model in the independent learning curriculum.

RESULTS OF RESEARCH AND DISCUSSION

1. Independent Learning Curriculum

The government through the Minister of Education and Culture of the Republic of Indonesia (Kemendikbud RI) The Advanced Indonesia Cabinet has launched a new policy initiative called "Independence of Learning". Nadiem argues that the Essence of Freedom of Thinking is that the role of the instructor must exist before the introduction of new concepts to students.

According to Nadiem, if the current curriculum translation process and prerequisite skills do not exist, education will not progress beyond the pre-primary level. The traditional classroom model will be replaced with more experiential learning in the coming year. Instead of relying solely on the results of a small number of surveys, the class dynamics will be more relaxed when students study with their instructors. Since almost every child has their own talents and intelligence, it is natural for parents to be concerned about the ranking system for children. The end result will be a complete and responsible citizen who is ready to face real-world challenges (Sabriadi and Wakia, 2021).

The government's policy, known as Merdeka Learning, aims to make significant improvements in education so that today's students and graduates are ready to face the challenges of the future. In an independent learning environment, both teachers and students are free to think for themselves. Learning without boundaries, when teachers and students are both free and excited to learn about the nature of information, attitudes, and abilities in their natural setting. Students benefit from academic freedom as it allows them to learn at their own pace, cultivate empathy for their fellow students and the school learning environment, gain confidence in their abilities, and adapt quickly to changes around them. Therefore, the need for

independent learning in the 21st century can be traced back to the demands of today's students. To characterize basic abilities in the curriculum as teacher assessment, independent learning must be maintained as an integral part of the educational experience (Widiyono et al., 2021).

The adoption of an independent learning policy that empowers educators to create curriculum and classroom environments for their students is a positive step in this direction. Teachers, in the context of student-driven learning, do more than just impart knowledge; they also play the role of facilitators of learning, supported by their own professional, pedagogical, personal and social expertise. These skills equip educators to realize policy goals that promote student autonomy in the classroom. The drive for independent learning can backfire if teachers are caught up in administrative tasks that distance them from their primary role as facilitators of student learning. Teachers in Indonesia are tasked with preparing and implementing a learning management system in accordance with government mandates, a responsibility that is widely recognized in the country's education system. Management problems in learning cannot be avoided. To avoid being merely a civil servant, accreditation, grades, and examinations should be the main focus of both teachers and schools. Education management has become an explicit focus and priority for many educators (Houtman, 2020).

Humanism, constructivism, progressivism, and Ki Hadjar Dewantara's pedagogical teachings all serve as the philosophical foundation for Free Learning. Humanism advocates individual institutions in realizing one's full potential and making meaningful contributions to society and nature. The development of students' skills and knowledge through their own autonomous exploration of constructivism. Progressive ideals of unrestricted classroom teacher inquiry and student achievement. At the same time, Ki Hadjar Dewantara's philosophical concept of independent learning emerges in his educational philosophy, which encourages students to make changes and find purpose in their communities. The basic spirit of education is freedom. A free soul is one who has a good disposition, a pure heart, and a strong will. Educators use a middle ground approach to the classroom. The teacher in front of the students must set an example, the teacher in the middle must set their own goals, and the teacher behind must set the example and encourage students; this is an educational idea expressed by the middle approach (Daga, 2021).

Nadiem Makarim's version of Merdeka Learning was inspired by his desire to make school fun rather than pressure to get good grades. On December 11, 2019, the Minister of Education and Culture of the Republic of Indonesia conveyed to the Head of the Education Office of DKI Jakarta Province, Regency/City, Indonesia, about the main policy issues of the Ministry of Education and Culture. In the Republic of Indonesia, the Ministry of Education and Culture has introduced four new policy points (Hasim, 2020): (a). Minimum Competency Assessment and Character Survey replace the National Examination (UN). This test is based on PISA and has an emphasis on reading comprehension and mathematical calculations. These exams will be given in fourth grade, eighth grade, and eleventh grade, in contrast to the national examination which is given at the end of the school year. Before students graduate, the results are expected to provide schools with information that can be used to improve the learning experience. (b). Schools are authorized for USBN (National Standard School Examination). The Ministry of Education and Culture states that schools have autonomy in deciding how to evaluate students, therefore portfolios, essays and other forms of homework can all be used. (c) Simplification of the Learning Implementation Plan (RPP). Nadiem Makarim claims one page of RPP is enough. The aim of reducing the administrative burden is to free up teachers to focus on teaching and skills development. (d). The zoning scheme is enlarged for New Student Admission (PPDB) (excluding the 3T zone). Students who choose the affirmation and attainment path will find

more doors open to them under the PPDB system. Zoning decisions are technically delegated to local governments.

Nadiem has a good justification for the policy of independent learning. In particular, in the areas of mathematics and reading, Indonesia was ranked 74th out of 79 countries in the 2019 "Program for International Student Assessment (PISA)" survey. Nadiem's reaction was to develop a breakthrough method for evaluating basic skills such as reading, writing, and one's inclination, both in terms of IQ and personality. Reading comprehension and critical thinking skills are also part of what we mean when we talk about someone's literacy level. Assessing numeracy skills is not a mathematical task, but rather a test of students' practical application of numerical principles (Sabriadi and Wakia, 2021).

2. Project Based Learning

Project-based Learning is a learning model by using projects or activities in the learning process. Through this form of PjBL learning, students can explore, assess, interpret, synthesize, and obtain information. In PjBL students are given a project that is complex and quite difficult but complete and real, then adequate assistance can be given so that students can do the task. This model is also designed to guide students through collaborative projects that show a variety of learning resources (materials), this model gives students the opportunity to explore learning content (materials) using various ways that are meaningful to students and collaborate in carrying out experiments. This PjBL learning model is a student-centered learning model. In the PjBL learning model the teacher acts as a facilitator and motivator, while students can reconstruct the learning process independently (Trianto, 2014).

Project-based learning (PjBL) is an educational approach that places the learner at the center of the process and is based on three principles of constructivism: the use of real materials; student participation in the learning process; and skills development through collaborative efforts. aims to, get a grip on problem-based learning (PjBL) is a form of inquiry-based education that creates a stimulating learning environment by focusing on practical real-world problems. An inquiry-based learning approach, Project-Based Learning (PjBL) has students construct their own knowledge through implementing relevant projects and creating original products. There are six distinctive characteristics in PjBL, namely making basic questions, focusing on learning objectives, actively participating in learning activities, collaboration between students, using technology, and creating real artifacts (Dewi, 2022).

Specifically PjBL is a teaching approach in which students are confronted with questions or challenges in the real world through an extended inquiry process. PjBL as a method for organizing education in which students take authentic projects in which they investigate, apply and evaluate subject matter to tackle complex problems in the context of the profession for which they are preparing. The characteristics of PjBL are developing students' thinking skills so that they allow them to have creativity that encourages them to work together, and directs them to access information on their own and demonstrate the information. Students are expected to take the initiative and register for PjBL's planned relevant learning activities, with an emphasis on teamwork (Dewi, 2022).

The concepts in Project Based Learning are designed to give students real-world experiences while teaching them to find creative solutions to common problems. Authentic learning based on real-world situations is at the core of project-based learning, which goes by several names. The structural stages in the implementation of the Project-based learning (PjBL) learning model are divided into six stages, namely (Wajdi, 2017): (1). Asking questions at the beginning Learning begins by asking questions that are challenging and can lead students to the learning material that will be discussed in the project. Teachers can provide contextual

questions followed by in-depth investigations. Then students are given tasks in controlled activities. (2). Project planning, Continuing education through the formulation of student-teacher collaboration projects. It is very important to outline everything from setting the rules to the final presentation when organizing this assignment for students, selecting activities to undertake to answer important questions, dividing tasks and responsibilities among group members, selecting tools and materials. (3) Determining the schedule of activities, Students must prepare a schedule of activities from project implementation based on the plans that have been made. The stage of preparing this schedule will be carried out by the students and the teacher only as a companion. So that students can understand that in carrying out a project a good and systematic scheduling is needed so that planning can be carried out properly. The teacher plays a role in directing students, this can be done by providing examples of schedules that have been done before. Then students will schedule their activities outside of class hours so that students can get enough time to be creative, explore, and get broader ideas. If the schedule has been arranged, students can convey the results through presentations as a form of responsibility (4) Supervising the project implementation process in the running of a project, students will independently carry out the project that has been planned with monitoring from the teacher. This is done to control the work of students and guide the project activities. (5) Assessment, If the project has been implemented, then the teacher will conduct an assessment to assess the achievement of the expected competencies. In this case, the teacher needs to conduct an authentic assessment. (6). Project evaluation This project evaluation activity is the end of learning. In this activity, students together with the teacher reflect during the project.

The effectiveness of the Project-based learning (PjBL) model in the Independent Learning Curriculum Project-based learning (PjBL) is one of the constructivism teaching strategies. PjBL allows students to actively participate in solving problems. Students in PjBL work together and discuss their knowledge. Furthermore, by developing analytical and deductive reasoning abilities, students can play an active role in the discovery and selection process. With the Project based learning (PjBL) learning model, the inquiry process can occur starting by giving stimulus questions (driving questions) and can guide students in projects that work collaboratively by integrating various knowledge derived from the material being studied. It can also be said that this Project-based learning model is a process of in-depth investigation of a problem in the real world (Fahrezi et al., 2020).

Based on Dewi (2022) mentioned several advantages in the PjBL learning model such as: (1) PjBL can increase students' learning motivation. The PjBL learning model has a positive effect on the learning motivation of SMK students. (2) PjBL improves students' ability to learn cooperatively and collaboratively. (3) PjBL can increase students' creativity. (4) PjBL can improve students' academic abilities. PjBL improves students' creativity and learning outcomes. The PjBL learning model can improve student learning outcomes. (5) PjBL improves students' communication skills. Because students are required to work with other people. (6) PjBL can improve problem solving skills, management skills and the ability to coordinate learning resources. (7) PjBL also creates a fun learning environment.

According to Muis and Dewi (2021), their research revealed that the application of the PjBL learning model trains students to construct an opinion and criticism because students are expected to be more open in receiving input from others. Activities in PjBL learning will develop collaborative abilities to support each other. In addition, students will practice presenting the results of their work as well as possible. The steps in the PjBL process experienced by students will support students to achieve the 4C skills needed in 21st century life, namely creative thinking skills (creative thinking), communication (communication), critical thinking and problem solving (critical thinking and problem solving).), and collaborate (collaboration).

Behind some of its advantages, the PjBL learning model also has drawbacks. The PjBL learning model adds to the workload and is time consuming for both teachers and students. This is because PjBL does emphasize the learning process. In addition, the interaction process allows for unfriendliness among group members so that it can lead to negative experiences for all students. The habit of students to work alone can allow the emergence of anxiety or difficulty when they have to work together with others. Working in groups continuously allows loss of confidence in independent learning due to lack of individual experience. This is possible because the proportion of working collaboratively in PjBL is quite large. In accordance with this, it can be seen that teachers have a very important role in the implementation of PjBL learning to provide stimulation to students so that they can carry out the independent learning process, find their own understanding, and develop creativity collaboratively. The results of research by Kristanti and Subiki (2017), the application of the PjBL model to physics learning in high school does not provide significant results on learning outcomes, according to him this is because students still need to adapt when faced with new learning models, besides that students still have difficulty in implementing projects and collect data even if done in groups. Both the traditional learning model and the PjBL learning model as stated by Dewi (2022), have no significant effect on student learning outcomes.

The success of implementing the PjBL learning model is strongly influenced by the role of the teacher. Teachers who are experts in implementing PjBL well are able to design strategies in project implementation and management, and maximize their success. The techniques and strategies used by the teacher are as follows (Dewi, 2022): (1) Time management, related to project scheduling effectively by coordinating project schedules with other teachers. (2) Learning orientation, making students think about the project before starting it, giving students a rubric that provides clear information on what they should look for and the criteria that must be agreed upon before starting the project. (3) Develop a "management" culture among students by delegating tasks, asking them to participate in planning their own work, letting them make important decisions, and encouraging them to find ways of learning on their own. (4) Managing student groups, the emphasis is on establishing appropriate grouping patterns, encouraging the full participation of each member and monitoring the progress of each group's projects through discussion. (5) Cooperate with other people outside the classroom, such as other teachers, parents and people from the community, in order to implement the project. (6) Getting the most out of technology resources, such as selecting the use of technology for the project, making efficient use of the Internet by being encouraged to make informed choices in browsing relevant websites and developing critical thinking skills. (7) Assessing students and evaluating projects-teachers can assess students using a variety of assessment methods, individual assessment methods and group grades and place emphasis on individual performance over the group and, provide adequate project debriefing by demonstrating reflection strategies and gathering formative evaluation information from students about the project and how to improve it.

The teacher's role in Project-Based Learning is as a facilitator, helping students find their own solutions to problems. Whereas in conventional classrooms, the teacher is considered the most expert, and students receive all instructions from the professor. Students in Project-Based Learning are used to working in teams, assessments are made in real-life contexts, and teaching materials can be refined over time. This is in contrast to conventional classrooms, where students are used to dealing with their own unique problems and assessment plays a more central role in the end than the process. Some of the specific differences between Project-Based Learning and traditional lectures are as follows:

Table 1. Differences between Project Based Learning and conventional classes

Differentiator	Project Based Learning	Conventional
1. Curriculum	<ul style="list-style-type: none"> - There is an in-depth investigation and research - In the long term, students are the center of attention in listening to real-world issues that attract students' attention - Memorizing material without thinking about facts 	<ul style="list-style-type: none"> - Memorizing material without thinking about facts - Wide material coverage - Refers to the standard curriculum.
2. Class	<ul style="list-style-type: none"> - Students sit flexibly, relax and collaborate in teams. - Encourage students to work in heterogeneous teams to achieve targets. 	<ul style="list-style-type: none"> - In the form of embracing everyone together, learning at the same pace and weight - Strive individually to achieve the target
3. Student	<ul style="list-style-type: none"> - Takes responsibility for himself, describes his own tasks and works as a member of a team for a certain time 	<ul style="list-style-type: none"> - Depends on the teacher to complete instructions
4. Educators	<ul style="list-style-type: none"> - Educators as facilitators and provide resources 	<ul style="list-style-type: none"> - Educators as lecturers /resources and experts

There are advantages to using a Project Based Learning strategy: (1) instructing students on the use of logic to overcome business challenges; (2) Prepare people to use basic business principles to generate hypotheses to solve problems; (3) Acquire the ability to think critically and strategically about real-world business problems; (4) Instruct children on how to conduct experiments to support their claims; (5) Practice assessment in problem solving by: (a) Inspiring students to take part in class discussions and narrowing their attention; (b) Encourage students' higher order thinking by responding to their work; (c) Motivating students to do analysis, synthesis, assessment, and summary; and (d) Assist students in finding relevant sources, references, and guiding concepts (content) in their quest to find solutions to problems and develop their own solutions.

Can use the teaching strategy known as Project Based Learning in any academic setting. The teacher's role is primarily as a guide or facilitator in this type of instruction. Students gain exposure to problem-solving principles and hone their critical thinking skills through project-based learning geared towards problem solving. Students practice critical thinking skills through collaborative exploration of real-world problems. Group members will engage in concession discourse with one another to achieve a thorough and sophisticated understanding through this technique. Real-world problems, collaborative efforts, discussions and reports are at the core of project-based education.

CONCLUSION

Based on the explanation, it can be summarized that the use of the Project-based learning model is very suitable to be applied to the Merdeka Learning curriculum. Project-based learning has the advantage of being able to develop the ability to think creatively, collaborate, solve problems, communicate, where these abilities are in accordance with the competencies expected in the Merdeka Learning curriculum. However, in this case it should be noted that the

success of the implementation of Project-based learning is largely determined by the role of the teacher as a learning facilitator. Because in addition to the advantages possessed in the Project-based learning model, there are several shortcomings that can hinder the learning process. Therefore, teachers are expected to have strategies and techniques in implementing Project-based learning.

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