



## IMPLEMENTATION OF PROJECT-BASED LEARNING (PjBL) ON IPAS LEARNING MATERIALS IN THE MERDEKA CURRICULUM AT MUHAMADIYAH MUJAHIDDIN ELEMENTARY SCHOOL

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## IMPLEMENTASI *PROJECT-BASED LEARNING* (PjBL) PADA MATERI IPAS DALAM KURIKULUM MERDEKA DI SD MUHAMADIYAH MUJAHIDDIN

### ARTICLE HISTORY

### ABSTRACT

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**Abstract:** For students, the Merdeka curriculum has the potential to provide relevant learning opportunities in line with PjBL objectives. The research in this paper provides further explanation of how the PjBL model plays a role in IPAS learning subjects and the idea of Merdeka curriculum that emphasizes projects. Case study research is a type of study conducted in this paper. The research uses a qualitative methodology. The steps are observation, interviews, and documentation are used as a data collection approach. During the observation, observations come from observations and initial conditions. Grade IV and V teachers are interviewed and so are grade IV and V students. The information was the data collected from published literature. Data from triangulation and validity tests are used to validate the findings. The research results at Muhamadiyah Mujahidin Elementary School on the use of Project Based Learning on the IPAS learning material content in the independent curriculum reveal that six PjBL syntaxes consist of project determination, design of project completion steps, preparation of project implementation schedule, project completion with facilities and teacher monitoring, preparation of reports and presentations or publication of project results, and evaluation process and project outcomes. The use of PjBL through its syntax at SD Muhamadiyah Mujahidin indicates the regularity of students and teachers in following this PjBL syntax. In order to implement project-based learning methods successfully, it is relevant to the findings of the six phases. Students who actively participate in this co-curricular activity tend to be inspired more by the implementation of the PjBL model, which allows the fulfillment of other appropriate requirements besides cognitive activities.

**Keywords:** *pjbl, ipas, merdeka curriculum, teacher and students*

**Abstrak:** Bagi peserta didik, kurikulum merdeka berpotensi memberikan kesempatan belajar yang relevan sejalan dengan tujuan PjBL. Tujuan penelitian pada artikel ini adalah untuk menjelaskan lebih lanjut bagaimana model PjBL berperan dengan mata pelajaran IPAS dan gagasan kurikulum merdeka yang menekankan pada proyek. Penelitian studi kasus adalah jenis studi yang dilakukan pada artikel ini. Penelitian menggunakan metodologi kualitatif. Langkah-langkahnya berupa observasi, wawancara, dan dokumentasi yang digunakan sebagai pendekatan pengumpulan data. Selama observasi, pengamatan dilakukan untuk pengamatan dan kondisi awal. Guru kelas IV dan kelas V ditanyai dalam wawancara, setelah itu, siswa kelas IV dan kelas V. Informasi dikumpulkan oleh data yang dikumpulkan melalui literatur yang sudah diterbitkan. Triangulasi data dan uji validitas data digunakan untuk memvalidasi temuan. Hasil penelitian di SD Muhamadiyah Mujahidin tentang penggunaan *Project Based Learning* pada konten IPAS dalam kurikulum mandiri mengungkapkan bahwa terdapat enam sintaks PjBL yang terdiri penentuan proyek, perancangan langkah-langkah penyelesaian proyek, penyusunan jadwal pelaksanaan proyek, penyelesaian proyek dengan fasilitas dan monitoring guru, penyusunan laporan dan persentasi atau publikasi hasil proyek, dan evaluasi

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proses dan hasil proyek. Penggunaan PjBL melalui sintaksisnya di SD Muhammadiyah Mujahidin menunjukkan keteraturan siswa dan guru dalam mengikuti sintaks PjBL ini. Agar berhasil menerapkan metode pembelajaran berbasis proyek, itu relevan dengan temuan dari enam fase. Siswa yang berpartisipasi aktif dalam kegiatan kokurikuler ini lebih cenderung terinspirasi oleh implementasi model PjBL, yang memungkinkan pemenuhan persyaratan lain yang tepat selain aktivitas kognitif.

*Kata Kunci: pjbl, ipas, kurikulum merdeka, siswa dan guru*

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#### **CITATION**

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#### **INTRODUCTION**

The best learning opportunities for children at school will significantly impact the development of students' potential in this educational process. Teachers do more for children than deliver messages. Teachers function as educators, providing students with the most effective and beneficial education possible (Aprima, & Sasmita Sari, 2022, p. 96). The content teachers will later teach is critical to the significance of learning. Learning materials have changed to reflect curriculum changes. In this case, the 2013 curriculum still includes science and social studies content in one learning activity, especially thematic ones. This curriculum contrasts with the Merdeka Belajar curriculum, which includes content randomly. Science and social studies lessons combine into Natural and Social Sciences (IPAS) at the primary school level by the Ministry of Education, Culture, Research and Technology (Kemendikbudristek). The first reason is that young children in primary school perceive objects as an integrated whole. Second, it stimulates social and natural thinking as a whole. Third, it raises the profile of "Pelajar Pancasila" (Kemendikbud RI, t.t.). In order to be successful in the provision of education, these three factors must be taken into account.

The national education system needs to be regularly updated in a planned, severe and

sustainable manner to ensure education equity, quality improvement, and the relevance and effectiveness of education management in preparing students to face challenges by the changing demands of life locally, nationally, and globally. In order to enable schools to become independent learners and make their assessments according to their unique educational needs, the Indonesian education system will offer three curriculum alternatives by 2022. These include the 2013 curriculum and the Merdeka Belajar curriculum (Rachmawati, Arita Marini, Maratun Nafiah & Iis Nurasih, 2022, p. 3614; Sugiana, 2019; Warsah, 2018, p. 270).

As an upgrade from the 2013 curriculum, Nadiem Makarim modified and produced Merdeka Curriculum in 2019. Starting with the first of four self-directed learning policies outlined by the Ministry of Education and Culture (2021), in 2020, the National Standardized School Examination (USBN) will be changed to a test or assessment organized by schools, allowing a more flexible way for educators to assess their students' learning outcomes. Secondly, to motivate educators and institutions to improve teaching standards, the National Exam was replaced in 2021 by the Minimum Competency Assessment (MCA) and Character Survey, which focuses on character skills, literacy, and numeracy. This change concerns the successful

methods used by international assessments such as PISSA and TIMSS. Third, reducing the original 13 components of the Learning Implementation Plan (RPP) tool consists of learning objectives, learning activities, and assessment as its three essential parts. Having extra time to prepare and assess student learning will be beneficial for teachers to increase their level of effectiveness and efficiency. Fourth, to account for regional and geographical differences in education standards, entry requirements for new students should be more flexible (Rahmadayanti & Agung Hartoyo, 2022, p. 7176).

The Minister of Education, Culture, Research and Technology of the Republic of Indonesia issued Decree No. 56/M/2022 on Guidelines for Implementing Curriculum in the Framework of Learning Recovery in order to fully support curriculum development in Indonesia and realize a modern, independent, and private Indonesia through the creation of a Pancasila learner profile. By implementing an independent curriculum, teachers can help students improve their shrewdness, originality, independence, trust, and fervent devotion to God Almighty. They can enhance their capacity for cooperation and a sense of diversity around the world. To restore learning from 2022 to 2024 as a result of the epidemic, schools that are ready to use it have the option to use the Merdeka curriculum (Rachmawati, Arita Marini, Maratun Nafiah & Iis Nurasih, 2022, p. 7176).

According to the policy of the Ministry of Education, Culture, Research and Technology (Kemendikbudristek), which gives academic units flexibility in implementing the curriculum, the Merdeka curriculum is not adopted all at once or in large numbers (Hargreaves, Ann Lieberman, Mecheal Fullan, David Hopkins, t.t., p. 16). Among the programs that support implementing the Merdeka curriculum are the "Penggerak" school program and the SMK Center of Excellence, where the Ministry of Education

and Culture in the program provides support in implementing the Merdeka curriculum. These two activities gain positive experience in implementing the Merdeka curriculum so that it becomes a good practice of the content of the famous implementation lesson (Jusuf & Ahmad Sobari 2022:186–187).

According to the justification provided, the Merdeka Belajar policy can help teachers and students develop their creativity, originality, independence of thought, and happiness in the classroom. It is important to note that in this context, learning independence refers to the freedom given to teachers and students. Freedom fosters independence, adaptability, and improvisation Throughout the teaching and learning process. To be independent, Merdeka Belajar is a natural process. Aan Widiyono and Saidatul Irfana (2021) support that learning activities need independence so that students do not feel constrained and have little space during the learning process.

Teachers can actively help students reach their potential by allowing them to learn independently. However, many teachers have not been allowed to co-plan the learning course with their students in the classroom. Before starting a class, teachers must be free to reflect and explore ideas regarding the direction these children take in their learning. This learning requires curricular systems to support it (H. Hirst and Patricia, 1998, p. 28). Thus, an independent learning process can be realized, and learners can learn more flexibly (Juita & Yusmaridi M, 2021; Sofan Iskandar, 2022, p. 5296).

This stand-alone curriculum combines Natural and social science teaching to form IPAS. The learning objectives of IPAS in this curriculum are to foster interest and curiosity, encourage participation, and increase knowledge and understanding of IPAS ideas. As a result, students are now subjects of learning rather than simply objects of learning. Teachers must carefully organize and prepare

lessons to help students improve their understanding and processing skills. If teachers are proficient in the subject matter and effective teaching techniques, all this can be achieved (Agustina, Babang Robandi, Ika Rosmiati & Yusuf Maulana 2022:81–82; Hasibuan, Aufa, Lola Khairunnisa, Wenni Arobiya Siregar, Halimatul Adha 2022).

Collaborative events between teachers and learners through the right learning paradigm are indicators of good learning (Pratiwi, Eunice Widyanti Setyaningtyas, 2020, p. 381). Learning through projects is one of the best instructional approaches to engage students and inspire them to be inventive, creative, and engaging in their learning (PjBL). The Project Based Learning (PjBL) learning approach emphasizes students' participation in problem-solving through scientific stages, either autonomously or in groups, with specific time constraints expressed in a product. The purpose of project-based learning (PjBL), which requires students to take an active role in learning new knowledge and skills under the supervision and control of the teacher, is to help students grow intellectually and socially (Panggabean).

The PjBL learning paradigm is an instructional strategy that centers learning around projects (activities). Students will get hands-on experience in every activity they participate in, which later can foster creativity and improve student learning outcomes. Students can benefit from using PjBL learning to learn new ideas and encounters and improve their academic performance and creativity in problem-solving and product creation (Natty, Firosalia Kristin, Indri Anugrahen, 2019, p. 1086).

PjBL has much potential to provide students with a more engaging and fulfilling educational experience, turning it into a learning model that supports using the Merdeka curriculum (Wahyu, 2016). PjBL allows students to choose the creative methods that suit their expertise. This PjBL can be

achieved by introducing students to the diverse information and skills required to use technology before their ability to communicate and solve problems is enhanced. Students learn more about and internalize science-related concepts and abilities through PjBL, and they are more likely to retain and understand the material provided to them due to using diverse teaching methods (Dewi, 2015; Simamora, 2022, p. 57).

The syntax of the Project Based Learning (PjBL) learning model is divided into 6 phases, which are as follows: (1) Determine the fundamental question (start with the essential), (2) design a plan for the project, (3) create a schedule, (4) monitor the students and the progress of the project, (5) assess the outcome, (6) evaluate the experience. (Lestari, Siti Halidjah, Dyota Auliya Vilda Ghasya & Hery Kresnadi, 2022, hlm. 153–154; Putra, 2021; Soleh, 2021, hlm. 140; Tirtawati, 2021).

The studies relevant to this study are: *First*, the study of Zulfin R Mufidah titled "Developing eco-literacy and Ecopreurship of Elementary School Students Through Thematic Learning Based on Project Based Learning (PjBL) Model." *Second*, the study of Taufiqulloh, Dadang Iskandar, Deni Harmaen & Hani Noeratifah with the title "Analysis of Elementary School Student Cooperation Through Project Based Learning" *Third*, the study of Hanik Mahliatussikah, Ayu Widyawati Puspita Wardani, Rosa Meilina Nurcahyanti with the title Application of Project Based Learning Model at SDN Kedungpeluk 2 Sidoarjo. *Fourth* is the study of Nadia Risyah Faridah, Eka Nur Afifah & Siti Lailiyah titled Effectiveness of Project Based Learning Model on Numeracy Literacy and Digital Literacy Skills of Madrasah Ibtidaiyah Students. *Fifth* is the study of Erna Yuniasih, Agnes Herlina Dwi Hadiyanti & Ehsan Zaini titled Application of Project Based Learning Model to Improve Process Skills and Science Learning Outcomes of Elementary School Students. The similarity of this study with

previous studies is that both take the PjBL learning model that emphasizes projects, while the novelty or difference is that this study takes IPAS material that combines science and social studies in the Merdeka curriculum.

The issue raised in this study is "How is the application of the PjBL model through the syntax of 6 IPAS materials in the Merdeka curriculum at Muhamadiyah Mujahidin Elementary School" as a reference to explore information regarding the title that the researcher represents. Based on the formulation of these problems, this study's purpose is to explain further the role of the PjBL model with IPAS subjects and the idea of the Merdeka curriculum that emphasizes projects. This study is related to students' learning projects on IPAS material at Muhamadiyah Mujahiddin Elementary School. The researcher chose the school based on the experience of Muhamadiyah Mujahiddin elementary school since 2021 in managing and developing its administration so that most of the grade levels at the school have used the Merdeka curriculum.

## **METHOD**

Case study research is the applied approach. This study uses a qualitative methodology, which is based on several sources; After obtaining data, it is documented, collected, and then findings are extracted from the data (Purwanti, Zuanita Adriyani & Ega Fatmawati, 2022, p. 3). According to Sugiyono, the qualitative method is a research strategy based on the postpositivist school of thought used to study natural objects. It utilizes researchers as the primary tool, purposive and snowball sampling of data sources, triangulation (combined) research techniques, inductive/qualitative data analysis, and emphasizes meaning over generalization in its findings (Sugiyono, 2019, p. 18). This descriptive research seeks to provide data to create a systematic, factual, and accurate picture of the details, characteristics, and

relationships between the phenomena under study. While it happens, this research tries to describe how the independent curriculum at Muhamadiyah Mujahidin Elementary School integrates project-based learning (PjBL) using IPAS materials.

The study subjects through primary and secondary data sources used were Students in grades IV and V and their teachers, serving as the study's primary data sources or subjects. The grade IV and grade V teachers each constituted one primary sample member from the initial data collection. Secondly, there were three students in class IV and five in the V class. This study was based on the population provided to be adequately represented. In addition, there were parallels between the project work planning and the student's projects, which served as the primary justification for the sampling.

Secondary sources collect data from previously published works, such as books, papers, or scientific articles related to the studied problem. (Hasyim Achmad, 2021), (Hamzah, 2020). This study was fielded in November 2022, and the research location was at Muh Mujahidin Elementary School located on Jl Mayang, Gadungsari, Wonosari, Gunung Kidul Regency, Special Region of Yogyakarta.

Data collection techniques used during the study phase were observation, structured interviews, and documentation. Data validity tests are used to ensure that the conclusions are validated. In qualitative research, data triangulation is conducted to check its validity. The process of collecting and analyzing research data is conducted simultaneously.

The three critical analysis processes, critical inter-achievement, and forming conclusions are included. First, information or data relevant to the study's concept and real object must be reviewed. The second step involves critically analyzing the data or facts that have been collected, presented, and used to derive conclusions from the articulation of the issues that have been raised. The third is to

create a valuation. Based on the method's purpose, it is used to describe and collect the data found, after which the data is examined, and a determination is made (Nawangsih, 2022).

Using various techniques by researchers for data collection and analysis is the essence of triangulation. In qualitative research, data analysis entails four steps: data reduction, display, de-summarization, and

verification (Purwanti, Zuanita Adriyani & Ega Fatmawati, 2022, p. 4). Based on the data collection techniques described above, the researcher aligns the concept of PjBL syntax and indicators of the syntax with indicators of independent learning in IPAS learning in class IV and Class V to determine the achievement of these indicators. Therefore the researcher presents it in the following table:

**Table 1. PjBL Indicators and Merdeka Belajar Concept Indicators on IPAS Material**

No	Syntax PjBL	Indicators of PjBL	Merdeka Belajar Indicators in IPAS Learning
1	Project Selection	Students design the steps of project completion activities and their management from the beginning to the end.	Students determine the materials to make a project about changes in the form of objects.
2	Designing the steps for project completion	Students determine the theme or topic of the project based on the project assignment given by the teacher.	Students determine the project that will be made about changes in the form of objects.
3	Preparation of project implementation schedule	Under the teacher's guidance, students schedule all their designed activities.	Students determine the day of the project that will be made regarding the changes in the form of objects.
4	Project completion with teacher facilitation and monitoring	Students apply the project design that has been made, and the teacher is responsible for monitoring students' activities in performing the project tasks.	Students experiment or make an agreed product about changes in the form of objects.
5	Preparation of reports and presentation or publication of project results	Students present the results of the project in the form of products, either in the form of written works, works of art, or technological works, and publish them to other students and the teacher.	Students present the form of the project on changes in the form of objects to other students and the teacher.
6	Evaluation of the project process and outcome	At the end of the learning process, teachers and students reflect on the activities and outcomes of the project assignment.	Students reflect on the project made with the teacher about changes in the form of objects.

After the concepts of PjBL syntax and indicators of the syntax are formulated with indicators of independent learning in IPAS learning in class IV and Class V, the results

can be formulated and derived as the primary reference in making interview instruments, which are as follows:

**Table 2. Teacher Interview Instrument**

No	Questions
1	How the teacher provides choices about the materials that students will use to do a project about changes in the form of objects?
2	How does the teacher reinforce the students' choice to do a project about changes in the form of objects?
3	How the teacher chooses the day according to the students' agreement in doing a project on the change of form of objects?
4	How do teachers assist students in creating projects about changes in the form of objects?
5	How does the teacher provide a specific stimulus or formula to students presenting the results of doing projects on changes in the form of objects?
6	How does the teacher reflect on the students in a project about the change of form of objects?

**Table 3. Student Interview Instrument**

No	Questions
1	How do students determine the materials to make a project about changes in the form of objects?
2	How do students decide on a project about changes in the form of objects?
3	How do students choose days for the project on changes in the form of objects?
4	What are the steps for making an approved project on changes in the form of objects?
5	How do students present their projects to their classmates and teachers about the changes in the form of objects?
6	How do students understand the revelation of the project material on changes in the form of objects?

Then, researchers will present the results and discussion related to the extent of Project Based Learning (PjBL) application on IPAS material in the independent learning curriculum at Muhammadiyah Mujahiddin Elementary School. So that researchers will display some data derived from teacher interviews with class IV and V students and document data in the discussion based on the suitability of the literature with the focal point

of the title that researchers take from articles, books, texts, or other available references.

## RESULTS AND DISCUSSION

Through data collection techniques that researchers use, namely observation and interviews. Then obtained field data in the form of qualitative data which researchers present the data in a formulation of the findings that researchers display in the following table:

**Table 4. Finding Results**

No	Syntax PjBL	Findings on Teachers	Findings on Students
1	Project Determination	To choose the materials used to make the product, the teacher first analyzes the suitable materials in color, shape, and material used.	The teacher gives students the freedom to choose the materials used to make the product so that they can discuss in groups to determine the materials. Usually, they take materials available in the surrounding environment according to the direction of the teacher.
2	Design of Project Completion	Given reinforcement related to the	Students are given the freedom to

Steps		theory of the steps. And adjusting the product to be made so that children are given the freedom to choose the materials used according to the product's purpose	discuss related to the steps of the project that will be made with their friends' agreement and the teacher's direction.
3	Preparation of Project Implementation Schedule	In preparing the project implementation schedule, the teacher holds a school meeting to determine the days or weeks to implement project activities. The implementation is separate from curricular learning, so a week of project implementation was made. Both from observation on the first day, second-day theory, third-day planning, fourth-day execution, and finishing for the fifth day	The implementation of project activities follows the schedule of activities the teacher delivers.
4	Project Completion with Teacher Facilitation and Monitoring	The teacher provides assistance starting from planning, introducing, and conveying the importance of making the product/project and its benefits. In the implementation of this project in groups, group management is needed, which is assisted by the teacher both from preparation and finishing to the title of the work	The students complete the project technically from the theory learned previously. Together and accompanied by the teacher in completing the project made
5	Report Writing and Presentation or Publication of Project Results	The student's presentation was carried out with a sharing model related to what students experience when making projects and exciting experiences such as cohesiveness and cooperation, and then the teacher provided a stimulus-response that motivates children to have good presentation power	During the presentation, students are directed to create a procedure text and then convey to their friends the process of making the product to the benefits of the product that students make
6	Evaluation of Project Process and Results	The teacher evaluates by reflecting through a class discussion regarding the making of the project, obstacles encountered, and others until the teacher encourages students to make better projects	Through the project process up to the finished project, students understand the material better so that they can be tested with the project module prepared by the teacher

Based on the findings of the field results that the researchers presented in the previous table, the utilization of the project-based learning model has relevance to the objectives of the Merdeka curriculum in which students are free to develop their potential, one of which is learning projects. Learning projects

that students at Muhamadiyah Mujahiddin elementary school have made include towel pots whose functions can be used for a long time, while projects made by students for the short term are making ice cream to accommodate material on changes in the form of objects in the IPAS subject. This IPAS



subject is a combined material between science and social studies in the Merdeka curriculum.

## **DISCUSSION**

Merdeka Curriculum is created as the foundation of a more adaptable curriculum that focuses on essential subjects and fosters students' individuality and skills. The stand-alone curriculum is created to help students recover their academic skills after the Covid-19 pandemic. The Merdeka curriculum strongly emphasizes the freedom of teachers or students to learn. According to the Ministry of Education and Culture, Merdeka Belajar is a process that gives independence and power to each educational institution to operate without being constrained by complicated administrative procedures. The core principle of Merdeka Belajar is that teachers must have the confidence to teach freely (Koesoema, 25 Februari, 6; Priatmoko, Nilna Iqbal Dzakiyyah, 2020).

Learning is more important than relying solely on the ranking system, which according to some surveys, only makes children and parents anxious. Outside the classroom fosters courage, independence, intelligence to get along with others, politeness, and competence. The learning environment is more comfortable than others, teachers and students can talk more freely, and learning outside the classroom fosters qualities such as competence. Sherly et al. claims that the purpose of Merdeka Belajar is to restore the country's education system by the law so that schools can independently interpret the essential competencies of the curriculum for their assessment (Frei, Amy Gammill, and Sally Irons, 2007, p. 23). By using the Merdeka curriculum, education will be more exciting and relevant, with more opportunities for students to actively investigate factual topics thanks to project-based learning (Rahayu, Rita Rosita, Yuyu Sri Rahayuningsih, Asep Herry Hernawan, Prihantin, 2022, p. 6315–6316), (McKernan, 2008; Syukur, Yanti Fitria, Farida F., 2022, p. 122).

One of the initiatives that can be taken by implementing an active learning model that

can stimulate students' capacity for creative thinking is the Project Based Learning (PjBL) model, which involves all students in carrying out the learning process and gives them more time to solve a problem either individually or in groups based on the concepts, theories, and information they have learned. Students receive tasks or challenges related to the subject matter learned during project-based learning. The next step is to ask them to develop a project or activity to solve the problem (Kusumaningrum, D. Djukri, 2016; Niswara, Muhajir, Mei Fita Asri Untari, 2019). In addition, students are required to learn, investigate, and discover their knowledge by generating innovative ideas or utilizing concepts, theories, and information that have been transforming into something new by others (Fahrurrozi, Yofita Sari, Alya Rahmah, 2022, p. 3888–3889).

Based on the explanation of PjBL above, here the researcher will highlight the syntax of PjBL, which consists of 6, including, *First*, the Determination of the project—*second*, designing the steps to complete the project. Third, prepare a project implementation schedule. Fourth, Project completion with teacher facilities and monitoring. Fifth, preparation of reports and presentation or publication of project results. Sixth, Evaluation of the project process and results (Mustika, 2022).

In determining the project about making material changes in the form of objects, students discuss what materials are easy to use, what materials are needed, and what materials that are easy to carry, and then the teacher confirms to students from the agreed materials and the teacher analyzes the suitability between the materials and the project to be made so that a proposal of what project will be carried out is formed.

After determining the agreed project, students are assisted by the teacher to discuss their creativity in designing the steps to completing the project. Then based on the agreement of the discussion group and direction from the teacher, the agreed steps are formed, or the children are given freedom by the teacher regarding these steps by not having to be the

exact steps that have been agreed upon with the execution that will be carried out.

Then when the steps have been discussed, the students and the teacher agree on the day the project will be carried out, namely with a discussion or schedule that the teacher has submitted. In this case, teachers in one rumble discuss, or there is a school meeting to determine the range of days or weeks for project activities. So there is no curricular learning, so the project activities are separate. One full week to complete the project, the first day of observation, the second day of theory, the third day of planning, the fourth day of execution, and the fifth day of finishing until the work title.

The above series cannot be separated from the steps of completing the project with teacher facilities and monitoring. The steps chosen by the students have been given general signs, then the children export them so that the desired project can be done correctly. The teacher, in this case, assists in the form of planning, introduction, the importance of making this product, and the benefits so that what students need to prepare and a basis is a group; therefore, the need for group management which the teacher still assists, the manufacturing process by the teacher, the manufacturing process is also assisted by the teacher, the preparation of materials is also assisted by the teacher, finishing up to the working title.

After the project is completed, the report and presentation of the project results are prepared by students in the form of procedure text and then presented to friends. Each child shares what he experienced when doing the project and the experience gained, such as cohesiveness, cooperation, etc. Then the teacher also provides a stimulus by recalling the steps in doing the project. This is in anticipation of someone asking the student.

After demonstrating the project that has been made, the last thing is to evaluate the process and results. In this case, students discuss in groups to understand the project material, do practice questions on the project module, or read material about project theory made through the project module. Following the agreement of the

discussion group and the direction of the teacher, the agreed steps are formed, or the teacher gives the children freedom regarding these steps with not necessarily the exact steps that have been agreed upon with the execution that will be carried out.

According to the previous discussion of the six highlights of the PjBL syntax at SD Muhammadiyah Mujahidin, learning IPAS material about changes in the shape of an object using the PjBL model can encourage students to be more active because they not only learn in theory but also practice what they have learned through project-based learning, which is in line with one of the concepts of the Merdeka curriculum (IB. Siwa, I W. Muderawan, I N.Tika, 2013; Made, Ambiyar, Afif Rahman Riyanda, Margaretha Karolina Sagala, Novi Hendri Adi, 2022, p. 5167).

This study is in line with the study of Tiok Setiawan et al. (2022) that the PjBL learning model is a model that can boost student activity. In addition, this approach can help children respond to current problems critically and creatively (Setiawan, Juliana Margareta Sumilat, Noula Marla Paruntu, Non-Norma Monigir, 2022, p. 9742). Similarly, Zauhjatun Solikhah's research (2020) in Yuniasih et al. (2022) claims that the PjBL learning paradigm can foster a learning environment where students can connect concepts, ideas, and abilities, resulting in active rather than passive learning on their part (Yuniasih Agnes Herlina Dwi Hadiyanti, Ehsan Zain 2022:6676). from some of the suitability of this research with previous research. The limitation of this research is that it focuses on highlighting the PjBL learning model in IPAS subjects with PjBL syntax through phases to provide a positive stimulus in the form of student activeness.

The stages of the PjBL model serve as the basis for learner activities. This phase will select critical questions to direct students in observing the problem and then asking questions to create a strategy for project completion. Plans are developed to work on each anticipated stage during the project planning and schedule preparation phase. The amount of project

implementation is then checked throughout the student monitoring and project development phases. As the project is being tested for results and evaluated for results. The project results are tested and analyzed in this phase, then assessed to determine if the results still have flaws (Agustina, Babang Robandi, Ika Rosmiati & Yusuf Maulana, 2022, p. 1180). This series of learning phases described above shows how students are taught how to tackle these problems to improve their problem-solving abilities (Hasriyan, Baharullah, Agustan S, 2022, p. 1118).

### **CONCLUSIONS AND RECOMMENDATIONS**

The results and discussion that researchers at Muhamadiyah Mujahidin Elementary School found regarding implementing Project Based Learning on IPAS material in the Merdeka curriculum is 6 PjBL syntax consisting of: First, Determination of the project. Second, Design the steps to complete the project. Third, preparation of a project implementation schedule. Fourth, Project completion with teacher facilities and monitoring. Fifth, preparation of reports and presentation or publication of project results. Sixth, Evaluation of the project process and results. Through these six phases, it is found that the implementation of PjBL through its syntax shows the regularity of students and teachers in following the syntax of PjBL at Muhamadiyah Mujahidin Elementary School to ensure the success of the project-based learning process. Students who actively participate in this co-curricular activity are more likely to be inspired by the implementation of the PjBL model, which allows for the proper fulfillment of other requirements besides cognitive activities. It is consistent with the participatory nature of the Merdeka curriculum itself, where project-based learning will provide students with several opportunities to investigate factual issues actively.

Based on the conclusion of the above results, the researcher suggests and

recommends that future researchers take several research locations, such as ethnographic studies at the elementary school level, and combine several of the active learning models on IPAS material in the Merdeka curriculum in order to obtain a comparison of study locations and models with one another.

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