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Teachers and Parents Perspective: Is It Difficult for Project-Based Learning (PjBL) During the Covid-19 Pandemic?

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ABSTRAK

Pembelajaran PjBL adalah salah satu model pembelajaran Inovatif yang dikembangkan dengan pendekatan kontruktifisme, dimana proses pembelajaran memberikan kesempatan kepada siswa untuk lebih aktif dalam proses pembelajaran. tujuan penelitian ini adalah mengidentifikasi kendala- kendala yang dihadapi guru dan orang tua dalam penerapan model PjBL dalam jaringan di tengah pandemic Covid-19. Jenis penelitian yang dilakukan adalah deskriptif kualitatif. Sempel penelitian ini adalh 68 orang guru dan 390 orang tua siswa. metode pengumpulan data yang digunakan adalah wawancara dan angket. Sebelum digunakan instrument dianalisis validitasnya dengan CVR diperoleh nilai CVR untuk angket kendala Guru hasil VCR menunjukkan bahwa 38 intrumnet yang dikembangkan valid dengan skor 0,73-1. Sedangkan untuk uji reliabilitasnya diperoleh koefisen Alpha Cronbach 0,82. Sedangkan untuk intrumen orang tua diperoleh CVR menunjukkan bahwa 25 intrument yang dikembangkan valid dengan skor 1 reliabilitas dengan Alpha Cronbach, diperoleh skor 0,93. Analisis data yang digunakan adalah Analisis data dalam penelitian dilakukan secara interaktif. Hasil analisis menunjukkan bahwa Kendala-kendala adalah kendala pembutan rencangan pembelajaran, ketersedian prangkat pembelajaran, ketersediaan alat dan bahan yang digunakan dalam proses pembelajaran PjBL, kendala partisipasi Pihak lain dalam proses pembelajaran PjBL, Kendala dalam pelaksanaan pembelajaran PjBL khusausnya implementasi sintaks PjBL dan kendala yang terakhir adalah proses penilain PjBL. Serta kendala yang dihadapi oleh orang tua dalam mendampingi siswa belajar antara lain adalah beberapa orang tua masih bermaslah untuk menyediakan fasiltas waluapun jumlahnya tidak terlalu besar, kendala yang lain yang dihadapi adalah orang tua mengalami kendala jika alat dan bahan yang digunakan dalam pembelajaran PjBL sulit didapat, selian itu kendala yang dialami adalah orang tua kesulitan karena tidak paham akan materi yang sedang dipelajari oleh siswa.

ABSTRACT

PjBL learning is one of the innovative learning models developed with a constructivist approach, where the learning process provides opportunities for students to be more active in the learning process. The purpose of this study was to identify the obstacles faced by teachers and parents in implementing the PjBL model in the network during the Covid-19 pandemic. The type of research conducted is descriptive qualitative. The sample of this research is 68 teachers and 390 students' parents. data collection methods used are interviews and questionnaires. Before using the instrument, the validity of the instrument was analyzed using the CVR, it was obtained that the CVR value for the teacher constraint questionnaire, the VCR results showed that the 38 instruments developed were valid with a score of 0.73-1. Meanwhile, for the reliability test, the Cronbach Alpha coefficient of 0.82 was obtained. Meanwhile, for parental instruments, CVR showed that the 25 instruments developed were valid with a score of 1 reliability with Cronbach's Alpha, obtained a score of 0.93. Analysis of the data used is the analysis of the data in the study carried out interactively. The results of the analysis show that the constraints are constraints on making learning plans, the availability of learning tools, the availability of tools and materials used in the PjBL learning process, constraints on the participation of other parties in the PjBL learning process, obstacles in the implementation of PjBL learning, especially the implementation of PjBL syntax and the last obstacle. is the PjBL assessment process. As well as the obstacles faced by parents in assisting students to learn, among others, are some parents still have problems providing facilities even though the numbers are not too large, another obstacle faced is that parents experience problems if the tools and materials used in PjBL learning are difficult to obtain, besides that, the obstacles experienced are that parents have difficulty because they do not understand the material being studied by students.

1. INTRODUCTION

Education is one way to produce quality human resources, therefore education must be carried out with quality. Currently, education in Indonesia is experiencing a storm of change along with other fields due to the Covid-19 pandemic (Wong et al., 2020) Covid-19 is coronavirus 2 (SARS-CoV-2), originating from

the Wuhan City, China that attacks the respiratory system (Remuzzi & Remuzzi, 2020). The process of spreading through humans, and causing death (Mishra et al., 2020). The COVID-19 pandemic has an impact on changes in the order of human life, including changes in the field of education (Anugrahana, 2020; De Brouwer et al., 2020). In the field of education, many planned activities such as seminars, conferences, and comparative studies have been postponed or even canceled (Panesar et al., 2020). The government also issued a policy to "stay at home" so that face-to-face learning must conform to the policy and change learning to online learning methods. Online learning is one of the learning solutions to prevent the spread of COVID-19 (Hussein et al., 2020; Oyedotun, 2020).

Online learning is a learning activity that requires an internet network with connectivity, accessibility, flexibility, and the ability to bring up various types of learning interactions (Mokter, 2020). Online learning is learning that is carried out with the help of the internet, which provides opportunities for students to learn more independently without the limitations of space and time (O'Doherty et al., 2018). Online learning is learning that is carried out either synchronously or asynchronously, students and teachers are not in the same place and time (Andel et al., 2020; Singh & Thurman, 2019). With online learning, it provides opportunities for students to exchange opinions with others and provide opportunities for students to learn independently (Hwang et al., 2020)). Tools that can be used in the online learning process are google meet, google room, google classroom, WA, and social media (Chang et al., 2020). Currently the easiest tool to use in the learning process is WhatsApp. However, online learning does not always have a positive impact, online learning also has an impact on changes in attitudes of social isolation, lack of interactivity, participation and limited feedback. Parents are not ready to face online learning, online learning does not have a formal atmosphere like traditional learning, in online learning there is no social interaction among students (Dong et al., 2020). Many children do not do online learning, but instead do other activities besides learning such as playing games, social media and watching YouTube more and other activities that show "gadget addiction" (Liu et al., 2020; Rahmawati & Latifah, 2020; Samaha & Hawi, 2016). Another problem is that by giving problems that are too complicated, it will cause students to be frustrated and do not want to learn. This condition will greatly affect learning outcomes which will have an impact on the quality of educational output.

Educators have an obligation to create a learning atmosphere that is in accordance with current conditions, the characteristics of students, realize the goals of National Education, and produce humans who are ready to compete in the global era. To achieve this, a learning atmosphere is needed that supports this achievement. More learning leads to activities that support the cognitive processes of students. Learners and educators construct their own meanings from learning activities and classroom events, and their constructions about subject matter can differ from normative and authentic concepts. To create a learning atmosphere, an appropriate learning model is used. One of the recommended learning models to be used in the 2013 curriculum is project based learning (PjBL).

PjBL deals with the real world of students requiring collaborative investigation and production as well as a series of projects (Muhammad, 2018). PiBL is an innovative learning that emphasizes complex activities with the aim of solving problems based on inquiry activities (Apriyanto et al., 2017; Arizona et al., 2020). Learning with the PiBL model requires teachers to be responsible for monitoring student activities while completing projects, so that students are able to develop an idea and produce satisfactory results (Rahmazatullaili et al., 2017). The focus of learning lies on the core concepts and principles of a discipline of study, involving students in problem solving investigations and other meaningful task activities, giving students the opportunity to work autonomously in constructing their own knowledge, and culminating in producing real products (Sumarni, 2020). So, the application of the PjBL model in the learning process has a positive impact on the learning process. However, in implementing this learning the teacher must prepare a mature design and more facilities and materials than other innovative models. Especially at this time where the learning process is carried out completely online. Of course, this presents many obstacles for teachers to prepare and carry out online learning with the PjBL model. To find out the obstacles faced by teachers in implementing the PjBL model, this research was formulated to examine the obstacles faced by elementary school teachers in implementing the PjBL learning model in the midst of the Covid 19 pandemic with online learning methods.

2. METHOD

This type of research is a qualitative research that uses descriptive qualitative research methods. descriptive method by describing or describing the state of the object of research at the present time based on the facts that appear or as they are. Therefore, the emphasis is on the structure and individual backgrounds as a whole and descriptively. The population in this study were the teachers at SD Gugus III, Kecamatan Buleleng, Kabupaten Buleleng, amounting to 67 people. Based on the tables of Robert V Krejcie

and Daryle W. Morgan (Dantes, 2012), for a population of 67 people, the sample size is 62 people. Selian Teachers, the sample of this study were parents, totaling 390 people. The data collected in this study was in qualitative form, the results of which were interviews and questionnaires distributed to teachers. This data is then processed by giving meaning to each data. The questionnaire used to measure teacher constraints in implementing PjBL learning during a pandemic and the obstacles faced by parents in implementing PjBL learning during a pandemic. For the teacher constraint questionnaire, there are 38 statements consisting of the answers "yes" and "no" in more detail the instrument grid is shown in Table 1.

Before being used, the instrument was tested for reliability and validity, but before that, the instrument used was tested by 4 experts according to the developed instrument. After being tested by experts, the validity of the instrument was tested using a VCR, the results of the VCR showed that the 38 instruments developed were valid with a score of 0.73-1. Meanwhile, for the reliability test, the Cronbach Alpha coefficient of 0.82 was obtained. As for the parental constraints questionnaire, there are 25 statements that measure parents' obstacles in learning with the PjBL Model during a pandemic. The statement contains the answers "Yes" and No". The instrument grid for parental constraints is shown in table 2. Before using the developed intrumnet, it was tested by experts, the expert test used 4 people who were in accordance with their expertise. After the expert test is completed, the instrument developed is then tested for validity and reliability testing. The validity test with CVR showed that the 25 instruments developed were valid with a score of 1, in other words, the four experts stated that the instruments developed were relevant. While the reliability test with Cronbach's Alpha, obtained a score of 0.93. So the instrument is very suitable to be used to measure the constraints of teachers and parents.

Data analysis in the study was carried out interactively. That is, in data analysis, researchers are directly involved in explaining and concluding the data obtained by linking the theory used. that interactive model data analysis consists of three main things, namely data reduction, data presentation and conclusion drawing (verification), with the explanations: 1) Data reduction is a selection process, focusing attention on simplification, abstraction and transformation of rough data that emerges from records. written notes in the field. During the data collection, the next reduction stage took place (summarizing, coding, tracing themes, making clusters, partitioning, creating memos). 2) Presentation of data, data as a set of structured information that gives the possibility of drawing conclusions and taking action. Good presentations are a major means of valid qualitative analysis including: various types of matrices, graphs, networks and charts. 3) Drawing conclusions, the last stage which contains the decision-making process that leads to answers to the research questions posed and reveals the "what" and "how" of the research findings.

Table 1. The Instrument grid of teacher constraints in PjBL learning

Dimension	Indicator	Statement Number
	Preparation of online learning tools with	1, 2,3, 4
	project-based learning (PjBL)	5,6,7,8, 9, 10, 11, 12
Planning	Availability of learning tools.	13, 14, 15, 16
	Availability of tools and materials.	17, 18, 19, 20
	Involvement of other parties, students, parents, and stakeholders.	21, 22, 23
Implementation	Obstacles in the implementation of project-based	24,25, 26, 27, 28, 29,
•	learning (PjBL).	30, 31
Evaluation	Obstacles in compiling evaluation tools and conduct evaluations.	32, 33, 34, 35, 36, 37, 38

Table 2. The instrument grid of parental assistance constraints

Dimension	Indicator -	Statement type		No Downwataan
		Positive	Negative	No Pernyataan
Facilities	Provision of facilities	1	4	1,2,3,4,5
Tools and Materials	Preparation of tools and materials	3	2	6,7,8,9,10
Learning process	Guiding children in learning activities	2	13	11,12,13,14,15,16,17,18,19,20,21,2 2,23,24,25

3. RESULT AND DISCUSSION

Result

The results showed that First, in designing PjBL learning the teacher still had problems, this was shown from the 12 statements that were used as planning indicators, 10 statements stated that the teacher had problems with designing PjBL learning during a pandemic. The statements include: 1) I have had problems with the project-based learning (PjBL) format (54%); 2) I have problems compiling LKPD for learning-based (PjBL) (67%); 3) I have difficulty in determining the appropriate tools and materials for the project during online learning (58%); 4) I have problems in compiling the learning steps in the lesson plans according to the PjBL syntax (61.3%); 5) I do not understand the Project-based learning model (PjBL) well (69.4%); 6) I have difficulty in determining the problem in designing online project-based learning (61.3%); 7) I have problems in determining the projects that must be given to students during online learning (72.6%); 8) I have problems when making materials/teaching materials that match the needs of the PjBL model (66.1%); 9) I have problems in determining the time allocation in designing PjBL learning (66.1%); and 10) I had problems in determining the number of groups to implement PjBL learning (61.3%) so, it can be said that the teacher had problems in designing PjBL lessons. apply PjBL in the learning process.

Second, the obstacles faced by teachers in PjBL learning are related to the availability of learning tools from 4 statements that are used to measure teacher constraints, 3 statements indicate that some teachers experience obstacles, the statements include 1) I do not have LKPD for learning with project-based learning models (66.1%); 2) I have difficulty in making LKPD with the PjBL learning model that is in accordance with the characteristics of my students (75.8%); and 3) Learning media that are suitable for the project-based learning model (PjBL) are not available in my school (64.5%). **Third,** the obstacle faced by the teacher is that the availability of tools and materials used in the PjBL learning process is very limited. This is in accordance with the results of the study where out of 62 teachers who filled out 74.2% stated that the availability of tools and materials for PjBL learning was insufficient, 77.4% stated that parents experienced problems in providing tools and materials for PjBL learning. 67.7% of teachers stated that teachers had problems in finding tools and materials for PjBL learning.

Fourth, the obstacle faced by teachers in implementing PjBL learning is building the involvement of other parties in the PjBL learning process. From the teachers who filled out the questionnaire stated that 64% of teachers stated that teachers were constrained in building student involvement in planning PjBL learning and teachers also stated that 62 were constrained in involving parents in PjBL learning process. This condition is certainly not good, because in the learning process there must be good interaction between students, teachers and the parties involved such as people who know. Moreover, at this time the role of parents in the learning process is greater than before. Fifth, The obstacle experienced by teachers in PjBL learning is the stage of implementing PjBL learning where out of 62 people who filled out the questionnaire, who experienced problems in implementing PjBL learning for the 9 statements provided, all of them indicated that more than 50% of each statement experienced problems in the implementation of learning. and the highest percentage is the difficulty of teachers in applying the PiBL learning syntax, which is 80.6%. For other statements, the score ranges from 58.1%-72.6%. This condition is inseparable from the teacher's understanding of PjBL learning. Based on these results, it can be said that teacher knowledge is lacking in PjBL learning. This is in accordance with the results of interviews conducted during the coordination of many teachers who still incorrectly distinguish PjBL learning from Task-based learning. Even though teachers know PjBL learning, many teachers don't know the syntax, and are unable to follow it because we know that PiBL learning syntax is more complex than learning with other models.

Sixth, the obstacle faced by teachers in PjBL learning is conducting an assessment process in the PjBL learning process. Based on the results of the study, it was shown that of the 62 teachers who filled out 64.5%-80.6%, the teachers had difficulties in conducting the PjBL learning assessment process. One of them is that the teacher does not have an instrument to assess PjBL learning. Selian Obstacles The teacher in this study also examined the obstacles faced by parents in PjBL learning during the pandemic. Based on the results of research on the obstacles faced by parents in assisting students in learning with the PjBL model, some of the obstacles faced include, **First**, the obstacles faced by parents in assisting students in learning with PjBL learning during a pandemic related to facilities. The results showed that 72.8% to 93.8% of students' parents had no problems in providing online learning facilities. In other words, most students have adequate facilities in online learning. However, the results of the study also showed that there were still 27.2% of parents still experiencing problems in providing facilities. There are several factors that influence the economy, the number of children in school and environmental conditions such as signal disturbances. This condition, of course, cannot be ignored. The existence of learning facilities is very much needed in online learning. Online learning will run well if the supporting facilities are also good.

Second, related to the obstacles faced by parents in assisting students in online learning related to the provision of tools and materials for PjBL learning. Based on the results of the research in table 4. In

general, parents have no problems in preparing tools and materials for PjBL learning. Even so, there are 43% of parents who object if students are given project assignments that use tools and materials that are difficult to find, and 78.8% of parents state that they agree that the tools and materials used in PjBL learning are provided by the teacher. also 99.2% of parents agree that the tools and materials needed in the learning process are not expensive. Based on the descriptions of these results, it can be overcome by the teacher's ability to design PjBL learning according to the abilities of students and the condition of the parents. If teachers can design PjBL learning according to the character of students, they will be able to produce quality PjBL learning and of course have an impact on students.

Third, the obstacles faced by parents, especially in guiding students in the PiBL learning process, were 52.6% of people and students stated that they experienced obstacles in assisting with limitations in understanding the material being studied. The highest difficulty in PjBL learning is managing students' schedules in the learning process. and another obstacle is that parents have difficulty in determining whether students' answers are right or wrong. Based on this description, this condition is one of the weaknesses of online learning today. Parents are not ready to face online learning, online learning does not have a formal atmosphere like traditional learning, in online learning there is no social interaction among students (Dong et al., 2020). The lack of readiness of parents to make learning at home makes parents want students to return to school. This is in accordance with the results of the study where as many as 95.6% of parents hope their students can go back to school.

Discussion

The teacher's lack of understanding of the PjBL model will have an effect on the process of designing PjBL learning. With the ability of teachers who are not able to develop lesson plans with the PjBL Model during covid, it will certainly have an effect on the learning process that cannot be done using the PjBL learning model. We know that learning design is very important in the learning process. With the existence of a learning design, a teacher will have a clear picture of what will be done in the classroom, both in face-to-face and online learning. Preparing lesson plans in the learning implementation process is very important to do, especially if the classes we are going to teach have different abilities and have a lot of diversity (Utaminingsih et al., 2018). This is because to produce a quality learning requires a plan. Learning can be used as a starting point for efforts to improve the quality of learning (Hidayati, 2017; Setyo, 2018). Therefore, it is very important to prepare a lesson plan by the teacher. With careful preparation, it will at least reduce failures in the learning process. Overcoming the obstacles faced by teachers in conducting PjBL learning during a pandemic is by conducting clinical supervision. This clinical supervision makes teachers look motivated to innovate in the teaching and learning process both in planning, implementing, and providing evaluations (Utami, 2017). Supervision is carried out to find the causes and weaknesses contained in the teaching and learning process carried out by the teacher (Andani et al., 2017). In this clinical supervision process, teachers and leaders are not related to superiors but colleagues, clinical supervision has more collegial content so that it can be used as a more effective approach (Mena et al., 2016). With clinical supervision, it will help teachers overcome obstacles in the learning process. In addition to supervision, the solution that can be done is to develop PjBL-based RPP which is formulated together with teachers through a process of guidance, training and mentoring from experts.

The obstacles faced by teachers are the availability of learning tools in schools that are in accordance with the character of students that can be used in the learning process. This obstacle will certainly have a very large effect, especially since we know that currently the learning being carried out is online learning, so teachers and students have very little interaction in the learning process. This condition can actually be helped if the teacher provides learning tools such as LKPD, media in the form of modules and other learning tools. Because the existence of a learning device will make students learn more independently. Developing learning tools that will be used, making the learning carried out by the teacher run more optimally (Amin, 2012; Yerizon et al., 2020). To produce good quality tools, learning tools must be prepared carefully (Tanjung & Nababan, 2018). So, there is a need for learning tools that are in accordance with these characteristics. Overcoming this problem requires good cooperation between teachers and school principals in providing learning tools.

The availability of tools and materials will affect the implementation of PjBL learning. If this is left alone, it is certainly not good, we all know that PjBL learning is one of the lessons that is more concerned with the problem solving process by producing a product. Project-based learning relates to the student's real world which requires collaborative inquiry and production and a series of project artifacts (Muhammad, 2018). Project Based Learning (PjBL) is a learning model whose teaching and learning activities are project-based (Rusmanto & Rukun, 2020; Surya et al., 2018; Triningsih & Mawardi, 2020). Project-based learning, students are required to actively participate in creating innovative solutions to problems through their experiences (Pratama & Prastyaningrum, 2016). Project Based Learning (PjBL)

learning models are able to increase students' motivation, improve students' problem solving abilities, increase student collaboration, and improve skills in managing learning resources (Winarni, 2019). To make this happen, of course, the PjBL learning component must be completed. If this obstacle is experienced, of course, the implementation of PjBL cannot achieve its objectives. Therefore, to provide tools and materials, it is necessary for teachers to be creative in designing projects that are simple but still in accordance with the material and characteristics of students.

The role of parents and students in designing learning dramatically affects the quality of the lesson plans that will be developed. Because the design of learning must be by the conditions of students. Likewise, the role of parents in learning is enormous, and now parents are tasked with guiding and assisting students in the learning process. The role of parents in online learning is to guide and motivate children so that children remain enthusiastic in carrying out activities at home (Yayan et al., 2021). Parents have a massive role in the scope of children's education (Nurhasanah, 2020). So that parents are required to be close to their children in learning (Batoebara & Hasugian, 2021). These descriptions provide a prominent picture of the critical role of people who know today. Of course, to overcome this problem, what is needed is communication between teachers and people to produce quality PjBL learning. The steps in implementing the PjBL model are: determining basic questions, designing project plans, compiling a work schedule, monitoring project progress, evaluating project results, and evaluating the implementation of the learning model (Ambiyar et al., 2020; Rahmazatullaili et al., 2017). The most difficult in the PjBl learning syntax is the orientation stage, namely problem solving. Of course, the problems given are real problems found in everyday life by students. PjBL learning is student-centred and integrates real problems and practices (Syarifah & Emiliasari, 2019). Mastery of PjBL learning steps greatly affects the quality of learning.

The obstacle faced by teachers in PjBL learning is conducting an assessment process in the PjBL learning process. We know that the existence of an assessment instrument greatly determines the quality of the assessment. Assessment instruments are an integral part of an assessment process in learning (Amalia & Susilaningsih, 2014). The assessment becomes less than optimal due to the absence of an assessment instrument that is used as a reference for assessment (Sa'adah & Sigit, 2018). The existence of an assessment instrument in the assessment process reduces the subjectivity of the teacher in conducting the assessment process (Wijaya et al., 2017). However, the current conditions are different from those obtained where the assessment instruments in schools are not as appropriate and the teacher finds difficulties in conducting assessments. This will have an impact on the learning process that is carried out. Because we all know that the process of assessment and learning are two things that cannot be separated. The existence of a learning assessment will provide an overview of the extent to which the objectives of the learning are carried out. Assessment is one of the methods used to determine the success of the learning process (Tridane et al., 2015). The existence of an assessment process provides an opportunity to find out how the current learning conditions are (Msosa et al., 2021). With the assessment carried out by the teacher, it will have an impact on students because it provides feedback on what students have learned (Granberg et al., 2021). With the assessment process it will be known the ability of students both knowledge, attitudes, and skills of students after carrying out the learning process (Schildkamp et al., 2020; Zhang, 2020). Assessment does not only stop in the process of assessing but also student progress must be reported both by students and by teachers themselves to parents and school principals (Wegmann & Smith, 2019). So, a quality assessment will affect learning, therefore the obstacles faced by teachers related to the assessment process must be solved through FGD activities, seminars and supervision where these activities can increase the knowledge and skills of teachers in assessing learning.

These descriptions illustrate that there are many obstacles faced by teachers in the PjBL learning process. These constraints include, among others, the constraints of making learning plans, the availability of learning tools, the availability of tools and materials used in the PjBL learning process, constraints on the participation of other parties in the PjBL learning process, Obstacles in the implementation of PjBL learning, especially the implementation of PjBL syntax and the last obstacle is PjBL assessment process. These obstacles if left unchecked will have a bad impact on the learning process especially the PjBL model is one of the learning models used in the K-13 Curriculum. Some of the solutions that can be offered are conducting supervision activities, providing opportunities for teachers to receive training and guidance from experts and developing PjBL learning tools and PjBL Assessment Instruments.

The existence of learning facilities is very much needed in online learning. Online learning will run well if the supporting facilities are also good. Online learning is online learning that really requires the ability of educators and students, because the ability to use technology will really help create a more conducive learning atmosphere, so that good social interactions are formed (Andel et al., 2020). In addition to the ability, of course, online learning must also pay attention to the financial conditions of students and the facilities and infrastructure that support online learning (Rusli et al., 2020). Facilities are all the tools needed to facilitate the learning process. Educational facilities include all facilities needed in the teaching

and learning process, both movable and immovable so that the achievement of educational goals can run smoothly, regularly, effectively, and efficiently so that students can achieve optimal learning outcomes (Logan et al., 2021). The role of the use of facilities in teaching and learning activities is very important, because the use of learning facilities includes all the use of tools that support student learning activities (Wulandari, 2019). Especially at this time, the online learning process really requires facilities such as smartphones, laptops, or tablets that can be used to access information (Sourial et al., 2018). Based on this description, it can be said that the existence of adequate facilities will greatly affect the learning process carried out. Overcoming the problem of limited facilities by parents can be helped by using other student methods that have minimal facilities so that all students learn well.

Several implementations of PiBL learning have an impact on students' critical thinking skills (Rahmazatullaili et al., 2017; Triningsih & Mawardi, 2020), Project Based Learning (PiBL) learning model can improve students' fluency thinking skills (Muhammad, 2018), Project Based Learning model improves learning outcomes (Surva et al., 2018). So, it can be said that PjBL can have a positive impact on the learning process. In addition, the unpreparedness of parents in guiding students has a negative impact, namely parents scolding their children if they cannot study on their own. This condition will certainly have an impact on the student's condition. If parents scold more in the learning process, students will be stressed and this will have an impact on the learning process. After a person experiences stress, he will respond to stress, both biologically, psychologically, socially and spiritually (Rinawati & Sucipto, 2019). Academic stress on students will arise when expectations for academic achievement increase, tasks that are not in accordance with the student's capacity (Palupi, 2020). If this description is neglected, it will greatly affect the learning process. Therefore, the suggestions that can be given will greatly affect the learning conditions. One solution that can be done is to agree with parents to be mentors in the learning process. The descriptions of the obstacles faced by parents in assisting students in learning include some parents still having problems providing facilities even though the numbers are not too large, another obstacle faced is that parents experience problems if the tools and materials used in PjBL learning difficult to obtain, besides the obstacles experienced are parents having difficulty because they do not understand the material being studied by students. These obstacles can be overcome by providing understanding to students' parents and establishing good communication between teachers and parents so that the learning process goes well.

4. CONCLUSION

The obstacles faced by teachers in the PjBL learning process are numerous. These constraints include, among others, the constraints of making learning plans, the availability of learning tools, the availability of tools and materials used in the PjBL learning process, constraints on the participation of other parties in the PjBL learning process, Obstacles in the implementation of PjBL learning, especially the implementation of PjBL syntax and the last obstacle is PjBL assessment process. As well as the obstacles faced by parents in assisting students to learn, among others, are some parents still have problems providing facilities even though the numbers are not too large, another obstacle faced is that parents experience problems if the tools and materials used in PjBL learning are difficult to obtain, besides that, the obstacle experienced is that parents have difficulty because they do not understand the material being studied by students.

5. REFERENCES

- Amalia, N. F., & Susilaningsih, E. (2014). Pengembangan Instrumen Penilaian Keterampilan Berpikir Kritis Siswa Sma Pada Materi Asam Basa. *Jurnal Inovasi Pendidikan Kimia*, 8(2), 1380–1389. https://journal.unnes.ac.id/nju/index.php/JIPK/article/viewFile/4443/3807.
- Ambiyar, Syahri, B., Adri, J., Primawati, Nurhaliza, & Islami, S. (2020). Penerapan Model Project-Based Learning dalam Mata Diklat Gambar Sketsa. *Jurnal Kependidikan*, 4(1), 148–162. https://doi.org/doi.org/10.21831/jk.v4i1.22353.
- Amin, A. M. (2012). Pengembangan Perangkat Pembelajaran Biologi Berbasis Konstruktivisme Berdasar Teori Sosial Vygotsky di Sekolah Menengah Atas Biology-Based Learning Software Development Based on the Theory of Social Constructivism Vygotsky in High School. *Jurnal Sainsmat*, *I*(2), 109–124. https://doi.org/https://doi.org/10.35580/sainsmat125522012.
- Andani, Y., Yulianto, A., & Murwatiningsih, M. (2017). Model Supervisi Klinis Berbasis Teknologi Informasi dan Komunikasi Untuk Menigkatkan Kinerja Guru Produktif di SMKN 1 Kota Bima. *Educational Management*, 6(2), 163–169. https://journal.unnes.ac.id/sju/index.php/eduman/article/view/22782.
- Andel, S. A., de Vreede, T., Spector, P. E., Padmanabhan, B., Singh, V. K., & Vreede, G. J. de. (2020). Do social

- features help in video-centric online learning platforms? A social presence perspective. *Computers in Human Behavior*, *113*(April), 106505. https://doi.org/10.1016/j.chb.2020.106505.
- Anugrahana, A. (2020). Hambatan, Solusi dan Harapan: Pembelajaran Daring Selama Masa Pandemi Covid-19 Oleh Guru Sekolah Dasar. *Jurnal Scholaria*, 10(3), 282–289.
- Apriyanto, B., Nurdin, E. A., Ikhsan, F. A., & Kurniawan, F. A. (2017). Penerapan Pembelajaran Berbasis Masalah Untuk Meningkatkan Aktivitas Dan Hasil Belajar Siswa Dalam Memahami Lingkungan Hidup Pada Mata Pelajaran Ips Di Smp Negeri 2 Sukodono. *JURNAL PENDIDIKAN EKONOMI: Jurnal Ilmiah Ilmu Pendidikan, Ilmu Ekonomi Dan Ilmu Sosial*, 11(2), 7. https://doi.org/10.19184/jpe.v11i2.5727.
- Arizona, K., Abidin, Z., & Rumansyah, R. (2020). Pembelajaran Online Berbasis Proyek Salah Satu Solusi Kegiatan Belajar Mengajar Di Tengah Pandemi Covid-19. *Jurnal Ilmiah Profesi Pendidikan*, *5*(1), 64–70. https://doi.org/10.29303/jipp.v5i1.111.
- Batoebara, M. U., & Hasugian, B. S. (2021). Peran Orang Tua dalam Komunikasi Pembelajaran Daring. *Warta Dharmawangsa*, 15(1), 166–176. https://doi.org/10.46576/wdw.v15i1.1058.
- Chang, T. Y., Hong, G., Paganelli, C., Phantumvanit, P., Chang, W. J., Shieh, Y. S., & Hsu, M. L. (2020). Innovation of dental education during COVID-19 pandemic. *Journal of Dental Sciences*, 155. https://doi.org/10.1016/j.jds.2020.07.011.
- Dantes, N. (2012). Metode Penelitian. CV ANDI OFFSET.
- De Brouwer, E., Raimondi, D., & Moreau, Y. (2020). Modeling the COVID-19 outbreaks and the effectiveness of the containment measures adopted across countries. *MedRxiv*, *3*, 1–9. https://doi.org/10.1101/2020.04.02.20046375.
- Dong, C., Cao, S., & Li, H. (2020). Young children's online learning during COVID-19 pandemic: Chinese parents' beliefs and attitudes. *Children and Youth Services Review*, 118(June), 105440. https://doi.org/10.1016/j.childyouth.2020.105440.
- Granberg, C., Palm, T., & Palmberg, B. (2021). A case study of a formative assessment practice and the effects on students' self-regulated learning. *Studies in Educational Evaluation*, *68*(August 2020). https://doi.org/10.1016/j.stueduc.2020.100955.
- Hidayati, U. (2017). Upaya Peningkatan Kompetensi Guru melalui Strategi Kerja Praktek dengan Teknik Umpan Balik dalam Menyususn RPP Inovatif. *EDUKASI: Jurnal Penelitian Pendidikan Agama Dan Keagamaan*, 4(2), 25–30. https://doi.org/10.32729/edukasi.v4i2.177.
- Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE. *Children and Youth Services Review*, 119(August), 105699. https://doi.org/10.1016/j.childyouth.2020.105699.
- Hwang, G. J., Wang, S. Y., & Lai, C. L. (2020). Effects of a social regulation-based online learning framework on students' learning achievements and behaviors in mathematics. *Computers and Education*, 160, 104031. https://doi.org/10.1016/j.compedu.2020.104031.
- Liu, L., Xu, L., Xiao, X., Liu, L., & Li, Y. (2020). Positive influence of peers' interpersonal character on children's interpersonal character: The moderating role of children's and peers' social status. *Journal of Adolescence*, 79(January), 157–172. https://doi.org/10.1016/j.adolescence.2020.01.003.
- Logan, R. M., Johnson, C. E., & Worsham, J. W. (2021). Development of an e-learning module to facilitate student learning and outcomes. *Teaching and Learning in Nursing*, 16(2), 139–142. https://doi.org/10.1016/j.teln.2020.10.007.
- Mena, Y., Supriyanto, A., & Burhhanudin, B. (2016). Pelaksanaan Supervisi Klinis Dalam Meningkatkan Mutu Kinerja Guru Di Sekolah Dasar. *Jurnal Pendidikan Teori, Penelitian, Dan Pengembangan, 1*(11), 2194–2199. https://doi.org/https://doi.org/10.17977/jp.v1i12.8285.
- Mishra, D. L., Gupta, D. T., & Shree, D. A. (2020). Online Teaching-Learning in Higher Education during Lockdown Period of COVID-19 Pandemic. *International Journal of Educational Research Open*, 100012. https://doi.org/10.1016/j.ijedro.2020.100012.
- Mokter, H. C. (2020). The effect of the Covid-19 on sharing economy activities. *Journal of Cleaner Production*, *xxxx*, 124782. https://doi.org/10.1016/j.jclepro.2020.124782.
- Msosa, A., Bruce, J., & Crouch, R. (2021). Effect of a formative assessment intervention on nursing skills laboratory learning in a resource-constrained country. *Nurse Education Today*, *97*(October 2019), 104677. https://doi.org/10.1016/j.nedt.2020.104677.
- Muhammad, A. S. (2018). Peningkatan Keterampilan Fluency Melalui Penerapan Model Pembelajaran Project Based Learning (PjBL) Pada Pembelajaran IPA Di Sekolah Dasar. *Jurnal Pendidikan Dasar*, 6(1). https://jurnal.fkip.uns.ac.id/index.php/diksar/article/view/11790/8450.
- Nurhasanah. (2020). Peran Orang Tua dalam Pembelajaran Daring di Masa Pandemi. *Educhild*, 2(2), 58–67. https://doi.org/doi.org/10.31219/osf.io/nsv42.
- O'Doherty, D., Dromey, M., Lougheed, J., Hannigan, A., Last, J., & McGrath1, D. (2018). Barriers and solutions

- to online learning in medical education an integrative review. *BMC Medical Education*, 18(130), 1–11. https://doi.org/https://doi.org/10.1186/s12909-018-1240-0.
- Oyedotun, T. D. (2020). Sudden change of pedagogy in education driven by COVID-19: Perspectives and evaluation from a developing country. *Research in Globalization*, 2(June), 100029. https://doi.org/10.1016/j.resglo.2020.100029.
- Palupi, T. N. (2020). Tingkat Stres pada Siswa-Siswi Sekolah Dasar dalam Menjalankan Proses Belajar di Rumah Selama Pandemi Covid-19. *JP3SDM*, 9(2), 18–29. https://ejournal.borobudur.ac.id/index.php/psikologi/article/download/716/678.
- Panesar, K., Dodson, T., Lynch, J., Bryson-Cahn, C., Chew, L., & Dillon, J. (2020). Evolution of COVID-19 Guidelines for University of Washington Oral and Maxillofacial Surgery Patient Care. *Journal of Oral and Maxillofacial Surgery*, 78(7), 1136–1146. https://doi.org/10.1016/j.joms.2020.04.034.
- Pratama, H., & Prastyaningrum, I. (2016). Pengaruh model pembelajaran project based learning berbantuan media pembelajaran pembangkit listrik tenaga mikhrohidro terhadap kemampuan kritis. *Jurnal Penelitian Fisika Dan Aplikasinya (JPFA)- Unesa*, 6(2), 44–50. https://doi.org/http://dx.doi.org/10.26740/jpfa.v6n2.p44-50.
- Rahmawati, M., & Latifah, M. (2020). Penggunaan Gawai, Interaksi Ibu-Anak, Dan Perkembangan Sosial-Emosional Anak Prasekolah. *Jur. Ilm. Kel. & Kons.*, 13(1), 75–86. https://doi.org/DOI: http://dx.doi.org/10.24156/jikk.2020.13.1.75 Penggunaan.
- Rahmazatullaili, R., Zubainur, C. M., & Munzir, S. (2017). Kemampuan berpikir kreatif dan pemecahan masalah siswa melalui penerapan model project based learning. *Beta Jurnal Tadris Matematika*, 10(2), 166–183. https://doi.org/10.20414/betajtm.v10i2.104.
- Remuzzi, A., & Remuzzi, G. (2020). COVID-19 and Italy: what next? *The Lancet*, *395*(10231), 1225–1228. https://doi.org/10.1016/S0140-6736(20)30627-9.
- Rinawati, F., & Sucipto. (2019). Hubungan antara Stres, Motivasi dan Hasil Belajar Mahasiswa. *Jurnal Citra Keperawatan*, 7(2), 23–32. https://doi.org/https://doi.org/10.31964/jck.v7i2.123.
- Rusli, R., Rahman, A., & Abdullah, H. (2020). Student perception data on online learning using heutagogy approach in the Faculty of Mathematics and Natural Sciences of Universitas Negeri Makassar, Indonesia. *Data in Brief*, *29*, 105152. https://doi.org/10.1016/j.dib.2020.105152.
- Rusmanto, R., & Rukun, K. (2020). The Development of E-Learning Module Based on Project-Based Learning (PjBL) for Electric Motor Installation Course. *Journal of Education Research and Evaluation*, 4(2), 181. https://doi.org/10.23887/jere.v4i2.24608.
- Sa'adah, E. N. L., & Sigit, D. (2018). Pengembangan Instrumen Penilaian Sikap dan Keterampilan Psikomotorik pada Materi Elektrokimia. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan,* 3(8), 1023–1026. http://journal.um.ac.id/index.php/jptpp/article/view/11405/5413.
- Samaha, M., & Hawi, N. S. (2016). Computers in Human Behavior Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*, 57, 321–325. https://doi.org/10.1016/j.chb.2015.12.045.
- Schildkamp, K., van der Kleij, F. M., Heitink, M. C., Kippers, W. B., & Veldkamp, B. P. (2020). Formative assessment: A systematic review of critical teacher prerequisites for classroom practice. *International Journal of Educational Research*, 103(April), 101602. https://doi.org/10.1016/j.ijer.2020.101602.
- Setyo, S. (2018). Trategi Kerja Praktek dengan Teknik Umpan Balik Dapat Meningkatkan Guru Guru SD Negeri 163083 Tebing Tinggi dalam Menyusun RPP Inovatif Tahun 2018. *Elementary School Journal*, 8(3). https://jurnal.unimed.ac.id/2012/index.php/elementary/article/download/11873/10351.
- Singh, V., & Thurman, A. (2019). How Many Ways Can We Define Online Learning? A Systematic Literature Review of Definitions of Online Learning (1988-2018). *American Journal of Distance Education*, 33(4), 289–306. https://doi.org/10.1080/08923647.2019.1663082.
- Sourial, N., Longo, C., Vedel, I., & Schuster, T. (2018). Daring to draw causal claims from non-randomized studies of primary care interventions. *Family Practice*, *35*(5), 639–643. https://doi.org/10.1093/fampra/cmy005.
- Sugiyono. (2014). Metode Penelitian Kualitatif, Kuantitatif, dan R&D. Alfabeta.
- Sumarni, I. (2020). Penerapan Model Project Based Learning Untuk Meningkatkan Aktivitas Dan Hasil Belajar Siswa Dalam Mata Pelajaran IPA Tentang Sifat-sifat Cahaya Di Kelas V A Semester II Bagi Siswa SD Negeri Bantarkemang 1 Tahun Ajaran 2017/2018. *Jurnal Teknologi Pendidikan*, 9(1). https://doi.org/http://dx.doi.org/10.32832/tek.pend.v9i1.2764.
- Surya, A. P., Relmasira, S. C., & Hardini, A. T. A. (2018). Penerapan Model Pembelajaran Project Based Learning (PjBL) Untuk Meningkatkan Hasil Belajar Dan Kreatifitas Siswa Kelas Iii Sd Negeri Sidorejo Lor 01 Salatiga. *Jurnal Pesona Dasar*, 6(1), 41–54.

- https://doi.org/10.24815/pear.v6i1.10703.
- Syarifah, E. F., & Emiliasari, R. N. (2019). Project-Based Learning To Develop Students' Ability and Creativity in Writing Narrative Story. *Indonesian EFL Journal*, *5*(1), 85. https://doi.org/10.25134/ieflj.v5i1.1627.
- Tanjung, H. S., & Nababan, S. A. (2018). Pengembangan Perangkat Pembelajaran Matematika Berorientasi Model Pembelajaran Berbasis Masalah (PBM) Untuk Meningkatkan Kemampuan Berpikir Kritis Siswa SMA Se Kuala Nagan Raya Aceh. *GENTA MULIA, IX*(2), 56–70. https://ejournal.stkipbbm.ac.id/index.php/gm/article/view/168.
- Tridane, M., Belaaouad, S., Benmokhtar, S., Gourja, B., & Radid, M. (2015). The Impact of Formative Assessment on the Learning Process and the Unreliability of the Mark for the Summative Evaluation. *Procedia Social and Behavioral Sciences*, 197(February), 680–685. https://doi.org/10.1016/j.sbspro.2015.07.058.
- Triningsih, R., & Mawardi. (2020). Efektivitas Problem Based Learning dan Project Based Learning Ditinjau dari Keterampilan Berpikir Kritis Siswa. *Jurnal Riset Pendidikan Dasar*, 03(April), 51–56. https://doi.org/https://doi.org/10.26618/jrpd.v3i1.3228.
- Utami, S. (2017). Penerapan Supervisi Klinis untuk Meningkatkan Kinerja Guru dalam Proses Belajar Mengajar Gugus IV Sanankulon. *Briliant: Jurnal Riset Dan Konseptual*, 2(3), 272. https://doi.org/10.28926/briliant.v2i3.70.
- Utaminingsih, R., Rahayu, A., & Andini, D. W. (2018). Pengembangan RPP IPA Sekolah Dasar Berbasis Problem-based Learning untuk Siswa Learning Disabilities. *Jurnal Inovasi Pendidikan IPA*, 4(2), 191–202. https://journal.uny.ac.id/index.php/jipi/article/view/21401.
- Wegmann, K. M., & Smith, B. (2019). Examining racial/ethnic disparities in school discipline in the context of student-reported behavior infractions. *Children and Youth Services Review*, 103(December 2018), 18–27. https://doi.org/10.1016/j.childyouth.2019.05.027.
- Wijaya, U. R. B., Sumarni, W., & Haryani, S. (2017). Pengembangan Instrumen Penilaian Berpikir Kritis Pada Pembelajaran Kimia Berpendekatan Sets (Science, Environment, Technology, and Society). *Chemistry in Education*, 6(2), 35–41. https://journal.unnes.ac.id/sju/index.php/chemined/article/view/18169.
- Winarni. (2019). Peningkatan Kemampuan Berpikir Tingkat Tinggi Menggunakan Huruf Kapital melalui Penerapan Model PJBL di Sdit Izzatul Islam Getasan. *Jurnal Manajemen Pendidikan*, 14(1), 18–24. https://doi.org/https://doi.org/10.23917/mp.v14i1.8643.
- Wong, G. L. H., Wong, V. W. S., Thompson, A., Jia, J., Hou, J., Lesmana, C. R. A., Susilo, A., Tanaka, Y., Chan, W. K., Gane, E., Ong-Go, A. K., Lim, S. G., Ahn, S. H., Yu, M. L., Piratvisuth, T., & Chan, H. L. Y. (2020). Management of patients with liver derangement during the COVID-19 pandemic: an Asia-Pacific position statement. *The Lancet Gastroenterology and Hepatology*, *5*(8), 776–787. https://doi.org/10.1016/S2468-1253(20)30190-4.
- Wulandari, E. T. (2019). Pentingnya Pengaruh Fasilitas Belajar Terhadap Prestasi Belajar Siswa The Importance of the Effect of Learning Facilities on Student Learning Achievement. *EProsiding Seminar Nasional Biologi VI*, 20, 258–261.
- Yayan, A., Sri, W. A., & Vickry, R. F. (2021). Sosialisasi Peran Orang Tua Di Masa Pandemik Covid 19 Dalam Pembelajaran Daring Bagi Anak Usia Sekolah Dasar Desa Cikalongsari Karawang. *Jurnal Buana Pengabdian*, 2(2), 31–38. https://doi.org/10.36805/jurnalbuanapengabdian.v2i2.1295.
- Yerizon, Y., Putri, Y. U., Musdi, E., & Permana, D. (2020). Efektivitas Perangkat Pembelajaran Matematika Berbasis Pendekatan Contextual Teaching and Learning Terhadap Kemampuan Komunikasi Matematis. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 9(1), 205. https://doi.org/10.24127/ajpm.v9i1.2305.
- Zhang, X. (2020). Assessment for learning in constrained contexts: How does the teacher's self-directed development play out? *Studies in Educational Evaluation*, 66(November 2019), 100909. https://doi.org/10.1016/j.stueduc.2020.100909.