

# Slr 2015-2024: Problem Based Learning Model On Elementary School Students' Learning Interests

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## Keywords

Problem Based Learning

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Elementary School

## Abstract

Interest refers to the state in which a person own great interest to something and motivated For learn it more carry on or develop it. One of the the approach used for create interesting and active learning for student so that can increase motivation Study is a learning model *Problem Based Learning* (PBL). PBL is approach learning that makes problem as center of the learning process, and it is expected capable increase ability think and reason students. Research This aiming for knowhow application of the PBL model in effort increase interest Study student school basic. The method used is *Systematic Literature Review* (SLR). A total of 10 articles reviewed use approach thematic narrative from a total of 21 identified articles. The selected articles analyzed in a way deep for dig the influence of PBL on interest Study students. Research results show that implementation of the PBL model significant can increase interest Study student school basic. Through active and interactive approach, students involved direct in solve problem contextual, which encourages they for think critical, working the same, and have a sense of desire know more big to material learning.

## 1. Introduction

With rapid media development in the digital era, needs will various learning media become the more important. Progress technology This No only need the existence of qualified teachers, but also demands existence balance in utilization technology in a way effective in the educational process. The use of learning media in the digital era is expected can increase standard teaching, because can push more learning efficient. Teachers have role crucial in success of learning process teaching, functioning as facilitator, director, as well as mentor and motivator for students to be able to interact with fine between student and also with the teacher, during the learning process. One of the methods for increase interaction student is with implementing an interesting learning model, so that can increase interest Study they (Isnaini et al., 2023). In assessing ability Study students, teachers must understand factors that can influence learning students at home. One of the factors that can hinder learning student is motivation and attitude them. Interests and motivations learning can also impact significant on the learning process and results Study students (Mayzura & Hariyono, 2021).

Interest is term for Power possible pull push somebody for do desired action term for Power possible pull push somebody for do desired action. Interest in learning somebody can seen from interest somebody for learn, and all feeling the joy that is revealed during the learning process (Rifah et al., 2021). When the activity learning in progress monotonous, students often lost interest and feeling bored with material delivered by the teacher. Learning that is passive can also impact negative on interest Study students. Therefore that, teachers need to play a role as capable facilitator create experience interesting learning. One of the way that can done is with implementing innovative learning models, such as Problem Based Learning. This model No only practice student for think critical, but also encouraging they for find and utilize source appropriate learning (Yulianti and Gunawan, 2019). In general general, learning models is a implementation methods and techniques used in the learning process teaching (Djonomiarjo , 2019).

PBL learning model is focused learning to participant educate as learning as well as to authentic problems or relevant to be solved with use all over the knowledge he has or from sources others (Dahlia, 2022). Application of learning models based on problem-solving (PBL) with real media. The continuity of the learning process usually done with existence interaction between teachers and

students. One of the learning models that can increase understanding and results Study student is a Problem Based Learning model. Ministry of Education and Culture 2013 stated that learning based on problem (Problem Based Learning) is a approach learning that presents problem contextual so that stimulate participant educate For learning. In learning based on problem, students Study solve problem based on real world experience. In this model, the teacher plays the role of as facilitator for students. Learning based on problem started with the teacher giving related issues with the real world. Students Then active identify problem with his knowledge, connecting material with problem, and finally interesting conclusion and solution from given problem (Butar Butar et al., 2022).

The Problem Based Learning (PBL) learning model has potential for increase understanding student to material taught by the teacher. With the application of this model, students can become more interested for learning, which in turn will help repair results Study them. In facing development technology, a teacher is expected own level high creativity and innovation in the learning process. Therefore that, the use of the PBL model is one of the the right choice for teachers (Djonomiarjo, 2019). In line with research conducted by Irmawati M and Irfan Yusuf in 2022, found that the Problem Based Learning (PBL) learning model has impact positive to interest Study participant educate in learning thematic in school basic. The use of the PBL learning model can become good reference in choose method teaching, because this model can stimulate interest Study students. Therefore Therefore, choosing a learning model is very important, because matter This will affect the process as well objective learning that you want achieved.

However, some large research on students' learning interests in elementary schools still focused on the motivational aspects and learning media, while a study that systematically evaluates the effectiveness of the Problem Based Learning (PBL) model in increasing interest in learning still limited. Not much study that conducted a review comprehensively in depth using the Systematic Literature Review (SLR) approach to identify patterns, trends, and results application of the PBL model in the context of elementary schools. This is where location *research gap* from this study, namely lack of synthesis scientific that integrates various findings empirical about the effectiveness of PBL in arousing interest in learning in elementary school students.

Based on background behind that, then the formulation The problem in this study is: *How does the influence and application of the Problem Based Learning (PBL) model affect the learning interests of elementary school students based on a study? literature systematically?* This study aims to systematically review and analyze previous research results regarding the application of learning models based on problem-solving (PBL) in increasing elementary school students' interest in learning, as well as for identify contributions and implications practical from application of the model in the environment learning.

Contribution main from This study is based on the presentation synthesis comprehensive based on proof empirical about the effectiveness of the PBL model on learning interest, which can become reference practical for elementary school teachers in designing more interesting and contextual learning strategies. In addition, this study provides contribution novelty in the form of integration findings cross study that strengthens argument that approach learning based on problem solving challenge learning 21st century, particularly in encouraging active participation, collaboration, and attitudes positive towards learning in elementary school children.

## 2. Method

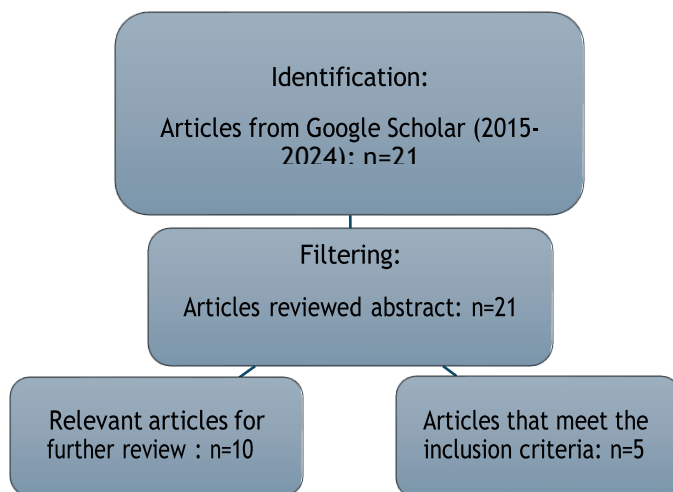
Methods used in studies This is a Systematic Literature Review (SLR), which is carried out in a way regular For collect , assess , and summarize results relevant research . Research This aiming For analyze The impact of the Problem Based Learning (PBL) model on interest Study students at the level school basis. Data collected from Google Scholar with relevant keywords, including published articles between 2015-2024.

This study follow SLR steps: determine topics and questions research, determine criteria inclusion and exclusion, seeking and selecting articles, taking important data from article selected, and analyze and synthesize results. Criteria inclusion covers article from specified period, in

Indonesian or English, which focuses on PBL in schools basic, while criteria exclusion covers articles that are not accessible, no relevant, or no clear using PBL.

Data analysis was carried out with a thematic and narrative approach, classifying information important based on themes like improvement in learning interest and effectiveness of PBL. The results served in tables and interpretations to show consistency and impact of PBL on the interest of study students. It is expected that this study will give a deep description about the effectiveness of PBL in increasing the interest of study students at the school base.

**Procedure selection article**



**3. Results and Discussion**

**3.3 Results**

**3.3.1 Implementation of Problem Based Learning Method**

Learning based on problem (Problem Based Learning) is an approach student-focused teaching, emphasizing active learning, expertise breakdown, problems, and understanding (Fredrikson, Jha, & Ristenpart). In Canada, the PBL education method has been used since the 1970s (Servant-Miklos, 2019). Donald (2000) stated that PBL can help students develop the ability to direct themselves, work in teams, and communicate skills. In addition, Wee (2002) stated that PBL fosters independence, collaboration, metacognition, and the ability to analyze information (Amir, 2016). Based on research by Angkotasari (2013), the Problem-Based Learning (PBL) model is very effective when applied in learning to solve mathematical problems.

This PBL model is generally more often used in mathematics lessons, but is also very relevant for application in other lessons, including Knowledge in Natural Sciences (IPA). The excellence of the PBL model lies in the significant impact it causes on the student's ability to solve problems, because of the learning model. This gives a chance to students to find knowledge in an independent way. In the learning process, the teacher plays a role as a facilitator who supervises and supports students, while students take an active role in learning. Besides, the problem is necessary to be solved, and can be completed more easily for students, because they are directly involved in finding existing challenges in the learning process.

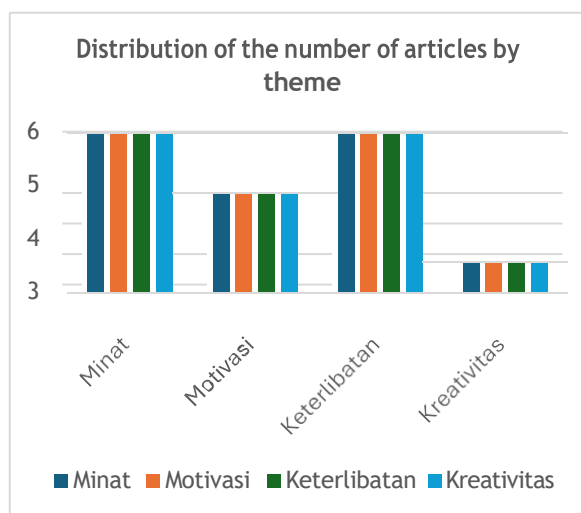
In addition, research conducted by Aryanti, Ulandari, and Nuro (2022) shows that the implementation of Learning Based on Project (PBL) in The Independent Curriculum is very appropriate because it can push active student involvement in the learning process. PBL does not only focus on

results and, but also in the way thinking that is done student in finish problem. This is very important so that students No only memorize material, but also understand method overcome real -world problems. Another study conducted by Hamdiah Ahmar and team (2020) also revealed that implementation of PBL in various field education, including medicine and nursing, can increase ability student in think in a way flexible, understanding concept, as well as solve problem in a way real. One of the PBL variations used is through media assistance such as videos or virtual technology, which makes the learning process become more interesting and easy understood.

Educators who realize how importance education in face demands of the times in the era of the global economy are certain will make an effort equip participant educate they with skills needed in the 21st century. Skills This is very important for participants educate can survive and achieve success in increasingly fierce competition strict consequence globalization. Learning based on Problem Based Learning is presented with base theories innovative learning, such as constructivism and learning based on experience. This method involving various discipline knowledge for look for the right solution to problems faced. PBL is one of the approaches that can used by educators for help participant educate become competent in solve problems and facing various challenges in the future. Edens (2000) stated that problem-based learning is capable equip participant educate with skills needed in the 21st century.

The researchers confess that learning based on problem -based learning (PBL) has potential for develop skills 21st century participants educate. This PBL method can connect theory and practice, as well as develop competence like skills breakdown problems, communication, and collaboration (Graham, 2010; Graham, 2012). Woods DR's research (1996) shows that through PBL, participants educate own perception positive to environment Study they feel more believe self, skilled in solve problems, and own attitude positive to learning throughout life. Apart from that, they also show improvement in process skills.

### 3.3.2 Problem Based Learning Method in an Effort to Increase Interest in Learning Student



**Description :**

- All articles discussing learning interest as a theme main.
- Motivation appears implicitly in 3 articles.
- Student engagement is discussed explicitly and implicitly in all articles.
- Creativity only appears once

Application of problem-based learning model in learning give significant influence on ability breakdown problem students. researchers has do studies SLR (*Systematic Literature Review*) with identified 21 relevant articles with Topic research. From the articles of these, as many as 10 articles chosen for analysis in depth, which discusses regarding problem-based learning models on interests studying in school basics. Selected

articles will filtered back and grouped in accordance with objective writing and title research. Selection strategy articles used by researchers can seen in Table 1 below this:

**Tabel 1. Article Selection Strategy**

Category Discussion	Search	Search results
Search 2015-2024	Google Scholar	21
Relevant titles		10
Articles analyzed		5
The results have been discussed		5

Selected articles for discussed has customized with categories determined by researchers, which focus on the application of learning models based on problem solving (PBL) use increase interest Study students at the level school basic. The articles that have been categorized the Then served in Table 2. Below This is results analysis to articles relevant found.

**Table 2. Problem Based Learning Method in an Effort to Increase Interest in Learning Student**

Article	Method	Research result	Implementation
Irmawati M. & Irfan Yusuf (2022) " The Influence of Problem Based Learning (PBL) Learning Model on Learning Interest Participant educate in Learning Thematic in Elementary School"	Quantitative	PBL has an impact positive on interest Study in learning elementary school thematic .	Supports PBL as a learning strategy effective thematic in elementary school .
Research conducted by Herlinda, Eko Swistoro , and Eko Risdianto in 2017 entitled " <i>The Influence of Problem Based Learning (PBL) Model on Learning Outcomes , Ability Physics Problem Solving , and Learning Interest Students on Static Fluid Material at SMAN 1 Lebong</i>	Experiment quasi experiment	Result of study This show that the PBL model provides positive and significant influence to three aspect important in learning physics , namely results learning , ability solve problems , and interests Study students . In number , posttest mean score students in class experiment more tall than class control , good in matter knowledge , ability	The PBL model becomes effective solution For increase interest Study students , because student No just sit and listen , but also think , discuss , and try finish problem Alone and also together his friends .

<i>Sakti"</i> .		finish about , and Spirit Study .	
Writers (2023) Ayu Nursanti and Dina Indriyani lift title " Application of Problem Based Learning Model in Increase Interest in Learning Students in the PPKn Subject in Class X of SMA Negeri 1 Pacet ."	Descriptive quantitative	Research result show that The implementation of the Problem Based Learning (PBL) model was successful increase interest Study participant educate , look from increasing attention , engagement , and creativity student in the learning process .	In the article Here , the application of the PBL model is carried out with present problem real as context learn , encourage student For think critical and working in group , so that create atmosphere active and interesting learning . Teachers play a role as motivating facilitator student For get involved and find solution , which in turn increase interest and results Study they in eye lesson Civics .
The authors (2024) Maulida Salsabila Cahyaningtyas , Putri Ayu Sekarwangi , Sofiyani , Fina Fakhriyah, and Erik Aditia Ismaya raised title "Systematic Literature Review (SLR): Problem Based Learning (PBL) Learning Model on Learning Interest ."	Systematic Literature Review (SLR)	Research result show existence influence positive PBL model towards interest learning, with supporting quantitative data that students who study with approach This show improvement significant interest.	In the article This show the importance of interesting and relevant learning models for increase involvement student in the learning process, as well as emphasize the role of teachers as facilitator in create environment active and responsive learning to need student.

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<p>Boniface Sigit Yuniarto , Siti Rohyati (2022) " Increasing Learning Interest and Creativity Through Project Based Learning for Students Class V of Sariharjo Elementary School ".</p>	<p>Classroom Action Research</p>	<p>Ascension interest Study student from condition beginning pre cycle 62, 50% of students enter in category interest Study low increased in cycle I to 68.75% of students enter the category interest Study tall as well as increased in cycle II to 87.50% of students in category interest Study high . Increase creativity student can seen from results pre cycle 50.00% of students enter in category not enough creative increased in cycle I to 43.75% of students enter in category Enough creative as well as increased in cycle II to 50.00% of students in category creative.</p>	<p>In the article Efforts at SDN Sariharjo use increase interest learning and creativity student class V through six syntax: Define questions and problems fundamental, designing plan project, set schedule, track progress students and results project, evaluate results , and evaluate experience and reflection can help student become more interested For learn and become more creative .</p>
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Result of analysis deep against five articles in study this show that application of learning models based on problems (Problem Based Learning or PBL) in a way consistent give impact positive in increase interest study among student school basic. All articles analyzed indicates that the PBL model is significant capable increase interest Study students. Increase This can seen from various indicators, such as increasing attention student to material lessons, increased enthusiasm in follow activity learning, and the interest that arises moment student involved direct in breakdown relevant issues with life daily they. Designed learning with PBL approach can create atmosphere learn more interesting, active, and meaningful, so that student play a role active in build knowledge they alone, not only behave passive.

More furthermore, besides from interest study, three of the five articles also showed existence improvement motivation Study students. Although no all article in a way direct mention the word " motivation," but existence encouragement for Study reflected through participation active students, wishes for finish tasks, and enthusiasm shown during the learning process, which describes increasing motivation intrinsic they. Motivation This arise Because student given chance for explore, discuss, and discover solution in a way independent to given problem, so increase confidence self and satisfaction in the learning process.

### 3.4 Discussion

Findings from study This show that the Learning model Problem Based Learning (PBL) in consistent increase interest Study students. This is caused by the presence of encouragement for involved active in breakdown problem real relevant with life every day. As explained by Rahmawati et al. (2022), the implementation of PBL encourages student for think critical and working same, which in the end can increase motivation and interest they in the learning process. In addition, research conducted by Oktavia et al. (2021) shows that students who follow learning based on problem show improvement activeness and enthusiasm more compared to with approach conventional.

From the findings this, can interpreted that PBL does not only give impact positive to interest

learn, but also help to form character active, independent and capable learners think reflective. This is in line with theory constructivism, in particular Vygotsky's view emphasizes importance interaction social as well as context real in the learning process. The PBL model becomes means concrete for implement principles constructivism through presentation problem authentic that drives collaboration and exploration independent.

Through integration invention with existing knowledge, we can conclude that the PBL model is not only approach single; This also works as addition for method others, such as learning cooperative and learning contextual. Various research that has been reviewed give outlook new about How design challenging and meaningful learning can to form attitude positive towards the learning process at the age of school basis, where the desire knowledge and interest student play a role important in determine success academic they are in the term long.

From synthesis this, appears A understanding that interest Study student No only influenced by the material learning delivered, but also by possible teaching strategies they for become actor main in the learning process. The PBL model can viewed as implementation from theory motivation learning, as stated by Deci and Ryan in theory determination fate itself, where autonomy, competence, and relationships social functioning as booster main in to awaken interest Study student.

#### a. Comparison with Relevant Studies

Various studies show that PBL can increase interest and results Study students, although his success depending on the context and manner its implementation. Research by Herlinda et al. (2017) found that PBL has an impact positive on achievement Study physics high school students with improvement skills breakdown problem. Aryanti et al. (2023) noted that PBL in learning PPKn in high school improves interest and creativity students. However, Wulandari et al. (2023) showed the success of PBL in vocational schools is very dependent on support infrastructure and teacher training. Teacher training is very important for optimizing PBL, especially in the environment with source Power limited.

#### b. Limitations of Problem Based Learning (PBL)

Although Problem Based Learning (PBL) has Lots excess in increase interest and motivation Study students, methods this also has a number of necessary limitations be noticed. One of the the most significant limitation is time required for plan and implement learning based on problems. Teachers often find difficulty in formulate authentic and relevant problems with material lessons, especially in environment dense curriculum (Nurhasanah and Sobandi, 2016).

In addition that, PBL requires ability high facilitation from the teachers. Not all teachers have adequate skills for operate role as facilitator with effective. Other constraints is limited source power, such as access to technology or material learning, which can hinder implementation of PBL in schools with limited facilities (Hamdiah Ahmar et al. 2020).

In the context of students, PBL can become challenge for those who don't own skills think good critical or not enough motivated. Students with varying abilities Possible difficulty for involved in a way active in the process of solving problem (Zakaria et al., 2019). Therefore that's important for adapt PBL approach with abilities and needs students so that the results his learning still maximum.

### 3.5 Conclusion

Based on results as well as discussion that has been delivered, can taken conclusion that method Learning Problem Based Learning (PBL) is student-focused approach, with solution to problem real relevant in life every day. With involving student in a way active in activity learning, PBL can stimulate ability think critical, cooperation, and communication. Implementation method This in a way significant has proven increase interest learning at students level school basis, as shown by various articles that have been analyzed. In addition, PBL also contributes to the achievement of skills needed in the 21st century, making it one of the relevant and effective approach in context education moment this. Therefore that, this model become good strategy choice for present experience interesting and meaningful learning, as well increase motivation and engagement student in the learning process.

However, research this also has a number of the limitations that must be noted. First, the coverage articles discussed limited, only reviewed 10 of the 21 articles found, so that Possible Not yet represent all over findings empirical related implementation of PBL at the level school basic. Second, many articles that only highlight improvement interest study, while other variables such as performance academic in term length, difference effectiveness based on class, and condition socio-economic student Not yet Lots investigated in a way deep. Besides that, some article No explain with clear method measurements used, which resulted results study This limited in matter generalization.

Based on findings and limitations said, research This give a number of recommendation important. In In practice, it is recommended that institutions education and maker policy provide specialized and ongoing training for school teachers base about effective implementation of PBL, including in identification problem rea, facilitation discussion, as well as evaluation process-based. Furthermore, the policy education should push PBL integration into in curriculum thematic through module contextual and accessible learning customized with characteristics student local. In terms of academic, required study more more to come broad and deep with involving more samples big, various level class, and apply design quasi-experiment or longitudinal. Research can also be directed at the development of a hybrid model that combines PBL with other approaches such as Learning Based on Project or Learning Mixture, for overcome challenge in learning in the digital age. With Thus, the effectiveness of PBL can be Keep going improved and customized with change need education in the 21st century.

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Wardatunnisa: Conceptualization, Methodology, Data curation, Writing - Original draft, Investigation, Writing - Reviewing and Editing.

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