

## Indonesian Learning Based on Problem

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### Abstract

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#### **Keywords:**

Problem;  
Real situation;  
Good Competence;  
Conceptual Frame;  
Indonesian learning;

This study investigated Indonesian learning based on the problem. It was more to the conceptual frame study in learning Indonesian. To create the good competency of students in solving the problem needs learning strategy frames of problem-solving or it was called as problem-based learning. Problem-based learning constitutes a learning model using the problem as the first step to getting new knowledge. The ideal learning should use the good knowledge to face the new situation or solve the problem related to the studied object/subject. The problem essence in problem-based learning was the discrepancy between the real situation and wanted condition, or between the reality and hope. The essence of Indonesian problem solving was done systematic steps procedure operations by students in solving the speaking problem. In implementing the problem-based learning, students should be urged to look at the complexity problem-solving process because problem solving process involves various student cognitive activities. There are six steps in problem-based learning, namely: identifying problem, presentation of problem, planning of solving, implementing the planning, evaluating the planning, and evaluating the solving result.

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### **1. Introduction**

The instruction learning program aims at not only understanding and mastering of what and how something occurs but also giving good understanding and mastering of "why it occur". Many critics addressed to the teachers' method of teaching with more focused on mastering the information or concept only. The whole information to students will give less advantage if it is done by the teacher to students with one direction learning (from teacher to students only). Although the concept is very important, but the most important is how the students can understand and master the use of it. The importance of the concept in learning really affects attitude, decision, and the way to solve the problem.

To create the good competency of students in solving the problem needs learning strategy frames of problem-solving or it is called as problem-based learning. Gagne in Wena (2009: 52) states that problem solving is not only as a competency to apply the mastered rules through the past learning ways but even as the process to get the higher rule frames. If someone has obtained the proved rule frame combinations can be

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used suitable with the present condition, he or she can not only solve the problem but also find the new one. It is procedure set or strategy used to increase the individually thinking ability.

The ideal learning should use the good knowledge to face the new situation or solve the problem related to the studied object/subject. Nevertheless, the reality is that students more focused on memorizing the concept and have less ability to apply the concept if they face the problem in the real life. Most students can not determine and formulate the problems. In lines to Irianto (2007: 66) that most students can not relate what they have learned and how to apply it to the new situation.

In learning and instruction of Indonesian, the teachers need to give attention to the kinds of problems will be solved, suggestion and program, and factors supporting students' learning. In the learning process, it is done based on the steps of good learning, so the students' activities are more optimal. One of student-centered learning strategies is problem-based learning (PBL). PBL is a learning strategy using the problem as the first step in collecting and integrating the new knowledge. By giving the problem in PBL, it is able to bring students to think critically, creative, and have good competency in solving the problem, and get the basic knowledge and concept of the learned material. After giving the problem on the first step of learning, the teachers should organize the students' learning, do investigation, presentation of paper or article, and ended by evaluating the problem-solving process.

Ronald Brandt (1993) states that most of thereformation programs in education such as curriculum change and implementation of thenew method, it usually depends on the teacher. Without the teacher with mastering the material and learning and instruction strategy, all education quality improving programs will not reach the optimal result. It means that the teacher should master not only the material but also master the learning strategy and model by considering the given material.

Problem-based learning constitutes learning model using the problem as the first step to getting new knowledge. Suryadi (2009: 58) states that problem-based learning model is the learning process starting with the problem in the students' real life, in which the students are stimulated to learn the problem based on the knowledge and experiences of their prior knowledge to create and build the new knowledge.

Suryadi (2005) states that PBL is a learning strategy started with by giving students the problem to stimulate them in learning. When the students face the problem, the will be aware that it can be viewed from several perspectives and need information strategy from various knowledge to solve it. Problem-based learning involves the students in active and collaborative learning processes, students centered learning, to improve the ability in solving the problem and individual learning competency to face the challenge of life and career in the present complex life. Problem-based learning can be also started with forming students learning groups.

## 2. The Concept of Problem Based Learning

Problem-based learning was introduced since John Dewey period. Problem-based learning in general consists of presentation to students of authentic and meaningful problem situation, so the students will be easier to do investigation and inquiry. According to Ratumanain Irianto (2007: 68) that problem-based teaching is an effective approach for the high thinking process teaching. It helps the students to process the information of their knowledge and set or arrange it about thesocial world and around it. This approach is very suitable to improve both basic and complex knowledge.

Barrow (Ismaimuza, 2010) claims that the problem in PBL is ill-structure, or contextualand engaging, so it stimulates the students to ask from various perspectives. According toSlavin (Ismaimuza, 2010) that other characteristics of PBL are addressing thequestion of theproblem, thefocus of related interdisciplinary, authentic investigation, cooperation, and creating exhibition products. In lines to Slavin, Pierce and Jones (Howey *et al*, 2001) that in theimplementation of PBL, there are several processes such as engagement, inquiry and investigation, performance, discussion, and debriefing. The engagement aims at providing the students to play as *a self-directed problem solver* who can work cooperatively with others, bring the students to the right situation to solve the problem easily, investigate, and solve it. Inquiry and investigation involve exploration with various ways and implications and activities to collect and distribute the information.

The problem essence in problem-based learning is the discrepancy between thereal situation and wanted condition, or between the reality and hope. The discrepancy can be felt from fidgetiness, complaint, restless, or anxiousness. Therefore, the material or topics are not only limited to thesubject from the handbooks, but also from certain events based on the curriculum (Sanjaya, 2009: 214).

Fogarty defines PBL as a curriculum model designed at the real rounded problems of ill-structure, open-ended or ambiguity. An Ill-structure problem is not clear or not identified yet. The situation created in the problem often confusing and difficult, and not related.

Based on the description above can be stated that problem-based learning is an approach that givesbig opportunity to students to investigate the authentic problem with aims at arranging the knowledge, improving inquiry and thinking competency, improving individuality competency and self-confidence. The basic of this

problem solving is doing procedure operation of action steps systematically by students in solving the problems.

Stepien and Gallagher (Nurjanah, 2004: 2) states that problem-based learning aims at improving the problem-solving competency and help students to get the needed knowledge and competency or skill. Problem-based learning is not aims at helping the teacher to give much knowledge to students. Nevertheless, problem-based learning is designed to help students to improve their way of thinking, solving problems, become as an adult and independent learners, or individual learners. The role of the teacher in this approach is problem given, facilitator of investigation and dialog, and as a motivator of students' learning (Sugiman, 2006: 7).

The criteria of the material decision of problem-based learning are as follow.

1. Learning material should cover conflict issue from news, experiences, or environment;
2. The material is interesting topics for students to attract the students in learning the process.
3. The material has many advantages from public or many people.
4. The material should be suitable and support the competency in the curriculum.
5. The material is suitable with students' interesting or concentration, and their intellectual development, so the students can follow it well.

Duch, Gron, and Alen in Armiati states that PBL can create the competency or ability, like (1) think critically, analyze and solve the difficult problem and real life problem, (2) find, evaluate, and use the suitable learning sources, (3) work cooperatively either in big or small groups, (4) communicate effectively and accurately in either orally or in written, (5) apply the knowledge and intellectual skill needed to become real learners.

According to Tan in Rusman (2010): 232), problem-based learning is one of innovation in learning and instruction since in the problem based learning the students' thinking competency is really very optimal through group working systematically, so the students can cross up, train, examine, and develop their thinking ability continuously.

### 3. The Characteristics of Problem Based Learning

Jhon Dewey (2009) states that problem-based learning as the relation between stimulus and response constitutes relation of two directions of learning and environment. The environment stimulates students like help and problem, while brain nerve system functions to interpret the help effectively, so the problem can be investigated, tested, analyzed, and solved.

The students' learning experiences obtained from environment give an opportunity for students to get excellent experiences as their guide in learning. The implication is that teacher should design certain instruction to facilitate the students in constructing their own knowledge through authentic and meaningful experiences. Problem-based learning model uses the problem as the first step to constructing the new knowledge. Ibrahim, et.al stated that problem-based learning aims at helping students to develop the thinking ability and solving problem.

According to Arends (2001: 349), various developing of problem-based learning have given several characteristics of learning as follow.

- 1) Addressing questions or problems.  
Problem-based learning organizes the teaching of both questions and problems and it is very important for the social aspect and meaningful for students. They address the real or authentic life, avoid the simple answer, and find out various solution for the problem;
- 2) Focus on related interdisciplinary  
Although problem-based learning may focus on the certain subject (natural sciences, mathematic, or social sciences), the investigated problem has been determined based on the real situation, so the students can investigate the problem from several subjects. For example, in Indonesian subject with other subjects like natural and social sciences can be studied by investigating the closeness of basic competency in one learning time. The learning model can be done by combination of topics of several subjects with consideration the components of Indonesian subject. For example, students at class VI in semester 1, competency standard and basic competency that can be designed in integrated learning as in the following table.

Nu	Subjects	Standard Competency	Basic Competency	Integrated Theme
1.	Bahasa Indonesia	Give respond information orally	Give message/information obtained from various media with good, systematic, and right language.	Life Environment
2.	Natural Science	Understand the effect of human activity on environment balance.	Identify the human activity that affects environment balance (ecosystem).	
3.	Social Sciences	Understand the development of Indonesia area, topography, and social condition for countries in Southeast Asia, and oceans.	Compare the topography and social condition for countries in Southeast Asia.	

Interdisciplinary integrated learning needs the teacher skill in designing learning material effectively and efficiently. The advantage of this model is to help students in relating the multi-disciplinary material. This model needs skill, concept mastery, competence, and attitude that integrated into the multi-disciplinary material.

- 3) Authentic investigation. Problem-based learning urges the students to do an authentic investigation to find out the solution for the real problem. They should analyze and identify the problem, develop hypothesis, make prediction, collect and analyze information, do experiment (if it is needed), arrange inference, and taking the conclusion;
- 4) Creating the product and show it. Problem-based learning urges the students to create a certain product in the real object that explains the problem solution. The product may be a transcript, physic model, report, real work. For example, the teachers teach how to write the formal letter, the products may be discussion report, analyzing of formal letter mistakes, and example of a good formal letter.
- 5) Collaboration. Problem-based learning has main characteristics as work together among students in pair or group. Do cooperatively motivates the students continuously, create an opportunity to share, dialog, discussion, and develop social competency and thinking ability.

According to Tatang Herman (2006:4), the characteristics of problem-based learning are as follow:

1. Act students as *self-directed problem solver* through collaborative activity.
2. Urges students to find out the problem and elaborate it with addressing a hypothesis and arrange the solving.
3. Facilitate the students to explore various solving alternative and its implications, and collect and distribute the information.
4. Train the students to present the novelty.
5. Train the students to reflect the effectivity of their thinking of the way in solving the problem.

Besides the characteristics above, problem-based learning has other characteristics as follow: (Yazdani, 2002, Dalam Nur Muhammad. 2011).

1. Student-centered learning, teacher as facilitator or guide.  
Problem-based learning is a learning strategy to show the real word conditions, contextual, meaningful, providing learning sources, and guiding to students when they develop content knowledge and problem-solving skills. The learning may be done in small groups. The information obtained by self-directed learning.
2. Content learning  
The ability to solve the problem is not only collect the knowledge and rules. This is more focused on the ability to develop flexible cognitive strategies to help in analyzing unstructured situations. Amador (2006) explains that principle of problem-based learning that developed in formal education is started by addressing problems or questions from the real life, facilitate the students to think critically, analyze and solve the problem, find out and evaluate learning sources, and use the knowledge to solve the new problem in learning and instruction. Arends (1997) states that problem-based learning constitutes a learning model started by authentic problems in order the students can form their own knowledge, develop inquiry and high thinking skills, and develop the individual competency.

#### 4. Problem Based Learning Syntax

In implementing the problem-based learning, the students should invite to see the complexity problem-solving process. The problem mapping faced by students is needed because the problem-solving process involves various student cognitive activities.

The problem types used in PBL are an open-ended problem or ill-structured problem and well-structured problem. In the well-structured problem, to answer the students' problem given sub-problem and conclusion. While, in the open-ended problem, the student's given a problem with various alternative ways to solve it or it has right one answer or right multi-answers.

Problem-based learning consists of several steps. According to Ibrahim and Nur (2000: 13), problem-based learning can be divided into five steps are as follow.

Step 1	Teacher's Behaviour 2
<b>Step 1</b> Students' orientation on the problem	The teacher explains the objectives of studying, explain the needed logistic, address phenomena, demonstration, or story to create a problem, motivate students to participate in problem-solving.
<b>Step 2</b> Organize students to learn	The teacher helps students to identify and organize learning tasks related to the problem.
<b>Step 3</b> Guide the individual or group investigation	Teacher urges students to collect suitable information, do an experiment to get an explanation and solving the problem.
<b>Step 4</b> Develop and present the product	The teacher helps students in planning and providing the related product like report, video, and model, and help them to share their tasks with their friends.
<b>Step 5</b> Analyze and evaluate the problem-solving process	The teacher helps students to do reflection or evaluation to their investigation and their processes.

Further, according to Solso in Wena (2009: 56), there are six steps in problem-based learning, namely: (1) identifying problem, (2) representation of problem, (3) planning of solving, (4) implementing the planning, (5) evaluating the planning, and (6) evaluating the solving result. The six steps can be seen in the learning process in the forms of teacher and student activities which is drawn as follow:

Nu.	Learning Steps	Teacher's Activity	Student's Activity
1.	Identifying problem	1. Give problem to students 2. Guide students in identifying the problem	1. Understanding the problem 2. Identify the problem
2.	Presentation of problem	Help students to formulate and understand the problem in a right way.	Formulate and master the problem
3.	Planning of solving	Guide students to do problem-solving planning	Do problem-solving planning
4.	Implementing the planning	Guide student in implementation the planning	Do implementation the problem-solving planning
5.	Evaluating the planning	Guide students to do evaluation to problem-solving planning	Do evaluation to problem-solving planning
6.	Evaluating the solving result	Guide students to do evaluation to the result of problem-solving	Do evaluation to the result of problem-solving

#### 5. Implementation of Indonesian Learning Based Problem

Problem-based learning is done based on the followed steps, like Indonesian learning refers to Solso's statement above.

##### 5.1 Identifying the Problem

In this phase, the teacher gives freedom or opportunity to students to choose the problem they want to investigate. It can motivate students to learn. The wanted problem is the discrepancy between the real condition and wanted condition, or reality and hope. The discrepancy can be felt from fidgetiness, complaint, restless, or anxiousness.

The best problem condition should be authentic, having challenge, and accurately undefined, create cooperative, meaningful for students, and consistent to the curriculum aims. (Irianto, 2007: 73). The role of the teacher, in this case, is given the problem to students and guides them in identifying the problem, for example in the speaking competency at Senior High School with the theme of law awareness. From the theme, the students under the guiding of a teacher can identify the most specific problem from their rounded life. For example, law awareness for having anation, law awareness to defend thenation, and law awareness of traffic. In this step, the students can identify the problem to be discussed in the learning group or learning process.

### 5.2 Presentation of Problem

The students need to understand that the objective of problem-based learning is not to get much information, but to investigate the problem and create students with good individual competency. One of the best ways of problem presentation is creating the interesting or challenging problems, so it can urge or encourage students to solve the problem.

Based on the theme on step 1, the students under controlling the teacher can formulate and understand the problem correctly. From the result of students' investigation of the theme, law awareness can be stated as follow: (1) law awareness for having anation, (2) law awareness to defend thenation, and (3) law awareness of traffic. Next, the students under guiding from a teacher can choose and elaborate more authentic topic related to their one problem. For example, the third topic is "law awareness of traffic act" can be specified to "law awareness of traffic act in Kendari Town".

### 5.3 Planning of Solving

In problem-based learning, the students can work or study with various sources and tools either in or out of class or both in and out of school. Therefore, the duties to organize human resources and plan the need for students' investigation are the main duties of a teacher.

In problem-based learning need cooperative competency among students and help one another to investigate the problem cooperatively. Based on the statement, the teacher helps students to plan the presented problem.

The teacher helps students in collecting information from various sources, the student's given several questions to stimulate their thinking about the problem, and kinds of information needed to solve the problem. The students are invited to be best and active investigator by using the suitable method with the faced problem.

The teacher urges students to share idea freely and respond the idea constructively in small group discussion. In the process of investigation, the teacher gives a help to students without annoying their activities.

In the relation to the theme mentioned above "law awareness of traffic act in Kendari Town", in this step students with helping from the teacher try to think how the law awareness of traffic act in Kendari Town. For example, from the result of small group discussion shows that the law awareness of traffic act in Kendari town is still low. To answer the problem, it needs the supported planning data. It can view from quality and quantity aspects of policies, supported facility, pavement user, the number of the vehicle, drivers, and others. In this context, the teacher under guiding of teacher does planning for the correct problem solving to be improved in the next step.

### 5.4 Implementing the Planning

Based on the related aspects of law awareness of traffic act as mentioned at step 3 above, for the next step is determining the topic as final discussion material in the students' speaking activity. In the problem-based learning, the collected data is a very important mental process in the intellectual process. The process of data collection needs strong learning motivation and needs diligence and good thinking competency. Therefore, the role of the teacher in this step is addressing interesting questions to urge and stimulate students in looking for the wanted information. One of the problems is students are not often appreciative to the main problem. If the condition occurs, the teacher should urge and motivate students continuously to learn by addressing various interesting questions to all students, so they are stimulated to have creative thinking. The coming questions from the theme of "Law Awareness of traffic act in Kendari Town" can be in the forms of why, how, when, where, and who. Those questions can be given to students either in a group or individually like in the relation of quantity and quality of aspects of policies, supported facility, pavement user, the number of the vehicle, and drivers. By this way, the students can apply or implementation their planning in the form of speaking activity by considering the authentic information, logic, systematic presentation, speaking accurate, and the politeness of speaking. Besides, in this step students are invited to use correct or right language like word choose and sentence structure.

Evaluate the planning is a process to determine the received answer based on the data or information from various sources obtained by students. The most important in evaluating the planning is find out the students' conviction level from their answer. Besides, evaluating the planning also means developing the rational thinking competency and evaluating to the problem-solving planning. It means that the answer truth in this step is not only from argumentation, but also it must be supported by responsible evidence. For example, one of the factors the low of law awareness of traffic act is less information or socialization from policies about the good and right traffic act. The students' statement must be supported by strong argumentation and correct data. The students' answer may be various, and the wanted answer is not of agreeing or disagree, but how the students solve the problem with correct data and reasons. By this way, the students not only think critically but also it can stimulate them to speak Indonesian correctly, accurately, systematically, and logically.

### 5.5 Evaluating the Problem Solving Result

In this step, the students under the guiding of teacher do evaluate to the result of problem-solving mentioned in the step above. The evaluation of problem-solving result constitutes novelty description process obtained based on planning implementation. Besides, it is the final or end of the learning process. Since there are many problems planning presentations, evaluation of problem-solving result is not focused on the problem. Therefore, to evaluate problem-solving result accurately, the teacher should guide students in the process. By this way, the students can solve the problem accurately either in a group or individually. In the form of speaking activity about the law awareness of traffic act in Kendari town, the students present supported reasons and evidence, so the problem can be solved well and correctly or accurately. There are many arguments and evidence, and it is more useful if the students do it under the guiding of the teacher, and it thus becomes the best way to be recommended as a good solution to the problem solving from the speaking activity. From various students' answers with strong reasons and evidence show the students' competency in solving the problem.

Siswono (2009) states that there is a relation between problem solving and creative thinking ability because creative thinking ability constitutes a process used to create the new idea or integrate and combine the previous idea. PBL can develop students' thinking ability, brain problem-solving skill, and increase or improve material mastery since PBL applied to stimulate high-level thinking oriented to the problem in learning the process.

Engagement aims at providing students play as a self-directed problem solver who can work cooperatively, bring students to the situation that can urge to find out the problem, investigate, and solve it. Inquiry and investigation involve various exploration ways of its explanation and implication, and activity to collect and distribute information. Performance aims at presenting the novelty. Asking-answer question and discussion constitute an activity to examine the accuracy of the solution and do reflection to the problem-solving result. Thus, PBL wants the students to be more active in solving the problem they face. To make the students become more active needed suitable material design by considering students' prior knowledge, and teacher can help or do an intervention in the form of scaffolding to guide students in finding the solution.

## 6. Conclusion

Based on the explanation above can be taken several conclusions as follow.

1. To create students with high and good competency in solving the problem needed the sets of problem-based learning strategies.
2. Problem-based Indonesian learning in general consists of presentation to students of authentic and meaningful problems on helping them to do investigation and inquiry in speaking.
3. The essence of problem-based learning is a discrepancy between the real situation and hoped situation, or between the reality and hope.
4. The essence of Indonesian problem solving is done systematic steps procedure operations by students in solving the speaking problem.
5. In implementing the problem-based learning, students should be urged to look at the complexity problem-solving process because problem-solving process involves various student cognitive activities.
6. There are six steps in problem-based learning, namely: (1) identifying problem, (2) presentation of problem, (3) planning of solving, (4) implementing the planning, (5) evaluating the planning, and (6) evaluating the solving result. The six steps can be seen in the learning process in the forms of teacher and student activities.

**References**

- Amador, Jose. A., Libby Miles, and C. B. Peters, 2006. *The Problem-Based Learning* Bolton Massachusetts: Anker Publishing Company, INC. [\[Google Scholar\]](#)
- Arends, Richard D. I. 1997. *Classroom Instructional Management*. New York: The McGraw-Hill Company. [\[Google Scholar\]](#)
- Armia. 2010. *Menata Kecerdasan Emosional melalui Pembelajaran Berbasis Masalah dalam Matematika*. Semnas Matematika. UNP. [\[Google Scholar\]](#)
- Brandt, Ronald. 1993. *What do you mean professional?* Educational Leadership. Nomor 6 50, March. [\[Google Scholar\]](#)
- Dewey, Jhon. 2009. *Pendidikan Berbasis Pengalaman*. Jakarta: PT Indonesia Publishing. [\[Google Scholar\]](#)
- Fachrurazi. 2011. *Penerapan Pembelajaran Berbasis Masalah untuk Meningkatkan Kemampuan Berpikir Kritis dan Kemampuan Matematis Siswa Sekolah Dasar*. Edisi Khusus No. 1, Agustus 2011. UPI. [\[Google Scholar\]](#)
- Fogarty, Robin. 1997. *Problem-Based Learning and Other Curriculum Models for the Multiple Intelligences Classroom*. Hawker Brownlow Education. Melbourne Australia. [\[Google Scholar\]](#)
- Haerun A. 2011. *Prespektif Pembelajaran Bahasa Indonesia*. Kendari: FKIP Unhalu. [\[Google Scholar\]](#)
- Herman, Tatang. 2007. *Pembelajaran Berbasis Masalah untuk Meningkatkan Kemampuan Berpikir Matematis Tingkat Tinggi Siswa Sekolah Menengah Pertama*. Education. [\[Google Scholar\]](#)
- Howey, K.R., et al. (2001). *Contextual Teaching and Learning Preparing Teacher to Enhance Student Success in The Work Place and Beyond*. Washinton: Eric Clearinghouse on Teaching and Teacher Education. [\[Google Scholar\]](#)
- Ibrahim, M. dan Nur, M.. 2000. *Pengajaran Berdasarkan Masalah*. Surabaya: University Press. [\[Google Scholar\]](#)
- Irianto. 2007. *Pembelajaran Inovatif Berorientasi Konstruktivistik Konsep, Landasan Teoritis-Praktis dan Implementasinya*. Surabaya: Prestasi Pustaka. [\[Google Scholar\]](#)
- Iskandarwassid dan Dadang Sunendar. 2008. *Strategi Pembelajaran Bahasa*. Bandung: Remaja Rosdakarya. [\[Google Scholar\]](#)
- Ismaimuza, D. (2010). *Kemampuan Berpikir Kritis dan Kreatif Matematis Siswa SMP melalui Pembelajaran Berbasis Masalah dengan Strategi Konflik Kognitif*. Disertasi pada PPs UPI. Bandung: Tidak Diterbitkan. [\[Google Scholar\]](#)
- Mohammad, Nur. 2011. *Model Pembelajaran Berdasarkan Masalah*. Surabaya : Pusat Sains dan Matematika Sekolah Unesa. [\[Google Scholar\]](#)
- Nurjanah. 2004. *Pembelajaran Berbasis Masalah*. Disampaikan pada Pelatihan Pembelajaran Matematika Jurusan Pendidikan Matematika di Universitas Negeri Yogyakarta. [\[Google Scholar\]](#)
- Rusman. (2010). *Model-model Pembelajaran*. Jakarta: PT. Raja Grafindo Persada. [\[Google Scholar\]](#)
- Sanjaya, Wina. 2009. *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana. [\[Google Scholar\]](#)
- Sharan, Shlomo. 2009. *Handbook of Cooperative Learning Inovasi Methods*. Praeger Westport, diterjemahkan Sigit Prawoto. Yogyakarta: Imperium. [\[Google Scholar\]](#)
- Siswono, Tatag Yuli Eko. 2009. *Meningkatkan Kemampuan Berpikir Kreatif Siswa*. Artikel Dosen Fakultas Keguruan dan Ilmu Pendidikan (FKIP). [\[Google Scholar\]](#)
- Somadana, Wyn, dkk. 2015. *Penerapan Model Pembelajaran Berbasis Masalah (Problem Based Learning) dalam Pembelajaran Menulis Teks Anekdote*. E-Journal Universitas Pendidikan Ganesha. [\[Google Scholar\]](#)
- Suryadi. 2013. *Pengaruh Pembelajaran berbasis Masalah Berbantuan Media Kokami Terhadap Prestasi Belajar Fisika Ditinjau dari Kemampuan Pemecahan Masalah*. Pendidikan Sain Volume 1 no 4. [\[Google Scholar\]](#)
- Suyatno. 2009. *Menjelajah Pembelajaran Inovatif*. Surabaya: Penerbit Masmmedia Buana Pustaka. [\[Google Scholar\]](#)
- Wena, Made. 2009. *Strategi Pembelajaran Inovatif Kontemporer Suatu Tinjauan Konseptual Operasional*. Jakarta: Bumi Aksara. [\[Google Scholar\]](#)