

THE EFFECTIVENESS OF USING *HIKAYAT PRANG SABI* IN PjBL APPROACH TO IMPROVE STUDENTS' CRITICAL THINKING

Rizki Dhian Nushur¹⁾ and Diyana Dewie Astutie²⁾
^{1,2)}STKIP Bumi Persada Lhokseumawe
Email: rd.nushur@gmail.com

Abstract

Various types of methods, strategies, and learning approaches are developed because the development of the era occurs very quickly and rapidly. At this time, education provided to students must train them to be able to deal with various problems in real life. To support and assist students in this case, project based learning or PjBL is formed to be applied as a learning approach. This study aims to know the effectiveness of using Hikayat Prang Sabi in PjBL approach to improve students' critical thinking. The study was conducted in STKIP BumiPersadaLhokseumawe with several students who randomly selected as the objects of this research. Through this approach, the learning process will be carried out in a team where the students are required to be able to take steps that consist of Determination of basic questions (essential), Designing project planning, compile a schedule, monitor project progress, testing learning processes and results, evaluating the experience of making a project or experience of learning activities. This research is a kind of qualitative research which is in collected the data used interview, FGD, and document review. In analyzing the data, it uses the style of Miles & Huberman method.

Keywords: *Effectiveness, Project_based_learning, Hikayat_Prang_Sabi, Critical_thinking*

INTRODUCTION

In this globalization era with rapidly changes, education must be able to train students to be able to deal with various types of problem in their daily life, which include being able to think and find solutions of problems as quickly and precisely as possible (Soleimani, Rahimi, & Sadeghi, 2015). In each of these learning processes, they cannot avoid an activity called critical thinking. Students need a critical mindset to solve problems as needed in the world of work (Rodzalan&Saat, 2014).

Critical thinking is an act of carefully claimed and decided the right or wrong of a case (Tamim& Grant, 2013). Therefore, this critical mindset is very important for students as the member of academic society. The classroom learning must relate to students' lives, experiences, and interests, so that they can connect them

to the real world (AESS, n.d.). The more mature a student is, the more rich and complex the assessment is given (Rodzalan&Saat, 2014). Likewise, on the contrary, a lack of a critical thinking can lead to wrong reasoning and wrong decisions with severe consequences (More & Parker, 2009).

To support and assist students in this regard, Project Based Learning or PjBL was formed to be applied as a learning approach. This approach is a complex learning where the results are a product, activity, and presentation that is realistic because the learning process goes through the activities of observing, researching, understanding, finding alternative solutions, and applying them in the real world (Martelli& Watson, 2016). This approach is instructional in the form of real tasks that can provide challenges for students to be solved by diverse solutions (Carless, 2015),

as well as innovative ones that teach a variety of critical strategies to be successful in the 21st century (Heijltjes&Paas, 2014). In PjBL, students can gain knowledge and skills through activities from various fields (Kean &Kwe, 2014). They obtain knowledge by giving questions that concern their natural curiosity (Heijltjes&Paas, 2014).

In this study, the writer will raise a literary work called *Hikayat Prang Sabi* (HPS) as a project in the Project Based Learning approach that will be applied in STKIP BumiPersadaLhokseumawe students to improve their critical thinking patterns. HPS itself is one of Aceh's literary work that was written by TeungkuChik Pate Kulu on his voyage from Jeddah to Penang as a trigger to increase the spirit of the Acehnese against invaders in 1873 (Mulhayatiah, 2014).

By seeing that *Hikayat Prang Sabi* is one of the great literary works found in Aceh, the writer took the initiative to raise this work as a literary works analysis in order to improve students' critical thinking through Project Based Learning approach in English students of STKIP BumiPersadaLhokseumawe. Through this approach, learning will be carried out in teams where students will be required to be able to take steps consisting of: Determination of basic questions (essential), designing project planning, arranging schedules, monitoring progress of the project, testing the process and results of learning, and evaluating the experience of making a project or experience of learning activities (Bell, 2010).

1. Effectiveness

Effectiveness in learning will make sense when context and goals are specified; effective for when or effective for what?

Eggen&Kauchak (2012) said the class that shows the students' activeness in learning process; especially in organizing and finding information, can be categorized as the effective learning. Therefore, the more active students are in learning, the more effective learning is carried out. So, according to the definition above, effective learning can be promoted by some activities in the classroom, such as learner's collaboration in learning, learner responsibility, and learner's activeness. According to Slavin (2000), the effectiveness of learning can be measured by using four indicators as follows:

- a. Quality of learning or quality of insurance, means how much the level of information is presented so that students can easily learn it or the level of error is small. The smaller the level of mistakes made means it gives more effective learning. Determining the level of effectiveness of learning depends on achieving mastery of certain teaching goals, usually called mastery learning.
- b. Suitability level of learning or appropriate level of instruction, namely the extent to which the teacher ensures the level of readiness of students in accepting new material.
- c. Incentives, it is about how much efforts that the teacher gives to motivate students to complete or do the tasks and study the material provided. The greater the motivation given, the greater the students show their activeness, so that learning will be effective.
- d. Time, it is the time needed to complete learning activities. Learning will be effective if students can complete the lessons in accordance with the specified time.

According to Agsha (2015), she said that the effectiveness of the learning program is characterized by the following characteristics such as successfully deliver students to achieve instructional goals that have been set, provide an attractive learning experience, involving students actively so as to support the achievement of instructional goals, and having facilities that support the teaching and learning process.

So that it can be concluded that a good learning model is how teachers successfully deliver their students to gain knowledge and provide an active learning experience.

2. Critical Thinking (Critical Thinking)

Humans are not just destined to decide something, but are given the mind to be able to consider the right or wrong of a decision (Tamim & Grant, 2013). This thinking process is called critical thinking. So it is said that critical thinking is the art of analyzing and evaluating thinking with a view in order to improve it (Delisle, 1997). However, critical thinking is a skill that must be trained. The more people practice their thinking, the better the analysis they produce. This shows that a critical mindset is not a set of thoughts that can be used at any time in any context, but requires regular practice in order to succeed well (Paul & Elder, 2006).

Anyone is able to think because it is human nature, but many of those thoughts are left to the point of being biased, distorted, partial, ill-informed and incorrect prejudice (Delisle, 1997). This will affect the quality of life and the results achieved by someone, because whatever the quality of the mind, it greatly affects the quality of life (Delisle, 1997).

Critical thinkers who are well-nurtured will be able to formulate the problems they face

clearly and precisely. They will collect and assess information to interpret it carefully, so as to produce conclusions and solutions that make sense because they pass the testing process with relevant criteria and standards. They make assumptions, think openly, recognize and assess as needed, then imply it. Besides, they are also able to communicate well in finding solutions in complex problems. Briefly, critical thinkers can be identified as self-directed, self-disciplined, self-monitored, and self-corrective thinking (Delisle, 1997).

3. Project Based Learning (PjBL)

Project-Based Learning was first introduced by David Snedden to teach science in vocational agriculture in America (Willingham, 2007). Then this learning model was developed by John Dewey and Kilpatrick to emphasize the importance of conducting learning based on experience and action (Beckett & Miller, 2006). The project method proposed by Kilpatrick in 1918 emphasized direct student involvement in creating knowledge while solving the problems they faced during the project (Cho, 2010). So that it can be said that the emergence of the PjBL approach started from a constructivist view that refers to contextual learning (Brubacher, 1947). Students who learn from texts and teachers without practicing and gaining experience directly during the learning process can reduce their ability to solve problems later on, moreover if they remember that life is static and constantly changing (Kamdi, 2007). In the other words, they will be less prepared to see and take the opportunities that exist at this life to face the world that continuously grow in the future.

The project method has been known as an alternative learning in the field of literature

of general education. (Dewey, 1938; Cremin, 1964), and PjBL is one of the learning approach involving a project (Gull, 1933). This learning model is designed to be used in complex types of problems which require investigation in understanding it. In this learning model, the opportunity to convey ideas, listen to other people's ideas, and reflect on their own ideas on others can be applied well. The application process is a form of knowledge empowerment experience (Carless, 2015). The project is carried out by students both individually and in groups, who collaboratively, innovatively, uniquely, and focus on problem solving will be carried out within a certain period of time. The resulting product will then be displayed and presented.

4. *Hikayat Prang Sabi*

Hikayat Prang Sabi is one of the most famous classical literature in Aceh. *Hikayat Prang Sabi*'s manuscripts that still exist today are about 56 texts. The manuscripts are stored in libraries throughout the world and some of them are private collections (Jagantar, Adnyana, &Widiyanti, 2014).

Hikayat Prang Sabi itself eventually became a term used to refer to all texts or manuscripts that tell about the holy war, whether entitled as *Hikayat Prang Sabi* or not. *Hikayat Prang Sabi* which was created and recited during the war in Aceh was divided into two types, namely *tambah*; which contains warnings and advice, and epics; which contains stories or *epics* (Nushur, 2017). As for *Hikayat Prang Sabi* which is appointed in this study is a *tambah* genre, the lyrics in the verses of this literary work invited people to join in the holy war or *Prang Sabi*.

The first script of *Hikayat Prang Sabi* was written by an Acehnese cleric named TeungkuChikPanteKulu. Then he handed this text over to his teacher and good friend named TeungkuChik Di Tiro during the war against the invaders (Abdullah, 2008). He made *Hikayat Prang Sabi* as an encouraging war in leading Acehnese soldiers in Lam Barieh, Aceh Besar (Abdullah, 2008). When encouraging the soldiers, he read the verses of *Hikayat Prang Sabi* vigorously and asked them to join TeungkuChik Di Tiro in the holy war (Abdullah, 2008).

Actually, there are several studies on PjBL have been done before. Among them was the study entitled “*Pengaruh Pembelajaran Berbasis Proyek (Project Based Learning) Terhadap Hasil Belajar Biologi Ditinjau Dari Gaya Belajar Siswa SMA*” (The Effect of Project Based Learning on Biological Learning Outcomes Viewed from the Learning Styles of High School Students) (Jagantara, Adnyana, &Widiyanti, 2015). The aim of this study was to examine differences in PjBL and learning models that were taught directly by reviewing student learning styles. In addition, similar studies was also conducted in the field of language education to improve students’ writing skills (Agni, 2017).

There was also a study entitled “*Model Pembelajaran Berbasis Proyek Disertai Audio-Visual Dalam Pembelajaran Fisika di SMAN 4 Jember*” (Project-Based Learning Model AccoSeveral studies on PjBL have been done before. Among them was the study entitled “*Pengaruh Pembelajaran Berbasis Proyek (Project Based Learning) Terhadap Hasil Belajar Biologi Ditinjau Dari Gaya Belajar Siswa SMA*” (The Effect of Project Based Learning on Biological Learning Outcomes

Viewed from the Learning Styles of High School Students) (Jagantara, Adnyana, &Widiyanti, 2015). The aim of this study was to examine differences in PjBL and learning models that were taught directly by reviewing student learning styles. In addition, similar studies was also conducted in the field of language education to improve students' writing skills (Agni, 2017).

There was also a study entitled "*Model Pembelajaran Berbasis Proyek Disertai Audio-Visual Dalam Pembelajaran Fisika di SMAN 4 Jember*" (Project-Based Learning Model Accompanied by Audio-Visual in Physics Learning at SMAN 4 Jember) to study the effect of the learning model on physics learning achievements, describe students' skill of science process during the learning process, and study the relationship between students' skill of science processes and physics learning achievements (Fikriyah, Indrawati, &Gani, 2015).

Some of these studies show that PjBL is often carried out in various fields of knowledge, especially in the field of science. But it is still rarely found in the field of literature and language, even though this learning approach is also very suitable to be applied in this field. Therefore this research was carried out with the title "Improving Student Critical Thinking Through Hikayat Prang Sabi As a Project Based Learning Approach at STKIP BumiPersadaLhokseumawe".

METHOD

The methodology used in this research was qualitative method. In this study, data collection was conducted through Interview and FGD (Focus Group Discussion) techniques, and document review. Interviews will be conducted after

the learning process using the PjBL method was applied in order to know their opinion or perception about their improvement in thinking critically. On the other hand, this interview has the purpose to measure the level of students' critical thinking.

Then the FGD stages will be carried out when the learning process takes place; that was when the students hold discussions related to the *Hikayat Prang Sabi* script given, the results of the discussion will be narrated into drama scripts and will be displayed in colossal drama performances. The script and the appearance of the drama was being a project that must be carried out by the students in this study.

In the document review, the drama script produced by the students became the document that reviewed as research data. From the results of the study, it would be known how far the critical level of their thinking was, and also to what extent the learning model had been successfully applied to the students of STKIP Bumi Persada Lhokseumawe.

The method in analyzing or reviewing the collected documents was used the analysis style of Miles &Huberman (1984), which the stages of the assessment include data reduction, data presentation, and conclusion drawing / verification. According to Miles &Huberman (1984), activities in analyzing qualitative data occur interactively and continuously during the research process so that there is not any new information founded in the data, or the data becomes saturated. Then, the population targeted in this study was STKIP Bumi Persada Lhokseumawe, and the research sample was students from the English education department of STKIP Bumi Persada Lhokseumawe. The sampling technique used the stratified random sampling

technique, which took proportional randomly from the English Education department of STKIP Bumi Persada Lhokseumawe, namely four students who were active as students there.

The data collected during the research process took place was analyzed according to the method of analyzing the data in the qualitative research, which will be explained clearly below;

Data Analysis Model

The data analysis model used in this study was the analysis of qualitative data from Miles & Huberman [28], in which activities in the analysis included data reduction, data display, and conclusion drawing and verification. The stages will be described below;

1. Data Reduction, or reduce the data that is considered unnecessary, at this stage all data that has been collected in the research process will be sorted and decided about which data is considered important and which are not. So, the process of presenting data can be done more easily.
2. Data display or data presentation. Data that has been previously sorted will be presented in narrative form. Because this is qualitative research, the presentation of data will be done in narrative.
3. Conclusion of drawing / verification, or drawing conclusions and verification. At this stage, all details of the data that have been presented will be concluded and verified so that the conclusions obtained are considered credible.

RESULT AND DISCUSSION

Result

The results in this study are described based on the results of the interview, FGD, and document review as briefly discussed below;

Interview

The questions given in the interviews are started from really common questions to the purposed questions which need a deep kind of thinking. The purposed question slightly modified in order to stimulate the sharpness of their thinking.

From the results of interviews, it can be seen that the four students who became objects in this study experienced is significant increase in critical thinking, although not all of them had the same critical level. This can also caused by many aspects, for example different social life and activities backgrounds of the students. Judging from the family life and social background, student-1 resides around a traditional market where the topics discussed are rarely about hard issues and deep discussion, student-2 resides in a village area where deep discussion are also rarely happen, but because he works as a school operator in one of the high schools in his area, the critical discussions are more often than in traditional market or shopping areas, moreover he often deals with various problems found in the school where he works. Students 2 and 3 live in urban areas, but based on their answer in the interview, the deep discussions are also rarely happen in their daily and social life.

In order to be seen more clearly, the differences in the level of critical thinking of the students are divided into three parts; namely good, sufficient, and low. At the level of good criticality of thinking, student – 2 experienced the highest improvement in criticality among his friends, and then followed by students – 3 and student – 4 at the sufficient level of criticality, and

students – 1 who was at the low critical level.

In student-2 with a good critical level category, the answers he gave in the interview show satisfying answers. According to the answers, the learning process using Project Based Learning or PjBL approach with analyzing *Hikayat Prang Sabias* the project in it stimulated his thought to be more critical than before. He said that the sharpness of giving answer and opinion while the teaching and learning process was going on, were improve in every meetings. The demand for thinking deeply during the *Hikayat Prang Sabi* analysis process stimulated his thinking in a good way. Even though this kind of learning is quite unfamiliar to him, but he can enjoy the learning process. After the learning approach was applied, the answers he gave start being more specific or lead to the points of what his friend or the people who ask him want to get. It is because he began to feel accustomed to the activities of analyzing and thinking deeply before answering the question brought up. Moreover, he also can relate his answer to some examples of the events that often occur in the daily life.

Then, at the category of sufficient criticality level, student 3 and student 4 gave quite different answers from the students 2 in the interview. They said that analyzing the *Hikayat Prang Sabi* did make them think deeper, and that did also change the way they thought, it make them more easy to give deeper opinions in the discussion, but the difficulties they experienced in analyzing the *Hikayat Prang Sabi* give them a few troubles in facing it because many of the terms used in the *Hikayat* are cannot be easily understood, that is because the words used were the classic Acehnese language and also are very rarely used in

now days daily life. But after all, they also can enjoy the discussion activities and the learning process in the class room. They said that in the early meetings, the opinions they gave were relatively short and general, then after few meetings, the way they think continuously change and improve, they can give more specific and direct answers. But they cannot deny that their answer were still lacking in giving examples for each solution presented, they still hard to find the suitable examples and also hard to explain them deeper in the specified time.

For the Student – 1, who is at the low criticality level of thinking gave the quite unsatisfactory answers in the interview, but in this case he just remained to be honest. He said that there was not much improvement in the way he thought. Based on his answer, he did not give much effort in analyzing *Hikayat Prang Sabi*; he can easily understand the content of *Hikayat Prang Sabi*. It could influence by his daily language used which is Acehnese language. But he enjoyed the class and discussion process. It is just because of his ignorant character, he only answered the questions given modestly just when his friends ask him to. In some parts of the contents of the *Hikayat Prang Sabi*, his friend could not understand because of some unfamiliar terms, so he only translated them according to what he could understand.

FGD

In the implementation of the FGD, this method was carried out five times during the learning process using the PjBL Approach, which was during the understanding of the script and the writing of the drama script. From here it was also found that the critical stages began to increase or improve from the 1st FGD meeting to the 5th FGD meeting. At the 1st and 2nd FGD, student-1 seemed more

enthusiastic in reading and understanding the *Hikayat Prang Sabi's* reading context because he felt familiar with his language, where in his daily life and social environment more often use the language of Aceh. While students 2, 3, and 4, are more visible trying to understand the contents of the reading. They did not really understand the contents of *Hikayat Prang Sabi* which is a form of Acehnese prose; moreover there are many words that are not commonly used in the current daily life. Although their social life also generally uses the Acehnese language, the Acehnese language contained in *Hikayat Prang Sabi* which was written by Teungku Chik Pante Kulu indeed use literary language that is high enough to be understood by young people today.

In the 3rd FGD, the four students began to be able to follow and understand the contents of *Hikayat Prang Sabi*, so that enthusiasm also began to appear. The way of discussion also looks even better and smoother. Each student gave opinions about what they understand from the reading. In the 4th and 5th FGD, the students began to master the reading, so the discussion process was more interesting and the writing of the drama script was getting better. They can smoothly comment on each other for the storyline that will be written in the script of drama, which is the project for this learning.

Document review

In the document review, the drama script produced by the students from the reading of *Hikayat Prang Sabi* was analyzed by the researcher. From the script analyzed, It can be seen that students' understanding of the reading context; *Hikayat Prang Sabi*, began to be adequate. This was reflected in the neatly arranged and easy to understand storyline. Although it cannot be categorized

as a perfect drama script, their understanding of the stories contained in *Hikayat Prang Sabi* can be represented in the drama script produced.

The Effectiveness of Learning

As stated by Slavin (2000), the effectiveness of learning can be measured by using four indicators, they are; quality of learning, suitability level of learning, incentives, and time. So here below the effectiveness of learning will be explained according to the categories;

a. Quality of learning

Quality of learning can be seen by the mistakes made by students. The fewer mistakes they made, the more effective the learning approach is. But in increasing the criticality of students' mindset, the answers of the questions given in this study cannot be just grouped into "correct" and "wrong" answers. All the answers given by students are correct; it's the depth of the answers, the way students explain a problem in detail, and how they relate it in the social life is being the measurement.

Here, according to data collected in interviews, FGDs, and document review, it shows that the depth of the answers given, the detailed explanations, and the way they relate them to the daily life has significant improvement. So that in terms of quality of learning, project based learning is very effective to implement.

b. Suitability level of learning or appropriate level of instruction

In measuring the effectiveness of a study, the appropriateness of the level of material provided must be considered. In this research, the Project Based Learning approach with using the analysis of *Hikayat Prang Sabi* as a project that must be done by students is suitable to be applied.

For the university students, the process of analyzing in depth on a given subject is a demand. So if it is viewed from the suitability of the learning level, the Project Based Learning approach is very effective to be applied.

c. Incentives

Incentives mean the extent to which a teacher as a facilitator in learning provides motivation to students. The higher the motivation given by the teacher in the teaching and learning process, the higher the level of effectiveness possessed. In this class of Project based learning approach, students' learning motivation continuously increase, because here the students being the centers and take more roles in the learning process. In addition, interactions and collaboration among the students also increase, so that learning motivation is maintained. Here, the teacher's role is as a facilitator, where every constructive input is also continuously given. So, in terms of incentives, the project-based learning approach is very effective to be implemented.

d. Time

One other category that identifies the effectiveness of a study is the timeliness set. In the PjBL program by analyzing *Hikayat Prang Sabi* as a project that must be carried out by the students, every time has been plotted, so that every target determined at each meeting can be achieved. So, according to this, PjBL approach is also very effective to be applied.

Based on the explanations in the learning effectiveness category above, it can be concluded that the Project Based Learning approach is very effective to be

applied in the classroom; both scientific and social classes.

Discussion

From the interviews, FGDs and drama scripts presented, it can be seen that the ability of analysis and critical thinking of the four students at the English Language Study Program of STKIP BumiPersadaLhokseumawe has increased even though not maximally. It can be influenced by the background of their life and society which are different. For instance, Student-1 comes from the family that are life in the traditional market society, where Acehese language is common used. But on the other hand, even the Acehese language is familiar to him, but the critical discussion is rarely happen.

Student-2 comes from one of the village in North Aceh, where the used of Acehese language is also common, but his social life usually in the school where he works as the operator. Then, with so many education issues that usually consumed by the Academic people in the school, it can influence him in the way how he think, especially in the critically.

Student-3 and student-4 are the people who live in the town where the Acehese language is rarely used. Besides, their social life is also very common as the university students, then rarely participated in the academic event.

From those backgrounds of life of the students, it can be concluded that their activities that can increase the critical thinking is very rare, so that was why their critical thinking is also low.

From the result of this study, there were still many shortcomings founded, for example, the storyline of the drama script they produced was not strong enough, or the answers of the interview were less

profound and specific. But their exposure to the solution of a problem began to look better. For this reason, there are many projects and discussions that they must do to continue to hone their thinking skills so that their thoughts can become increasingly sharp and critical in uncovering various problems that they find in social and real life.

CONCLUSION

After went through the analysis and discussion of the result of this research, there are some conclusions given, such as:

1. The critical thinking of the students improve through the project based learning approach with raised the *Hikayat Prang Sabi* as the project they have to do in the learning process. This literary work as the local issues can stimulate their thinking in the learning process.
2. Student's interest in the learning was much higher while they did the project in the learning process than while they did the very common learning process such as teacher centered method or just doing the common discussion all the time, that why PjBL is very effective to be applied in the learning process.
3. Raised the local or traditional works of issues as the project in the PjBL approach is very suggested to be applied in the learning process because it can relate the students directly to their real life.
4. There are some others alternative ways of learning that can make the learning process are more interesting, especially in leaning language, can be applied as the project in PjBL approach.
5. It is important to relate and stimulate student's thinking to their real life or

familiar condition in order to gain the best result of the learning.

ACKNOWLEDGEMENT

In conducting this research, there are several people who help the author in finishing it then want to thank them warmly, namely the head of STKIP BumiPersadaLhokseumawe who gave her the opportunity to apply this kind of learning approach to their students. Then, for funding support, the thanks belong to the Ministry of Research, Technology and Higher Education of Indonesia.

REFERENCES

- Abdullah, I. T. (2008). *Hikayat prang sabi satu bentuk karya sastra perlawanan*. Yogyakarta: Universitas Gadjah Mada.
- Agni, A.S. (2017). Penerapan model project based learning untuk meningkatkan kemampuan menulis siswa. *Arabi :Journalof Arabic studies*, 2 (2), 186 – 196.
- Agsha, (2015). *Efektifitas penerapan model pembelajaran kooperatif dengan pendekatan saintific dalam pembelajaran matematika di keas VIII SMP Negeri 2 Majane* [Data File]. PPS UNM. Makassar: Author.
- Beckett, G.H., & Miller, P.C. (2006). *Project – based second and foreign language education: past, present, amd future*. Greenwich: CT information age publishing.
- Bell, S. (2010). Project – based learning for the 21st century: skills for future. *The clearing house*, 83, 39 – 43
- Brubacher, J.S. (1947). *The history of the problem of education*. New York: McGraw – Hill.

- Carless, D. (2015). *Excellent in university assessment*. Oxon: Routledge, Taylor & Francis group.
- Cho, S.E. (2010). *Project based learning in a foreign language immersion camp* [Data file]. Pennsylvania, United State: Author.
https://etda.libraries.psu.edu/files/final_submissions/5923
- Cremin, L.A. (1964). *The transformation of the school: progressivism in American education 1896 – 1957*. New York: Vintage book.
- Delisle, R. (1997), *Used problem based learning in the classroom*. USA: Association for supervision and curriculum development.
- Dewey, J. (1938). *Experience and education*. New York: Simon & Schuster.
- Eggen, P., & Kauchak, D. (2012). *Strategidan Model Pembelajaran – Mengajarkan Kontendan Kemampuan Berpikir*. Jakarta: Indeks.
- Fikriyah, M., Indrawati, & Gani, A.A. (2015). Model pembelajaran berbasis proyek (project based learning) disertai media audio – visual dalam pembelajaran fisika di SMAN 4 Jember. *Jurnal pembelajaran fisika*, 4 (2), 181 – 186.
- Gull, H. (1933). *Project in the education of young children*. London: McDougall
- Hasjmy, A. (1977). *Apa sebab rakyat Aceh sanggup berperang puluhan tahun melawan agresi Belanda*. Jakarta: Bulan Bintang
- Heijltjes, A., Gog, T.V., & Paas, F. (2014). Empirical support for explicit instructions combined with practice. *Applied cognitive psychology*. Diunduh di <http://wileyonlinelibrary.com>
- Jagantara, m,w., Adnyana, P.B., & Widiyanti, N.L.P.M. (2014). Pengaruh model pembelajaran berbasis proyek (project based learning) terhadap hasil belajar biologi ditinjau dari gaya belajar siswa SMA. *E-journal program pascasarjana universitas pendidikan Ganesha*, 4.
- Kamdi, W. (2007). *Pembelajaran berbasis proyek: Model potensial untuk peningkatan mutu pembelajaran*. <http://lubisgrafura.wordpress.com>
- Kean, A.C., & Kwe, N.M. (2014). Meaningful learning in the teaching of culture: the project based learning approach. *Journal of education and training studies*, 2 (2)
- Martelli, C. D., & Watson, P. (2016). Project – based learning: Investigating resilience as the connection between history, community, and self. *Voice from the middle*, 23 (3).
- Miles, M.B., & Huberman, A.M. (1984). *Qualitative data analysis*. London: Sage.
- More, B.N., & Parker, R. (2009). *Critical thinking* (9th ed.). New York: McGraw – Hill.
- Mulhayatiah, D. (2014). Penerapan pembelajaran berbasis proyek untuk meningkatkan kemampuan berpikir kreatif mahasiswa. *EDUSAINS*. 6 (1), 17 – 22.
- Nushur, R.D. (2017). *Hikayat Prang Sabi and the uplifting of the Acehese spirit during the wartime (a discourse analysis)* [Data file]. Darussalam, Banda Aceh : Author

- Paul, R. & Elder, L. (2006), Critical thinking concept and tools. *The foundation for critical thinking*. www.criticalthinking.org.
- Rodzalan, S.A. & Saat, M.M. (2014). The perception of critical thinking and problem solving among Malaysian undergraduate students. *Procedia – social and behavior science*, 172, 725 – 732
- Slavin, R.E., (2000). *Educational Psychology: Theory and Practice*. Person Education. New Jersey.
- Soleimani, H., Rahimi, Z., & Sadeghi, H. (2015). Project based learning and its positive effects on Iranian intermediate EFL learners' reading ability and vocabulary achievement. *AESS*, 4 (1), 1-9
- Tamim, S.R., & Grant, M.M. (2013). Definition and uses case study of teacher implementing project-based-learning. *IJPBL*, 7(2).
- Wibowo, A. B. (2006). Hikayat prang sabi: Salah satu inspirasi keteguhan rakyat aceh dalam berperang melawan belanda. *Jeumala*, 2, 9-10.
- Willingham, D.T. (2007), Critical thinking, why is it so hard to teach?. *American educator*