HISTORIA: Jurnal Program Studi Pendidikan Sejarah Volume 14 (1) 2026
ISSN 2337-4713 (E-ISSN 2442-8728)

The Effect of Project Based Learning Model on History Learning Interest in Grade XI IPS AT SMAN 1 Baros

Lina Herlina[1*], Ana Nurhasanah[2], Tb Umar Syarif Wibowo[3]
[1,2,3]History Education, Faculty of Teacher Training and Education, Universitas Sultan Ageng Tirtayasa, Indonesia
*correspondence email : 2288290012@untirta.ac.id

Received 1 August 2024; Received in revised form 2 December 2024; Accepted 3 December 2024

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh Model *Project Based Learning* terhadap minat belajar sejarah pada kelas XI IPS di SMAN 1 Baros. Penelitian ini menggunakan jenis penelitian kuantitatif dengan pendekatan *pre-eksperimental design*. Teknik pengambilan sampel yang digunakan adalah teknik *probability sampling* tipe *simple random sampling*. Pengumpulan data pada penelitian ini menggunakan kuisioner (angket). Hasil penelitian ini dapat dilihat dari hasil uji regresi sederhana yang menunjukkan nilai t_{hitung}= 16,154 sedangkan t_{tabel}= 1,687 dengan taraf signifikansi 0,05. Karena $t_{hitung} > t_{tabel}$, maka regresi berpengaruh. Hal ini berarti bahwa penerapan model *Project Based Learning* berpengaruh terhadap minat belajar sejarah siswa. Koefisien determinasinya diperoleh= 0,882. Hal ini berarti skor minat belajar siswa 88,2% dipengaruhi model *Project Based Learning*, sedangkan sisanya 11,8% dipengaruhi oleh faktor-faktor lainnya, seperti kemampuan pemahaman siswa, tingkat kognitif individu masing-masing siswa, dan kondisi kontekstual. Penerapan model *Project Based Learning* berpengaruh terhadap minat belajar sejarah pada kelas XI IPS di SMAN 1 Baros, sehingga diharapkan guru bisa mengembangkan proses pembelajaran menggunakan model *Project Based Learning* sebagai salah satu model pembelajaran sejarah di SMAN 1 Baros.

Kata kunci: pembelajaran sejarah, pjbl, minat belajar.

Abstract

This study aims to determine the effect of the Project Based Learning Model on interest in learning history in class XI IPS at SMAN 1 Baros. This study uses a quantitative research type with a pre-experimental design approach. The sampling technique used is the probability sampling technique of the simple random sampling type. Data collection in this study used a questionnaire. The results of this study can be seen from the results of a simple regression test which shows a calculated t_{value}= 16.154 while t_{table}= 1.687 with a significance level of 0.05. Because $t_{count} > t_{table}$, the regression has an effect. This means that the application of the Project Based Learning model has an effect on students' interest in learning history. The coefficient of determination is obtained= 0.882. This means that the student's learning interest score is 88.2% influenced by the Project Based Learning model, while the remaining 11.8% is influenced by other factors, such as students' understanding ability, individual cognitive level of each student, and contextual conditions. The implementation of the Project Based Learning model has an effect on the interest in learning history in class XI IPS at SMAN 1 Baros, so it is expected that teachers can develop the learning process using the Project Based Learning model as one of the history learning models at SMAN 1 Baros.

***Keywords**: history learning, pjbl, learning interest.*

INTRODUCTION

The government gives additional weight to history, one of the subjects included in the 2013 curriculum at the senior high school (SMA) level. where the two categories of history topics are compulsory history and special history. All high schools are required to take history classes, although language is a cross-interest subject in special history classes that are

part of the social science interest group. Because history is a science that studies humans in the context of location and time, looking at past and present developments and the dimensions of human consciousness individually and communally (Septiyaningsih, 2016).

In general, teaching history to students consists of a series of exercises created by educators to help them learn. In essence, the objectives of history education are stated in the National Education Law which can be a guideline for the progress of the country. Regarding the cognitive component, history education has a fairly large role in character development. This is in accordance with Sudirman's statement (2012) which states that history education plays an important role in shaping national identity.

Simply put, history learning is one component of the Social Sciences (IPS) education activity system, namely a learning activity that describes how the teaching and learning environment is arranged and organized to maximize student motivation to learn and grow as individuals.

Some students believe that understanding history is not a big deal because they only think about the past. In fact, some people find studying history boring and uninteresting. It is important to understand that this is because the aspects of learning history are not flexible and cannot be adjusted to the needs of the modern world, not because historical information is not relevant or important to learn (Sumarno, 2019). This implies that an innovative approach is needed to the related history topics. The human element including teachers and students is one of the factors that has a lot of influence.

Because they are required to activate the elements of learning history in their capacity as educators, teachers play an important role in the process. History teachers must be able to offer fresh perspectives on models, approaches, and techniques, as well as how to use learning resources that are relevant to current events.

When you are interested in something or an activity, you feel interested and like it without having to be told. Students' interests motivate them to learn and will support them in achieving their learning goals. The extent to which students are interested in learning will of course also affect the learning outcomes they will obtain when studying history.

Based on the results of observations and interviews conducted on January 27, 2023 and October 5, 2023, the curriculum used at SMAN 1 Baros is the 2013 curriculum, the problems faced by teachers are when explaining the material some students pay attention and some students do not pay attention while learning is taking place. history learning also tends to be considered boring by

some students. The learning model that is often used is also a monotonous learning model such as using a conventional learning model. The use of interactive learning models is only carried out in some learning activities (Shayab, 2024; Takenaka & Soga, 2019a).

Traditional teaching and learning methods mainly involve the transfer of knowledge, information, norms, values, and other similar elements from teachers to students. The application of discussion-based learning techniques has not been able to engage students in an entertaining, effective, creative, or active manner during the learning process. Participation in the interactive discussion process is limited to certain students. This is what causes students to be uninterested in learning history.

In history learning, we know the term learning construction. This construction is an effort to connect the relationship between historical events in the past with contemporary problems that are currently occurring in order to foster students' critical thinking and attract students' interest in learning history. Observation and interview findings show a tendency for problems to arise throughout history learning, which indicates students' disinterest in the subject.

Teachers should use a series of teaching strategies using more innovative learning models to help students become more involved in class, articulate their own opinions, and practice new skills. This will help students avoid thinking of themselves as passive learners who are only expected to listen to lectures given by instructors.

The project-based learning model is a model that can be used to encourage students to actively participate in all learning activities and enjoy doing so. In this way, students can develop their critical thinking skills and be guided to create projects based on historical events. By implementing the project-based learning paradigm, for example, it is hoped that students' enthusiasm for studying history will grow.

According to Thomas in Priansa (2015), project-based learning is a learning model that provides teachers with the opportunity to manage classroom learning by involving project work. This learning model has great potential to provide a more interesting and meaningful learning experience to students. The project work being discussed involves giving students challenging tasks to improve their ability to make decisions, conduct research, and give them the opportunity to work independently. In addition, this is intended to increase the effectiveness of learning and help students achieve their learning goals.

The importance of using the project-based learning model for history learning is that it can provide space for students to hone their skills in solving a

problem based on a particular learning project. Project Based Learning is also useful for providing students with an understanding to try to reconstruct historical events based on a project so that students are involved in direct experience so that learning will be more interesting and not boring (Takenaka & Soga, 2019b; YILDIRIM et al., 2018).

Previous research on the subject has been published under the title The Effect of Implementing Project-Based Learning Models on Interest in Learning History in Class 1 Gubug. This can be seen from the experimental class that uses the project-based learning model has an average posttest score of 78.85, while the control class that does not use the model has an average posttest score of 69.27. Thus, it can be concluded that students' learning motivation to achieve learning objectives is greatly influenced by this project-based learning approach.

Given the context of the problems mentioned earlier, the author is interested in conducting a study entitled "The Effect of the Project Based Learning Model on Interest in Learning History in Class 11 IPS at SMAN 1 Baros".

METHODS

This research is quantitative, with the aim of measuring the independent variable (X), Project Based Learning, and the variable (Y), learning interest. The research method used in this study is Pre-Experimental Design. According to Sugiyono (2017: 109) it is said to be Pre-Experimental Design, because this design is not yet a real experiment. Because there are still external variables that influence the formation of the dependent variable. The population of this study was all students of class XI IPS SMAN 1 Baros in the 2023/2024 academic year. The research sample of this study was based on simple random sampling with probability sampling. Based on considerations, the sample of this study was class XI IPS 4 with a total of 37 students as respondents. Data collection in this study used a questionnaire. Testing of the research instruments used used validity tests, reliability tests. The researcher's prerequisite test used a normality test, homogeneity test and the researcher's hypothesis test used simple regression.

RESULTS AND DISCUSSION

1. Instrument Analysis results

a. Validity Test

According to Sugiyono (2019), validity testing is used to determine whether a questionnaire is valid or not. A questionnaire is considered valid if the questions in it can reveal the information measured by the questionnaire.

Table 1. Validity Test Results

No	R_{Value}	R_{Table}	Description	Classification
1	0.42	0.325	Valid	Enough
2	0.52	0.325	Valid	Enough
3	0.57	0.325	Valid	Enough
4	0.64	0.325	Valid	Enough

5	0.44	0.325	Valid	Enough
6	0.48	0.325	Valid	Enough
7	0.40	0.325	Valid	Enough
8	0.54	0.325	Valid	Enough
9	0.51	0.325	Valid	Enough
10	0.06	0.325	Invalid	Very Low
11	0.40	0.325	Valid	Enough
12	0.25	0.325	Invalid	Low
13	0.14	0.325	Invalid	Very Low
14	0.47	0.325	Valid	Enough
15	0.42	0.325	Valid	Enough
16	0.43	0.325	Valid	Enough
17	0.44	0.325	Valid	Enough
18	0.41	0.325	Valid	Enough
19	0.00	0.325	Invalid	Very Low
20	0.43	0.325	Valid	Enough
21	0.42	0.325	Valid	Enough
22	0.65	0.325	Valid	Tall
23	0.40	0.325	Valid	Enough
24	0.40	0.325	Valid	Enough

The instrument that has been made is 24 items, but after being calculated using Ms. Excel, the calculation results are 20 valid items and 4 invalid items. Therefore, the question instruments that can be used in the study are 20 items.

b. Reliability

Reliability indicates that an instrument is reliable enough to be used as a data collection tool because it is good (Arikunto, 2006: 178). According to Sugiyono (2017: 130), a Cronbach Alpha score of 0.6 or more indicates that a research instrument is trustworthy. The reliability coefficient used in this study is 0.6.

The Cronbach Alpha value is determined through reliability calculations. The Cronbach Alpha score of 24 items is more than 0.6 indicating that the instrument is reliable and consistent. As a result, we can conclude that the instrument is reliable and meets high standards.

c. Normality Test

This test is conducted to determine whether the research data used is normally distributed or not. The *Kolmogorov-Smirnov* test is used in this study, and is conducted using the IBM SPSS Ver 22 program. The table below shows the findings of the normality test in this study.

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		37
Normal Parameters[a,b]	Mean	.93.162
	Std. Deviation	5.671
Most Extreme Differences	Absolute	.066
	Positive	.054
	Negative	-066
Test Statistic		.066
Asymp. Sig. (2-tailed)[c]		.200

Based on table 2 which shows the results of the normality test generated from the Asymp. Sig (2-tailed) data: 0.200. As a result, the data in this study are normally distributed, as evidenced by a significance value of > 0.05.

d. Homogeneity Test

The results of the homogeneity test in this study obtained a significant value based on the mean of 0.423 more than 0.05. Thus, the facts above can be interpreted as homogeneous or the same.

e. Hypothesis Testing

By using Simple Regression Analysis, you can test your hypothesis. The simple

regression test tries to evaluate the relationship between each variable, especially the relationship between the Project Based Learning model (variable X) and Learning Interest (variable Y) using the regression equation.

Table 3. Regression Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.104	3.741		1.631	<.112
	Model Project Based Laerning	.647	.040	.939	16.154	<.000

a. Dependent Variable: Learning Interest

Table 3 Regression Test (Coefficient) shows that t-PjBL produces t= 16.154. The number of students= 37, with a significance level = 0.05, obtained ttable = 1.687; because tcount > ttable then the regression is effective. The calculation shows that Sig.=< 0.000, less than the significance level of 0.05. Therefore, the regression has an impact. Based on the findings of these two analyses, we can conclude that the regression is meaningful. This shows that the Project Based Learning paradigm has an impact on students' enthusiasm for learning.

Table 4. Regression Test Results (ANOVA)

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	600.395	1	600.395	260.962	<.000[b]
	Residual	80.524	35	2.301		
	Total	680.919	36			

a. Dependent Variable: Learning Interest

b. Predictors: (Constant), Model Project Based Laerning

Table 4 is used to assess the significance or linearity of the regression. The criteria can be determined based on the F test or significance test. If the Sig value <0.05 then the regression model is linear or vice versa. Based on the second table, the results obtained are Sig. = <0.000, indicating that the regression model based on the research data is significant (Sig. = <0.05). This shows that the linear regression model meets the linearity criteria.

Tabel 5. Regression Test Results (Model Summary)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.939[a]	.882	.878	1.517

a. Predictors: (Constant), Model Project Based Laerning

b. Dependent Variable: Learning Interest

Table 5 Regression Test (Model Summary) shows that the R value representing the correlation coefficient value is 0.939. This figure indicates that the relationship between the two research variables is relatively strong. This table also produces R Square or R2 which is a determination coefficient of 0.882 or 88.2%. The Project Based Learning paradigm influences 88.2% of students'

learning interest scores. While the remaining 11.8% is influenced by other elements such as knowledge in the form of various student understanding abilities, the individual cognitive level of each student, and contextual conditions.

2. The Effect of Project Based Learning Model on History Learning Interest

Class 11 IPS 4 was given treatment using the Project Based Learning model. According to (Daryanto & Raharjo., 2012: 162) Project Based Learning, often known as PJBL, is an educational approach that begins with problems to collect and combine new information based on actual experiences and actions. The Project Based Learning model is designed to be used on complex problems that require students to investigate and understand them.

Learning through the Project Based Learning model is student-centered and allows students to learn challenging themes, making them more involved and producing their own knowledge, making learning more meaningful. The project-based learning model has been proven to have a different impact on student interest compared to the standard learning model.

In the initial stage, treatment was given using the Project Based Learning model. Treatment was given four times in one month, so that the study was carried out for 4 weeks, namely on Tuesday, January 9, 2024, January 16, January 23, and January 30, 2024 in the 1st-2nd hour with a time of 8x45 minutes. The learning process is in accordance with the steps according to (Daryanto & Raharjo, 2012) in using the Project Based Learning model. Starting with an opening, namely prayer and checking student attendance, the researcher continued by providing apperception by asking questions related to the material to be discussed, and did not forget to convey the learning objectives to be achieved. Then in the first core activity carried out was the delivery of material, at the second meeting the delivery of material was continued with the selection of the project to be used and determining the schedule, at the third meeting the project was made and the teacher monitored the student's project, and the 4th meeting the results of the student's project were tested and the teacher gave reflection.

Based on research conducted by researchers using the Project Based Learning model treatment, researchers found that students' enthusiasm in learning through the Project Based Learning paradigm increased, as did their grades. R Square or often called R2 has a coefficient of determination of 0.882 or 88.2%. The Project Based Learning paradigm influences 88.2% of students' learning interest scores. Other elements that influence the remaining 11.8% are

knowledge in the form of various student understanding abilities, the individual cognitive level of each student, and contextual conditions.

The increase in learning interest is caused by the Project based learning model which is packaged attractively during learning. The use of models that are packaged in an attractive and interactive way has proven effective in improving student grades. The Project based Learning model is specifically designed to allow students to collaborate and learn from their mistakes directly, thereby increasing their interest and learning outcomes. The interactive nature of the Project Based Learning Model encourages collaboration between students, which can increase their motivation and enthusiasm for learning.

Based on the explanation, it is clear that the Project Based Learning learning model is one of the variables that influences the learning interest of class 11 IPS 4 students of SMAN 1 Baros. Previously, learning was only carried out by teachers, making students bored and bored. Students become more involved and get better learning outcomes after using the Project Based Learning paradigm. Because there are steps in the Project Based Learning learning model that can support the sustainability of the teaching and learning process to be more interesting and enjoyable, so that students are more interested in understanding history while improving their learning outcomes as much as possible.

This is in line with the theory put forward by Daryanto and Raharjo that the Project Based Learning model is an educational approach that begins with problems to collect and combine new information based on actual experience and action. Likewise with the research conducted by Widowati (2015) "The Effect of Implementation of the Project-Based Learning Model on the Interest in Learning History of Class X Students of Sma Negeri 1 Gubug in the 2014/2015 Academic Year". The results showed that there was an increase in student learning interest from before the implementation of the Project Based Learning model.

To answer the formulation of the problem related to the influence of the project based learning model on the learning interest of class 11 social studies 4 students in the history subject, an independent sample t-test hypothesis test was used by calculating the posttest value. However, before that, a prerequisite test was needed, namely the normality test and the homogeneity test so that the data could be calculated using the independent sample t-test. The researcher found that the project-based learning model (X) had a significant influence on learning interest (Y) (Sig value> 0.000 <0.05), with a calculated t value of 16.154. The number of students = 37 with a significance level = 0.05

obtained t table = 1.687, then the calculated t value of 16.154> t table 1.687, then H_0 is rejected and Haα is accepted, so it can be concluded that the first hypothesis is accepted which means that the project-based learning model (X) has a positive influence on learning interest (Y). The coefficient value of 93.9% shows that the Project Based Learning model (X) has a strong influence on interest (Y) in the regression coefficient interval.

In collecting information about the influence of the project-based learning model on interest in learning history in class 11 IPS 4, the researcher used a non-test instrument in the form of a questionnaire with 24 statements based on indicators of interest in learning, including feelings of pleasure, student interest, student acceptance, and student involvement.

This study includes the results of data analysis that show how students' interest in learning affects student learning outcomes. This is in accordance with Sardiman's belief (2007:95) that interest plays an important role in learning in the school environment. Because this interest is a driving factor that directs a person's attention to certain people, objects, or actions. Interest is also a crucial aspect in ensuring student learning success.

Project-based learning is implemented in six steps: determining the basic question (Start With the Essential Question), designing a project plan (Design a Plan for the Project), preparing a schedule (Create a Schedule), monitoring students and project progress (Monitoring Students and Project Progress), testing the results (Assessing Results), and evaluating the experience. At each level of learning, the project-based learning approach can increase students' interest in history courses by fostering their interest, attention, enjoyment, and involvement in planning, developing, implementing, and presenting the products they create. During the learning process, children become more enthusiastic, actively involved, and work together in their friend groups.

Project-based learning approaches can place significant focus on problem solving as a collaborative effort carried out during the learning process over a period of time, and by using a strictly adhered to learning plan, students are guided to achieve specific goals and learning outcomes. In accordance with the syntax of the project-based learning paradigm, it can increase students' enthusiasm for learning so that it has an impact on their learning outcomes. Interest is an internal trait that influences learning outcomes. This is in accordance with the belief of Slameto (2003:57) who states that interest in learning has a significant influence on learning outcomes, because if the learning

material studied does not match the student's interests, the student will not be able to learn. Students who learn without interest will be lethargic and will not find joy in participating in learning.

Before implementing the Project Based Learning model, teachers still conducted education using the lecture method, which caused students to be passive in the learning process and less enthusiastic in learning. The findings of the simple linear regression test analysis showed that there was an influence between the Project Based Learning Model on Students' Interest in Learning History, with a Product Moment correlation coefficient value of 0.939 in the strong group. This means that the Project Based Learning Model has an effect on the learning interest of grade 11 IPS 4 students in the History curriculum. The use of the Project Based Learning Model will improve students' ability to learn, not only just memorizing, but also creating a product through the process of analysis and management.

Learning model activities can arouse children's interest in thinking and working independently. This technique will attract children's attention to learn more about history. When compared to constructivism, Vygotsky's learning theory remains consistent with Jean Piaget's theory which states that intellectual growth occurs when students are faced with new and difficult experiences and try to solve problems that arise from these experiences. This new experience will stimulate mental development which is predicted to bring about changes in understanding.

Learning activities based on the Project Based Learning model focus on planning, scheduling, and delivering project results to solve problems in people's lives in order to create a sense of responsibility, discipline, and cooperation with others. Ultimately, all learning activities are intended to help students understand the content of the learning and create better student attitudes in accordance with the teacher's other goals, namely educating.

Learning models and interests are two attributes that are expected to help students improve their learning outcomes. Based on these activities, the process of implementing the learning model is expected to increase students' interest in studying history, with the aim of improving and maintaining students' history subject scores. This study found that the project-based learning paradigm helps students become more interested in studying history. Therefore, learning models are needed not only by teachers but also by students, because learning models will help students understand the material and teachers communicate history subject material more effectively, increase interest in learning and

encourage students to achieve good learning outcomes.

CONCLUSION

Based on the findings and discussion, it can be concluded that the implementation of the Project Based Learning model in history learning at SMA Negeri 1 Baros has been successful and in accordance with the steps outlined by the researcher in the syllabus and learning implementation plan. The results of this study can be seen from the results of a simple regression test which shows a calculated t_{value}= 16.154 while t_{table}= 1.687 with a significance level of 0.05, because t_{count}> t_{table}, then the regression has an effect. This means that the implementation of the Project-Based Learning model has an effect on students' interest in learning history. The coefficient of determination obtained = 0.882. This means that the student's learning interest score is 88.2% influenced by the Project-Based Learning model, while the remaining 11.8% is influenced by other factors, such as students' understanding ability, individual cognitive level of each student, and contextual conditions.

REFERENCES

Agus Purnomo, dkk. (2022). *Pengantar Model Pembelajaran*. Lombok Tengah: Yayasan Hamjah Diha.

Arifin, Z. (2010). *Evaluasi Pembelajaran Prinsip, Teknik, Prosedur*. Bandung: PT: Remaja Rosakarya.

Helmiati. (2012). *Model Pembelajaran*. Yogyakarta: Aswaja Pressindo.

Leli Halimah, I. M. (2022). *Project Based Learning untuk Pembelajaran Abad 21*. Bandung: PT Refika Aditama.

Leo Agung, S. W. (2013). *Perencanaan pembelajaran sejarah*. yogyakarta: ombak.

Priansa, D. J. (2017). *Pengembangan Strategi dan Model Pembelajaran*. Bandung: CV Pustaka Setia.

Ratna Wijiyati, dkk. (2021). *Metode Penelitian Kuantitatif*. Lumajang: Widya Gama Press.

Septiyaningsih, I. C. (2016). Pengaruh Pemanfaatan Penugasan Berbasis Proyek Tentang Sejarah Kota Lama Terhadap Motivasi Belajar Sejarah Kelas XI SMA Negeri 3 Semarang. *Indonesian Journal of History Education*, *4*(1), 17–24.

Shayab, O. A. K. (2024). Pengaruh Media Pembelajaran Slido terhadap Minat Belajar Sejarah Siswa pada Materi Pendudukan Jepang di Kelas XI IPS 5 SMAN 9 Tasikmalaya. *King Jurnal Sejarah Indonesia*, *1*(1).

Sugiyono. (2015). *Metode Penelitian*. Bandung: Alfabeta.

Sulisworo, D. (2010). *Konsep Pembelajaran Project Based Learning*. Semarang: ALPRIN.

Sumarno. (2019). Pembelajaran kompetensi abad 21 menghadapi era Society 5.0. *Prosiding SEMDIKJAR (Seminar Nasional Pendidikan Dan Pembelajaran)*, *3*, 272–287. http://ojs.semdikjar.fkip.unpkediri.ac.id/index.php/SEMDIKJAR/article/view/28

Takenaka, H., & Soga, M. (2019a). Development of a support system for reviewing and learning historical events by active simulation using AR markers. *Procedia Computer Science*, *159*, 2355–2363. https://doi.org/10.1016/j.procs.2019.09.410

Takenaka, H., & Soga, M. (2019b). Development of a support system for reviewing and learning historical events by active simulation using AR markers. *Procedia Computer Science*, *159*, 2355–2363. https://doi.org/10.1016/j.procs.2019.09.410

Tubagus Umar Syarif Hadi Wibowo, dkk. (2024). Persepsi siswa Terhadap Mata Pelajaran Sejarah. *Cendikia: Jurnal Pendidikan dan Pengajaran*, 111-119.

YILDIRIM, G., ELBAN, M., & YILDIRIM, S. (2018). Analysis of Use of Virtual Reality Technologies in History Education: A Case Study. *Asian Journal of Education and Training*, *4*(2), 62–69. https://doi.org/10.20448/journal.522.2018.42.62.69