



**THE EFFECT OF METACOGNITIVE READING STRATEGY
PQ4R ON STUDENTS' UNDERSTANDING OF HOTS
COMPREHENSION THROUGH HYBRID LEARNING IN
VOCATIONAL SCHOOL**

THESIS

BY

**M. MAFAZY
22002073041**



**UNIVERSITY OF ISLAM MALANG
POSTGRADUATE PROGRAM
ENGLISH LANGUAGE EDUCATION STUDY PROGRAM
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ABSTRACT

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Reading skill is an important aspect in developing students' competence in English. According to the National Education System Law Number 20- 2003, the Indonesian educational system aims to develop higher-order thinking skills. High order thinking skills allow an individual to maintain their new knowledge and information to respond in a new paradigm. Students must be able to hone their information individually, deliberately and actively based on their cognitive capacities. The *Covid-19* in Indonesia has changed over the past few months to the point that it now has an effect on education, particularly for the teaching and learning process. One of the learning models used by the teacher is hybrid learning, which combines face-to-face instruction and online learning. Therefore, this study aimed to develop metacognitive reading strategy with a hybrid learning model.

This study investigated the effectiveness of metacognitive reading training on the student high order thinking skills reading comprehension with a hybrid learning model. The training involved two concrete goals student able to analyze and evaluate the type of high order thinking skills questions. To achieve the purpose of this study, a quasi-experimental design was selected with the experimental group being given metacognitive reading strategies training with PQ4R style, namely; preview, question read, reflect, recite and review, and the control group being treated in a conventional strategy.

The instrument used in this research is a test that included a reading test, The subject were students of two classes in a vocational school in East Java, Indonesia. Class X-TKJ 1 and X-TKJ 2 each had 26 students and 25 students, respectively, making a total population sample of 51 for this study.

The results showed that there was a better effect on learning by using a metacognitive reading strategy in understanding of HOTS comprehension and being able to answer properly and correctly by showing the results of Independent T Test analysis with a significance level of $0.002 < 0.05$ with an T value of 3.304. So the metacognitive reading strategy is good to use in hybrid learning because students get fresh perspectives and new reading experiences.

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I hope this work can contribute to the world of EFL, especially in Indonesia.

The Author

CHAPTER I

INTRODUCTION

This chapter presents the information related to the research being undertaken. It consists of background of the study, research problem, research's objective, significance of study, scope and limitation of the study.

1.1 Background of the Study

Education has entered a new phase in the twenty-first century, in which every student learns the ability to comprehend complicated problems through broad thinking. One of the primary subjects, and perhaps the most important subject, that teachers should teach to their learners is English. Even though this time for the national exam is abolished, students are still required to have solid knowledge throughout the learning process. It is critical to create reading materials for Vocational High School students. It might be a different way for students to strengthen their English skills, particularly their reading competence.

Reading skill is also an important aspect in developing the students' competence in English. It can help individuals to improve their English abilities in different ways. Reading often deals with long texts (Noho et al. 2018). However, many learners become bored almost immediately after receiving such letters. Furthermore, boredom can quickly lead to a loss of drive or a lack of attentiveness.

Vocational High School, unlike General School, provides an educational program in which individuals are trained in their chosen field. Students in

vocational high schools are required to be well-educated and experienced in their field of study (Hapsari et al. 2019). Vocational high school students will be guided and nurtured, in this case depending on their personal interests.

Vocational students are essentially manufactured to be ready to work and compete in the commercial and industrial worlds. With the provisions that children acquire at school, students will have a significant advantage in competing with others. This has an impact on their future, because vocational students are often supposed to be available to work after graduation, though some students also continue higher education levels.

Teaching English in vocational high schools is not like teaching English in senior high schools. This relates to the goals of teaching at both the elementary and secondary levels. The use of appropriate learning strategies can improve teaching quality and productivity (Khoiriah, 2015, p. 2). In fact, there are many less diversified ways to teach English teachers in the field, and the majority of teachers still use teacher centre learning strategies. Teachers are also still unable to use the students' abilities. Students may become more passive and less motivated to think creatively as a result of this (Hidayah et al. 2018). Furthermore, students' poor comprehension is attributable to a lack of knowledge on how to study effectively. As a result, students' awareness of how to meet learning objectives is still low.

The Indonesian Educational System aims to develop higher-order thinking skills of learners as a macro term, according to the National Education System

Law Number 20 of 2003. It is assumed that the teacher's goal and purpose is to provide a learning environment in which students can improve their ability to acquire kind of information, with higher-order thinking skills being the primary focus of classroom education. The curriculum has transformed from classroom learning, which demonstrates lower-order thinking skills (LOTS), to higher-order thinking skills (HOTS) that focuses on students' development (Susanti, et al. 2020). Through its competencies, the current Indonesia curriculum, curriculum 2013, is expected to produce students which are creative, productive, and imaginative. Therefore, every student should not only be innovative, but also more competent in all elements of the learning process, efficient in time management, and capable of developing anything.

High order thinking skills (HOTS) are a vital component of someone's critical thinking and problem-solving skills, earning them one of the most necessary competencies to develop. Mursyid and Kurniawan (2019) stated that several researchers agree that both higher-order thinking skills and students' involvement are linked to increasing their knowledge. In this situation, students who study through critical thinking will be able to display the ability to do well in class and explore the learning process with no effort. When someone or students has higher-order thinking skills, they can assess and evaluate all of the skills and abilities they've established and apply them to solving the problem. This might be determined that these students address a variety of difficulties by employing higher-order thinking abilities, particularly when performing activities that

demand reasoning and analysis. Then, students can also put and see what they have learned and apply and improve it.

Every student is required to be not necessarily able to fully comprehend a complex learning issue, but also to be more creative and innovative. Being able to master knowledge is one of them. Comprehending the questions using the high order thinking skills model can motivate students to use high-level thinking, so students not only focused on the answers but also students focused on the text, students had from memorization without understanding the science ideas. The use of high order thinking skills in the educational process, especially in teaching and learning, is significant. Students that use high order thinking skills are not only able to answer every question given by the teacher but also understand and analyse a problem. The ability of learners to think while learning might have an effect on the achievement of the learning process (Mursyid & Kurniawati, 2019). So that if students can apply anything including learning material through critical thinking, it is not difficult for them to get excellent learning results.

High order thinking skills allow an individual to maintain their new knowledge and information to respond in a new paradigm. This condition is also enhanced by the use of a complicated teaching-learning procedure to help students enhance their higher-order thinking skills. It is not acceptable for Indonesian students' preferences to focus on instructors for help and hear from teachers on a daily basis. Based on their competencies, each student has different abilities. Some students might absorb something in a short period of time, while the others require more time to comprehend what they are learning. Students will become

passive learners as a result of this environment, which will encourage them to have low intellectual ability. Teachers do not provide opportunities for the students to use their higher-order thinking skills. Furthermore, when instructors assess students, they do not generate issues that are relevant to problem-solving or real-life situations. So far, many teachers have given a test without paying attention to critical thinking elements, resulting in some students being unable to progress through the learning process. The evaluation is only at the low order thinking skills phases, such as declaring, demonstrating, and accomplishing. Teachers lack knowledge of things that require analysing or assessing, making it difficult for them to measure students' higher-order thinking abilities (Retnawati et al. 2016). Students must be able to hone their information individually, deliberately and actively, based on their cognitive capacities, as part of the continual learning process. In this situation, the learning strategy applied by the teacher is less able to increase the awareness of students in regulating the thinking process.

Indonesia has been impacted by the *COVID-19* epidemic, particularly in the education sector. In general, direct learning activities in the classroom must be replaced with online learning in present formal education. All learning activities are carried out from their respective homes online, according to the circular letter of the Minister of Education and Culture of the Republic of Indonesia number 4 of 2020 addressing policies in carrying out educational activities during the *COVID-19* pandemic. Teachers and students can use online learning to implement without having to meet face-to-face in this situation (Maryati & Brataningrum, 2021).

The *Covid-19* in Indonesia has changed over the past few months to the point that it now has an effect on education, particularly for the teaching and learning process. One of the learning models used by the teacher is hybrid learning, which combines face-to-face instruction and online learning. Many teachers in Indonesia have used hybrid learning to help the educational process at all grade levels (Denni & Nandang, 2022). It can be clarified and supported that hybrid learning combines online and in-person instruction (Maurice & Hamad, 2021). Therefore, learning will continue as we are currently in the last stretch of the school year and be ready to take for the final exams.

The implementation of online learning certainly has many challenges and obstacles, which is in the learning process. There are many differences between the online learning process with the face-to-face learning process. Starting with the learning period and the instructional tools employed. Both teachers and students have problems they faced due to various limitations in online learning. Based on how the teacher delivered the information, how the students responded to it, and how well they understood it. Of course, the teacher must select a suitable and effective learning tool for the class.

One of the popular learning media and widely used by teachers and students is Google classroom. This application is a platform that can improve the work of teachers and students. This coincides with Suci and Gustin (2020), using Google Classroom's features helped teachers work better and helped students manage their assignments in a paperless environment.

One of the most significant aspects of increasing student learning outcomes is using metacognitive reading strategies (Muhid et al. 2020). Metacognitive reading strategies refer to require activities of monitoring cognitive processes in learning and are knowledge about how to learn on their own. So that students can comprehend their own thinking process through metacognitive activities.

Choosing the right strategy is the key in improving students' comprehension (Mistar et al. 2016). Students can improve grasping literal and inferential comprehension from given passages which includes predicting, text mapping and summarizing. Metacognitive skills are important for students because these abilities are related to strategies for how students learn. This ability can develop optimally through practice so that it becomes a habit with the help of the instructor (Karbalaeei, 2010). One effective way is through learning in the classroom.

Increase the capability, the purpose of this paper is to provide factors that can influence students' comprehension on high order thinking skills. This study stands out from others since it shows how metacognitive reading skills can help students in comprehending current events more fully. In addition, many previous research used metacognitive strategy in the classroom, but in this study was carried out using a learning model with a hybrid learning model.

1.2 Research Question

Based on the background information provided above, this study focuses on the following issues:

1. Do students taught by metacognitive reading strategy PQ4R have better comprehension on high order thinking skills than students taught by conventional strategy?

1.3 Research Objective

To answer the research problem above, the purpose of this research is to try to measure the effectiveness of metacognitive reading strategy PQ4R for students of vocational high school in Sidoarjo in understanding of high order thinking skills' comprehension.

1.4 Hypothesis

Based on the statement above, the following hypothesis is proposed in this study:

1. Students who are taught by metacognitive reading strategy PQ4R have better comprehension on high order thinking skills than student who are taught by conventional strategy.

1.5 Significance of the Study

1. For Students

The findings of this research are to help the students to understand the typical of high order thinking skills' question. It hopes students can develop the strategies to improve their higher- order thinking skills.

2. For the Teacher

The finding of this research is to help English teachers to use the metacognitive reading strategies to help the students improve their higher-

order thinking skills in understanding the typical of high order thinking skills' question.

1.6 Scope and Limitation

This research focused on investigating the effectiveness of metacognitive reading strategies to enhance the students' understanding on hots' question. Besides, the limitation of this research is to increase understanding of the hots question which includes 2 parts, namely analysing and evaluating.

This research conducted in two classes of SMK Senopati in Sidoarjo with the participant from 10th grade in the academic year 2021-2022. The researcher took classes of 10 TKJ-1 and 10 TKJ-2 from the network department at SMK Senopati. By the information for 10 TKJ-1, which have 26 students, and a class of 10 TKJ-2, which have 25 students. The total number of students is 51 based on these details.

1.7 Definition of Key Terms ★★★★★★

In order to avoid the misunderstanding on the context of the study, the author defined the following terms:

1. HOTS Question is a typical question that requires a high-level analysis to encourage high-level reasoning in order to fixed on one pattern of answers.
2. Metacognitive reading strategy is a student's awareness of the strategies they use in understanding texts

3. PQ4R is metacognitive strategies that encourage students to preview, question, read, reflect, recite and review the text to be understood and mastered in their own way.



CHAPTER VI

CONCLUSIONS AND SUGGESTIONS

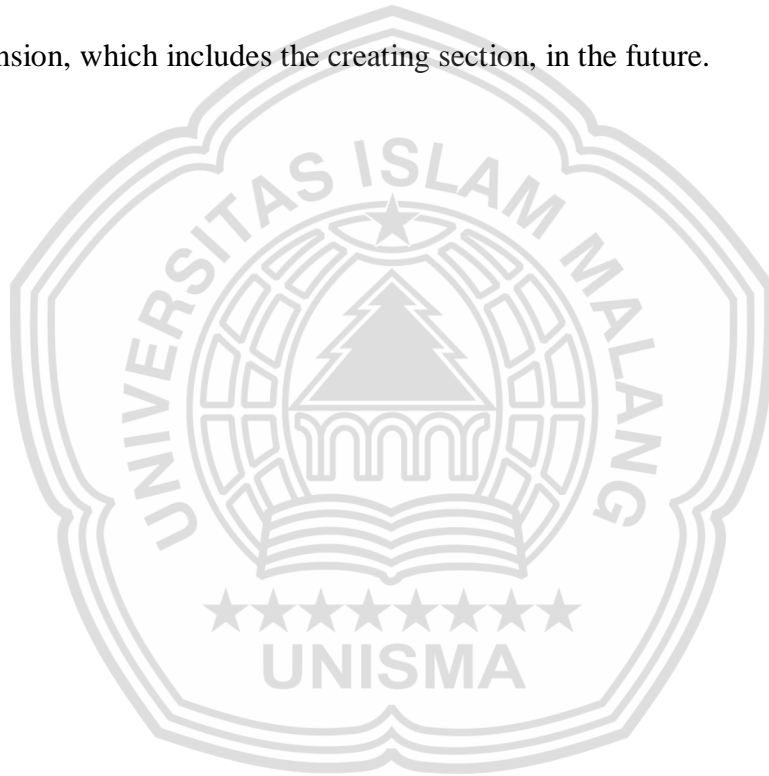
This chapter provides an overview of the study's research. The description involves the conclusion and suggestion.

6.1 Conclusion

The study's findings and subsequent discussion allow us to draw the conclusion that the metacognitive reading strategy training have a better impact on understanding of high order thinking skills comprehension in English learning in class X at SMK Senopati Sidoarjo. This is demonstrable by comparing the average student scores obtained after instruction in the experimental and control classes. Additionally, the findings of various T test in the control class and experimental class with T results of 3.304 and a significant level of $0.002 < 0.05$, then H_a is accepted and H_o is rejected, also demonstrate the impact of metacognitive reading strategy. In addition, metacognitive reading strategies are good to use in hybrid learning because students get fresh perspectives and new reading experiences. Because in hybrid learning students do not get full attention from the teacher so students will be creative with their respective abilities. Thus, the metacognitive reading strategy training can enhance students in understanding high order thinking skills comprehension.

6.2 Suggestion

Based on the findings of the research discussed above, the researcher makes recommendations for the readers, particularly teachers, to use the metacognitive reading strategy model as an alternative in the learning process by modifying the goals and required learning resources. For the further researcher advises pursuing more extensive research on the hot comprehension, which includes the creating section, in the future.



References

- Abi Raad, M., & Odhabi, H. (2021). *Hybrid Learning Here to Stay!* *Frontiers in Education Technology*.
- Absida, N., Aziz, Z., & Usman, B. (2017). *Improving Reading Comprehension using Metacognitive Strategies*. *English Education Journal*.
- Afandi, & Sajidan. (2018). *Pemberdayaan Keterampilan Berpikir Tingkat Tinggi Ditinjau Dari Aspek Epigenetik Dan Implikasinya Dalam Pendidikan*. Seminar Nasional IPAIX 1 Universitas Negeri Semarang.
- Amalia, E. R., Budiana, N., Hilaliyah, H., Muhid, A., & Wajdi, M. N. (2020). *The Effect of Metacognitive Strategies Implementation on Students' Reading Comprehension Achievement*. *International Journal of Instruction*.
- Ariyana, Y., Bestary, R., Pudjiastuti, A., & Zamroni. (2018). *Buku Pegangan Pembelajaran Berorientasi pada Keterampilan Berpikir Tingkat Tinggi Program Peningkatan Kompetensi Pembelajaran Berbasis Zonasi*. Jakarta: Direktorat Kementerian Pendidikan dan Kebudayaan.
- Ayu, A. N., Retnaningdyah, P., Susanti, A., & Trisusana, A. (2020). *Improving EFL Students' Higher Order Thinking Skills Through Collaborative Strategic Reading in Indonesia*. *International Journal of Asian Education*, I (2).
- Bećirovic, S., Brdarević-Čeljo, A., & Sinanović, J. (2017). *The use of metacognitive reading strategies among students at International Burch University: A case study*. *European Journal of Contemporary Education*, VI (4).
- Brataningrum, N. P., & Maryati. (2021). *Persepsi Siswa Terhadap Penggunaan Media Pembelajaran Google Classroom Dalam Pembelajaran Daring Pada Mata Pelajaran Ekonomi di SMA Negeri 3 Bantul*. *Jurnal Pendidikan Ekonomi dan Akuntansi*.
- Buriro, G., Channa, M., Nordin, Z., & Simming, I. (2017). *Lenses on metacognition: Teachers' perceptions toward strategies in reading in a Pakistani context*. *Psychology in Russia: State of the Art*.
- Elyono, D., Hapsari, D. P., & Rochsantiningasih, D. (2019). *Developing and Using English Teaching Materials in Vocational High School*. *English Education*.
- Fairusi, D., Milama, B., & Nurjanah, A. (2017). *Students Metacognitive Level on Solving Chemistry Problems*. *TARBIYA: Journal of Education in Muslim Society*.

- Farumananda, F. P., Hidayah, N., Made, N., & Putra, D. (2018). *Problem Based Learning with Metacognitive Strategy to Improve Concept Understanding*. Journal of Innovative Science Education.
- Firmansyah, Y., Khoerul, F., Lestari, Z., Noviantoro, N., & Syahmadi, H. (2021). *Writing Responses to Controversial Topic in ELT: A Case of High Order Thinking Skill Development in an Indonesian Vocational School*.
- Flavell, H. (1979). *Metacognition and Cognitive Monitoring: A New Era of Cognitive-Developmental inquiry*. American Psychologist.
- Get English Now*. (2018). Retrieved from <https://www.getenglishnow.org/2020/09/10-examples-of-biographical-recount-text.html>
- Gurning, B., Lubis, N., & Siregar, M. (2018). *Thinking Order Skills of Reading Comprehension Question in English Textbook for Eleventh Grade of Senior High School Based of Bloom's Taxonomy*. GENRE Journal of Applied Linguistics of FBS Unimed.
- Gustin, E., & Ramadhani, S. (2020). *Tanggapan Mahasiswa terhadap Pemanfaatan Google Classroom sebagai Media Pembelajaran Online*. JUSTIN (Jurnal Sistem dan Teknologi Informasi).
- Hadi, S., Nugraha, A. C., & Retnawati, H. (2016). *Vocational high school teachers' difficulties in implementing the assessment in curriculum 2013 in Yogyakarta Province of Indonesia*. International Journal of Instruction.
- Hanswaty, N., Hasanuddin, F., & Rasuna, T. (2018). *Developing supplementary English reading materials for Vocational High School*. International Journal of Humanities and Innovation (IJHI).
- Hassan, R., Heong, Y., Kiong, T., Mohamad, M., Othman, W., & Yunos, J. (2012). *The Needs Analysis of Learning Higher Order Thinking Skills for Generating Ideas*. Procedia - Social and Behavioral Sciences.
- Ismunandar, D., & Nandang. (2022). *Respon Mahasiswa pada Pembelajaran Hybrid Pasca pandemi Covid- 19*. Jurnal Penelitian Matematika dan Pendidikan matematika.
- Iwai, Y. (2011). *The Effects of Metacognitive Reading Strategies: Pedagogical Implications for EFL/ESL Teachers*. Reading.
- Kamarul, M. K., Nizam, H. I., & Reza Ahmadi, M. (2013). *The importance of metacognitive reading strategy awareness in reading comprehension*. English Language Teaching.

- Karbalaei, A. (2010). *A Comparison of Metacognitive Reading Strategies Used by EFL and ESL Readers*. The Reading Matrix.
- Keeler, A., & Miller, L. (2015). *50 Things you can Do with Google Classroom*. San Diego:Dave Gurgess Consulting
- Kemendikbud. (2015). *Penyusunan Soal Higher Order Thinking Skills*. Jakarta:Direktorat Pembinaan SMA.
- Khoiriah, T. (2015). *Pengaruh Strategi Belajar Metakognitif terhadap Hasil Belajar Siswa Pada Konsep Sistem Pencernaan Pada Manusia*.
- Knowly. (2020, July Wednesday).
<https://www.onlineassessmenttool.com/knowledge-center/assessment-knowledge-center/assessment-vs-evaluation/item10642>. Retrieved from
<https://www.onlineassessmenttool.com/>:
<https://www.onlineassessmenttool.com/knowledge-center/assessment-knowledge-center/assessment-vs-evaluation/item10642>
- Kurniawati, N., & Mursyid, M. (2019). *Higher Order Thinking Skills Among English Teachers Across Generation in EFL Classroom*. English Review: Journal of English Education.
- Latief, M. A. (2017). *Tanya Jawab Metode Penelitian Pembelajaran Bahasa*. Malang:Universitas Negeri Malang.
- Latief, M. A. (2019). *Research Methods on Language Learning An Introduction*. Malang: Universitas Negeri Malang (UM PRESS).
- Mahanal, S. (2019). *Asesmen Keterampilan Berpikir Tingkat Tinggi*. Jurnal Penelitian dan Pengkajian Ilmu Pendidikan: e-Saintika.
- Maulana, H. A. (2017). *Pelatihan Pengolahan Data Hasil Penelitian Mahasiswa Jurusan Tadris Matematika Semester VI (SPSS)*. Padang.
- McMahon, W. W. (2009). *Higher Learning, Greater Good: The Private and Social Benefits of Higher Education*.
- Meniado, J. (2016). *Metacognitive Reading Strategies, Motivation, and Reading Comprehension Performance of Saudi EFL Students*. English Language Teaching.
- Mistar, J., Zuhairi, A., Yanti, N. (2016). *Strategies Training in the Teaching of Reading Comprehension for EFL Learners in Indonesia*. English Language Teaching.

- Muryanto. (2020, November 7). Retrieved from <https://sambiroto.ngawikab.id/2020/11/dokumentasi-pengertian-dan-reduksi-pemaknaannya-kini>.
- Nafiati, D. A. (2021). *Revisi taksonomi Bloom: Kognitif, afektif, dan psikomotorik*. Humanika.
- Oktaviana, D., & Susiaty, U. (2020). *Development of Test Instruments Based on Revision of Bloom's Taxonomy to Measure the Students' Higher Order Thinking Skills*. JIPM (Jurnal Ilmiah Pendidikan Matematika).
- Puri, M. (2021, Februari 19). *Ruang Guru*. Retrieved from https://roboguru.ruangguru.com/forum/bandung-sea-of-fire-the-bandung-sea-of-fire-was-a-historical_FRM-RLRA0LH4
- Rabail Alam, T. (2019). *Comparative Analysis Between Pre-test/Post-test Model and Post-test-only Model in Achieving the Learning Outcomes*. Pakistan Journal of Ophthalmology.
- Rais, M. A. (2022, July Friday). *English Academy*. Retrieved from <https://tinyurl.com/rshjnenv>
- Sarimanah, E. (2018). *Model Pembelajaran Membaca Berbasis Strategi Metakognitif PQ4R (Preview, Question, Read, Reflect, Recite & Review)*. Bogor: UIKA PRESS.
- Seepho, S., & Zhang, L. (2013). *Metacognitive Strategy Use and Academic Reading Achievement: Insights from A Chinese Context*. Electronic Journal of Foreign Language Teaching.
- Sinaga, D. (2022). *Studio Belajar*. Retrieved from <https://tinyurl.com/mw8we9hf>
- Sugiyono. (2010). *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R&D)*. Bandung: ALFABETA.
- Sukmadinata, N. S. (2008). *Metode Penelitian Pendidikan*. Bandung: PT REMAJAROSDAKARYA.
- Sutarto, H. (2017). *Articulation of High Order Thinking Skills in Competency-Based Instruction in Indonesia Vocational and Technical High School*. Atlantis Press.
- Teng, M. (2019). *The Benefits of Metacognitive Reading Strategy Awareness Instruction for Young Learners of English as A Second Language*.



Umami, M. (2018). *Penilaian Autentik Pembelajaran Pendidikan Agama Islam dan Budi Pekerti dalam Kurikulum 2013*. Jurnal Kependidikan.

