Improving Mathematics Learning Outcomes on Subtraction Material Using Canva-Based Learning Media for Grade 1 Elementary School Students

Yuliana Novitasari [1], Tyas Deviana [2], Arisita Widuri [3]
novitasariyuliana16@gmail.com[1], tyasdefiana@umm.ac.id[2],
arisita.widuri@gmail.com [3]
Muhammadiyah Malang University[1,2]
Kepatihan 1 State Elementary School, Tulungagung [3]

Abstrac: The aim of this research is to improve the learning outcomes of grade 1 students in mathematics subtraction material at SDN 1 Kepatihan Tulungagung which consists of 21 students. The research method uses classroom action research which uses the spiral model emphasized by David Hopkins, where there are four stages, namely planning, action, observation and reflection (Hopkins, 2011: 91). The data collection techniques used were, 1) Observation, 2) Test, 3) Documentation, 4) Interview, then quantitative descriptive analysis was carried out from the data obtained with the following results: 1) At the pre-cycle stage the class average value was 73, 8 with a classical completion percentage of 38.09%. 2) Then, in the first cycle stage, the average class score increased to 81.47 with a classical completeness percentage of 42.85%. 3) Furthermore, in the second cycle stage the class average increased to 91.8 with a classical completeness percentage of 85.71%. Based on the results of the research conducted, it can be concluded that the use of Canva-based learning media can improve mathematics learning outcomes in subtraction material for grade 1 students at SDN 1 Kepatihan Tulungagung.

Keyword: math, canva, learning outcomes

PRELIMINARY

Every school must compete to improve the quality of its education. Education in 2019 experienced turmoil due to Covid-19, so educators were required to carry out online learning. Online learning is learning that is carried out online over a distance or learning that is carried out by students wherever and whenever needed so as to avoid crowds which is considered as one way to implement social distancing (Handarini and Wulandari, 2020: 502). The implementation of online learning is still not fully understood by teachers and parents, giving rise to polemics that arise during implementation in the field (Supriyadi and Wiliyanto, 2021: 1668). According to Mukmin (2016:45) "the characteristics of children at primary school age range from 7-11 years. Children can think logically about concrete things, children's mental activities are focused on real objects or on various

events they have experienced." Therefore, when students receive online learning it is also less than optimal, due to obstacles experienced such as material not being delivered optimally or limited internet network quality which is unstable in certain areas. This continues until now, even though learning has been carried out face-to-face but students' abilities remain at a low level.

A lack of understanding of the material taught online causes students' ability to calculate, especially subtraction in class 1, to decrease so that student achievement of learning outcomes is less than satisfactory. At elementary school, mathematics often creates a frightening impression for most students. As a result, many students are reluctant to study mathematics in more depth. If students do not understand the basic material of mathematics, it is feared that these students will continue to experience difficulties in learning mathematics at the next level. Apart from that, during the lesson the teacher only provides concepts without accompanying examples of working on questions, making students feel difficult. Therefore, teachers who teach mathematics must always provide learning innovations so that students can capture learning optimally. One innovation that can be developed by teachers is through multimedia-based learning media.

Learning principles based on Minister of Education and Culture Regulation no. 22 of 2016 concerning basic and secondary education process standards, it is recommended that learning utilize information and communication technology to increase the efficiency and effectiveness of learning (Ministry of Education and Culture, 2016). The use of information and communication technology can be implemented in learning media. Several studies show that learning media plays a very important role in achieving students' learning goals (Anjarwati, Winarno, & Churiyah, 2016; Lin & Wu, 2016; Oyedele, Rwambiwa, & Mamvuto, 2013; Purwono, Yutmini, & Anitah, 2014). Learning media is really needed for students so that they can explore the surrounding environment so that theoretical learning can be more realistic (Widiyawati, 2017).

One of the successes in the learning process is the teacher factor (Rahmatullah et al., 2019). With qualified teacher human resources, learning will run smoothly and interestingly. Therefore, teachers are required to be able to master science and technology and learning strategies to use in the classroom (Ramli et al., 2018). An educator must be able to master the class, understand the character of students, and manage learning. With quality learning, you will get quality graduates too. The teacher's role in learning is only

as a facilitator and motivator. Teachers as facilitators and motivators must have competence in developing learning media that can foster students' enthusiasm for learning in understanding lessons (Yulianti, 2019).

With existing problems, researchers will provide a problem solving plan, namely the use of Canva-based learning media. Learning media is anything that can be used to channel messages from a teacher to students which can stimulate students' thoughts, feelings, concerns and interests so that the learning process occurs (Sobarningsih & Nurdiansyah, 2019:47). Lately, many people are using website-based learning media. One website that can be used to create learning media is Canva. According to Tanjung and Faiza (2019) in (Rainbow Line Journal, 2020:81) Canva is an online design program that provides various tools such as presentations, resumes, pamphlets, brochures, graphics, infographics, banners, bookmarks, bulletins, and so on. provided on the Canva website and application.

According to Hidayat (2020) in (Raaihani 2021:11) explains that the human brain can store various information in the form of words, colors and images. This means that Canva media will be more easily absorbed by the brain because Canva media is presented in the form of images, text format and data so that students can more easily understand the learning material. Initially, the learning outcomes of class 1 students were below average, so there was a need to improve the teacher's way of teaching to suit students' interests. Canva learning media is a digital learning media that keeps up with the times. By using learning media appropriate to the times, students will be interested in learning. Students need learning methods that suit their interests. This is the background to the problem of increasing student learning outcomes in reduced material.

Researchers distributed questionnaires to class 1 regarding their difficulties in understanding subtraction material. The results of the questionnaire stated that 65% of students experienced difficulties in mathematics subjects, especially subtraction material. At the pre-cycle stage, the criteria for class 1 students showed that they were lacking, as evidenced by the class average score of 73.8 and a classical completion percentage of 38.09%. The solution given to class 1 students' problems regarding subtraction material is by providing technology-based learning media, namely using Canva. The reason why this solution was chosen is because the class teacher teaches using a classical style which

can take students longer to understand the material presented. With these alternative solutions, class teachers can use them to solve these problems.

The aim of this research is to improve the learning outcomes of grade 1 students at SDN 1 Kepatihan Tulungagung by providing solutions to existing problems, namely providing learning using Canva-based learning media. With this innovation, it is hoped that student learning outcomes will improve, which understanding can be useful if students pursue education at the next level. Because previously the class teacher only provided classical learning without using varied learning media. Apart from that, researchers hope that this innovation can motivate teachers to continue creating innovative learning media.

METHOD

The research method uses classroom action research which uses the spiral model emphasized by David Hopkins, where there are four stages, namely planning, action, observation and reflection (Hopkins, 2011: 91). The location of the research was carried out at SD Negeri 1 Kepatihan Tulungagung which is located at Jl. PB. General Sudirman Gg. VII No. 2, Kepatihan, Tulungagung District, Tulungagung Regency, East Java Province, 66219. This research was carried out for 4 months from March to June 2023. The research subjects were 1st grade students at SD Negeri 1 Kepatihan Tulungagung for the 2022-2023 academic year, totaling 21 students. , a grade 1 teacher at SDN 1 Kepatihan Tulungagung and a civil service teacher as an observer.

There are two variables in this research, namely the independent variable in the form of Canva-based learning media, while the dependent variable is changes in student learning outcomes after receiving learning using Canva-based learning media. The data collection techniques used in this research are, 1) Observation, 2) Test, 3) Documentation, 4) Interview. To analyze the data, researchers used quantitative descriptive techniques. The value calculated is the class average value and the percentage of classical completeness at the pre-cycle, cycle I and cycle II stages. The class average score is obtained from the quotient between the sum of all student scores and the number of students in one class (Hutauruk and Simbolon, 2018: 126). Meanwhile, the percentage of classical completeness is taken from the number of students who have completed their

studies divided by the number of students in one class and then the result is multiplied by 100% (Yanti and Abdullah, 2017: 1015).

Indicators of success in this research are, 1) The research is said to be successful if the criteria for student learning success level is ≥ 75%. This success rate is based on the statement which states that if classical completeness reaches 75% then the research can be declared successful (Parahita et al., 2019: 123), and 2) The average class score obtained must be ≥ 75. The completeness limit has been adjusted to KKM that applies at SDN 1 Kepatihan Tulungagung.

RESULT

At this stage the researcher will provide a description of the results of the analysis and research data regarding improving mathematics learning outcomes in subtraction material using Canva-based learning media in class I of SDN 1 Kepatihan Tulungagung. In pre-cycle activities, researchers conducted interviews with the principal and class teachers of SDN 1 Kepatihan. Based on the results of interviews, it was found that there were still many class I students who scored below the KKM in mathematics subtraction material. This happens because of the stereotype of those who are afraid of mathematics lessons so that they have difficulty understanding the material, which makes learning not optimal and student learning outcomes are low. Researchers distributed questionnaires to class 1 regarding their difficulties in understanding subtraction material. The results of the questionnaire stated that 65% of students experienced difficulties in mathematics subjects, especially subtraction material.
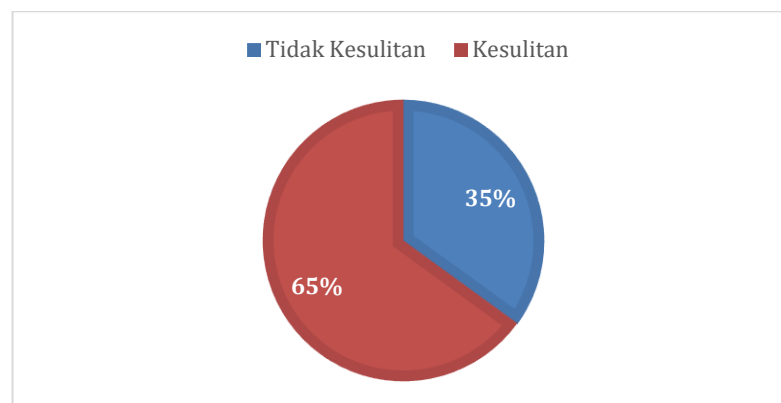

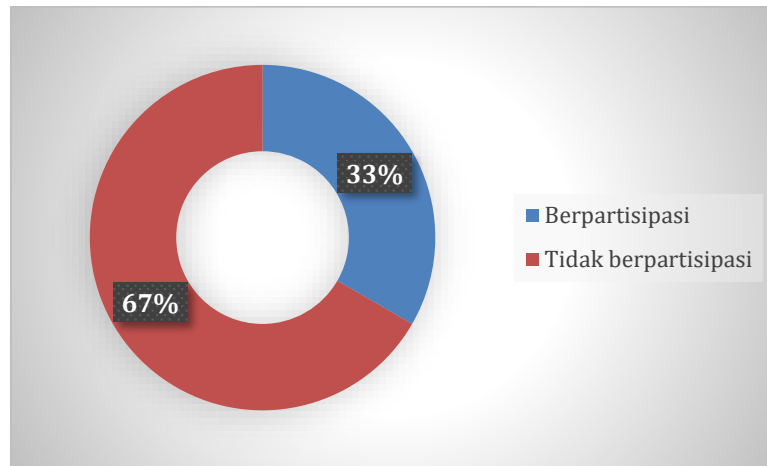**Figure 1. Student Questionnaire Results for Mathematics Subtraction Material**

Figure 2. Percentage of Student Participation in Canva-Based Learning Media in Cycle I
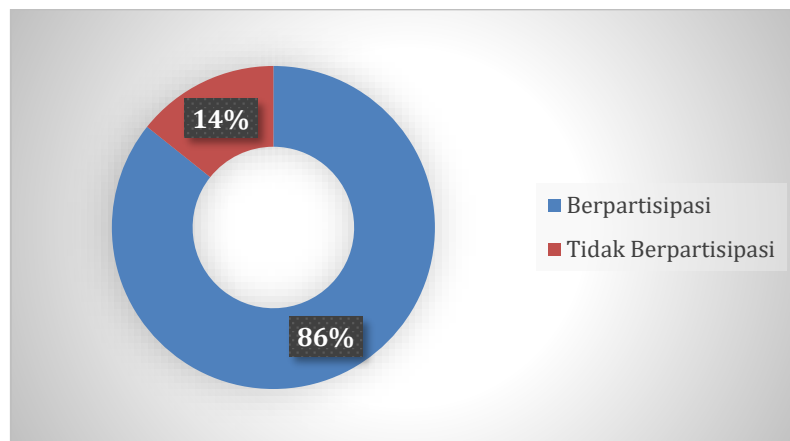

Figure 3. Percentage of Student Participation in Canva-Based Learning Media in Cycle II

Tabel 1

Student Learning Results in Mathematics Subtraction Material

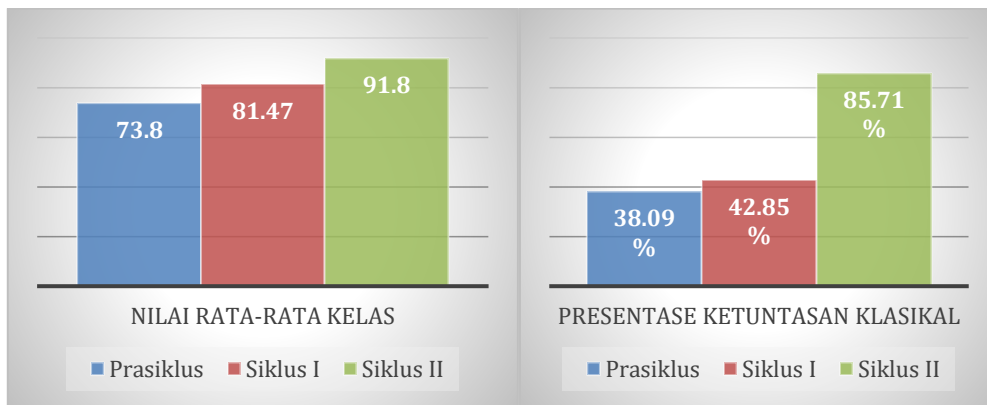| Treatment	Criteria	Class Average	Classical Completion Percentage
Precycle	Poor	73,8	38,09%
Cycle I	Fair	81,47	42,85%
Cycle II	Very Good	91,8	85,71%

Figure 4. Student Learning Results in Mathematics Subtraction Material

DISCUSSION

At the pre-cycle stage, researchers conducted a pretest regarding reduction material. Based on the pretest results, it can be seen that 9 students got scores above the KKM. The average class score is 73.8 with a classical completion percentage of 38.09% which is classified as poor (Yanti and Abdullah, 2017: 1015) (can be seen in Table 1). The low student learning outcomes are because the methods used by teachers are still classical and students feel bored with such methods. The solution provided as a reflection of pre-cycle improvements is using Canva-based learning media without audio. It is hoped that variations in learning media will attract interest in learning from grade 1 students.

After cycle I, it was carried out by providing subtraction learning using Canva-based learning media. There was an increase in student learning outcomes. Where students who got a score above the KKM (ie 75) became 14 students. The average class score is 81.47 with a classical completion percentage of 42.85% which is classified as sufficient (Yanti and Abdullah, 2017: 1015) (can be seen in Table 1 and Figure 2). It was felt that the improvement in cycle I was still not optimal because there were some students who did not pay enough attention when the teacher delivered material using Canva-based learning media because this media did not have audio. In cycle II stage, different learning media will be given but still using the Canva application accompanied by audio that supports it. Because looking at cycle I, students have started to be interested in Canva-based learning media, but some are still busy because the learning media is not equipped with audio. By providing additional audio, it is hoped that grade 1 students will become

more interested in developments in the learning media used by teachers so that interest in learning increases and learning outcomes also increase.

In cycle II, there were 18 students who got a score above the KKM (ie 75). The average class score is 91.8 with a classical completion presentation of 85.71% which is classified as very good (Yanti and Abdullah, 2017: 1015) (can be seen in Table 1 and Figure 3). In Table 1, students are increasingly enthusiastic about participating in learning because the learning media has been revised to become an interesting Canva learning media, namely there are several combinations of color and movement as well as audio that supports the material so that it can help students understand subtraction material in mathematics and can be proven from the results. increased student learning.

The results of research conducted in class I of SDN 1 Kepatihan Tulungagung using interactive multimedia in the pre-cycle, cycle I and cycle II stages stated that there was an increase in student learning outcomes in mathematics subtraction material which can be seen from the class average score and the percentage of classical completion. In detail, the average class score at the pre-cycle stage was 73.8 with a classical completion percentage of 38.09% which was declared insufficient. Furthermore, in the first cycle stage, the class average score was 81.47 with a classical completeness percentage of 42.85% which was declared sufficient. Then, in the second cycle stage with details of the average class score of 91.8 with a classical completion percentage of 85.71% it was declared very good (can be seen in Figure 4).

The results obtained are in line with research conducted by the group of Rahmatullah, Inanna, and Andi Tenri Ampa entitled "Audio Visual Learning Media Based on the Canva Application" which states that audio visual learning media based on the Canva application is very suitable for use in learning. Its use is very effective whether used offline or online. Even though the Canva application is prepared for free, it must be supported by the availability of resources (teachers) to use it so that the learning process will be interesting. Based on the results of the expert assessment, the audio visual learning media design based on the Canva application obtained a score of 82.28% with a decent category. The results of limited student responses obtained a score of 86.73% in the very appropriate category. (Rahmatullah, et al., 2020). In accordance with research that has been carried out, learning using the Canva application can influence the increase in learning outcomes for grade 1 students, especially in subtraction material.

Apart from that, the results obtained are also relevant to research conducted by Kukuh Andri Aka and Sutrisno Sahari in 2017 regarding "Development of Interactive Multimedia Teaching Materials in Class V Civics Learning in Elementary Schools Oriented to Value Clarification Techniques" which stated that the entire data analysis was from the validation sheet material experts, media experts and users, this product is included in the criteria of valid (4.60), practical (4.53) and interesting (4.31), as well as effective (85.2). The multimedia created has an attractive level of attractiveness, meaning that students really enjoy learning using this product and the problem of students' weak level of interest in learning can be minimized here. The effectiveness aspect also indicates success, it can be said that this product can minimize the low student learning outcomes so far. (Aka and Sahari, 2017)

The results obtained in this research are also relevant to research conducted by Arif Rahman Hakim and Husen Windayana regarding "The Effect of Using Interactive Multimedia in Mathematics Learning to Improve Elementary School Student Learning Outcomes" which states that mathematics learning using interactive multimedia has a significant effect on improving student learning outcomes. class V SDIT Qordova, Rancaekek District, Bandung Regency on symmetry and mirroring material. This can be seen from the majority of students' attitudes towards learning mathematics using interactive multimedia in the medium category, with a percentage of 55.56% (Hakim & Windayana, 2016).

According to Tanjung & Faiza (2019), the advantages of the Canva application can be seen as follows: 1) Has a variety of attractive designs, 2) Can increase teacher and student creativity in designing learning media because of the many features provided, 3) Saves time in learning media practically, 4) When designing you don't have to use a laptop, but can be done via a device. Seeing the importance of the importance of Canva learning media, teachers need to develop their competence in developing Canva learning media as an innovative learning media.

CONCLUSION

Classroom Action Research (PTK) conducted on grade 1 students of SDN 1 Kepatihan Tulungagung consisted of two cycles. Each cycle has four stages, namely 1) Planning, 2) Action, 3) Observation, and 4) Reflection. Based on the results and

discussion, it can be concluded that learning mathematics subtraction material in class 1 can improve student learning outcomes at SDN 1 Kepatihan Tulungagung. This can be seen from the increase in the average value of student learning outcomes and the level of classical completion. At the pre-cycle stage, the average learning outcome was 73.8 with a classical completeness level of 38.09%, which was in the poor category. In cycle 1 there was an increase with an average of 81.47 with a classical completeness level of 42.85% in the sufficient category. Furthermore, in cycle II it increased again with an average of 91.8 with a classical completeness level of 85.71% entering the very good category.

REFERRENCE

Aka, K. A., & Sahari, S. (2017). Pengembangan Bahan Ajar Multimedia Interaktif Pada Pembelajaran PKN Kelas V Sekolah Dasar Berorientasi Teknik Klarifikasi Nilai. Jurnal Pendidikan Dasar Nusantara, 3(1), 70-96.

Anjarwati, D., Winarno, A., & Churiyah, M. (2016). Improving learning outcomes by developing instructional media-based Adobe Flash Professional CS 5.5 on principles of business subject. IOSR Journal of Research & Method in Education, 6(5), 1–6. https://doi.org/10.9790/7388-0605010106

Hakim, A. R., & Windayana, H. (2016). Pengaruh penggunaan multimedia interaktif dalam pembelajaran matematika untuk meningkatkan hasil belajar siswa SD. EduHumaniora| Jurnal Pendidikan Dasar Kampus Cibiru, 4(2).

Handarini, O. I., & Wulandari, S. S. (2020). Pembelajaran Daring sebagai Upaya Study From Home (SFH). Jurnal Pendidikan Administrasi Perkantoran (JPAP), 8(3), 465–503. https://journal.unesa.ac.id/index.php/jpap.

Hidayat, D. R., Rohaya, A., Nadine, F., & Ramadhan, H. (2020). Kemandirian belajar peserta didik dalam pembelajaran daring pada masa pandemi COVID-19. Perspektif Ilmu Pendidikan, 34(2), 147-154.

Hopkins, D. (2011). Panduan Guru Penelitian Tindakan Kelas. Yogyakarta: Pustaka Pelajar.

Hutauruk, P., & Simbolon, R. (2018). Meningkatkan Hasil Belajar Siswa dengan Alat Peraga pada Mata Pelajaran IPA Kelas IV SDN Nomor 14 Simbolon Purba. SEJ (School Education Journal), 8(2), 121-129.

Lin, C.-S., & Wu, R. Y.-W. (2016). Effects of web-based creative thinking teaching on students' creativity and learning outcome. EURASIA Journal of Mathematics, Science & Technology Education, 12(6), 1675–1684. https://doi.org/10.12973/eurasia.2016.1558a

Mukmin, B. A.. 2016. Pengembangan Buku Ajar Ipa Berbasis Problem Solving Siswa Kelas V SD. Jurnal Pendidikan dan Pembelajaran Anak Sekolah Dasar, 1(02).

Oyedele, V., Rwambiwa, J., & Mamvuto, A. (2013). Using educational media and technology in teaching and learning processes: A case of trainee teachers at Africa University. Academic Research International, 4(1). Retrieved from http://www.savap.org.pk/journals/ARInt./Vol.4(1)/2013(4.1-30).pdf

Parahita, I. N., Santiyadnya, N., & Sutaya, I. W. (2019). Learning Community untuk Meningkatkan Hasil Belajar Perawatan PC. Jurnal Pendidikan Teknik Elektro Undiksha, 8(3), 118–127

Pelangi, G. (2020). Pemanfaatan Aplikasi Canva Sebagai Media Pembelajaran Bahasa Dan Sastra indonesia Jenjang SMA/MA. Jurnal Sasindo Unpam.

Purwono, J., Yutmini, S., & Anitah, S. (2014). Penggunaan media audio-visual pada mata pelajaran Ilmu Pengetahuan Alam di Sekolah Menengah Pertama Negeri 1. Jurnal Teknologi Pendidikan Dan Pembelajaran, 2(2), 18. Retrieved from https://www.jurnal.fkip.uns.ac.id/index.php/tp/article/viewFile/3659/2560

Rahmatullah, R., Inanna, I., & Ampa, A. T. (2020). Media pembelajaran audio visual berbasis aplikasi canva. Jurnal Pendidikan Ekonomi Undiksha, 12(2), 317-327.

Rahmatullah, R., Inanna, I., & Nurdiana, N. (2019). "Ethnopedagogi dalam pembelajaran ekonomi". Seminar Nasional Lembaga Penelitian UNM, 284–288.

Ramli, A., Rahmatullah, R., Inanna, I., & Dangnga, T. (2018). "Peran Media Dalam Meningkatkan Efektivitas Belajar". Lembaga Pengabdian Kepada Masyarakat Universitas Negeri Makassar, 5–7.

Sobarningsih, N., Sugilar, H., & Nurdiansyah, R. (2019). Analisis implementasi standar proses pembelajaran guru matematika. Prima: Jurnal Pendidikan Matematika, 3(1), 67-84.

Supriyadi, & Wiliyanto, D. A. (2021). Analisis Kebutuhan dan Masalah Pembelajaran Jarak Jauh pada Anak Berkebutuhan Khusus di Masa Pandemi Covid-19. Jurnal Basicedu, 5(3), 1667–1672.

Tanjung, R. E., & Faiza, D. (2019). Canva sebagai media pembelajaran pada mata pelajaran dasar listrik dan elektronika. Voteteknika (Vocational Teknik Elektronika Dan Informatika), 7(2), 79-85.

Widiyawati, Y. (2017). Pemanfaatan media pembelajaran IPA bagi peserta didik visual impairment di SLB. JIPVA (Jurnal Pendidikan IPA Veteran), 1(1), 9–23. Retrieved from http://e-journal.ivet.ac.id/index.php/jipva/article/view/510

Yanti, E. R. W., & Abdullah, M. H. (2017). Penerapan Model Pembelajaran Time Token Arends untuk Meningkatkan Hasil Belajar Siswa Kelas IV SDN Lakarsantri I/472 Surabaya. Jurnal Penelitian Pendidikan Guru Sekolah Dasar, 5(3), 1010–1020.

Yulianti, Y. (2019). "Contextual Teaching Learning Dalam Pembelajaran Ekonomi". Pinisi Business Administration Review, 1(2).