



Students Responses to New Learning Environmental Using Canva Application at the Newton Law's

Kenya Luthfia Nur Shabrina^{1*}, Muhammad Syaipul Hayat², Eko Retno Mulyaningrum³, Endang Sularni⁴

¹ Department of Teacher Training of Education Biology, PGRI University of Semarang, Semarang, Indonesia

^{2,3} Lecturer in Magister Department Natural Science, PGRI University of Semarang, Semarang, Indonesia

⁴ Teacher in Junior High School 37 Semarang, Semarang, Indonesia

* e-mail: kenyaluthfia08@gmail.com

Received: May 9, 2023

Accepted: June 29, 2023

Published: June 30, 2023

Abstract: The purpose of this study is to find out students' responses to the New Learning Environmental program using the Canva application on Newton's law material. Based on the results of observations and interviews conducted in SMP Negeri 37 Semarang, it assumes a new learning environment or learning innovation to improve students' skills and students' understanding of Newton's law material. This study used a descriptive qualitative method in conducting observations and interviews. Class VII C was used as a sample. The results of the new learning environment were several answers in the training lessons on using the Canva application, which was helpful in the tasks in the form of products about Newton's law (infographics, mind mapping, posters, and videos) of material. During the learning the students are very enthusiastic, free to be creative, and even free to change seats while learning. Based on this, it can be concluded that the New Learning Environment supported by the Canva application of Newton's law material received a positive responses from the students during the learning process.

Keywords: Students Responses, New Learning Environmental, Canva Application, Newton Law's

DOI: <http://dx.doi.org/10.23960/jpf.v11.n1.202302>



© 2023 The Author, Published by Program Studi S1 Pendidikan Fisika, FKIP, Universitas Lampung. This is an open access article under the CC BY-NC-SA license (<https://creativecommons.org/licenses/by-nc-sa/4.0/>)

INTRODUCTION

Science lessons consist of materials from physics, chemistry, and biology. In the first semester, the science lessons of the 7th grade mainly consist of physics. In this study, natural sciences with physical material viz. motion and force with Newton's law material are discussed in a subchapter. Newton's law material which includes physics material is very difficult for students to learn because some proofs or simulations and examples that are suitable for everyday activities to understand the material that needs to be visualized. This is consistent with (Maulifi et al., 2020) and (Ardhuha et al., 2021) that learning science requires understanding, especially physical material (Newton's laws), which is quite difficult-to-understand and needs to be visualized during learning. Making infographics, posters, mind mapping or videos is very useful to visualize the concept of Newton's law. There are three laws of Newton namely Newton's 1st law, Newton's 2nd law, and Newton's 3rd law.

Newton's law is one of the scientific materials that focus on physics. Newton's law material containing physics material is very difficult for students to learn because it has proofs or simulations and examples that are suitable for daily activities to understand the material that needs to be visualized. Physics is also a natural phenomenon that can be easily presented, understood, and demonstrated through research, practical work, simulations, and mathematical measurements. This is consistent with the statements of (Syefrinando et al., 2020), (Hikmawati et al., 2018) and (Hidayat et al., 2022) that physics is a science that studies concepts, principles, and laws related to real and abstract physical phenomena such as heat, motion, force (Newton laws), pressure, sound, magnetism, electricity, etc. This makes physics quite difficult to understand, so learning must be visualized. Visualization is necessary to facilitate the understanding of abstract physical concepts. Visualization of concepts, principles, and laws of physics can be aided by the learning environment (Ardhuha et al., 2021). Making infographics, posters, mind mapping or videos is very useful to visualize the concept of Newton's law.

There are three laws of Newton namely Newton's 1st law, Newton's 2nd law, and Newton's 3rd law. Below we explain Newton's laws: Newton's first law If the resultant force acting on an object is 0, the object is at rest/moving in a straight line with constant speed. Example: The paper under the glass is pulled quickly, and the glass stays in place. Newton's Second Law Acceleration is directly proportional to the resulting force and inversely proportional to the mass of the object Example: A moving car can stop. Newton's Third Law If object 1 gives an impact force to object 2, then object 2 gives a reaction force that is equal but opposite. Example: When swimming, the hands and feet repel the water, but the water pushes the person forward (Anggereni & Khairurradzikin, 2016).

Technology is developing year by year, in the world of education, technology is a great help to teachers, students, and guardians of students in activities related to the world of education. Teachers must adapt to current technological developments to impart their knowledge to students. One example of technology often used in the education world is Canva as a graphic design application that is used as a teaching tool or to help students complete tasks to create infographics, posters, mind mapping, or videos. This application can support learning. In Class VII C there was never any training during the learning process on how to use Canva to create infographics, posters,

mind mapping, or videos. Students always use paper and colored pencils when making infographics, posters, mind mapping, or videos. Therefore, teachers change the new learning environment of VII C science class with Newton's law material using the Canva application, which aims to make students easily understand Newton's law material, sharpen students' skills and help students with assignments. In the form of infographics, posters, mind mapping, or videos related to Newton's laws and their applications. The Canva app is a drawing platform that is a useful tool for developing creativity and collaboration in education that can be used anywhere and anytime. Learning that can foster creativity and collaboration visually and through communication to make learning fun. This is consistent with the claim of (Ricu & Najuah, 2020), (Budiastra et al., 2020) and (Pelangi, 2020) that Android-based interaction can activate students to learn with high motivation because they are interested in multi-product systems (audio-visual integration in the form of videos), high interactivity, and multi-source learning (connections to the Internet) so that it can complete the gaps in the textbook. (Amikratunnisyah & Sedyah 2018) stated that a Canva page can be opened not only on a computer but also on a mobile phone so it can be used anywhere and anytime as long as there is a network or internet quota.

New Learning Environmental using Canva for Newton's legal material, there were several responses from students because this Canva operation training has never been done, so it was the first activity or new information for students. This is consistent with (Gola et al., 2022) statement that responses is the students' reaction or feeling after engaging in learning, it can be positive or negative. Students' responses can be seen from expressions, interest in learning, and easy or difficult to understand learning messages. The environmental learning model is called environment-based learning. This environment-based approach applies learning methods using the natural environment, in addition, it can increase students' awareness of their learning environment and take care of it (Perdiawan & Tini, 2021).

SMP Negeri 37 Semarang Based on the results of observations and interviews, there is a need for teaching innovations that improve students' skills and students' understanding of Newton's law material. Students who have not used technology for assignments still use paper and colored pencils to create infographics, mind mapping, and videos. New learning environments The Canva application can be used as a new learning environment based on existing problems, which helps to understand Newton's law material and sharpen skills. The purpose of this study is to find out students' responses to the New Learning Environmental program using the Canva application on Newton's law material. Students are very enthusiastic, engaged in peer teaching, free to be creative, and even free to change seats while learning. Based on this, it can be concluded that the New Learning Environment supported by the Canva application of Newton's law material received a positive responses from the students during the learning process.

METHOD

This study is a descriptive qualitative study. This study was conducted in SMP Negeri 37 Semarang during the odd semester of the academic year 2022/2023 (18 November 2022). The sample of this study was students of class VII C. This study used methods of observation and interviews with teachers and students of Junior High School

37 Semarang. Observational evaluation data related to Students' Response to New Learning with Canva Applications on Newton's Law Materials are then qualitatively analyzed. This lesson uses the project-based learning (PjBL) learning strategy in the Motion and Force material with the Newton's Law sub-material. The goal is to find out the students responses (happy, comfortable, excited, etc.) to a new learning environment (new learning / new information) using the Canva application with Newton's law material.

RESULT AND DISCUSSION

People who study law are quite anxious when trying to understand Newton's principles because they have to understand them in order to study it. Understanding Newtonian law must be seen or applied in practice so that students may understand the material more easily. This is in line with statements made by (Hau & Nuri, 2019), (Nursefriani et al, 2016), (Ririnsia et al., 2018) and (Tampang et al., 2016) that people who understand philosophy well in relation to philosophical principles and physical laws would also be better at understanding and addressing physical problems. According to conventional wisdom, rumus in fisika is the result of a certain hypothesis. Solving questions of physics without a formula at the middle or high school level can be done and it is even easier if students understand the concept better.

Students' understanding of the physical meaning of Newton's law concepts is still low because there are still many who do not understand the Newton Law concepts and are still misconceptions on the first Newton law. In general, Newton's law lessons are considered difficult by students because they use mathematical equations and do not understand the physical meaning of the equation so that students remember more and sometimes students experience forgetfulness (Hamidah, 2106). According to (Maesyarah et al., 2015) stated that information stored in long-term memory can move to short-term memories so that forgetfulness can occur. This is one of the factors that can affect student retention.

When learning IPA, class VII C students' first condition was to be playing games, talking to friends, making jokes with friends, sleeping, and other activities. This demonstrated the students' negative reaction to the lesson. The event occurred because students complained of too much ipa material and the majority of students were not skilled in calculation. In addition, students often use colored paper and pencil to work with poster tasks, students are not familiar with the technology that can help students in working with posters. Therefore, the learning used should meet the needs of students by training students in operating Canva so that students can easily create posters. The negative responses shown by students sometimes do not indicate that the teaching material is wrong, but it may be because students experience difficulties such as difficulty in calculating. This is in line with the statements of (Agustya & Soejoto, 2017) and (Fatmawati, 2021) who both assert that any individual's action is, in fact, a response to a stimulus. Low student response does not always indicate a problem with the instructional materials or the students. The teacher's capacity to impart knowledge is insufficient, which can lead to a uninteresting learning environment, disgruntled students, and a resultant reduction in response.

Table 1. Observation

No.	Observation Indicator	Observation Result
Preparation of students		
1.	Teachers monitor or control student readiness at the start of learning, Is it meeting the conditions and content	First the substitute teacher checks the student's attendance. The teacher checks the previously studied material and gives encouragement by asking a few simple questions about the material discussed.
2.	Teachers perceive students different learning styles and abilities	Substitute teachers learn students learning styles through observation and interviews with teachers and students by tutors. By creating a TIS chart, teachers can understand their students basic skills. The TIS table shows what has been learned, what has not, and what needs to be learned.
3.	Teachers monitor students to achieve learning goals	Substitute teachers develop learning strategies according to the needs and characteristics of the student. Therefore, one of her tasks to meet the needs of her students is to use Canva applications to create new Newton's Law learning environments to achieve their learning goals.
Emotional Development		
4.	Extent are classrooms and other learning spaces a place for student self-expression	In this lesson, students are free to make their seats as comfortable as possible, free to change seats, free to move some chairs closer to the door (because the signal is stronger near the door), and sit in the chair in front of the class. You have the freedom to sit floor.
5.	Teachers deal with students who are unable to express themselves well	Teachers respond to students who have not been able to express themselves by changing the learning environment of students and making innovations in the learning process so as to create a new learning environment with the help of the Canva application on Newton's law material, with this students can express themselves through their work and students give a positive response when learning takes place.
Social Development		
6.	Teachers build an atmosphere that supports students to develop social skills for example being sensitive to the surrounding situation, empathizing, respecting each other, and interacting and communicating	Substitute teachers create a new learning environment with the help of the Canva application, during the learning process students collaborate with each other for example when there are students who still don't understand the use of tools (tools) in the Canva application, students others helped in explaining the tool. Students who do not have a quota, other students share the quota so that they can follow the instructions from the teacher in operating the Canva application.

7.	Teachers facilitate students so that their skills are honed	Substitute teachers create a new learning environment with the help of the Canva application, during the learning process students are free to be creative in making infographics, mind mapping or videos.
8.	Students able to carry out product presentations	Limited time makes students unable to present their work so that it is presented at the next meeting.

Based on the learning observations at the time, the creation of a new learning environment using the Canva application of Newton Law's received a positive reception from the students. This is evidenced by numerous activities during learning that create a new learning environment, these activities are as follows: teachers check student attendance and student readiness by reviewing the previous material and discussing the learned material in this meeting. At the first meeting, the teacher gets to know the students' learning styles and initial abilities by making observations, and the students report the results of their reflections before learning using the TIS table, which includes what they learned, what they learned, and what they learned I want to learn the way teachers help students achieve learning goals is to put together learning modules that include learning strategies that match learning goals and learning goals that focus on student needs. Therefore, educators create a New Learning Environment for Newton's law material using the Canva application. New Learning Environmental, powered by Newton's Canva material application, allows students to change their sitting position, some move their seat closer to the door, and some change places and sit on the floor, it also gives students a chance to express themselves. Infographics, mind mapping, or videos in the form of students giving positive answers while learning. This is consistent with the statement of (Khairiyah, 2018) that reaction is the impression or responses or feelings that students have after experiencing a sensory activity, such as seeing that positive or negative attitudes are formed after learning. The positive feedback from the students was that during the activity, students saw their friends struggling due to lack of data quota, students shared the data quota with their friends, and when a friend was confused about the tools in the Canva app, students do the same. peer training so their friends understand how to use the Canva app. It shows the collaboration of students in a new learning environment. Time management is required in this class so that students can make presentations of product results in the same meeting.

Table 2. Students Interview

No.	Interview Indicator	Interview Result
1.	Think of today's lesson	Today's learning is based on recent student learning.
2.	The study earlier today	Today's study has never been done in previous studies. Previous studies only used learning materials (video), ppt, and practice, and previously students made infographics and mind maps using only paper and colored pencils in P5 tasks or other subject tasks.
3.	Interested in this new learning environment	Students are very happy when teachers provide training on how to use Canva to help students

		make infographics, posters, mind mapping, or videos.
4.	The Studying fun today	Today's class was very nice.
5.	The New learning environment create you	New Learning Environment powered by Canva application at Newton's Laws materials is very liberating for creativity.
6.	The Change seats in this lesson	(New Learning Environmental, powered by Canva application in Newton's Law material) allows students to exchange seats or places with their friends, and some even sit on the floor.
7.	The new Canva-assisted learning environment really help in understanding the material	A new learning environment with the help of the application Canva helps students understand the material, especially the scientific material that requires the most simulation, visualization, etc, because applying this new knowledge with the help. In the Canva application, students can see examples of the material IPA (Newton's laws).
8.	A acquire new knowledge (new learning environment)	Students listen to teacher explanations, download the Canva application to mobile devices, follow teacher instructions for using Canva apps, and create creatives for Newton's law material by making infographics, mind maps, or videos (explanation and application in daily activities)
9.	Have learning difficulties	There were difficulties in learning, namely a lack of data quota, the signal was difficult during the lesson and some did not understand how to use the Canva application.
10.	The solution to overcome these problems or difficulties	The solution to this problem is to share data quotas, sit in front of the door (some use chairs, some sit on the floor), and guide peers.
11.	Collaborate with classmates on New Learning Environmental using Canva on Newton's Laws material	There were difficulties in learning, namely a lack of data quota, the signal was difficult during the lesson and some did not understand how to use the Canva application. Learners share data quotas and do peer tutoring. This is an example of collaboration between students.
12.	Learning Today (New Learning Environment using Canva's application) Improve Student Skills	The new learning environment is very useful for students to understand Newton's law material and can sharpen students' skills.

Table 2 shows that based on the results of the students interviews, today's lesson was carried out for the first time because before the material from previous learning was obtained only through video, ppt, and practice, in addition, the students were always forced to make infographics, mind. maps or videos. That is, paper and colored pencils were used in P5 activities. This is because grade VII students are not familiar with Canva, so when teachers create a New Learning Environmental for Newton's law material using Canva, students give a positive responses. This can be shown by the emotional conditions or the different responses of students to the new learning environment based on Canva, some are very happy, some are curious (curiosity about

Canva), some students can already use Canva, and peers to teach their friends who do not do Canva does not know, some are self-taught by clicking on the desired icon, there is the freedom to be creative when making products, students can change their sitting position and some even sit on the floor, and there is cooperation and mutual cooperation (mutual help) like quota sharing. This is consistent with the statement of (Gola et al., 2022) that student responses can be seen in terms of expression, interest in learning, ease or difficulty in understanding the material, and the intended responses is different from the evaluation of learning outcomes, only in the student, but responses to the new learning environment.

Based on the above problem, the educator provides facilities for training the operation of the application Canva to meet the needs of the students. Educators provide Canva application operating training to learners to make it easier for them to work with tasks related to infographics, posters, mind mapping and videos. The participants were enthusiastic about following this training. Students attempted to create infographics, posters or videos on the theme of Newton's Law and, for example, using the Canva app guided by educators and peers. Educators free the students to create in this training activity. This Canva application is very helpful in the world of education can be as a learning medium even can be used as a tool to work out tasks such as infographics, posters, mind mapping or video. The Canva application can also be used wherever and whenever as long as there is a network so it can make it easier for students to use the Canva app. The use of canva in learning can improve the ability to write assisted by using images, audio so it can enhance creativity in the digital age. It is in accordance with the statement of (Yundayani, 2019), (Homsini & Salsabila, 2021), (Rahmatullah et al., 2020) and (Rahmawati & Atmojo, 2021) stated that media canva can help teachers and learners in the learning process and be able to enhance student creativity in the digital age because creativity is very needed in the era.

The advantage of the Canva app is that it has an interesting variety of designs, able to enhance the creativity of teachers and students in designing learning media because of the many features that have been provided, saving time in learning media practically and in design, does not have to wear a laptop, but can be done through exercise (Tanjung & Faiza, 2019). The canva application can attract the attention of students during the learning process especially materials that need to be visualized. Learning media that uses canva with Newton's Law materials are very helpful to teachers and students during the learning process so that students are easier to understand. This is in accordance with the statement (Aji & Dwi, 2020) and (Budiman, 2017) stated that there are three functions that are integrated in the learning media, namely; stimulation of growing interest in deep learning, mediation of the connection between teachers and pupils, information that displays the explanation of teachers.

Teachers know the needs of students, so teachers will update the learning process so that students can better understand science, especially Newton's law material. Teachers developed a new strategy to create a new learning environment using Canva material for Newton's Law implemented in Class VII C to help students understand more about Newton's Law material and its application. Learning in a new environment is a condition where students receive a new learning environment or information that has never been received in previous learning so that students can improve cognitive (knowledge) or psychomotor (skills) by receiving this new information. This is consistent with (Ahmad & Basuki, 2022) and (Perdiawan & Tini, 2021) affirm that the

environmental learning model is a way of learning that also guides the use of the environment as a source of learning, such as tools and infrastructure. The environmental learning model is also known as environment-based learning. Such an environment-centered approach applies to learning methods that use the natural environment, in addition, it can increase students' awareness of their learning environment and take care of it.

CONCLUSION

Based on the results of the research, it can be concluded that the new learning environmental material on Newton's Law based on the Canva application was positively received by the students. The answers of the students varied, for example, some were very happy, some were curious (curious about Canva), and some students could use the Canva application and volunteered to teach their friends who did not know Canva application. who learn by themselves (as self-learners) by clicking on the desired icon. This task is to assess time management for students to present their products made using the Canva application. Due to the lack of time planning, the trainers do not limit the time during the given training, so there is no time left for presentations and the presentations take place at the next meeting.

REFERENCES

- Agustya, Z., & Soejoto, A. (2017). Pengaruh Respon Siswa Tentang Proses Pembelajaran Terhadap Hasil Belajar Siswa Kelas X Pada Mata Pelajaran Ekonomi Di SMA Negeri 1 Wonoayu Kabupaten Sidoarjo. *Jurnal Pendidikan Ekonomi*, 5(3), 1–6.
- Ahmad, D. N., & Basuki, K. H. (2022). Menanamkan New Enviromental Paradigma (Nep) Dalam Perilaku Ramah Lingkungan Berbasis Masalah. *Jurnal Ilmiah Pena*, 13(01), 22–24.
- Aji, W. N & Dwi, B. P. S. (2020). Aplikasi Tik Tok Sebagai Media Pembelajaran Keterampilan Bersastra. *Jurnal Metafora: Jurnal Pembelajaran Bahasa dan Sastra*, 6(1), 147-158. <https://doi.org/10.30595/mtf.v6i1.7824>
- Amikratunnisyah, A. & Sedy, S. (2022). Implementasi Video Pembelajaran Berbasis Canva pada Pembelajaran Sains Materi Rotasi dan Revolusi Bumi. *Jurnal Lentera: KajianKeagamaan, Keilmuan dan Teknologi*, 21(2), 245-254. <https://doi.org/10.29138/lentera.v21i2.678>
- Anggereni, S., & Khairurradzikin. (2016). Efektivitas Pembelajaran Menggunakan Pembelajaran Macromedia Flash Dalam Meningkatkan Pemahaman Konsep Fisika Materi Hukum Newton. *Jurnal Biotek*, 4(2), 333–350.
- Ardhuha, J., I Wayan Sudiarta, Lalu Rudyat Telly Savalas, Ap'aluddin, Thufail Mujaddid Al-Qoyim, Putri Julia Maemum, ... Ulfa Dwiyanti. (2021). Pelatihan Bahasa Pemograman Python Berbasis Modul Sympy Untuk Memvisualisasi Konsep Fisika Matematika Bagi Mahasiswa Calon Guru. *Jurnal Pengabdian Magister Pendidikan IPA*, 4(4), 466–473. <https://doi.org/10.29303/jpmipi.v4i4.1238>
- Budiastra, A. A. K., Wicaksono, I., & Erlina, N. (2020). The effectiveness of video-based interaction on professional science teachers to improve elementary school

- students achievements. *Journal for the Education of Gifted Young Scientists*, 8(3), 1291–1304. <https://doi.org/10.17478/JEGYS.715139>
- Budiman, H. (2017). Peran Teknologi Informasi Dan Komunikasi Dalam Pendidikan. *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, 8(1), 31–43.
- Fatmawati, P. A. (2021). Stimulus Guru Dan Respon Siswa Dalam Pembelajaran Bahasa Arab Di Tingkat Smp. *Al Urwatul Wutsqa: Kajian Pendidikan Islam*, 1(2), 13–26. <https://journal.unismuh.ac.id/index.php/alurwatul/article/view/6565>
- Gola, N., Subiki, S., & Nuraini, L. (2022). Profil Respon Siswa Penggunaan E-Modul Fisika Berbasis Android (Andromo). *Jurnal Pembelajaran Fisika*, 11(2), 53. <https://doi.org/10.19184/jpf.v11i2.31558>
- Hamidah., Darmadi, Wayan., Darsikin. (2016). Analisis Pemahaman Arti Fisis Konsep Hukum Newton Mahasiswa Calon Guru. *Jurnal Pendidikan Fisika Tadulako (JPFT)*, 3(4).
- Hau, R. R. H., & Nuri, N. (2019). Pemahaman Siswa terhadap Konsep Hukum I Newton. *Variabel*, 2(2), 56. <https://doi.org/10.26737/var.v2i2.1815>
- Hidayat, R. K., Sahidu, H., & Gunada, I. W. (2022). Pengembangan Perangkat Pembelajaran Berbasis Inkuiri Terbimbing Terintegritas dengan Karakter untuk Meningkatkan Pemahaman Konsep Fisika Peserta Didik. *Jurnal Ilmiah Profesi Pendidikan*, 7(2), 285–291. <https://doi.org/10.29303/jipp.v7i2.462>
- Hikmawati, H., Rokhmat, J., & Sutrio, S. (2018). Penyuluhan Pembuatan Media Tiga Dimensi dan Penerapannya Melalui Model Siklus Belajar 5E Pada Guru-Guru di MGMP Fisika Se-Lombok Barat. *Jurnal Pendidikan Dan Pengabdian Masyarakat*, 1(1), 1–8. <http://jurnalfkip.unram.ac.id/index.php/JPPM/article/view/479/0>
- Homsini Maolida, E., & Salsabila, V. A. (2021). Canva and Screencast-O-Matic Workshop for Classroom Purpose: A Community Service for Madrasah Ibtidaiyah Teachers. *AJAD: Jurnal Pengabdian Kepada Masyarakat*, 1(2), 54–60. <https://doi.org/10.35870/ajad.v1i2.13>
- Khairiyah, U. (2018). Respon Siswa Terhadap Media Dakon Matika Materi KPK dan FPB pada Siswa Kelas IV di SD/MI Lamongan. *AL-MURABBI: Jurnal Studi Kependidikan Dan Keislaman*, 5(2), 197–204. <https://doi.org/10.53627/jam.v5i2.3476>
- Maesyarah, M., Jufri, A. W., & Kusmiyati, K. (2015). Analisis Penguasaan Konsep Dan Miskonsepsi Biologi Dengan Teknik Modifikasi Certainty of Response Index Pada Siswa Smp Se-Kota Sumbawa Besar. *Jurnal Pijar Mipa*, 10(1), 1–6. <https://doi.org/10.29303/jpm.v10i1.8>
- Maulifi, A. W, Kharisma, E.P & Dhian, D. N. W. (2020). Pengembangan Modul Berbasis Video (MOVID) pada Materi Siklus Air dan Dampaknya pada Peristiwa di Bumi serta Kelangsungan MakhluK Hidup. *Jurnal Riset Pendidikan Dasar*, 03(2), 207–213.
- Nursefriani, N., Pasaribu, M., & Kamaluddin, K. (2016). Penelitian ini bertujuan untuk mengetahui peningkatan hasil belajar melalui penerapan model pembelajaran Creative Problem Solving pada siswa kelas XMIPA 4 SMA Negeri 5 Palu. Penelitian ini adalah Penelitian Tindakan Kelas yang dilaksanakan secara bersiklu. *JPFT (Jurnal Pendidikan Fisika Tadulako Online)*, 4(2), 36. <https://doi.org/10.22487/j25805924.2016.v4.i2.6058>
- Pelangi, G. (2020). Pemanfaatan Aplikasi Canva Sebagai Media Pembelajaran Bahasa Dan Sastra Indonesia Jenjang SMA/MA. *Jurnal Sasindo Unpam*, 8(2), 1–18.

- <http://www.openjournal.unpam.ac.id/index.php/Sasindo/article/view/8354>
- Perdiawan, Z., & Tini, K. (2021). Efektivitas Model Pembelajaran Environmental Learning Terhadap Hasil Belajar Biologi Siswa. *Binomial*, 4(2), 109–124. <https://doi.org/10.46918/bn.v4i2.1063>
- Rahmatullah, R., Inanna, I., & Ampa, A. T. (2020). Media Pembelajaran Audio Visual Berbasis Aplikasi Canva. *Jurnal Pendidikan Ekonomi Undiksha*, 12(2), 317–327.
- Rahmawati, F., & Atmojo, I. R. W. (2021). Analisis Media Digital Video Pembelajaran Abad 21 Menggunakan Aplikasi Canva Pada Pembelajaran IPA. *Jurnal Basicedu*, 5(6), 6271–6279. <https://doi.org/10.31004/basicedu.v5i6.1717>
- Ricu Sidiq, & Najuah. (2020). Pengembangan E-Modul Interaktif Berbasis Android pada Mata Kuliah Strategi Belajar Mengajar. *Jurnal Pendidikan Sejarah*, 9(1), 1–14. <https://doi.org/10.21009/jps.091.01>
- Ririnsia, R., Hau, H., Marwoto, P., Made, N., & Putra, D. (2018). Deskripsi Kemampuan Representasi Matematik dalam Pemecahan Masalah Fisika pada Perkuliahan Listrik Magnet. *Physics Communication*, 2(1), 1–17.
- Syefrinando, B., Suraida, S., & Parman, A. (2020). Pengembangan Media Pembelajaran Fisika berbasis Adobe Flash Professional CS6 Untuk Mata Kuliah Fisika Dasar I. *Jurnal Pendidikan Fisika Dan Teknologi*, 6(1), 39–44. <https://doi.org/10.29303/jpft.v6i1.1522>
- Tampang, D. R., Werdhiana, I. K., & Syamsu, S. (2016). Analisis Struktur Kognitif Mahasiswa Pada Konsep Hukum Newton. *JPFT (Jurnal Pendidikan Fisika Tadulako Online)*, 4(1), 1. <https://doi.org/10.22487/j25805924.2016.v4.i1.5420>
- 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. <https://doi.org/10.24036/voteteknika.v7i2.104261>
- Yundayani. (2019). Investigating the effect of Canva on students' writing skills. *ENGLISH REVIEW: Journal of English Education*, 7(2), 169–176. <https://doi.org/10.25134/erjee.v7i2.1800>.Received