



The Effect of Out Class Learning Design on Students' Creative Thinking Ability in Social Studies Learning for Grade IV Elementary School Students

Siti Dewi Maharani*

*Elementary Education Study Program, Faculty of Education and Teacher Training,
Universitas Sriwijaya, Indonesia.
E-mail: siti_dewi_maharani@fkip.unsri.ac.id

Azizah Husin**

**Nonformal Education Study Program, Faculty of Education and Teacher Training,
Universitas Sriwijaya, Indonesia.
E-mail: azizahhusin66@yahoo.co.id

Marwan Pulungan***

***Elementary Education Study Program, Faculty of Education and Teacher Training,
Universitas Sriwijaya, Indonesia.
E-mail: marwan_pulungan@fkip.unsri.ac.id

Received: September 2nd, 2022. Accepted: October 13th, 2022. Published: October 30th, 2022.

Abstract

This study aims to determine the effect of learning design outside the classroom on students' creative thinking skills in social studies learning for fourth-grade elementary school students. This research uses an experimental research method with a quasi-experimental research design non-equivalent control group design. The population of this research is the fourth-grade students of one of the elementary school in Palembang. The samples obtained are the control class in class IVc which consists of 35 students, and the experimental class in class IVa, which consists of 33 students. Data was taken using pretest-posttest and then tested with normality and homogeneity tests. Then given treatment and tested the hypothesis using the independent sample t-test. From the test results, it was found that in testing the dependent variable, the results obtained sig. <0.05, with a score of 0.007 and the result is lower than the significance value. The results of the test state that Ho is rejected and Ha is accepted, which means that there is a difference in influence between the experimental class and the control class in creative thinking skills. So, the design of outclass learning is more effective than direct learning in improving students' creative thinking skills in social studies learning.

Keywords: *creative thinking, elementary school students, outclass learning.*

Abstrak

Penelitian ini bertujuan untuk menentukan pengaruh desain pembelajaran di luar kelas terhadap kemampuan berpikir kreatif siswa pada pembelajaran IPS siswa kelas IV Sekolah Dasar. Penelitian ini menggunakan metode penelitian eksperimen dengan desain penelitian quasi eksperimen *non-equivalent control group design*. Populasi penelitian ini adalah siswa kelas IV salah satu sekolah dasar di Palembang, Indonesia dan sampel yang diperoleh adalah kelas kontrol di kelas IVc yang berjumlah 35 siswa dan kelas eksperimen di kelas IVa yang berjumlah 33 siswa. Data diambil dengan memberikan *pretest-posttest* kemudian diuji dengan uji normalitas dan uji homogenitas. Kemudian diberikan perlakuan dan diuji hipotesis dengan menggunakan independent sample t-test. Dari hasil pengujian diketahui bahwa pada pengujian variabel dependen diperoleh hasil sig. < 0,05, dengan skor 0,007 dan hasilnya lebih rendah dari nilai signifikansinya. Hasil pengujian menyatakan H_0 ditolak dan H_a diterima yang berarti terdapat perbedaan pengaruh antara kelas eksperimen dan kelas kontrol terhadap keterampilan berpikir kreatif siswa. Sehingga dapat disimpulkan bahwa desain pembelajaran di luar kelas lebih efektif dari pada pembelajaran langsung dalam meningkatkan kemampuan berpikir kreatif siswa pada pembelajaran IPS.

Kata kunci: *berpikir kreatif, siswa sekolah dasar, pembelajaran di luar kelas.*

INTRODUCTION

Human resources are one of the important factors in the success of development in all fields and are no exception in the world of education. Teachers are the most important resource for successful quality improvement of education (Wullschleger et al., 2023). Improving the quality of education must be met by improving the quality and welfare of educators and other education personnel. Implementing education in schools involves teachers as educators and students as students; it realized by the interaction of teaching and learning or the learning process. For learning to work well, teachers plan their teaching activities systematically. They are guided by a set of rules and plans about education that are packaged into a curriculum. After the pandemic, Students and teachers must wear masks, keep their distance from each other, and strict hygiene rules dictate daily school life (Klusmann et al., 2022). This makes interaction limited and learning a little hampered.

The teacher 's main task is to manage the learning and teaching process so that there is an active interaction between the teacher and students and students with students. The interaction will certainly optimize the achievement of the goals formulated. According to Kamil & Jailani (2018), Learning that requires active students will increase self-confidence in student learning. The existence of interaction and communication can make learning outcomes more optimal. Rusman (2014) states that the process of learning and teaching is a process that contains a series of actions of the teacher and students based on mutual relationships that take place in educational situations to achieve certain goals. Referring to this opinion, the active learning and teaching process is characterized by comprehensive physical, mental, and emotional student involvement. Learning requires methods that are appropriate to the level of development of students. Perdana and Sugara (2020) states that the learning carried out today is still focused on the concept and mastery of language. Thus, the selection of appropriate and effective methods is indispensable. Rusman (2015) argues the role of teaching methods as a tool to create a learning and teaching process. There is a

tendency today to return to the idea that children learn better if the environment is created naturally. Learning will be more meaningful if the child experiences what he learns, not without knowing it; and learns in pleasant conditions. The learning paradigm changed to be teacher-centered to student-centered. The teacher explains the material a little while the students try to prove themselves through the experiments facilitated by the teacher.

The Faculty of Education and Teacher Training of Sriwijaya University has an Education Park that can be used in outclass learning by utilizing the contents of the Education Park. Implementing of outclass learning in higher education can be done by utilizing existing facilities. Education Park, an outdoor means of the classroom, provides support for the learning process as a whole and, at the same, time frees the participants from the crushing atmosphere and rhythm of work routines that are usually experienced. A fresh and beautiful natural atmosphere, fresh air, swish water, or gusts of wind can also encourage the intensity of the participants' involvement, whether physical, mental, emotional or perhaps even to their spiritual level, towards the various programs presented. The results of Ariessandy's research (2021) stated that students with high learning motivation and learning interactions during the learning process outside the classroom. The environment can influence motivation and develop the child's abilities with interesting learning (Triwahyuningtyas et al., 2022).

Outdoor facilities can also add excitement and fun to the students, just like a child playing in the wild. This situation will support the effectiveness of the learning process, especially for a child. As the results of Rohim and Asmana's research (2018) state, outclass learning contributes effectively to students. By directly engaging in activities, students will immediately get feedback about the impact of the activities so that they will understand and understand more about something they observe and learn. Furthermore, Aisyah (2014) explained that outclass learning is defined as out-of-school activities that contain activities outside the classroom/school, parks, agricultural/fishing villages, camping and adventurous activities and the development of relevant aspects of knowledge. The understanding in outclasses learning that is often done is to take advantage of a learning environment close to students. Students who understand environmental literacy will shape students into students who have ascending ethics, care about the environment and can provide solutions to every environmental problem (Binasdevi et al., 2022). According to Suherdiyanto (2016), the application of learning methods outside the classroom in learning, namely utilizing of students carrying out learning activities outside the classroom or in the school environment, the surrounding nature, or the community.

Outclass learning also has advantages and advantages including, as stated by Widiasworo (2017), namely with outclass learning, the learning process in the classroom will be more interesting and not boring, then the nature of learning will feel more meaningful and natural, students learn actively because students will prove, demonstrate, and test other facts. This is follows what is conveyed by Abidin et al., (2018) that students' creative thinking ability cannot develop properly if in the learning process the teacher does not actively involve students in the formation of concepts, the learning methods used in schools are still conventional, namely learning, that is still teacher-centered. Furthermore, Mariyana (2010) also explained that learning outside the classroom will benefit students, allowing them to express their wishes. With objects of interest to students, learning will be more enjoyable.

In the development of learning, students are required to master skills that are influential in mastering abilities, including the ability to think creatively. Moma (2017) explains that Creative thinking is the ability to think that starts from the existence of sensitivity to the situation at hand, that in that situation, it is seen or identified that there is a problem that wants or must be solved. The creative way of thinking allows students to study problems systematically, face challenges in an organized way, formulate innovative questions, and design original solutions. The ability to think creatively can shape students into someone who can face various problems with a various of solutions. This ability to think creatively will be developed through experiences felt by students directly (Devi et al., 2019). Creative thinking can be defined as the whole set of cognitive activities used by individuals according to certain objects, problems and conditions, or types of attempts towards certain events and problems based on individual capacities. They try to use their imagination, intelligence, insight, and ideas when they encounter such situations. For this reason, the researcher concluded that it is necessary to hold studies in the learning process that can improve students' creative thinking skills (Birgili, 2015).

METHODS

This research uses a quantitative approach using the Quasi Experiment with a non-equivalent control group pretest-posttest design. The research time is carried out in the odd semester in the 2022/2023 academic year. The population in this study was all grade IV students of one of the state elementary schools in Palembang. In this case, research sampling was done using a simple random sampling technique. After conducting the draw, IVA and IVC Classes were selected as the Experimental class and Control class. The experimental class was treated using an out-class learning design, while the control class used direct learning.

This study was conducted to see the significant influence of the two classes that were the research sample on the learning design being tested. Learning in control classes is carried out by providing material through lectures, discussions, questions and answers. The implementation of learning in the experimental class will be carried out by applying the design of outclass learning by utilizing the facilities of Education Park at Sriwijaya University. This Education Park contains plants that can be used as learning resources for Grade IV elementary school students in Environmental Materials in Thematic Subjects, especially in Social Science Subjects. Before the implementation of learning with two learning designs occurs, researchers previously provided pretests of the learning material to be studied.

The implementation procedure of making observations in advance is related to the student's creative thinking ability. Furthermore, a Pretest is given to assess the initial ability of students, after which treatment is given according to the research design in both research groups. A posttest will be given, and the student's creative thinking ability will be measured. More research procedures can be seen in the table 1.

Table 1. Experimental Design

Group	Pretest	Treatment	Posttest
Control	O ₁	X ₁	O ₂
Experiment	O ₃	X ₂	O ₄

The data collected in this study used non-test instruments in the form of questionnaires to measure students' creative thinking ability to participate in learning using outclass learning designs given in pretests and posttests.

Hypotheses for students' creative thinking ability.

Ho: $\mu A2 = \mu K2$, there is no difference in influence between the experimental class and the class control of students' creative thinking ability

Ha: $\mu A2 \neq \mu K2$, there is a difference in influence between the experimental and control class towards students' creative thinking ability

The mean of $\mu A1$ expresses the mean of the creative thinking of students in the experimental class and experiment 2 using the design of Outclass Learning. The mean of $\mu K1$ expresses the mean of students' creative thinking ability in control classes that use direct instruction.

The test is carried out by conducting a normality test, then a homogeneity test is carried out. Hypothesis testing begins with a univariate mean difference test using an independent sample t-test. This test was conducted to see the influence of outclass learning design on students' creative thinking ability. Hypothesis testing is carried out with the help of SPSS 25.0 for windows.

RESULTS AND DISCUSSION

Based on the results of observations made by researchers, the implementation of this learning design was reviewed from teacher activities by 96.56% and the implementation of learning carried out by students by 94.33%. This shows that the learning in these two different learning designs has been carried out well. Furthermore, the researcher explained the data obtained regarding the pretest and posttest results given to students in both the control and the experimental class. The data below shows the pretest and post-test results given to students before and after getting treatment.

Table 2. Result of Descriptive Score

Description	Experiment Group		Control Group	
	Pretest	Posttest	Pretest	Posttest
Average	20,40	24,55	19,87	20,16
Varians	2,678	2,443	2,506	2,930
Highest Score	21	25	20	22
Lowest Score	11	18	13	16
Student Total	35	33	33	33

Based on the data in the table 2 above, the data from the questionnaire of students' creative thinking ability in the experiment class with initial abilities before being treated had an average of 19.41, while the average in the control class was 20.77. The experiment class's lowest value before treatment was 13, and the control class had a value of 14. Meanwhile, the highest score in the experiment class before treatment was 22, and the control class before treatment was 23. From the previous description, for the pretest values, both the experimental and control class, there are still many under minimum completeness criteria. The difference in the average increase in students' creative thinking ability from the pretest

and posttest results in the experimental class was 4.15. Ind in the control class, there was an increase of 0.29.

Furthermore, a Normality Test was carried out on the population to determine whether the study population was normally distributed. This test was carried out using the Kolmogorov-Smirnov Test. In the testing phase, the population is declared normally distributed if the significance level value is > 0.05 or the confidence level is 5%. This test is performed using SPSS Software. The results of the normality test found that the score for the experimental class was 0.078. It is known that if the score is greater than 0.05, then the data is declared normal. Likewise, the significant value of Kolmogorov-Smirnov for the control class was 0.082, and this score was also > 0.05 . That way, Populations consist of practical and control classes derived from normally distributed populations.

In addition to the normality test, a homogeneity test was carried out using Box's M through the SPSS application. This homogeneity test is performed to test the similarity of the covariance matrix of simultaneously bound variables. The data criterion is declared homogeneous if it has a significance value > 0.05 . The results of the test conducted on the homogeneity test can be seen in the following table.

Table 3. Table of homogeneity test results

Data	Box's M	F	Sig.	Result
Pretest	3,196	1,033	0,382	homogeneous
Posttest	11,011	1,46	0,394	homogeneous

From the table 3 above, in the pretest data, a significance score of 0.382 was obtained, and the score $>$ the criteria of 0.05. The data shows that the sample is homogeneous from the criteria described earlier. Then for the posttest score, you also get a score of 0.394 and > 0.05 . From the pre-described criteria, the score indicates that the sample is homogeneous. Thus, both Samples from the population are from homogeneous populations.

After the data are tested with normality and homogeneity tests, statistical hypothesis testing is carried out to see students' creative thinking abilities. In this test, the criteria used were that if the significance value of the variable bound to critical thinking ability < 0.05 , then H_0 was rejected, and H_1 was accepted. The test was carried out with the help of SPSS Software with the type of Independent Test sample t-test. The results of the Independent Sample t-test can be seen in the table below.

Table 4. Independent sample t-test results

Variables	t Test Results	Sig.	Result
Creative Thinking Ability	2,822	0,007	H_0 is deprecated

From the table 4, a significance test score of $0.008 < 0.05$ was obtained. This means that H_0 is rejected, and H_1 is accepted, so it can be concluded that there is a difference in influence between the experimental and control class in creative thinking ability.

In the implementation of outclass learning, before the researcher starts learning, the researcher first pretests both classes to see the extent of the understanding of the material and the creative thinking ability of students in both research classes. Furthermore, researchers act in the form of applying to outclass learning designs. This learning was carried out at the Education Park of Sriwijaya University to utilize the natural resources of

the environment contained in the park. Students are invited to jointly see the contents of the Education Park at Sriwijaya University to be given material about the Surrounding Environment.

Outclass learning is carried out by providing the main material and then giving student worksheet to be answers according to the group that has been previously determined. Furthermore, the group answered students' worksheet by utilizing the surrounding environment as learning materials and observation objects. Furthermore, students make observations at the Sriwijaya University Education Park to see things that can be observed and answer questions in the student worksheet. Next, students will present and explain the answers and findings from the field observations. Each group will provide its response to the presentation of student worksheet results from other groups. Directly, sharing knowledge of what has been observed by students will provide a broad understanding for other students (Kamil & Jailani, 2019)

Outclass learning teaches students to see all the subject matter in a way that can be found in the field. The outdoor learning approach is valuable and effective, as well as the possibility to combine theoretical knowledge with experiential learning (Amaluddin et al., 2019) (Li, 2020). Outclass learning requires students to understand each learning step, form groups, understand student worksheet, find answers by making field observations, and present students worksheet results and findings based on observations.

From the results, it can also be seen that learning outside the classroom has a positive and significant effect on students' creative thinking ability. The research results also support this by Muslikah (2017), which states that classes with realia media can improve the quality of learning regarding results and processes.

Learning in the 21st century requires a change in the role of the student, no longer being an object but must be the subject of the learning process (Malik et al., 2019). Nguyen et al. (2022) stated that Classroom management is a complicated process in which teachers deal with unexpected situations and a changing teaching and learning environment to maximize students' learning achievement. Outclass learning will improve students' creative thinking skills by using the imagination that students use outside the classroom. Learning activities may be more attractive to children because the environment provides diverse learning resources and many options (Husamah, 2013). Students' creative thinking ability is shown from the observations made, and students can solve problems in student worksheet and provide creative ideas to solve problems that exist. This is follows with the opinion of Mahayuni et al., (2017) that the student should be able to construct knowledge based on the real information he gets. Effective communication is a fundamental component of good teaching. An instructor's communication skills during lesson delivery are a distinguishing factor in student learning outcomes (Paolini, 2015).

Through this outclass learning, students can also produce a product as a poster containing a message to love the surrounding environment by caring for and maintaining it. As conveyed by Siskind et al., (2020), outdoor learning helps children develop a sense of responsibility towards the environment and practice more ecological behaviors. Lahdenperä et al., (2022) said that the study investigated the same students in two parallel student-centered learning environments and focused on how student-centered learning environments can promote regulated learning. Students can certainly do this after observing the plants in Education Park. These results shows that students increasingly could think creatively from

the direct experience possessed by students. Creative learning strategies can help students create new ideas and explore the field of study more deeply (Fatmawati, 2016).

CONCLUSION

Based on the results of the analysis carried out and the discussions that have been presented, it can be concluded that there are differences in positive and significant influences on learning using outclass learning designs on students' creative thinking ability. From the results of the study, it was also found that learning outside the classroom can make interactions between students increase and can increase student activity. For this reason, in the implementation of learning of the independent curriculum that is currently being implemented, outclass learning design can be used as one of the interesting learning references for students. Outclass learning can facilitate different student learning styles. This alternative can also be used to improve students' creative thinking skills.

REFERENCES

- Abidin, J., Rohaeti, E. E., & Afrilianto, M. (2018). Analisis Kemampuan Berfikir Kreatif Matematis Siswa Smp Kelas Viii Pada Materi Bangun Ruang. *JPMI (Jurnal Pembelajaran Matematika Inovatif)*, 1(4), 779. <https://doi.org/10.22460/jpmi.v1i4.p779-784>.
- Aisah, S. (2014). Penerapan Metode Out Door Activity dalam Pembelajaran IPA untuk Meningkatkan Hasil Belajar Siswa Sekolah Dasar. *Jurnal Penelitian Pendidikan Guru Sekolah Dasar*, 2(3), 1-11.
- Amaluddin, L. O., Rahmat, Surdin, Ramadhan, M. I., Hidayat, D. N., Sejati, A. E., Saputra, I. G. P. E., & Fayanto, S. (2019). The effectiveness of outdoor learning in improving spatial intelligence. *Journal for the Education of Gifted Young Scientists*, 7(3), 717–730. <https://doi.org/10.17478/jegys.613987>.
- Ariesandy, K. T. (2021). Pengaruh Pembelajaran Luar Kelas (Outdoor Learning) Berbentuk Jelajah Lingkungan Dan Motivasi Terhadap Hasil Belajar Biologi Siswa. *Jurnal Matematika, Sains, Dan Pembelajaran*, 15 matematis, 1, 110-120.
- Binasdevi, M., Laily, I. F., Udin, T., Maufur, S., & Ummah, I. (2022). The Effects of Problem-Based Learning Model with Environmental Literacy-Oriented on the Elementary School Students' Narrative Writing Skills. *Al Ibtida: Jurnal Pendidikan Guru MI*, 9(1), 119. <https://doi.org/10.24235/al.ibtida.snj.v9i1.10494>.
- Birgili, B. (2015). Creative and critical thinking skills in problem-based learning environments. *Journal of Gifted Education and Creativity*, 2(2), 71-80. DOI: 10.18200/JGEDC.2015214253.
- Devi, S. S., Munawaroh, F., Hadi, W. P., & Muharrami, L. K. (2019). Pembelajaran Guided Inquiry Dengan Metode Pictorial. *Natural Science Education Research*, 2, 40–47.
- Fatmawati, B. (2016). The analysis of students' creative thinking ability using mind map in biotechnology course. *Jurnal Pendidikan IPA Indonesia*, 5(2), 216–221. <https://doi.org/10.15294/jpii.v5i2.5825>
- Husamah. (2013). Luar Kelas (Outdoor Learning). *Buku Ajar*, 1–18.
- Kamil, N., & Jailani. (2018). Peningkatan Rasa Percaya Diri Siswa dalam Pembelajaran Matematika melalui Active Learning tipe Active Knowledge Sharing dengan Pendekatan Saintifik. *Profesi Pendidikan Dasar*, 5(2), 109–118. <https://doi.org/10.23917/ppd.v1i2.5877>
- Kamil, N., & Jailani. (2019). Improving Self-Confidence Through an Active Knowledge Sharing Model in Primary Schools. *Atlantis Press*, 326(Advances in Social Science,

- Education and Humanities Research), 371–376. <https://doi.org/10.2991/iccie-18.2019.63>.
- Kemendikbud. (2013). *Permendikbud tentang Pendekatan Saintifik*. Jakarta: Kementerian Pendidikan dan Kebudayaan.
- Klusmann, U., Aldrup, K., Roloff-Bruchmann, J., Carstensen, B., Wartenberg, G., Hansen, J., & Hanewinkel, R. (2022). Teachers' emotional exhaustion during the Covid-19 pandemic: Levels, changes, and relations to pandemic-specific demands. *Teaching and Teacher Education*, 121, 103908. <https://doi.org/10.1016/j.tate.2022.103908>
- Lahdenperä, J., Rämö, J., & Postareff, L. (2022). Student-centred learning environments supporting undergraduate mathematics students to apply regulated learning: A mixed-methods approach. *The Journal of Mathematical Behavior*, 66, 100949. <https://doi.org/10.1016/j.jmathb.2022.100949>.
- Li, M. (2020). Activity: A Basic Teaching Form of Morality and Rule of Law Lessons in Primary Schools. *International Journal of Elementary Education*, 9(2), 46–49. <https://doi.org/10.11648/j.ijeeedu.20200902.14>.
- Mahayuni, D. A. M., Suharsono, N., & Warpala, I. W. S. (2017). Pengaruh Model Pembelajaran Terhadap Motivasi Belajar dan Hasil Belajar Ipa Kelas Vii Siswa Smp Negeri 3 Sidemen. *Jurnal Teknologi Pembelajaran Indonesia*, 7(2), 29–37.
- Malik, A., Nuraeni, Y., Samsudin, A., & Sutarno, S. (2019). Creative Thinking Skills of Students on Harmonic Vibration using Model Student Facilitator and Explaining (SFAE). *Jurnal Ilmiah Pendidikan Fisika Al-Biruni*, 8(1), 77–88. <https://doi.org/10.24042/jipfalbiruni.v8i1.3056>.
- Mariyana, R. & Nugraha, A. (2010). *Pengelolaan Lingkungan Belajar*. Jakarta: Kencana Prenada Media Group.
- Moma, L. (2017). Pengembangan Kemampuan Berpikir Kreatif dan Pemecahan Masalah Matematis Mahasiswa melalui Metode Diskusi. *Jurnal Cakrawala Pendidikan*, 36(1). <https://doi.org/10.21831/cp.v36i1.10402>.
- Muslikah. (2017). Out Class Learning dengan Media Realia untuk Meningkatkan Hasil Belajar Materi Plantae Siswa Kelas X IPA SMA Negeri 2 Demak. *Jurnal Profesi Keguruan*, 3(2), 170–174.
- Nguyen, L. T., Kanjug, I., Lowatcharin, G., Manakul, T., Poonpon, K., Sarakorn, W., ... & Tuamsuk, K. (2022). How teachers manage their classroom in the digital learning environment—experiences from the University Smart Learning Project. *Heliyon*, 8(10), e10817. <https://doi.org/10.1016/j.heliyon.2022.e10817>.
- Paolini, A. (2015). Enhancing Teaching Effectiveness and Student Learning Outcomes. *The Journal of Effective Teaching*, 15(1), 20–33.
- Perdana, T. I., & Sugara, H. (2020). Kemampuan Berpikir Kreatif Siswa SMK Negeri 1 Kedawung dengan Menggunakan Model Problem Based Learning. *Literasi: Jurnal Bahasa Dan Sastra Indonesia Serta Pembelajarannya*, 4(2), 102–107.
- Prastowo, A. (2012). *Panduan Kreatif Membuat Bahan Ajar Inovatif*. Yogyakarta: Diva Press.
- Rohim, A., & Asmana, A. T. (2018). Efektivitas pembelajaran di luar kelas (outdoor learning) dengan pendekatan PMRI pada Materi SPLDV. *Jurnal Pembelajaran Matematika*, 5(3).
- Rusman. (2014). *Model-model Pembelajaran (Mengembangkan Profesionalisme Guru)*. Jakarta: Raja Grafindo Persada.
- Rusman. (2015). *Pembelajaran Tematik Terpadu Teori, Praktik Dan Penilaian*. Jakarta: Rajawali Pers.
- Siskind, D., Conlin, D., Hestenes, L., Kim, S. A., Barnes, A., & Yaya-Bryson, D. (2020). Balancing technology and outdoor learning: Implications for early childhood teacher

- educators. *Journal of Early Childhood Teacher Education*, 43(3), 389–405. <https://doi.org/10.1080/10901027.2020.1859024>.
- Suherdiyanto. (2016). Penerapan metode pembelajaran diluar kelas (outdoor study) dalam materi permasalahan lingkungan dan upaya penanggulangannya pada peserta didik mts al-ikhlas kuala mandor b. *Sosial Horizon: Jurnal Pendidikan Sosial*, 1(1), 95–108.
- Triwahyuningtyas, D., Meganingrum, W., Yasa, A. D., & Sesanti, N. R. (2022). The Geometry E-module Based on Numerical Literacy for the Fifth Grade of Elementary School. *Al Ibtida: Jurnal Pendidikan Guru MI*, 9(1), 106. <https://doi.org/10.24235/al.ibtida.snj.v9i1.9351>.
- Widiasworo, E. (2017). *Strategi & Metode Mengajar di Luar Kelas (outdoor activity)*. Yogyakarta: Ar-Ruzz Media.
- Wullschleger, A., Vörös, A., Rechsteiner, B., Rickenbacher, A., & Merki, K. M. (2023). Improving teaching, teamwork, and school organization: Collaboration networks in school teams. *Teaching and Teacher Education*, 121, 103909. <https://doi.org/10.1016/j.tate.2022.103909>.