

The Circuit Learning Model on Elementary Students' Learning Outcomes

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ABSTRACT

The purpose of this study is to find out how the Circuit Learning Learning Model affects the learning outcomes of students of SDN 057227 Kebun Kelapa towards the grades of fourth grade students at SD Negeri 15 Sungai Liat. This type of research is a pre-experiment that only uses one class as an experimental class without a comparison class (control class) used in this type of research to determine the Effect of the Circuit Learning Learning Model , this session was attended by 25 fourth grade students. The results of the descriptive statistical analysis of the Effect of the Circuit Learning Learning Model on Student Learning Outcomes Student learning outcomes using the Circuit Learning learning model show higher results than before in Class IV of SDN 057227 Kebun Kelapa with the subject of the theme of the area where I live . The results of the inferential test analysis with the t-test formula, the calculated t value is 73.68, with a frequency of $df = 25 - 1$, and an importance level of 0.05%, so the t- table value is 17.73. So it can be concluded that H_0 is rejected while H_a is accepted. This shows that the application of the circuit learning model on the learning outcomes of fourth grade students of SD Negeri 15 Sungai Liat on the theme of the area where I live is very influential.

Keywords: *Circuit Learning Model, Learning Outcomes, Primary School, Students.*

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Introduction

As an independent nation, Indonesia strives to establish itself as a leading educational institution. Ribka et al. (2022: 1133) state that good education is necessary to foster the development of knowledgeable, skilled, and adaptable individuals. To ensure the achievement of educational goals, all stakeholders, including teachers, students, families, and the government, participate in the educational process in Indonesia.

Meanwhile, according to Rosanti et al (2022: 647), good education is education that equips students with the skills necessary to overcome difficulties in everyday life in addition to preparing them for work or positions . Fundamental adjustments in the national education system are needed for this purpose. These fundamental adjustments are related to the curriculum, which demands and requires a number of adjustments to other educational elements. This will ultimately meet students' needs by helping them achieve their learning outcomes, such as satisfactory learning outcomes.

Students become sleepy, disinterested, or quickly bored in class due to the inadequate use of lecture-based learning models and teacher-centered learning. This is due to inconsistent and inefficient teaching and learning processes. The learning process is not running smoothly. Furthermore, teachers do not appear to set learning objectives for their students; instead, they seem more involved in the learning process than the students. Consequently, teachers do not provide students with hands-on experiences, as they spend more time playing and paying less attention to the teacher during the lesson. Consequently, students may not be comfortable listening to the teacher's explanations for too long, as they tend to lack understanding. For example, teachers often do not provide students with actual problems to solve during the learning process. Instead, they use traditional teaching methods such as question-and-answer sessions and lectures, which do not seem varied enough to keep students engaged with what they are learning.

Furthermore, various elements, including internal and environmental variables, influence how well a child learns. All components known as internal factors, such as motivation, personality, and other traits, originate from the student themselves. According to Lia et al. (2021: 70), the term "external factors" refers to any and all factors that cannot be controlled by students, such as their school, family, and social networks. These factors are influenced by teachers in the classroom. If educators are successful in controlling the classroom, it will create a pleasant classroom for education and learning, and when students are encouraged to do well on their exams, a positive relationship between educators and students or between students will be created.

Based on the aforementioned issues, educators should employ learning strategies that encourage students to be active, not passive learners. Although teachers act as facilitators, students are still expected to be more involved in the learning process. To achieve learning objectives as efficiently as possible, students and teachers must participate in the learning model activities. Gunarto (2013:15) states that the learning model used encompasses classroom management, the learning environment, educational objectives, and the stages of learning activities.

As teaching and learning activities progress, learning materials become more engaging, students are more receptive, and the classroom atmosphere becomes more lively. Teachers must find innovative, effective, and efficient ways to teach given increasingly complex scientific and technical advances. Learning is considered effective in terms of learning outcomes if students are able to actively participate in the learning process with enthusiasm, confidence, and engagement. Furthermore, learning is considered effective if student behavior changes in a way that benefits their cognitive, emotional, and psychomotor functions. The cooperative learning paradigm helps students learn more effectively.

Literature Review

Cooperative learning models come in various forms, with circuit learning being one of them. With its enhanced and repetitive learning patterns, the circuit learning model maximizes thought and emotion. It is a group learning activity. The circuit learning model is a highly effective learning paradigm for boosting creativity and student learning outcomes because students are required to repeat what they have learned. Saufani et al (2018: 62) states that one method taught to help students achieve positive learning outcomes is the application of a learning paradigm known as Circuit Learning (CL). This technique can help students become more fundamental scholars, arouse their interest, and make them realize the value of the subjects they are studying, which will help them achieve ideal learning goals. Like teachers, students are involved in the learning process and serve as sources and facilitators of understanding.

Ekasari (2021: 284) states that it includes presentations of concept maps, applications, and presentations created using a method known as Circuit Learning, teacher-student Q&A sessions on the material being taught, and so on. Students are then divided into focus groups, and groups or individuals who perform well during the developmental experience are compensated. As Huda (2013: 313) points out, training students' attention to focus on the teacher's idea map and encouraging students' creativity in creating words in their own language are two benefits of the Circuit Learning learning model. While learning, students can pay attention, observe, and generate their own explanations, which will help them remember the material because they will experience it directly. According to Rita (2019: 24) in additional research revealed that students taught with the Circuit Learning learning model have better learning outcomes than students taught with the sentence concept learning model. This is indicated by the results of the hypothesis test that determines whether the hypothesis is accepted or rejected. The test

level = 0.05 produces $t_{count} > t_{table}$ or $23.79 > 1.998$, which indicates that H_0 is rejected and H_a is accepted. This indicates that the learning outcomes of making explanatory texts taught in the MAS Project Univa Medan are significantly influenced by the Circuit Learning learning paradigm.

According to Shalahudin et al. (2021: 28), teachers are encouraged to use the Circuit Learning model because it offers various teaching strategies that encourage students to be actively involved in their education and can significantly improve student learning outcomes. Meanwhile, Desi et al. (2022: 159) in additional research found that the use of question cards as a medium and the Circuit Learning (CL) paradigm improved learning outcomes. If there are the following findings related to this research, especially the impact of the circuit learning model on student learning outcomes. It is hoped that adopting the circuit learning model will be an alternative approach to using learning models in the classroom learning process. The Circuit Learning learning process is very easy for students to write creative notes based on their mentality, concept maps, language, questions and answers, and comments such as descriptions, conditioning the learning environment to be receptive and focused. Linda (2017: 8) that various learning activities are included in the circuit learning model to encourage students to think critically, participate actively in their education, and maintain communication with their teachers. Consequently, the learning process is reciprocal.

Slameto (2010: 2) states that learning is a cycle in which a person collaborates with the outside world to achieve new behavioral changes. Many changes in a person's character and traits occur because not all changes occur through learning. Nurjan (2016: 15) argues that experience can alter an organism's behavior, and learning is a change in both humans and animals. Rahmayanti (2016: 212) states that one of the fundamental stages of human development is learning. People develop the ability to change their individual characteristics in ways that impact their behavior. Because all human achievement is the result of learning, learning is an active and integrative process that occurs through the use of various forms of activity to achieve goals.

Learning is a daily activity at school. The learning process is complex. There are two areas where the complexity of learning can be seen: teachers and students. Students view learning as a process. Students go through mental processes when presented with learning materials. Content includes natural conditions, humans, animals, and textbook materials. Teachers perceive the learning process as learning behavior regarding a topic. Internal learning is a multifaceted process. Internal processes involve the entire mind, including the cognitive, emotional, and psychomotor domains.

Students' capacities should be surveyed following educational experiences to determine how far their understanding has developed and how much they have progressed. As Susanto (2013:5) states, the level of student success in learning a subject at school, as indicated by the scores obtained from tests to identify specific subjects, can be interpreted as learning outcomes. According to Husamah, learning is everything that is obtained, mastered, or acquired through the learning process and is usually expressed in scores or values.

Significant behavioural changes for instructional purposes in terms of mental space, depth, and psychomotor are known as learning outcomes. Behavioural changes brought about by learning are those related to the teaching objectives. Depending on the learning objectives, changes in cognitive, emotional, and psychomotor capacities can be learning outcomes. Students' attitudes toward critical and creative learning have changed, as expected. Academics assert that learning outcomes are modifications made by students through their skills to meet the learning objectives of the cognitive learning component. Learning outcomes, as defined above, are modifications brought about by an individual's business processes in the way experience and the environment interact. Furthermore, they can be estimated through experimental learning outcomes. Measurement tools include both tests and non-tests. The descriptions are subjective, while the forms are objective.

One component of learning that guides the steps of activities is the learning model. By utilizing the learning model process, educators can employ various approaches, strategies, methods, techniques, and tactics to facilitate learning. The learning model also serves as a platform for various learning activities to achieve learning objectives. To achieve ideal learning objectives, the model used is a general model for implementing learning. A learning model is a plan or model used to create or modify a curriculum, the learning process materials from start to finish, and the learning organization. Instructors are responsible for implementing each of these activities, tailored to the facilities and infrastructure used in education. By using this model, educators can help students develop knowledge, concepts, skills, and ways of thinking and expressing themselves. They also learn how to learn using learning paradigms.

Ribka et al. (2022: 1134) state that different learning models make lesson content more interesting, easier for students to understand, and more enjoyable to teach and learn in the classroom. Teachers must develop innovative, innovative, and cost-effective teaching strategies in response to developments in science and technology. To implement different learning styles and create a fun teaching and learning process, educators who understand this need to master various learning styles. Naibaho (2020:315) generally states that learning models are used to teach students how to use their knowledge to solve problems, how to answer questions, and how to think and express their opinions on all issues in educational activities. A learning model is a conceptual framework that outlines a methodical approach to creating learning experiences with the aim of achieving specific objectives. It serves as a planning guide for educational activities for teachers and lesson planners. There are four distinct characteristics that learning models lack compared to strategies, techniques, and processes. According to Trianto (2010: 74), these characteristics are: a) conceptual logic created by the programmer or creator b) The basis for thinking about what and how students learn (achievable learning objectives). c) Demonstrate behaviors that are important for the successful use of the model. d) Learning strategies needed to achieve learning objectives A well-designed demonstration model is a model that takes into account the circumstances of the students as well as the subjects being taught. A learning model is a plan or model that can be used to create a curriculum (long-term learning plan), manage learning in the classroom or elsewhere, and design learning materials. According to Yudi (2017:53), for educators to achieve their educational goals, they have the right to choose an efficient and effective learning model. Therefore, it's important to choose an appropriate learning model. Students should be able to collaborate in groups and benefit from this model's capabilities to improve material mastery and provide an engaging learning experience.

Rahmah (2018: 63) The student-centered Teaching and Learning Activity (KBM) process characterizes the Circuit Learning Model, an innovative and creative cooperative learning model. Teller, an education specialist, created the Circuit Learning Model. The Rahmah and Ali Fikri Hasibun (2018: 63) There are three stages in this model: (1) holding back the urge to panic when contemplating; (2) compiling mind maps and notes; What else can be added?. Because students consistently focus on similar examples, the circuit learning model saves a lot of time. You need a positive outlook and confidence to learn circuit learning. Most students have negative associations with exams. Fear, for example, makes them withdrawn. They show up for their exams with nothing in mind after hours of studying. Difficulty often strikes even the most dedicated students. Therefore, the first step is to remove yourself from the negative situation and replace it with more motivating feelings and thoughts. Students receive a learning pattern to repeat and develop during daily circuit learning lessons.

Based on the theory that has been explained, it can be concluded that the Circuit Learning type of learning model emphasizes learning in groups whose members need to be empowered, help each other, collaborate to solve problems by combining their respective abilities, perspectives, and achieve success both as a group and individually. able to understand what they have learned. Based on the findings, the circuit learning model is a learning model that is part of a problem-based and thinking approach. It is an integral part of creating an active, innovative, creative, and fun learning environment with the aim of empowering the mind through increasing and repeating patterns.

Methods

To determine how students learn in this study, the researchers used an exploratory testing strategy, namely a pre-experimental type with a single-group test. Before administering treatment, this study used a pre-test and post-test design so that the treatment results could be more accurate compared to the pre-treatment conditions. Despite the fact that this design is not recommended and does not have a comparison group, the researchers still used it for several reasons.

Population, as Sugiyono (2017:80) points out, is a broad term for things or people that meet certain criteria that academics use to study them and draw conclusions from their research. When a researcher decides to study a group of objects or people and draw conclusions based on their characteristics, this group is referred to as a population. The population of this study was all 25 students from grade IV of SD Negeri 15 Sungailiat. According to Sugiyono (2013: 118), a sample "is part of a number of characteristics possessed by a population." Purposive sampling, also known as a sampling procedure carried out based on the researcher's own considerations, was used in this study. In contrast,

the sample for this study consisted of 25 fourth-grade students, 15 of whom were female and 10 of whom were male.

The use of a one-group design in experimental research takes the form of a "pre-experimental design" using a one-group pretest-posttest design because there are no other groups nearby that can be used as research subjects. Involving other groups in this study that are far from the research area would certainly take more time, effort, and costs. Due to the researcher's constraints, this experimental study uses a one-group design, "pre-experimental design," and a one-group pretest-posttest design. Initial measurements (pretest), followed by final measurements (posttest), and observation sheets were completed. Students were given an initial test to determine their ability level before using the circuit learning model. A posttest was then administered to assess the learning that had taken place. As can be seen in Table 3.1 below, the consequences of the treatment can be more precisely determined because they can be compared to the conditions in which the treatment was implemented.

Table 1. One Group Pretest-Posttest Design

Pretest (Initial Test)	Treatment	Posttest (Final Test)
Variable Y ₁ (Learning outcomes)	Variable X (<i>Circuit Learning Model</i>)	Variable Y ₂ (Learning outcomes)

The method of collecting data is known as a data collection technique. Therefore, having tools for data collection is a prerequisite for conducting research, which is followed by the creation of those tools. Tests, observations, and interviews are the data collection methods used in this study. Learning outcome test is a series of questions or exercises used to measure an individual's potential, such as those related to learning outcomes (knowledge, understanding, skills, and attitudes) and intelligence quotient (IQ), as well as other potentials that an individual or group may possess. A learning outcome test is a measurement method in which respondents are required to complete a number of tasks or questions.

The test in this study was a learning outcome test created by the teacher (researcher) and adapted to the curriculum of SD Negeri 15 Sungai Liat. The test was previously discussed with the class teacher. The subjects in this study were fourth-grade students. The test in question was a posttest. A posttest is a test administered after the learning process and is used to evaluate the extent of student learning outcomes achieved after the learning process. This test was administered after the circle learning model.

Result and Discussion

This research was conducted in the even semester of the 2025/2026 academic year in January and February. In this study, an experimental class was used to measure student learning outcomes and a pre-test experimental research method was used. The results of the exploratory design included one of the pre- and t-test groups before treatment; in this case, the treatment results can be identified more precisely because it can measure conditions before treatment. Despite the fact that the one-group pre- posttest design is not recommended for use in research and does not have a comparison group, researchers continue to use it for various reasons.

The purpose of this study was to examine the effect of the Circuit Learning model on the learning outcomes of fourth-grade students at SD Negeri 15 Sungai Liat, on the theme of the area where I live. The variables studied in this study were the Circuit Learning Model symbolized by the symbol X, and student learning outcomes symbolized by the symbol Y. A pre-test designed to identify the main skills of fourth-grade students was given to the sample before starting the treatment. In addition, the sample that followed the treatment was given a post-test to determine the learning outcomes of students who used the Circuit Learning model.

Table II. Pre-test

No	Student name	Pretest score
1	Student 1	65
2	Student 2	55
3	Student 3	60

4	Student 4	55
5	Student 5	60
6	Student 6	65
7	Student 7	75
8	Student 8	75
9	Student 9	55
10	Student 1 0	70
11	Student 1 1	55
12	Students 1 2	60
13	Student 1 3	65
14	Students 1 4	65
15	Students 1 5	60
16	Students 1 6	40
17	Student 1 7	65
18	Students 1 8	60
19	Student 1 9	50
20	Student 20	50
21	Student 21	75
22	Student 22	70
23	Student 23	75
24	Student 24	65
25	Student 25	70

Before receiving treatment, 12 students were assessed with a grade of D (less), 7 with a grade of C (sufficient), and 6 with a grade of B (good) based on the table above. The statement above states that 15% of students achieved the KKM (75) and 85% were below the KKM, and that means students who got the KKM were at a lower level than those who did not. The student with the lowest score was the student with the highest score, which was 40. The previous data shows that these students' pretest scores were still relatively low. This is indicated by students who obtained higher KKM scores and lower pretest scores than those who obtained lower KKM scores. The average (mean) pretest scores for fourth-grade students at SD Negeri 15 Sungai Liat.

Table III. Pre-test calculation

<i>Pretest</i>		
X	F	FX
40	1	40
50	2	100
55	4	220
60	5	300
65	6	390
70	3	210
75	4	300
Amount	25	1,560

After receiving therapy, the class showed changes during the trial. These changes manifested themselves in learning outcomes, data for which were collected after the posttest . The following data illustrate these changes.

Table IV. Post-test

No	Student name	Mark <i>Posttest</i>
1	Student 1	90
2	Student 2	70
3	Student 3	70
4	Student 4	80
5	Student 5	70
6	Student 6	80
7	Student 7	85
8	Student 8	85
9	Student 9	75
10	Student 10	90
11	Student 11	75
12	Student 12	70
13	Student 13	75
14	Student 14	75
15	Student 15	70
16	Student 16	70
17	Student 17	80
18	Student 18	80
19	Student 19	80
20	Student 20	70
21	Student 21	85
22	Student 22	90
23	Student 23	95
24	Student 24	75
25	Student 25	95

The research hypothesis "The Effect of the Circuit Learning Model on Student Learning Outcomes" was tested using a simple regression test as the methodology.

Table V. Pre and Post Calculation

No	X1 (Pre-test)	X2 (Post-test)	D X2 - X1	d ²
1	65	90	25	625
2	55	70	15	225
3	60	70	10	100
4	55	80	25	625
5	60	70	10	100
6	65	80	15	225
7	75	85	10	100
8	75	85	10	100
9	55	75	20	400
10	70	90	20	400
11	55	75	20	400

12	60	70	10	100
13	65	75	10	100
14	65	75	10	100
15	60	70	10	100
16	40	70	30	900
17	65	80	15	225
18	60	80	20	400
19	50	80	30	900
20	50	70	20	400
21	75	85	10	100
22	70	90	20	400
23	75	95	20	400
24	65	75	10	100
25	70	95	25	625
Amount	1,560	1,980	420	8,150

To find the t table , the researcher used the t distribution table with a significance level of $\alpha = 0.05$ and $db = N - 1 = 25 - 1 = 24$ with a significance level so that t was obtained $0.05 = 2.064$. After obtaining t, calculate = 1 and t Table = 17.73 then obtained t Count > t Table or $84 > 1.71$. Therefore, it can be said that H_a is accepted but H_o is rejected. This means that the use of the circuit learning model has an effect on student learning outcomes on the theme of my residential area in grade IV of SD Negeri 057227 Kebun Kelapa.

The research findings are discussed in this section. Conclusions based on the collected data reflect the desired outcomes. The learning outcomes of fourth-grade students at SD Negeri 15 Sungai Liat illustrate the importance of the Circuit Learning model on learning outcomes. Combined pre- and post-test scores can be used to measure this effect. The average value of student learning outcomes determined from the pretest results is 63, with very low 4%, low 68%, moderate 16%, high 12%, and very high 0%. The current rates tend to indicate that before using the Circuit Learning learning model , the level of student learning outcomes was quite low. This is because many students still play games, do not pay attention to teacher explanations, go in and out of class, and talk to their friends while studying. To inform some students when the teacher will clarify some important points. Students start to be active during learning hours when the Circuit Learning learning model is used.

Furthermore, the post-test results had an average score of 77.4, indicating that the Circuit Learning model improved student learning outcomes. Similarly, the presentation of class learning outcomes for subjects in my area of residence was also expanded, with very high results at 12%, high results at 24%, medium results at 64%, low results at 0%, and very low results at 0%. This was evident from the large number of students who began to actively answer questions posed by the teacher and from the large number of students who also began to actively and confidently express their opinions during the lesson. When the Circuit Learning approach is used, students are guaranteed to be engaged in a continuously developing and enjoyable experience.

To find the t table , the researcher used the t distribution table with a significance level of $\alpha = 0.05$ and $db = N - 1 = 25 - 1 = 24$, so the t obtained was $0.05 = 1.73$. After obtaining the t count = 1 and t Table = 17.73 then obtained t Count > t Table or $84 > 1.73$. Therefore, it can be said that H_a is accepted but H_o is rejected. This means that the use of the circuit learning model has an effect on student learning outcomes on the theme of my residential area in grade IV of SD Negeri 057227 Kebun Kelapa. From the previous explanation, it can be seen that the posttest scores of fourth-grade students at SD Negeri 057227 Kebun Kelapa (after treatment) are more effective than the pretest scores (before treatment). In addition, the use of the Circuit Learning model has an effect on the learning outcomes of fourth-grade students at SD Negeri 057227 Kebun Kelapa in the subject of the theme near my residence. This is because the Circuit Learning model can change the learning environment to be more enjoyable for students than it is currently. Students want to present their own perspectives. learning because it is more

dynamic and has the potential to increase creativity. The proof is that fourth-grade students at SD Negeri 057227 Kebun Kelapa experienced an increase in learning outcomes after the implementation of the Circuit Learning learning model .

Circuit Learning model in exploration classes improves student learning outcomes, as stated in this statement. 72% of students' learning outcomes in the pre-test used the Minimum Competency Criteria (KKM); however, 100% of students achieved the Minimum Competency Criteria (KKM) after treatment. This indicates that student learning outcomes are influenced by the Circuit Learning model . This occurs due to the continuous redundancy of material throughout the developing experience, which begins with the teacher presenting the material, continues with students discussing it in groups, continues with the existing idea maps being introduced in their respective regional languages, and ends with the teacher. P at that time, to add learning materials that students use repeatedly to help them remember and understand the material being studied.

The Circuit Learning model has the advantage of planning for students to follow the teacher's mind map and expand their thinking through word formation. By completing the worksheet and paying attention to the teacher's explanations and mind map, students can participate in the learning process. As a result, they can use their answers to construct sentences in their own language. Consequently, students should develop confidence and understanding of the material they are learning. The Circuit Learning model has both advantages and disadvantages, or limitations. One of these is that researchers must guide students individually through the presentation of existing concepts, making the implementation process time-consuming. The exploration directed by Dewa Ayu Puspa Dewi in 2014 with the title "The Effect of the Circuit Learning Model Assisted by General Media on the Learning Outcomes of the Friendly Exam of Class V of SD Negeri 1 Pejeng" is in accordance with the title of the author. The results of the study showed that students in the exploration group obtained a normal posttest score of 79.30 and students in the benchmark group obtained a normal posttest score of 73.72, and the data was tested with a t-test., Because $t_{count} > t_{table}$ shows that H_0 is discarded and H_a is recognized, t_{count} becomes (3.72) with a very large degree = 5%. t_{table} is calculated to be (2.00). As a result, the Circuit Learning learning model is said to have a significant influence on students' listening results.

The measure of success of a learning process can be the achievement of competencies that have been utilized since the beginning of the activity. Teachers (educators) and students need to communicate with each other throughout the educational experience. One of the teacher's efforts to improve learning outcomes in the subject I am taking is by creating an interesting and meaningful learning environment for students. In the theme of my hometown , teachers must include complete student animation by providing opportunities for students to learn how to develop their cycling skills based on experience, extraordinary opportunities for students to search, find, and close various information they have obtained, and connections between the topics taught and student individuality. Not only that, teachers must also provide good opportunities for students to express their opinions using their own language.

To help students understand the material on the topic "My Place of Residence ," the examples in this section can be presented using various learning systems and tools. To accommodate students' needs in learning activities centered on "My Place of Residence," teachers should employ strategies that support the learning process and make it enjoyable. Teachers can use the Circuit Learning model to improve the quality of their teaching. Students can use this Circuit Learning model to help them remember what they hear, improve their listening skills, and develop their imagination by creating terms in their own language.

This research is a form of experimental research in the form of pretest t and posttest at SD Negeri 057227 Kebun Kelapa which is comparing the scores of learning outcomes before using the Circuit Learning model during the pretest with the scores of learning outcomes after using the Circuit Learning learning model during the posttest . So it can be concluded that the Circuit Learning learning model can be used on the theme of the area where I live. Some of its advantages are that it can activate students during the learning process, attract students' attention, and facilitate student understanding.

Conclusion

Learning outcomes of fourth grade students at SD Negeri 15 Sungai Liat on the theme The area where I live uses the circuit learning model during the pretest , obtaining an average score of 63 and during the posttest obtaining an average score of 77. This can be seen from the results of the posttest percentage of students who obtained very high scores of 12%, high 24%, medium 64%, low 0%, and

very low 0%. So from these results it can be concluded that the use of the Circuit Learning learning model in grade IV of SD Negeri 057227 Kebun Kelapa is more effective than before using the Circuit Learning learning model. Students become accustomed to using the Circuit Learning learning model from the next meeting to the last meeting. During the learning process, students can observe concept maps and listen to explanations given by the teacher, as well as fill out the answer sheets on the worksheets so that students can compose sentences using their own language based on the answers they get. Based on this, students can easily and understand the contents of the material they have learned.

There is an influence of the Circuit Learning learning model on student learning outcomes on the theme of the area where I live for grade IV students at SDN 057227 Kebun Kelapa, Langkat Regency, this can be seen from the results of the analysis of student score acquisition. that the researcher's t table uses a t distribution table with a significance level of $\alpha = 0.05$ and $db = N - 1 = 25 - 1 = 24$, then t is obtained $0.05 = 1.71$. After obtaining t, calculate $t = 1$ and t Table = 17.73 then obtained t Count $>$ t Table or $73.68 > 1.71$. So it can be concluded that H_0 is rejected and H_a is accepted. This means that the use of the circuit learning model has an effect on student learning outcomes on the theme of my residential area in grade IV of SD Negeri 057227 Kebun Kelapa.

References

- Amka. 2018. Learning and Teaching. Sidoarjo: Nizamia Learning Center.
- Arikunto, S. 2019. Research Procedures. Jakarta: Rineka Cipta
- Desi Purnama Sari, Triani Ratnawuri, Tiara Anggia Dewi. 2022. The Effect of Using the Circuit Learning (CL) Model Assisted by Question Cards on Economics Learning Outcomes. *Edunomia: Scientific Journal of Economic Education* Vol. 2, No. 2, May 2022 P-ISSN: 2746-5578 E-ISSN: 2746-5586
- Ginting, D. A., & Ramadhan, S. (2024). The impact of interactive learning applications on EFL students' preferences and academic achievement. *Tem Journal*, 13(2), 1362.
- Ginting, D. A., Rosmen, R., Hassan, M., & Marpaung, F. D. N. (2024). THE ROLE OF LEARNING FACILITIES IN ENHANCING TOEFL TEST PREPARATION AMONG UNIVERSITY STUDENTS. *PROJECT (Professional Journal of English Education)*, 7(3), 580-588.
- Ekasari, Nirmala. 2021. Application of the Circuit Learning Method to Improve Student Learning Outcomes. *Indonesian Journal of Education*, 2(2): 284.
- Gunarto. 2013. Models and Methods of Learning in Schools. Semarang: UNISSULA PRESS
- Hardani, Auliya HN, Andriani H., Fardani AR, Ustiawaty J., Utami FE, Sukmana JD, Istiqomah RR 2020. Qualitative & Quantitative Research Methods. Yogyakarta: Pustaka Ilmu.
- Huda, Miftahul. 2013. Teaching and Learning Models. Yogyakarta: Pustaka Belajar.
- Husamah. et al. 2017. Learning and Teaching. Malang: Muhammadiyah University of Malang.
- Lia Desiana, Rita Patonah, Ilah 2021. The Effect of the Circuit Learning Method on Economics Subjects in High School. *J-KIP (Journal of Teacher Training and Education)* Vol. 2, No. 3, October 2021, pp. 69-76
- Linda, AM 2017. The effectiveness of the circuit learning model to improve creativity and economic learning outcomes of students at SMAN 7 Pontianak. *Research Article: FKIP Tanjungpura*.
- M. Amrullah Effendi. 2017. The Effect of Circuit Learning Model on Biology Students' Learning Outcome on the Excretion System at Grade XI IPA SMA Prayatna Medan. *Proceedings of the 3rd National Seminar on Biology and Its Learning, State University of Medan, September 8, 2017*
- Naibaho, L., Silaban, PJ, Sinaga, R., Katolik, U., & Thomas, S. 2020. The Effect of the Savi Learning Model on Learning Outcomes Introduction to Research Methods. 6(2), 314–319.
- Nurjan, Syarifan. 2016. Psychology of Learning. Ponorogo: CV. Wede Group.
- Rahmah, A., & Hasibuan, AF 2019). Application of the Circuit Learning Model with the Drill Learning Method to Improve Accounting Independence and Learning Outcomes. *Journal of Accounting and Learning*, 8(2), 60–91.
- Rahmayanti, Vina. 2016. The Influence of Student Learning Interest and Perception of Teacher Efforts in Motivating Student Learning on Indonesian Language Learning Achievement of Junior High School Students in Depok. *SAP Journal*, 1(2): 212.
- Ribka Sihaloho, Rumiris Lumban Gaol, Regina Sipayung, Patri Janson Silaban. 2022. The Effect of the Circuit Learning Model on Students' Mathematics Learning Outcomes in Grade IV of Elementary School. *Proceedings of the Basic Scientific Conference*. Volume 3, July 2022 ISSN: 2621-8097 (Online)
-

-
- Rita. 2019. The Effect of the Circuit Learning Model on the Learning Outcomes of Writing Explanatory Texts for Class XI Mas Univa Project. *BAHA STRA: Journal of Indonesian Language and Literature Education* ISSN: 2550-0848; ISSN Online: 2614-2988 Vol. 3, No. 2
- Rosanti Nainggolan, Rumiris Lumban Gaol, Dyan Wulan Sari HS, Patri Janson Silaban. 2022. The Effect of Implementing the Circuit Learning Model on Student Learning Outcomes in Grade IV of Elementary School. *PAJAR Journal (Education and Teaching)* Volume 6 Number 3 May 2022 | Print ISSN: 2580 - 8435 | Online ISSN: 2614 - 1337 DOI: <http://dx.doi.org/10.33578/pjr.v6i3.8482>
- Saufani Rosyida, M. Ismail. Sukardi. 2018. The Effect of Circuit Learning (CL) Model Assisted by Question Cards on Civics Learning Outcomes. *Journal of Social and Diversity Education* Vol. 5, No. 2, April-September 2018, pp. 60-72
- Shalahudin, Hidayah, Anggi Fitri. 2021. Improving Student Learning Outcomes Through the Circuit Learning Model in Thematic Learning. *Al-Mafahim: Journal of Elementary School Teacher Education* Volume 4 Number 1 February 2021, Pages 23-29 ISSN: 2614-784X
- Slameto. 2016. *Learning & Factors That Influence It*. Sixth Edition. Jakarta: Rineka Cipta
- Sudijono, Anas. 2015. *Introduction to Educational Statistics*. Jakarta: PT. Raja Grafindo Persada
- Suryabrata, Sumadi. *Research Methodology* . 2008. Jakarta: PT Raja Grafindo Persada
- Sugiyono. 2017. *Quantitative, Qualitative, and R&D Research Methods*. Bandung: ALFABETA
- Susanto, Ahmad. 2013. *Learning Theory & Teaching in Elementary Schools* . Jakarta: Prenadamedia Group
- Trianto . 2010. *Developing a Thematic Learning Model*. Jakarta: Prestasi Pustakaraya.
- Yudi Wijanarko. 2017. Make Match Learning Model for a Fun Science Learning Environment, *Taman Cendikia Journal*, (2017), Vol. 01. No. 01. p-ISSN: 2579-5112. P1