

Ice Breaking Technique in Learning on the Learning Motivation

Widya Masitah^{1*}, Melyani Sari Sitepu², Mitha Hidayati³, Sarintan N Kaharu⁴ 

¹ Islamic Education Departement, Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia

² Elementary School Teacher Education Department, Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia

^{3,4} Elementary School Teacher Education Department, Tadulako University, Palu, Indonesia

ARTICLE INFO

Article history:

Received May 29, 2024

Accepted June 10, 2024

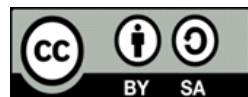
Available online July 25, 2024

Kata Kunci:

Teknik Ice Breaking, Motivasi Belajar, Pelajaran Tematik

Keywords:

Ice Breaking Technique, Learning Motivation, Thematic Lessons



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

Copyright © 2024 by Author. Published by Universitas Pendidikan Ganesha.

ABSTRAK

Tujuan penelitian adalah untuk menganalisis pengaruh Teknik Ice Breaking dalam pembelajaran terhadap motivasi belajar. Penelitian ini dilatar belakangi oleh kurangnya motivasi siswa selama pembelajaran. Penelitian menggunakan pendekatan kuantitatif. Teknik pengumpulan data menggunakan lembar angket. Analisis data yang digunakan analisis statistik inferensial. Kesimpulan penelitian ini adalah terdapat pengaruh penerapan teknik ice breaking dalam pembelajaran terhadap motivasi belajar siswa. Dibuktikan dengan hasil pengujian hipotesis menggunakan uji t sampel berpasangan pada taraf signifikansi 5% (0,05) diperoleh nilai signifikansi sebesar 0,000. karena nilai signifikan uji $T < 0,05$ ($0,000 < 0,05$) maka H_a diterima dan H_o ditolak.

ABSTRACT

The aim of the research is to analyze the influence of the Ice Breaking Technique in learning on students' learning motivation. This research was motivated by a lack of student motivation during learning. The research uses a quantitative approach. The data collection technique uses a questionnaire sheet. Data analysis used inferential statistical analysis. The conclusion of this research is that there is an influence of the application of ice breaking techniques in learning on the learning motivation students. Proven by the results of hypothesis testing using the paired sample t test at a significance level of 5% (0.05), a significance value of 0.000 was obtained. because the significant value of the T test < 0.05 ($0.000 < 0.05$) then H_a is accepted and H_o is rejected.

1. INTRODUCTION

Education is the foundation of a country (Sri Ramadhani, 2024). Education is a process to influence students to adapt as best as possible to their environment (Utami & Wardani, 2020; Violadini & Mustika, 2021). Through education, it will bring about changes in oneself that will enable it to be optimally useful in people's lives (Novarina et al., 2019; Pratama et al., 2021). Efforts to improve the quality of education in the context of increasing human resources are the central point and strategy in realizing dynamic quality education that is capable of being independent and proactive (Sari et al., 2022). The education sector, which is one of the main pillars for the progress of the nation's next generation, must also adapt to current developments so as not to be left behind by progress. countries both in terms of educational technology and curriculum when compared with developed countries (Rahayu et al., 2023).

Learning is the result of the process of giving directions or guidelines that must be understood or followed, with the addition of the prefix "pe" and the suffix "an" to the basic word "teach". Refers to processes, actions, or methods in providing teaching so that students become motivated to learn (Putrianingsih et al., 2021). Success in the world of education cannot be separated from the role of a teacher. The role of teachers in education is required to be able to organize and manage learning. A professional teacher must be able to create an interesting, interactive classroom environment and involve students in the learning process so that the planned learning objectives can be achieved. (Mahzum, 2023).

So that students don't get bored quickly when they receive content from educators, teachers are expected to be proficient in using effective media. (Princess Suryanida, 2022). Fun learning can be interpreted as the process of delivering teaching materials that will be given to students. students using certain methods or methods correctly, and of course making students happy, actively involved, so that learning objectives can be achieved optimally. (Jatmiko, 2020).

But in reality, based on observations and interviews conducted by researchers at SD Inpres 15 Wara Pantoloan, researchers found a lack of student attention during the learning process. Students pay less attention to the teacher when explaining the lesson material in front of him. Many students do not focus and feel bored when studying. When teachers teach, they rarely provide icebreaking techniques or other techniques to generate motivation in students so that students look bored, some are drawing, chatting with friends next to them, some are coming in and out of class, sometimes in the middle of the day, many students are less enthusiastic about learning, and the desire to go home was great. This happens because of the lack of enthusiasm and motivation of students in learning during the learning process.

Seeing these problems, it is necessary to have a solution to optimize student learning motivation. In connection with this, the researcher wants to apply the ice breaking technique. Ice breaking is a term to explain a process that the facilitator needs to carry out to change the participant's state of mind (Harianja & Sapri, 2022; Huw et al., 2021). Ice breaking can be the right tool to facilitate the success of an event, including in the learning process (Desmidar et al., 2021; Pratama et al., 2021).

Motivation will cause changes in the energy that exists in humans, so it will depend on psychological symptoms, feelings and emotions to act to do something. Goals, needs and desires drive all of this. Azizah & Fatimah (2022), stated that learning carried out with low motivation will produce poor learning results. Learning motivation as a driver of student enthusiasm in learning activities (Zakiyyah, 2022). Motivational function relating to the learning process teaching, are: First, the driving function, namely driving or encouragement to carry out student learning activities. Second, the function of hope, namely the lecturer provides these hopes to inspire motivation to learn (Setiawan, 2017).

Based on the background above, the researcher was encouraged to conduct research with the title "The Influence of Ice Breaking Technique Learning on the Learning Motivation of Class V Students at SD Inpres 15 Wara Pantoloan".

2. METHOD

The design used in this research is a quantitative research design with experimental research methods, namely research used to find the effect of certain treatments on others under controlled conditions. The form of experimental design used in this research is pre-experimental one-group pretest-posttest design. The population in this study were students V of SDN 15 Wara Pantoloan, totaling 21 people. The sample in this study was class V with a total of 21 students who would be given treatment using the Ice Breaking Technique. The sampling technique uses a saturated sampling technique.

The data collection technique in this research was a student learning motivation questionnaire with a total of 25 statements. A questionnaire is a technique or method of collecting data indirectly (researchers) do not directly ask questions and answers with respondents. Data analysis according to Sugiyono, (2021) is a method used regarding calculations to answer problem formulation and testing :

Descriptive statistical data analysis

Descriptive data analysis aims to provide an overview of the achievement of learning motivation criteria scores. From the results of calculating questionnaire data for all students to measure student motivation and learning activities in the teaching and learning process in class, you will obtain a percentage value, which can be transformed into determining a benchmark percentage scale. The benchmark criteria are as follows:

Table 1. Criteria for the Success of Student Learning Motivation

Percentage	Criteria
86 – 100 %	Very Good
76 – 85%	Good
60 -75 %	Is Enough
55 – 59%	Less

Source: Widodo (Nuraeni, 2022 p.42)

Inferential statistical analysis

Inferential analysis according to [Sugiyono \(2017\)](#) is a statistical technique used to analyze sample data and the results are applied to the population. Analytical techniques to answer hypotheses in this research include normality tests, homogeneity tests, hypothesis tests with the help of the IBM SPSS version 26 program.

3. RESULT AND DISCUSSION

Result

Analysis of data produced from January 22 to January 25 2024 with the object of research being class V students at SD Inpres 15 Wara Patoloan with a total of 21 students. The implementation of this research was carried out by giving an initial test (Pre-Test) in the form of a questionnaire totaling 25 statements. After that, treatment was given using the ice breaking technique. Type of Yel - Yel (Yel Interaction Model), Type of applause (Said response to applause), Type of song (Modified songs containing learning materials). After the treatment, a final test (Post-Test) was given in the form of a questionnaire totaling 25 statements.

Table 2. Results of Pre-Test Data Analysis of Student Learning Motivation

Description	Initial Test (Pre-Test)
Subject	21
Lowest Score	67
Top Score	85
Average Value	76.38

Based on the data above, it is known that the results of the pre-test data analysis of the average (mean) learning motivation of experimental class students were 76.38, the experimental class pre-test results obtained a minimum score of 67 and a maximum score of 85.

Table 3. Percentage of Pre-Test Learning Motivation

Motivation Indicators	Motivation Percentage (%)	Motivation Category
Has high passion	72.4	Enough
Full of Spirit	81.35	Good
Having curiosity or high curiosity	77.78	Good
Able to be independent when the teacher asks students to do something	75.13	Enough
Have self-confidence	77.0	Good
Having a high concentration	69.84	sufficient
Difficulties are seen as challenges that must be overcome	76.5	Good
Have patience and high fighting power	85.71	Good

From the [Table 3](#) above, it can be concluded that the student's learning motivation value is that they have high passion at 72.4% in the sufficient category, full of enthusiasm at 81.35% in the good category, have curiosity or high curiosity at 77.78% in the good category, able to be independent when the teacher asks students to do something at 75.13% in the sufficient category, having self-confidence at 77.0% in the good category, having high concentration at 69.84% in the sufficient category, difficulty is considered as the challenges that must be overcome are 75.5% in the good category, having high patience and fighting power is 85.71% in the good category so it can be concluded that the student's pre-test learning interest or before applying the ice breaking technique, the value of learning motivation students in the high category.

The treatment was given in the form of teaching using the ice breaking technique which was carried out in class after giving the pretest. When providing treatment in learning, researchers used the ice breaking technique spontaneously according to the classroom conditions when the learning was taking place and were no longer conducive. The ice breaking technique used during learning is :

Table 4. Types of Ice Breaking Techniques Used

1. Type of Yel - Yel (Yel Interaction Model)	2. Type of song (Changed songs containing learning material)	3. Type of applause (words for clapping)
Ice Breaking "Hi and Hello" Teacher: Hi! Student: Hello! Teacher: Hello! Student: Hi! Teacher: Hi Hello! Student: Hello Hi! And so on Heat transfer	Heat transfer Heat can be transferred in three ways Conduction and convection and also radiation Conduction propagates Radiation radiates Convection, heat convection flows. The heat of a frying pan is an example of conduction Campfire emissions, for example radiation Land and sea winds are examples of convection Cold air conditioning, also an example of convection The heat of an iron is an example of conduction Solar radiation is an example of radiation The process of boiling water is an example of convection Welding iron is an example of conduction	Ice Breaking Tepuk Clap 1 = yes Clap 2 = okay Clap 3 = enthusiasm Clap 4 = concentration Clap 5 = ready to learn Clap focus = see, hear, remember, focus. Clap concentration = I, concentrate, because I want to know, my teacher is speaking, I am the one who is listening, ready.

Table 5. Results of Post-Test Data Analysis of Student Learning Motivation

Description	Final Test (Post-Test)
Subject	21
Lowest Score	85
Top Rated	100
Average Value	92.38

Based on the data above, the results of post-test data analysis on student learning motivation show that the average (mean) of class students is 92.38, the post-test results for the experimental class obtained a minimum score of 8 and a maximum score of 100.

Table 6. Percentage of Post-Test Learning Motivation

Motivation Indicators	Motivation Percentage (%)	Motivation Category
Has high passion	89.84	Very Good
Passionate	92.46	Very Good
Have a high level of curiosity or curiosity	90.87	Very Good
Able to be independent when the teacher asks students to do something	89.95	Very Good
Have self-confidence	93.65	Very Good
Has high concentration	84.12	Good
Difficulties are seen as challenges that must be overcome	89.84	Very Good
Have high patience and fighting power	93.65	Very Good

From the [Table 6](#) above, it can be concluded that the value of student learning motivation is that they have high passion of 89.84% in the very good category. Full of Enthusiasm of 92.46% in the very good category. Having curiosity or high curiosity is 90.87% in the very good category. Being able to be independent when the teacher asks students to do something is 89.95% in the very good category. Has self-confidence of 93.65% in the very good category. Has a high concentration of 84.12% in the good category. Difficulty is considered a challenge that must be overcome by 89.84% in the very good category. Has high patience and fighting power of 93.65% in the very good category. So it can be concluded that the student's post-test learning motivation or after applying the ice breaking technique, the student's learning motivation value is greater.

The normality test is carried out to determine whether the data population is normally distributed or not. The calculations used in the normality test use the Shapiro-Wilk formula because the research sample is less than 50.

Table 7. Pre-Test and Post-Test Data Normality Test

		Statistic	Df	Sig.
Motivasi Belajar	Pre-Test	0.958	21	0.472
	Post-Test	0.951	21	0.362

Based on the [Table 7](#) above, the results of the normality test using the Liliefors Shapiro-Wilk formula with the help of the IBM SPSS version 26 program, can be seen from the significant value (Sig.) on the Pre-Test learning results using the Shapiro-Wilk formula of $0.472 > 0.05$. For the Post-Test class, the Shapiro-Wilk formula is $0.362 > 0.05$. So it can be concluded that the research data is normally distributed and the analysis can be continued.

The homogeneity test is carried out to find out whether samples taken from the population have the same conditions when given treatment. The test criteria are carried out to determine whether the data variance is homogeneous or not, seen from the significant value (Sig.) > 0.05 , then the data variance is homogeneous. Conversely, if the significant value (Sig.) < 0.05 then the data variance is heterogeneous.

Table 8. Homogeneity Test of Pre-Test and Post-Test Data

		Levene Statistic	df1	df2	Sig.
motivasi belajar	Based on Mean	0.689	1	40	0.412
	Based on Median	0.700	1	40	0.408
	Based on Median and with Adjusted df	0.700	1	39.595	0.408
	Based on Trimmed Mean	0.711	1	40	0.404

Based on the [Table 8](#) above, it shows a significant value (Sig.) $0.412 > 0.05$ so it can be concluded that the Pre-Test and Post-Test data are homogeneous. Testing the Effect of Ice Breaking Techniques in Learning on Students' Learning Motivation at SD Inpres 15 Wara Pantoloan. using Paired Sample T Test analysis via the IBM SPSS version 26 program. Paired Sample T Test is a parametric test that can be used on two paired data. The purpose of this test is to see the significant effect between two paired samples with the assumption that the data is normally distributed.

Table 9. Hypothesis Test Paired Sample T Test

		Paired Differences					df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
					Lower	Upper		
Pair 1	Pretest posttest	-16.000	6.245	1.363	-18.843	-13.157	t	0.000
							-11.741	

If the Sig value. (2-tailed) < 0.05 , then there is a significant influence between student learning motivation on the Pre-test and Post-Test data. If the Sig value. (2-tailed) ≥ 0.05 , then there is no significant influence between student learning motivation in the Pre-Test and Post-Test data. Based on the data above, it is known that the Sig. (2-tailed) of $0.000 < 0.05$. So it can be concluded that H_a : There is an influence of the Ice Breaking Technique in learning on the learning motivation of class V students at SD Inpres 15 Wara Pantoloan is accepted and H_o : There is no influence of the Ice Breaking Technique in learning on the learning motivation of class V students of SD Inpres 15 Wara Pantoloan is rejected.

Discussion

Research before treatment uses lecture methods, group discussions and does not use icebreaking techniques. During the learning process in class, students were less enthusiastic, as seen from several students playing with their friends next to them, some were disturbing their friends and some were busy drawing in their books. Apart from that, when studying the concept of heat transfer material around us presented by researchers, students only remember what has been explained and read the entire text that

has been given. During group discussions regarding heat transfer material around us, students not only discuss heat transfer material around us, but also discuss material that has nothing to do with learning.

The choice of learning techniques must be appropriate to the learning situation and conditions ([Desmidar et al., 2021](#); [Harianja & Sapri, 2022](#)). The learning technique that can be applied by teachers in learning is the ice breaking technique. The impact of applying the ice breaking technique at the core of this learning activity is to make students focus back on the lesson material and be more enthusiastic about following the learning process provided by the teacher in class. The ice breaking technique used has an impact on teachers and students alike. Teachers and students become enthusiastic again and focus on carrying out learning activities ([Devi et al., 2022](#); [Kristanto et al., 2020](#)).

treatment of icebreaking techniques used spontaneously at the beginning of learning using a Yel Type icebreaker (Yel Interaction Model). Mono shouts are shouts uttered by students individually or in groups in one direction, from start to finish. Types of applause (word for applause). In the middle of the lesson, the researcher used the icebreaking technique. Type of song (changing songs that contain learning material) so that learning is more meaningful if the teacher is able to replace songs with poetry that contains learning material. And at the end of the lesson the researcher used the icebreaking technique. Types of applause (word for applause). This means that every word the teacher says is answered by the students by clapping their hands. Before reflecting.

Based on quantitative analysis, students' initial motivation by giving an initial test is known to have an average score of 76.38. After being given treatment, the students' final abilities given the post-test showed an average score of 92.38. These results show that there is a significant difference in scores between the initial test and the final test. These results are supported by the results of the hypothesis test (t test). where from the calculations it is obtained that the significance value is $(0.000) < 0.05$, then H_a is accepted and H_0 is rejected. In other words, there is a significant difference in students' learning motivation before and after being treated with the icebreaking technique in the learning of class V students at SD Inpres 15 Wara Pantoloan.

Icebreaking technique by changing the type of song which contains learning material about heat transfer with the aim of making learning more meaningful. Ice breaking is also intended to build a dynamic learning atmosphere, full of enthusiasm and enthusiasm ([Maisah, 2019](#); [Ren & Zhao, 2022](#)). Students understand the material better when presented with songs rather than using a summary of the material, they remember the material being taught better. easily, this can be seen from the results of the questions. In implementing ice breaking, teachers can adjust the material taught according to the theme being studied ([Wang et al., 2021](#)).

during the learning process in class because researchers use the icebreaking technique, where the function of icebreaking itself is for a learning process, namely as energy before providing material, solving problems. ice, provides enlightenment when experiencing boredom and is able to raise enthusiasm for learning. so that it gives a pleasant impression when learning ([Suryoharjuno, 2017:1](#)). Hari Silawati ([in Siti Tamamala 2020, pp. 57-58](#)) states that the advantages of icebreaking are that it makes a long time feel fast, has a captivating effect on learning, can be used quickly or theoretically, makes the atmosphere and activities busy. and integrated. so that student learning motivation increases, students are more creative and can solve problems given by the teacher.

Based on the results of calculations using the Paired Sample T Test at a significance level of 5% (0.05), the significant value obtained from the Paired Sample T Test is 0.000. because the T test value is significantly < 0.05 ($0.000 < 0.05$), the alternative hypothesis (H_a), namely that there is an influence of the icebreaking technique in learning on the learning motivation of class V students at SD Inpres 15 Wara Pantoloan, is accepted. Meanwhile, the hypothesis (H_0), namely that there is no influence of the icebreaking technique in learning on the learning motivation of class V students at SD Inpres 15 Wara Pantoloan, is rejected. So it can be concluded that there is an influence of the icebreaking technique in learning on the learning motivation of class V students at SD Inpres 15 Wara Pantoloan.

Icebreaking techniques in learning on the learning motivation of class V students at SD Inpres 15 Wara Pantoloan. The findings of this research are supported by the results of previous research conducted by [Algivari, A., & Mustika, D. \(2022\)](#). Based on the research results, it shows that the application of the Ice breaking technique in thematic learning has been carried out in initial activities, core activities and final learning activities, thus making the learning situation becomes enjoyable and can make it easy for students to understand the learning material provided by the teacher in class. The research conclusions show that the ice breaking technique can be used in thematic learning in elementary schools. The implications of this research are that teachers can apply ice breaking techniques in learning activities, so that learning becomes fun. Apart from that, [Raynaldi Hanry Jatmiko \(2020\)](#) concluded that there is a significant influence between giving rewards and ice breaking on learning outcomes.

This research is also supported by [Fadhilah Aziz's research in \(2019\)](#). Based on the results of the "t" test carried out, $t_{count} = 4.62$, while t_{table} with $df 54 (56-2)$ is at the 5% significance level, namely 2.005. Thus $t_{count} > t_{table} (4.62 > 2.005)$ which means the working hypothesis (H_a) in this study is accepted, namely that there is an influence of the ice breaker game in improving student learning outcomes in PAI subjects.

4. CONCLUSION

Based on the results of research conducted at SD Inpres 15 Wara Pantoloan, it can be concluded that there is an influence of the application of icebreaking techniques in learning on the learning motivation of class V students at SD Inpres 15 Wara Pantoloan. The learning situation becomes fun by applying the ice breaking technique. The ice breaking technique can make it easier for students to understand the material presented by the teacher and help focus students' attention. The ice breaking technique planning has also been carefully planned by the teacher before the learning activities begin as stated in the lesson plan. Students become more concentrated, focused and enthusiastic about receiving learning material.

5. REFERENCES

- Algivari, A., & Mustika, D. (2022). Teknik Ice Breaking pada Pembelajaran Tematik di Sekolah Dasar. *Journal of Education Action Research*, 6(4), 433-439.
- Anggraini, R. (2018). Pengaruh Teknik Pembelajaran ice Breaking Terhadap Motivasi Belajar Pada 1. Mata Pelajaran Ipa Kelas Iii Mi Masyariqul Anwar 4 Suka Bumi Bandar Lampung (Doctoral Dissertation, Uin Raden Intan Lampung).
- Azizah, A., & Fatimah, N. (2022). Pengaruh Media Audio Visual Terhadap Motivasi Belajar Ipa Siswa Kelas v Sdn Kapopo. *Autentik: Jurnal Pengembangan Pendidikan Dasar*, 6(1), 9-17.
- Aziz, F. (2019). Pengaruh Permainan Ice Breaker Dalam Meningkatkan Hasil Belajar Siswa Mata Pelajaran Pai Kelas Vii Smp Negeri 5 Kota Bengkulu (Doctoral Dissertation, Iain Bengkulu).
- Desmidar, D., Ritonga, M., & Halim, S. (2021). Efektivitas ice breaking dalam mengurangi kejenuhan peserta didik mempelajari Bahasa Arab. *Humanika*, 21(2), 113 - 128. <https://doi.org/10.21831/hum.v21i2.41941>.
- Devi, D. A. P. S., Widana, I. W., & Sumandya, I. W. (2022). Pengaruh penerapan ice breaking terhadap minat dan hasil belajar matematika siswa kelas XI di SMK Wira Harapan. *Indonesian Journal of Educational Development*, 3(2), 240-247. <https://doi.org/10.5281/zenodo.7032283>.
- Faijin, F., Nurmaya, A., & Muhamadiyah, M. (2021). Efektivitas Penerapan Ice Breaking Untuk Mengatasi Kejenuhan Mahasiswa Dalam Pembelajaran Bk Kelompok. *Guiding World: Jurnal Bimbingan Dan Konseling*, 4(1), 1-10.
- Harianja, M. M., & Sapri, S. (2022). Implementasi Dan Manfaat Ice Breaking Untuk Meningkatkan Minat Belajar Siswa Sekolah Dasar. *J*
- Huw, J., Griffiths, Anker, P., Linse, K., Maxwell, J., Maxwell, J., Post, A. L., Stevens, C., Stevens, C., Tulaczyk, S., & Smith, J. A. (2021). Breaking All the Rules: The First Recorded Hard Substrate Sessile Benthic Community Far Beneath an Antarctic Ice Shelf. *FRONTIERS IN MARINE SCIENCE*, 8. <https://doi.org/10.3389/fmars.2021.642040>.
- Jatmiko, R. H. (2020). Pengaruh Pemberian Reward Dan Ice Breaking Terhadap Hasil Belajar Seni Budaya Dan Prakarya (Sbdp) Siswa Kelas Ii Sd Tarbiyatul Islam Desa Kertosari Kec. Babadan Kab. Ponorogo Tahun Ajaran 2019/2020 (Doctoral Dissertation, Iain Ponorogo).
- Junita, D., & Mukmin, A. (2022). Pengaruh Tingkat Pendidikan dan Penempatan Kerja terhadap Kinerja Pegawai pada Dp3ap2kb Kabupaten Bima. *Jurnal Manajemen*, 12(1), 96-108.
- Kusumo Suryoharjuno, (2017). 100+Ice Breaker Penyemangat Belajar(Cv. Imam Nafia : 2017)
- Kristanto, R., Sudarwanto, S., & Kurniawati, W. (2020). Public speaking serta teknik ice breaking dan mc sebagai upaya pengajaran yang menarik. *Jurnal Komunitas: Jurnal Pengabdian Kepada Masyarakat*, 2(2), 127-132. <https://doi.org/10.31334/jks.v2i2.734>.
- Mahzum, z. a. (2023). Pengaruh Model Pembelajaran Cooperative Integrated Reading And Composition (Circ) Terhadap Hasil Belajar Ipa Kelas V Di Sd 4 Palu. *Skripsi*
- Maisah, S. (2019). Implementasi Ice Breaking dalam Pembelajaran Bahasa Arab bagi Non-Arab. *ELIBTIKAR: Jurnal Pendidikan Bahasa Arab*, 8(1), 93-118. <https://doi.org/10.24235/ibtikar.v8i1.4718>.
- Nasional, I. D. P. (2003). Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional.

- .Nureni.St.2022 Penerapan Model Quantum Learning Strategi Tandur Untuk Meningkatkan Motivasi Belajar (Studi Pada Mata Pelajaran Ipa Siswa Kelas V Sd Negeri 191 Salampe Kecamatan Ponre Kabupaten Bone). Makassar : Unm Press.
- Novarina, G. E., Santoso, A., & Furaidah. (2019). Model Pelaksanaan Gerakan Literasi Sekolah di Sekolah Dasar. *Jurnal Pendidikan: Teori, Penelitian Dan Pengembangan*, 4(11), 1448–1456. <https://doi.org/10.17977/jptpp.v4i11.12989>.
- Pratama, H., Maduretno, T. W., & Yusro, A. C. (2021). Online Learning Solution: Ice Breaking Application to Increase Student Motivation. *Journal of Educational Science and Technology (EST)*, 7(1), 117–125. <https://doi.org/10.26858/est.v7i1.19289>.
- Putri Suryanida, D. (2022). Analisis Pengaruh Media Pembelajaran Audio Visual Terhadap Hasil Belajar Bahasa Inggris Siswa Analysis of the Effect of Audio Visual Learning Media on Students' English Learning Outcomes. 3(2), 2723–8199.
- Putrianingsih, S., Muchasan, A., & Syarif, M. (2021). Peran Perencanaan Pembelajaran Terhadap Kualitas Pengajaran. *Inovatif*, 7(1), 206–231.
- Putri, C. Y. (2022). Penggunaan Ice Breaking Untuk Meningkatkan Motivasi Belajar Peserta Didik Di Sekolah Dasar (Penelitian Quasi Eksperimen Pada Kelas Iii Tema 8 Praja Muda Karana Sub Tema 1 Aku Anggota Pramuka Di Sdn 255 Griya Bumi Antapani Kota Bandung Tahun Ajaran 2021/2022) (Doctoral Dissertation, Fkip Unpas).
- Ren, H., & Zhao, X. (2022). Numerical simulation for ice breaking and water entry of sphere. *Ocean Engineering*, 243, 110198. <https://doi.org/10.1016/j.oceaneng.2021.110198>.
- Rahayu, E., Isman, M., & Sitepu, M. S. (2023). *Cakrawala*. 17(2).
- Setiawan, H. R. (2017). Meningkatkan Motivasi dan Hasil Belajar Mahasiswa Melalui Model Pembelajaran Kooperatif Group Investigation Pada Mata Kuliah Psikologi Pendidikan di Program Studi Pendidikan Agama Islam FAI UMSU 2016-2017. *Intiqad: Jurnal Agama Dan Pendidikan Islam*, 9(1), 47–67. <https://doi.org/10.30596/intiqad.v9i1.1081>.
- Sari, M., Sitepu, M. S., Azizah, A., & . (2022). The Effect of Offline Assisted Learning Serli Practicum Module on Solar System Materials on Student Learning Motivation. *Nazhruna: Jurnal ...*, 5(2), 806–815. <https://e-journal.ikhac.ac.id/index.php/NAZHRUNA/article/view/2193>.
- Sugiyono, P. D. (2017). *Metode Penelitian Bisnis: Pendekatan Kuantitatif, Kualitatif, Kombinasi, Dan R&D*. Penerbit Cv. Alfabeta: Bandung, 225(87), 48-61.
- Suhartono, I. B. (2021). Penerapan Ice Breaking Sebagai Upaya Peningkatan Efektivitas Proses Belajar Mengajar Siswa Kelas Iv Sdn Mulyorejo Ii Ngantang (Doctoral Dissertation, University Of Muhammadiyah Malang).
- Tamamala, S., Setiawan, A., & Nursalim, N. (2020). The Implementation Of Ice Breaking To Increase Students Motivation In English Learning At Yamueti Kokoda. *Interaction: Jurnal Pendidikan Bahasa*, 7(2), 53-62.
- Utami, D. A. P., & Wardani, N. S. (2020). Pengembangan Instrumen Penilaian Kognitif dalam Pembelajaran Tematik Kelas 5 SD. *Jurnal Ilmiah Kependidikan*, 20(2), 1–18. <https://doi.org/10.12345/lentera.v12i2.463>.
- Wang, X., Li, S., Long, X., & Lin, C. (2021). Ice-breaking performance sensitivity of the polar icebreaker to structure, control and ice parameters under different prediction models. *Ocean Engineering*, 236, 109453. <https://doi.org/10.1016/j.oceaneng.2021.109453>.
- Zakiyyah, D., Suswandari, M., & Khayati, N. (2022). Penerapan Ice Breaking Pada Proses Belajar Guna Meningkatkan Motivasi Belajar Siswa Kelas Iv Sd Negeri Sugihan 03. *Journal Of Educational Learning And Innovation (Elia)*, 2(1), 73-85.