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RESEARCH PAPER

Implementation Of Learning Index Card Match To Improve The Outcome Of Science Class IV MI Darul Qur'an Al Hasan NW Peresak

Zohri Ratna[1]

[1] Program Studi Pendidikan Dasar, Universitas Negeri Yogyakarta, Indonesia.

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Correspondence Address
Jl. Colombo Yogyakarta No.1, Karang Malang, Caturtunggal, Kec. Depok, Kabupaten Sleman, Daerah Istimewa Yogyakarta 55281
E-mail: zohriratna1@gmail.com

Abstract. This study aims to see the impact of implementing Index Card Match learning in improving science learning outcomes for class IV MI Darul Qur'an Al Hasan NW Peresak. This type of research is classroom action research with a recycling cycle consisting of four stages, namely (a) planning, (b) implementation, (c) observation and (d) reflection. Data were collected through observation sheets, documentation studies, and tests in each cycle. The results showed that the average student learning outcomes had increased. The percentage of completeness also increased. In the pre-study the percentage of completeness was 37.5%. cycle I was 66.66% and cycle II was 87.05%. Thus the Index Card Match learning strategy can improve student learning outcomes in science subjects in class IV MI Darul Qur'an Al Hasan NW Peresak.

Keywords: Learning Outcomes, Science, learning *Index Card Mat*.

1. INTRODUCTION

Education is a process in order to influence students so that they can adapt as well as possible to their environment so that it is hoped that they can make changes in themselves that allow them to function in people's lives [1] [2]. In this context, teaching according to Oemar Hamalik aims to direct the educational process in order to achieve the desired goals [3].

One of the problems facing the world of education today is the problem of the weak implementation of the learning process applied by teachers in schools [4]. Therefore, the role of teaching strategies as a tool to create an effective teaching and learning process is very important. According to Dewi Salma Prawiradilaga, learning strategies are efforts made by designers in determining message delivery techniques, determining strategies, and media, the flow of lesson content, and interactions between teachers and students [5].

Based on the results of initial observations at MI Darul Qur'an Al Hasan NW Peresak it was found that learning Natural Sciences for class IV did not increase student creativity, teachers still used a lot of conventional learning models, namely learning models that dominantly applied the lecture method where the teacher was more active so that students being passive in learning Natural Sciences in class. The learning atmosphere seems stiff which results in the teaching and learning process not running optimally so that students are less motivated in the learning process. 7 This condition causes students to be less enthusiastic about participating in the learning process.

Observing the problems above, it is necessary to look for alternative solutions that can improve students' science learning outcomes. One of them is by providing index card match learning, so that it allows students to be interested in participating in learning. These learning conditions will be able to improve students' science learning outcomes.

Index Card Match learning is fun yet active learning to review subject matter. It allows students to pair up and play quizzes on classmates [4]. This type of Index Card Match relates to ways to recall what they have learned and test their current knowledge and abilities by looking for pairs of cards which are answers or questions while learning about a concept or topic in a fun atmosphere [5]. Therefore, the researcher felt interested in conducting research with the title "Implementation of Index Card Match Learning to Improve Class IV Science Learning Outcomes MI Darul Qur'an Al Hasan NW Peresak".

2. METHOD

This type of research is classroom action research with a recycling cycle consisting of four stages, namely (a) planning, (b) implementation, (c) observation and (d) reflection. Data were collected through observation sheets, documentation studies, and tests in each cycle. Furthermore, data analysis techniques were carried out quantitatively and qualitatively. Quantitative analysis was carried out to see the average value and student learning completeness. While the qualitative analysis was carried out by means of data reduction, data presentation, and drawing conclusions.

3. RESULT AND DISCUSSION

Based on the results of data analysis that the authors obtained in the field by conducting observations and interviews, as well as documentation, the description of the implementation of Index Card Match learning in science subjects in class IV SDN 1 is already running with the following stages.
a. Cycle 1

In cycle 1 the researcher started from planning, implementing, observing, and reflecting. The results of reflection in cycle 1 are a) when looking for partner cards there are still students who have difficulty finding partners because when the teacher explains the material, students are engrossed in chatting with their friends. b) there are students who still work together when working on individual questions. So that the science learning outcomes of students in cycle 1 are still not optimal. The science learning outcomes of students in cycle 1 are shown in the table below.

Table 1 Data on Student Learning Outcomes in Cycle 1

Student	Mark	KKM	Information
1	70	65	complete
2	70	65	complete
3	60	65	Not Completed
4	85	65	complete
5	75	65	complete
6	60	65	Not Completed
7	60	65	Not Completed
8	60	65	Not Completed
9	85	65	complete
10	60	65	Not Completed
11	70	65	complete
12	100	65	complete
13	65	65	complete
14	75	65	complete
15	70	65	complete
16	75	65	complete
17	60	65	Not Completed
18	70	65	complete
18	75	65	complete
20	70	65	complete
21	60	65	Not Completed
22	85	65	complete
23	75	65	complete
24	70	65	Not Completed
Average			71
Complete students			16
Incomplete students			8
Percentage of students who complete			66,66%
Persentase peserta didik yang tidak tuntas			33,33%

Furthermore, to make plans at cycle 2 meetings, it is necessary to carry out planned improvements from cycle 1. based on the results of cycle I reflections, several improvements agreed between the researcher and the teacher are as follows: a) The researcher will call students who have difficulty finding pairs of cards to review the material that has been explained and given questions. b) Researchers will not give value to students who are still cooperating when working on individual quiz questions as punishment.

b. Cycle 2

In cycle 2 begins with planning, implementation, observation, and reflection. The student learning outcomes in cycle 2 are shown in the table below.

Table 2 Student Learning Outcomes in Cycle 2

Student	Mark	KKM	Information
1	80	65	complete
2	75	65	complete
3	60	65	Tidak Tuntas
4	75	65	complete
5	90	65	complete
6	80	65	complete
7	70	65	complete
8	60	65	Tidak Tuntas
9	80	65	complete
10	60	65	Tidak Tuntas
11	75	65	complete
12	85	65	complete
13	70	65	complete
14	85	65	complete
15	95	65	complete
16	90	65	complete
17	80	65	complete
18	75	65	complete
19	85	65	complete
20	80	65	complete
21	75	65	complete
22	90	65	complete
23	100	65	complete
24	80	65	complete
Average			78
Complete students			21
Incomplete students			3
Percentage of students who complete			87,5%
Persentase peserta didik yang tidak tuntas			12,5%

Based on the results of learning observations in cycle II, the third meeting, the learning process took place better than before, student learning outcomes also increased from cycle I. The results of research reflection in cycle 2, the second meeting were obtained as follows: a) discussion looking for pairs of cards between students has been going well, the interaction of students with researchers has also

been running smoothly. b) Researchers have also been able to position themselves as motivators and facilitators. c) the ability of students to understand the material that has been presented is good so that there are no more students working together. d) the learning outcomes obtained are in accordance with the indicators of success to be achieved.

Based on the reflections made in cycle II, researchers and teachers saw an increase in student learning outcomes in learning Natural Sciences by implementing Index Card Match learning. This finding is in line with the results of Husnia's research, that the implementation of index card match can improve student learning outcomes [6]. Besides that, Lestari also found the same thing that the implementation of index card match can improve student learning outcomes [7]. In addition, Saputra and Andika also found the same thing, namely The implementation of index card match can improve student learning outcomes [8]. Thus the cycle in this study only reached cycle II because it had achieved a success indicator of 85%.

Index card match learning is one of the fun lessons that will invite students to be active in the learning process [9] [10]. Index card match is one of the instructional techniques of active learning which is included in various strategic reviewing (repetition strategies) [11] [12] [13]. This type of Index Card Match relates to ways of learning so that students remember the subject matter being studied longer by finding pairs of cards which are answers or questions while learning about a concept or topic in a fun atmosphere [14] [12] [15].

Thus, learning Index Card Match has the potential to improve students' science learning outcomes. This finding is in line with the results of Annisa and Marlina's research that the implementation of index card match has the potential to improve student learning outcomes [16]. The same thing was also found by Rambe, that the implementation of index card match has the potential to improve student learning outcomes [17]. In addition, Harefa and Sarumaha also found the same thing that the implementation of index card match can improve student learning outcomes [18]. In addition, Sumayana also found the same thing that the implementation of index card match can improve student learning outcomes [19]. In line with the results of Wahyuningtyas' research, that The implementation of index card match affects student learning outcomes in improving student learning outcomes [20]. The increased value of students in learning science is caused by a learning process that encourages students to think in various perspectives and to recall what they have learned and test their knowledge and abilities by finding pairs of cards which are answers or questions while learning about a concept or topic in pleasant situation.

The discussion of learning success by implementing the Index Card Match learning strategy with reference to the results of observations that have been made by researchers and the results obtained on science subjects by applying the Index Card Match learning strategy has increased in each cycle. Researchers together with the science teacher assessed that the research was sufficient up to cycle 2 because it had reached the target set by the researcher, namely 85% of the number of students who achieved the KKM score set by the school, which was 65. Thus, with the

4. CONCLUSION

Based on the research results that have been found in this study, it can be concluded that the use of Index Card Match learning in science learning is done by placing two cards consisting of question and answer cards. With this strategy students are directly involved so that the material received is more memorable. Where the teacher randomizes the cards consisting of question and answer cards and then distributes them to students then students look for pairs of questions and answers on the cards and present the answers on the cards and present them in front of friends.

The application of Index Card Match learning can improve Science learning outcomes for class IV MI Darul Qur'an Al Hasan NW Peresak. This can be shown by the increase in class averages, namely in the pre-test pre-action research the class average was 60, in cycle I was 71, and cycle II was 78. The percentage of student learning completeness also increased. In pre-research 2.6%, cycle I 66.66%, and 87.5% in cycle II where all students have achieved KKM scores, if the percentage is 100%. From the results of this study it was concluded that the Index Card Match learning strategy could improve students' science learning outcomes.

5. REFERENCES

[1] R. Indy, F. J. Waani, and N. Kandowangko, 'Peran Pendidikan Dalam Proses Perubahan Sosial Di Desa Tumaluntung Kecamatan Kauditan Kabupaten Minahasa Utara', *HOLISTIK, Journal Of Social and Culture*, 2019.

[2] N. Komariah and I. Nihayah, 'Improving The Personality Character of Students Through Learning Islamic Religious Education', *At-Tadzkir: Islamic Education Journal*, vol. 2, no. 1, pp. 65–77, 2023.

[3] A. Hidayat, M. Sa'diyah, and S. Lisnawati, 'Metode pembelajaran aktif dan kreatif pada madrasah diniyah takmiliyah di kota bogor', *Edukasi Islami: Jurnal Pendidikan Islam*, vol. 9, no. 01, pp. 71–86, 2020.

[4] H. Aswat, E. R. Sari, R. Aprilia, A. Fadli, and M. Milda, 'Implikasi distance learning di masa pandemi COVID 19 terhadap kecerdasan emosional anak di sekolah dasar', *Jurnal basicedu*, vol. 5, no. 2, pp. 761–771, 2021.

[5] G. Usman and M. R. Yunus, 'Penerapan Model Pembelajaran Index Card Match untuk Meningkatkan Hasil Belajar IPA Pada Siswa Kelas IV MIS At-Taqwa Malifut', *Taman Cendekia: Jurnal Pendidikan Ke-SD-an*, vol. 4, no. 2, pp. 471–477, 2020.

[6] H. Husnia, 'The implementation of index card match (ICM) model in descriptive text to improve students' reading comprehension at the seventh grade students of smpn 7 jember in academic year 2022/2023', UIN Kiai Haji Achmad Shiddiq Jember, 2022.

[7] N. P. Lestari, 'Reading Card and Index Card Match as a Learning Media in Mathematics Subject Materials of Fractions', *JURNAL PENDIDIKAN MIPA*, vol. 13, no. 1, pp. 195–204, 2023.

[8] E. B. Saputra and R. Andika, 'The Effect of Applying Index Card Match (ICM) Active Learning Strategy on Student Learning Outcomes in Information and Communication Technology Subjects in Class IX of SMP Negeri 19 Padang', *Siber International Journal of Education Technology (SIJET)*, vol. 1, no. 1, pp. 17–26, 2023.

[9] T. Suani, 'Peningkatan Kualitas Pembelajaran IPS Tema 4 Tentang Kegiatan Ekonomi dan Hubungannya dengan Berbagai Bidang Pekerjaan, melalui Strategi Pembelajaran Index Card Match (ICM) Pada Siswa Kelas IV', *Jurnal Terapan Pendidikan Dasar dan Menengah*, vol. 2, no. 4, pp. 689–695, 2022.

[10] F. Halawati, 'Pengaruh penggunaan metode index card match terhadap hasil belajar siswa', *Jurnal Fakultas Ilmu Keislaman Kuningan*, vol. 1, no. 1, pp. 33–39, 2020.

[11] M. S. Fuad, 'تطبيق طريقة Index Card Match لترقية نشاط التعلم ونتائج تعلم مهارة القراءة لتلاميذ الفصل العاشر بالمدرسة الثانوية الإسلامية الحكومية الأولى كديري العام الدراسي 2022/2023 م', IAIN Kediri, 2023.

[12] S. Hanimah and K. Niswa, 'Increasing Students' Listening Comprehension By Using Index Card Match Strategy', *Jurnal Pendidikan dan Konseling (JPDK)*, vol. 5, no. 2, pp. 4109–4118, 2023.

[13] E. Cerya and Y. Fitra, 'The Effect of Applying Active Learning Model Type Index Card Match on Students' Higher Order Thinking Skills (HOTS)', *Economic Education Analysis Journal*, vol. 12, no. 2, pp. 63–72, 2023.

[14] M. I. S. D. Surya, I. B. G. S. Abadi, and A. A. G. Agung, 'Improving Students' Science Knowledge Competence through the Implementation of Index Card Match Type of Cooperative Learning Model', *Jurnal Ilmiah Sekolah Dasar*, vol. 6, no. 4, 2022.

[15] A. Muflihah, 'Meningkatkan motivasi dan hasil belajar siswa melalui model pembelajaran index card match pada pelajaran matematika', *Jurnal pendidikan indonesia*, vol. 2, no. 01, pp. 152–160, 2021.

[16] F. Annisa and M. Marlina, 'Penerapan model pembelajaran kooperatif tipe index card match terhadap aktivitas dan hasil belajar matematika peserta didik', *Jurnal Basicedu*, vol. 3, no. 4, pp. 1047–1054, 2019.

[17] 'Penerapan Strategi Index Card Match Untuk Meningkatkan Hasil Belajar Siswa Pada Mata Pelajaran Bahasa Indonesia | Rambe | JURNAL TARBIYAH'. Accessed: Jun. 24, 2023. [Online]. Available: http://jurnaltarbiyah.uinsu.ac.id/index.php/tarbiyah/article/view/237

[18] D. Harefa *et al.*, 'Peningkatan Hasil Belajar Siswa pada Model Pembelajaran Index Card Match di SMP Negeri 3 Maniamolo', *Jurnal Ilmiah Aquinas*, vol. 4, no. 1, pp. 1–14, 2021.

[19] Y. Sumayana, 'Penggunaan Metode Index Card Match Pada Mata Pelajaran IPS Pokok Bahasan Mengenal Sejarah Uang', *Mimbar Sekolah Dasar*, vol. 2, no. 1, pp. 90–98, 2015.

[20] R. Wahyuningtyas, 'Model Pembelajaran Kooperatif Type Index Card Match Terhadap Hasil Belajar IPA Kelas IV SD', *Journal of Instructional and Development Researches*, vol. 2, no. 3, pp. 88–94, 2022.

Author declaration

Author contributions and responsibilities

The authors made major contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

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