

Application of Remap-STAD Learning Model to Improve Student Cognitive Learning Outcomes in Teaching and Learning Strategy Course

Tri Maniarta Sari^{1*}, Ernawati¹, Nur Amaliah²

1. Biology Education Departement, Faculty of Teacher Training and Education, Sembilanbelas November Kolaka University

2. Biology Education Departement, Faculty of Teacher Training and Education, West Sulawesi University

*e-mail: trimaniarta@gmail.com

(Received: 19 Agustus 2022; Reviewed: 31 Juli 2023; Accepted: 5 Agustus 2023)

Abstract

Monotonous learning process in this case the use of conventional methods that continuously have a significant enough effect on learning outcomes, therefore innovation is needed in implementing the learning process in the classroom. regards, one innovation is using a new learning model, namely by using Remap-STAD learning model. The purpose of this research is to see the improvement of student cognitive learning outcomes who are taught using the Remap-STAD learning model. This research was conducted at Sembilanbelas November Kolaka University. The sample of this study was students of class 2018 offering B who program the Teaching and Learning Strategy course with a total of 27 students. This study used a qualitative research with the type is classroom action research combined with Lesson Study. The instrument used to collect data in this study was a description test supported by an observation sheet. From the results of the research that has been done, it can be seen that the results are in the form of an increase in the cognitive learning outcomes of students who are taught with the Remap-STAD learning model, in the first cycle showed an average cognitive learning outcome of 86.48 and in the second cycle showed an average of 90.52. There is a difference of 4 points between the average cycle 1 to cycle 2.

Kata Kunci: Cognitive Learning Outcomes, Learning Models, and Remap-STAD.

Abstrak

Proses pembelajaran yang monoton dalam hal ini penggunaan metode konvensional secara terus menerus berpengaruh cukup signifikan terhadap hasil belajar, oleh karena itu diperlukan inovasi dalam melaksanakan proses pembelajaran di kelas. Salah satu inovasinya adalah dengan menggunakan model pembelajaran baru yaitu dengan menggunakan model pembelajaran Remap-STAD. Penelitian ini bertujuan untuk melihat peningkatan hasil belajar kognitif siswa yang dibelajarkan dengan model pembelajaran Remap-STAD. Penelitian ini dilaksanakan di Universitas Sembilanbelas November Kolaka. Sampel penelitian ini adalah mahasiswa angkatan 2018 angkatan B yang memprogram mata kuliah Strategi Belajar Mengajar yang berjumlah 27 mahasiswa. Penelitian ini menggunakan pendekatan kualitatif dengan jenis penelitian tindakan kelas yang dipadukan dengan Lesson Study. Instrumen penelitian yang digunakan pada penelitian ini yaitu tes hasil belajar kognitif dan juga lembar observasi. Berdasarkan penelitian yang telah dilakukan menunjukkan adanya peningkatan hasil belajar kognitif siswa yang dibelajarkan dengan model pembelajaran Remap-STAD, dengan nilai rata-rata hasil belajar pada siklus pertama sebesar 86,48 dan rata-rata pada siklus kedua sebesar 90,52. Terdapat kenaikan 4 poin dari nilai rata-rata siklus pertama ke siklus kedua.

Keywords: Hasil Belajar Kognitif, Model Pembelajaran, dan Remap-STAD.

INTRODUCTION

Learning is a process of transformation that occurs in behavior or potential behavior as a result of experience or training. So that learning can be said as the result of a relationship between

stimulus and response (Wulandari, 2022). The learning process is important in developing student's knowledge so that it can be more useful for many people. This can happen because through the learning process, a person will gain a variety of knowledge based on the developments that occur

The learning process can affect the achievement of student's abilities, and one of these abilities is learning outcomes (Ramadhan et al., 2017). Where learning outcomes are abilities or Learning is a process of transformation that occurs in behavior or potential behavior as a result of experience or training. So that learning can be said as the result of a relationship between stimulus and response (Wulandari, 2022). The learning process is important in developing student's knowledge so that it can be more useful for many people. This can happen because through the learning process, a person will gain a variety of knowledge based on the developments that occur (Kartina, 2018).he newly acquired knowledge or the development of pre-existing knowledge (Asmara et al., 2022). Learning outcomes are changes in knowledge, skills and student behavior that can be observed and measured. learning outcomes are grouped into three damain according to bloom, including cognitive, psychomotor, and affective learning outcomes.

In the teaching and learning process that takes place in the classroom, expected to increase students' understanding and ability, one of which is students' cognitive abilities. Increasing students' cognitive abilities are expected to also improve student learning outcomes. The same thing is expected in lectures or learning that occurs in the Teaching and Learning Strategy course, which is programmed by biology education students at Sembilanbelas November Kolaka University. Students are hope can be able to absorb or receive material well and pleasantly which will then improve student cognitive. Because biology education students who are prospective teachers can apply the material learned in classroom learning when teaching at school well (Indriwati et al., 2018).

However, However, from the previous observations, the results showed that students' cognitive abilities and students' cognitive learning outcomes have not developed optimally. Where the facts in the field show that students who are asked questions by lecturers with questions that have a high cognitive level, namely at C4, C5 and C6, there are still many students who answer incorrectly. In the discussion process carried out in class, students are still glued to their textbooks or learning resources, have not been able to develop their knowledge, and cannot connect the concepts they have just learned with the concepts that have been studied.

Based on the gap between expectations and facts in the field, innovation is needed to improve students' cognitive abilities and also student learning outcomes. One of the innovations that can be implemented is by choosing an appropriate learning the model that will be used in the learning process in the classroom. Improved cognitive learning outcomes can be caused by various things, and one of them is by learning done in the classroom (Sari & Ernawati, 2020). So that a lecturer who does learning in the classroom must choose the right teaching and learning model or strategy, which is in accordance with the material being studied to get the learning objectives themselves, including the improvement of cognitive learning outcomes (Yaqin et al., 2018).

Constructivist learning model is a learning model that can be applied to enhance cognitive learning outcomes (Ramadhan et al., 2017). And the cooperative learning model is one type of constructivism learning. The cooperative learning model is a learning model that has a strategy by making students work in a team to help each other in terms of understanding the learning material (Sekarini, 2022). Learning that is carried out in groups or using a cooperative model helps students to work together in finding answers to any problems faced by using the knowledge and skills they

have in order to achieve the objectives of the learning carried out. Group learning can be said as learning where the source of knowledge can come from the students themselves, not entirely from the teacher, because in the learning process students can teach other students with peer tutors (Marsono, 2016). Group learning is one of the teaching and learning strategies that makes students learn together and work together in groups (Zubaidah & Corebima, 2016).

STAD (Student Team Achievement Division) is a common cooperative learning models to be used in learning. The STAD learning model is one of the easiest cooperative learning models to use for the teachers who are just trying to use the cooperative learning model (Asmara et al., 2022). However, with various developments and innovations in learning science, there are many emerging new learning model innovations that can be combined with cooperative learning models, Remap Coople (Reading-concept map-cooperative Learning) is one of them. Remap Coople is a learning model made by Zubaidah (Zubaidah, 2014) which in its syntax requires students to read (reading), then make a concept map (concept map), and the next stage is to carry out the learning process using cooperative learning models. In this research was used the cooperative learning model STAD, so it is called the Remap STAD learning model.

Based on the description of the problems above, it is necessary to conduct research that applies the STAD REMAP learning model in an effort to improve cognitive learning outcomes of students taking teaching and learning strategies courses.

Method

The research is a Classroom Action Research (PTK) which is used with Lesson Study (LS). the place of implementation of this research at Sembilanbelas November Kolaka University. The sample used in this research was students of the biology education study program who programmed the biology teaching and learning strategy course, totaling 27 people, sampling using totaling sampling technique. This research was conducted to measure and analyze the cognitive learning results of students who programmed the teaching and learning strategy course with the Remap-STAD learning model. The research instruments used were lesson study observation sheets, lesson plan, syntax implementation sheets, field notes, and student worksheet. And the instruments used to measure cognitive learning outcomes are description test questions with the number of items as many as 8 numbers both in the first cycle and the second cycle.

Results

Based on the results of the research that has been done, it is obtained data on cognitive learning outcomes in two learning cycles by biology education students at Sembilanbelas November Kolaka University. The data was obtained from the results of cognitive learning outcomes description tests at the end of each meeting of each cycle. Comparison of the average value of students' cognitive learning outcomes can be seen in Figure 1. Below.

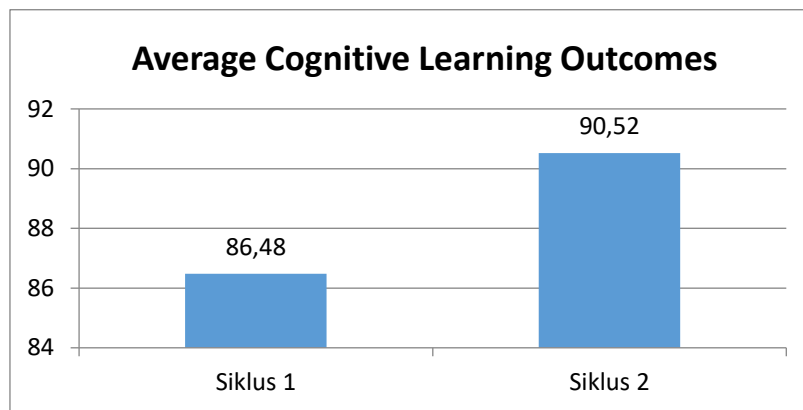


Figure 1. Average Cognitive Learning Outcomes in Cycle 1 and Cycle 2

Based on the diagram above shows the differences in student cognitive learning results from the first cycle to the second cycle. Where in the first cycle showed an average cognitive learning outcome of 86.48 and in the second cycle showed an average of 90.52. There is a difference of 4 points between the average cycle 1 to cycle 2.

Discussion

Based on the results of the research that has been done, it can be seen that there is an increase in the average value of cognitive learning outcomes of students who are given Remap-STAD learning from cycle one to cycle two. The improvement on student cognitive learning result is influenced by the syntax of the Remap-STAD learning model which supports the improvement of student cognitive (Ramadhan et al., 2017).

Remap-STAD syntax begins with reading activities. Reading itself is a process of analyzing reading to produce an understanding by combining old information with newly obtained information (Ramadhan et al., 2017). Reading activities are not just gathering information but also sharpening the cognitive abilities of students, this is because through the reading process students process the information obtained and relate it to old information through cognitive processes (Retariandalas, 2017). By reading students can add insight and with this insight become the initial capital that helps them understand the material to be studied more easily (Zubaidah, 2014). Based on Rohmah's research (Rohmah, 2013) shows that increased learning outcomes can be caused by reading. This can be caused because reading activities can affect student learning outcomes (Ramadhan et al., 2017).

The next stage in the Remap-STAD syntax is to create a concept map. Making concept maps in the Remap-STAD learning model so that the knowledge gained by students in reading activities can be expressed in the form of concept maps so that students' understanding can be seen. Making this concept map can help improve student learning outcomes. Where by making a concept map can help develop the learning capacity of students and help to focus on the concepts that will be outlined in the concept map (Ferry, 2022; Hasanah et al., 2023). Concept maps can also be helpful for students to create more meaningful learning situations, in this case students can express the knowledge gained and combine it with old knowledge in the form of concept map diagrams (Setiawan et al., 2020; Sumiartini et al., 2019).

The next syntax is the application of the Student Team Achievement Division (STAD) cooperative learning model in the classroom. Several previous studies have stated that the teaching and learning process using the STAD cooperative learning model can help increase students' cognitive learning outcomes (Andany & Wiyogo, 2020; Pakpahan, 2019). The teaching and learning process carried out using the cooperative learning model encourages students to be able to communicate so that teamwork is established, and in the interactions carried out by team members there is an exchange of ideas or ideas. However, even though working in a team or group, each individual is still responsible for the value of each individual in the learning process.

STAD cooperative learning model is a learning model in which the formation of team must be heterogeneous, starting from the gender aspect to the students' academic abilities. The diversity contained in each group can help students to help each other in this case providing support in solving problems faced by each group so that it can increase the learning outcomes of each team participant (Cahyaningrum & Abidin, 2022; Sekarini, 2022; Wulandari, 2022). In the STAD learning model it helps students to help each other, where students who have high academics help students who have low academics both in terms of motivation and material mastery (Rahman et al., 2016).

Conclusion

The conclusion of this research is that the Remap-STAD learning model can improve student cognitive learning outcomes. This can be seen from the improvement in the average score of students from cycle 1 and also in cycle 2. In addition to improving cognitive learning results, Remap-STAD can be implemented to improve students' thinking skills are not limited to learning outcomes..

References

- Andany, R. T., & Wiyogo. (2020). Pengaruh Model Pembelajaran Student Teams Achievement Division (STAD) Terhadap Hasil Belajar Mata Pelajaran Mesin Frais. *STEAM Engineering (Journal of Science, Technology, Education And Mechanical Engineering)*, 2(1), 50–55.
- Asmara, F. A., Permatasari, R., & Lestari, N. (2022). Pengaruh Model Pembelajaran Kooperatif Tipe STAD terhadap Hasil Belajar Kognitif Siswa. *QUANTUM: Jurnal Pembelajaran IPA Dan Aplikasinya*, 2(2), 47–52. <https://doi.org/10.46368/qjppia.v2i2.932>
- Cahyaningrum, N. E. O., & Abidin, Z. (2022). Pengembangan Media Animasi dalam Model Pembelajaran STAD Materi Sistem Peredaran Darah Manusia di SMP. *JKTP: Jurnal Kajian Teknologi Pendidikan*, 5(2), 180–189. <https://doi.org/10.17977/um038v5i22022p180>
- Ferry, D. (2022). Peningkatan Hasil Belajar dan Keaktifan Mahasiswa Melalui Strategi Pembelajaran Peta Konsep Pada Mata Kuliah Evolusi. *Journal on Education*, 05(01), 39–46. <https://doi.org/https://doi.org/10.31004/joe.v5i1.555>
- Hasanah, U., Muhlis, M., & Bahri, S. (2023). Pengaruh Penggunaan Media Belajar Peta Konsep Terhadap Hasil Belajar Biologi Pada Materi Ekosistem Kelas X di SMA Negeri 1 Sape. *Jurnal Ilmiah Profesi Pendidikan*, 8(1), 57–64. <https://doi.org/10.29303/jipp.v8i1.1081>
- Indriwati, S. E., Susilo, H., & Anggrella, D. P. (2018). Penerapan Model Pembelajaran Inkuiri Terbimbing Berbasis Lesson Study Pada Matakuliah Keanekaragaman Hewan Untuk

- Meningkatkan Kecakapan Komunikasi Dan Hasil Belajar Kognitif Mahasiswa Pendidikan Biologi. *Jurnal Pendidikan Biologi*, 9(2), 38–46.
- Kartina, Y. (2018). *Pengaruh Model Pembelajaran Reading- Concept Map- Think Pair Share (Remap-Tps) Terhadap Hasil Belajar Peserta Didik Kelas Viii Pada Mata Pelajaran IPA*. Universitas Islam Negeri Raden Intan Lampung.
- Marsono. (2016). Development Of A Cooperative Micro Lesson Study Learning Model To Teaching Creatively And Teaching For The Creativity Of Engineering Students. *World Transactions on Engineering and Technology Education*, 14(2), 322–326.
- Pakpahan, R. A. (2019). Pengaruh Model Pembelajaran Kooperatif Tipe Stad Terhadap Hasil Belajar Fisika Siswa Pada Materi Fluida Di Kelas Xi Ipa Sma Negeri 1 Padangsidempuan. *EKSAKTA :Jurnal Penelitian Dan Pembelajaran MIPA*, 4(2), 130–134.
- Rahman, A., Ahmar, A. S., & Rusli. (2016). The Influence Of Cooperative Learning Models On Learning Outcomes Based On Students ' Learning Styles. *World Transactions on Engineering and Technology Education*, 14(3), 425–430. <https://doi.org/10.5281/zenodo.240650>
- Ramadhan, F., Mahanal, S., & Zubaidah, S. (2017). Meningkatkan Hasil Belajar Kognitif Siswa Melalui Model Pembelajaran Biologi Remap STAD. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 2(5), 610–615.
- Retariandalas. (2017). Pengaruh Minat Membaca Dan Motivasi Belajar Terhadap Prestasi Belajar IPA Siswa. *Jurnal Formatif*, 7(2), 190–197.
- ROHMAH, E. F. (2013). *Peningkatan Kemampuan Membaca Dan Hasil Belajar Mata Pelajaran Bahasa Indonesia Melalui Penerapan Strategi Direct Reading Thinking Activities (DRTA) Pada Kelas V SD Negeri Nogosari 2 Tahun Pelajaran 2012/2013*. Universitas Muhammadiyah Surakarta.
- Sari, T. M., & Ernawati. (2020). Meningkatkan Hasil Belajar Kognitif Mahasiswa Dengan Menggunakan Model Pembelajaran Kooperatif Group Investigation (GI). *Diklabio: Jurnal Pendidikan Dan Pembelajaran Biologi*, 4(1), 79–85.
- Sekarini, N. N. (2022). Implementasi Model Pembelajaran STAD Sebagai Upaya dalam Meningkatkan Hasil Belajar Pendidikan Kewarganegaraan di Sekolah Dasar. *Journal of Education Action Research*, 6(3), 327–332. <https://doi.org/https://doi.org/10.23887/jear.v6i3.45863>
- Setiawan, D., Zubaidah, S., & Mahanal, S. (2020). Minat Baca Dan Keterampilan Metakognitif Pada Pembelajaran Biologi Melalui Model Pembelajaran Remap Think Pair Share. *JPBIO (Jurnal Pendidikan Biologi)*, 5(1), 88–95. <https://doi.org/10.31932/jpbio.v5i1.651>
- Sumiartini, N., Ardana, I. M., & Ariawan, I. P. W. (2019). Pengaruh Model Pembelajaran Reading Concept Map Reciprocal Teaching (Remap RT) Terhadap Pemahaman Konsep Matematika Siswa Kelas VIII SMP Negeri 1 Singaraja. *Jurnal Pendidikan Matematika Undiksha*, 9(1), 73. <https://doi.org/10.23887/jjpm.v9i1.19891>

- Wulandari, I. (2022). Model Pembelajaran Kooperatif Tipe STAD (Student Teams Achievement Division) dalam Pembelajaran MI. *Jurnal Papeda: Jurnal Publikasi Pendidikan Dasar*, 4(1), 17–23. <https://doi.org/10.36232/jurnalpendidikandasar.v4i1.1754>
- Yaqin, M. A., Indriwati, S. E., & Susilo, H. (2018). Think-Pair- Square Learning : Improving Student ' S Collaborative Skills And Cognitive Learning Outcome On Animal Diversity Course. *JPBI (Jurnal Pendidikan Biologi Indonesia)*, 4(2), 135–142. <https://ejournal.umm.ac.id/index.php/jpbi/article/view/5514/5521>
- Zubaidah, S. (2014). The Empowerment of Discovery Skills in Scientific Approach Through Remap Coople Based Learning. *Seminar Nasional XI Pendidikan Biologi FKIP UNS*, 1000–1011.
- Zubaidah, S., & Corebima, A. D. (2016). *Remap Coople*. Aditya Media Publishing.