Maria Wanda, Vidriana Oktoviana Bano, Anita Tamu Ina

by Jurnal Buana Pendidikan

Submission date: 30-Jan-2023 11:18AM (UTC+0700)
Submission ID: 2002156304
File name: 13._manuscript_20230213.pdf (602.56K)
Word count: 3703
Character count: 20231

Volume 19 No. 1 (2023)

BUANA PENDIDIKAN

Jurnal Fakultas Keguruan Dan Ilmu Pendidikan Unipa Surabaya

http://jurnal.unipasby.ac.id/index.php/jurnal_buana_pendidikan/index

The Effect of the Talking Stick Cooperative Learning Model on Biology Learning Outcomes at SMA Negeri 1 Waingapu

Maria Wanda, Vidriana Oktoviana Bano*, Anita Tamu Ina

Department of Biology Education, Universitas Kristen Wira Wacana Sumba, Indonesia

*Email: vidri.bano@unkriswna.ac.id

Articles Information

Keywords:

Model Cooperative Learning;

Talking Stick;

learning Outcomes.

Submitted:

26-01-2023

Accepted:

31-01-2023

Published:

26-02-2023

Abstrak

Penelitian ini bertujuan untuk mengetahui Pengaruh Model Pembelajaran Kooperatif Tipe Talking Stick Terhadap Hasil Belajar Biologi di SMA Negeri 1 Waingapu. Jenis penelian ini ialah kuasi eksperimen menggunakan desaian penelitian nonequivalent control group design dengan pendekatan kuantitatif. Pengambilan sampel menggunakan purposive sampling. Populasi dalam penelitian ini ialah siswa kelas XI MIPA pada semester ganjil tahun ajaran 2022/2023. Sampel penelitian ini yaitu 37 siswa kelas XI MIPA 1 sebagai kelas kontrol dan 37 siswa XI MIPA 5 sebagai kelas eksperimen. Hasil analisis deskriptif yang diperoleh menunjukan bahwa nilai rata-rata pretest dan posttest kelas eksperimen 61,76 <76,89 sedangkan nilai rata-rata pretest dan posttest kelas kontrol adalah 58,81 < 69,81. Pengujian hipotesis menggunakan uji paired sampel t-test menghasilkan nilai Asymp. Sig (2-tailed) 0,000 artinya nilai kurang dari 0,05 (< 0,05). Dapat disimpulkan bahwa model pembelajaran kooperatif talking stick berpengaruhi terhadap hasil belajar.

Abstract

This study aims to determine the effect of the Talking Stick Cooperative Learning Model on Biology Learning Outcomes at SMA Negeri 1 Waingapu. This type of research is a quasi-experimental design using a nonequivalent control group design with a quantitative approach. Sampling using purposive sampling. The population in this study were students of class XI MIPA in the odd semester of the 2022/2023 academic year. The sample of this study was 37 students of class XI MIPA 1 as the control class and 37 students of XI MIPA 5 as the experimental class. The results of the descriptive analysis obtained showed that the average pre-test and post-test scores for the experimental class were 61.76 <76.89. Meanwhile, the average value - average pre-test and post-test control class 58.81 <69.81. Testing the hypothesis using a paired sample t-test produces an Asymp value. Sig (2-tailed) 0.000 means the value is less than 0.05 (<0.05). It can be concluded that the talking stick cooperative learning model affects learning outcomes

P-ISSN: 1693-8585
E-ISSN: 2622-9218
http://jurnal.unipasby.ac.id/index.php/jurnal_buana_pendidik

INTRODUCTION

Education in Indonesia is determined based on the Regulation of the Minister of National Education Number 22 of 2006 concerning Content Standards. Education is a planned, conscious effort to create a learning atmosphere and learning process so that students can actively develop their potential, personality, intelligence and noble character, as well as the skills needed by themselves, society, nation and state (Rahmawati et al., 2018). Therefore education is very important in our lives. The importance of education causes the need for quality improvement in education. The quality of national education is largely determined by the quality of school learning (Fajri, 2016: 99).

According to Nurul (2016: 99), the quality of learning in schools is greatly influenced by the learning model used. The learning model is one of the instructions that must be applied by the teacher so that learning becomes effective and efficient. To revitalize students in the learning process, various learning models are needed in the learning process. The learning model is used so that students are not bored in the learning process, and this learning model is expected to influence student learning outcomes.

According to Idrus (2015: 78), learning outcomes are important issues and are a goal. Learning outcomes are one of the indicators, as well as seeing the extent to which competency standards are achieved in the learning process. Efforts to achieve advanced education certainly have many problems in it. One of the problems in education, especially in classroom learning, is the low student learning outcomes (Awuy, 2014: 110). Poor student learning outcomes are a form of students' lack of understanding of the material. Student understanding is substantial and very important in the learning process. Because the success of the learning process is reflected in students' understanding of the material being taught and then in the achievement of high or low learning outcomes

Based on the results of an interview on March 14, 2022, which the researchers conducted with a Biology subject teacher (BEK) for Class X Mipa SMA Negeri 1 Waingapu, it was found that student learning outcomes were still low. During the learning process, cool students still do their activities, starting from playing games and opening social media. Some students deliberately leave the class and tell stories with friends outside the classroom or just sit in the cafeteria and so on and tell stories with their desk mates so that in the learning process, only a few students follow the lesson well. The low student learning outcomes can be seen from the results of the midterm assessment (PTS) for the even semester of the 2021/2022 academic year, where out of 37 students, only 40% of students have achieved the KKM, and 60% have not reached the specified KKM, namely 74. The low student learning outcomes can be caused by several factors, including teachers, students and the learning environment. The teacher factor can be in the form of using monotonous learning methods and models, where the dominant teacher uses a learning model that only lectures and is only based on the teacher. Student factors can be in the form of unhealthy physical conditions and personal conflicts with teachers, parents and peers. In the learning process, students tend not to be ready to accept material, while environmental factors can be in the form of relationships with friends associating, activities in the community and the environment where they live (Gintoe, et al. 2015: 6).

P-ISSN: 1693-8585
E-ISSN: 2622-9218
http://jurnal.unipasby.ac.id/index.php/jurnal_buana_pendidik

Based on these problems, it is necessary to have interesting learning innovations, make students active and not boring and foster interaction with other students, so there is no gap between smart and less intelligent students. One of the innovations made is by using the talk-stick cooperative learning model. This cooperative learning is a teaching and learning activity that can increase the activity and student learning outcomes. Student-centred learning activities include discussions, doing tasks together and helping each other. Talking sticks include one model of cooperative learning. Model talking Stick is a learning-based model stick which encourages students to learn more actively and have opinions about the material. This model allows students to think and be more motivated to learn (Patrys & Vera, 2020: 16).

According to Awuy (2014: 110), the Cooperative Learning Modeltalking stick (PKTTS) is a stick learning model requiring students to respond to the teacher's questions using a stick after studying the material. Not only training students to speak, but this learning will also create a fun learning atmosphere, make students active in learning, and increase student readiness in solving problems the teacher gives.

The use of this model should follow the syntax and implementation steps of the model itself. The syntax of the talking stick-type cooperative learning model, according to Suyatno (2009: 71), is as follows:

1. Submission of Learning Objectives/KD. In this phase, students listen to the learning objectives communicated by the teacher.
2. Form a group. At this stage, students look for group members of 4-5 people.
3. Submission of the main material. At this stage, students prepare themselves by studying the material under the teacher's guidance. Students must prepare themselves by mastering the material before using the talking stick.

Learning implementation steps Talking Stick, according to Tampubolon (2014:97), are:

1. The educator prepares sticks
2. Educators convey the subject matter to be studied and then provide opportunities for students to read and study the material.
3. After reading the subject matter and studying it, students close their books.
4. The teacher takes the Stick and gives it to the students. After that, the educator asks a question, and the student holding the Stick must answer it. An so on until most students get a section to answer each question from the teacher.
5. The teacher draws conclusions
6. Evaluation and Closing

Each learning model has advantages and disadvantages. The effectiveness of each model depends on the conditions in the school or class. The advantages and disadvantages of talking Stick learning, according to Puspitawangi et al. (2016: 110), namely:

1. Advantages
    a. This learning model can test students' learning motivation.

P-ISSN: 1693-8585
E-ISSN: 2622-9218
http://jurnal.unipasby.ac.id/index.php/jurnal_buana_pendidik

b. Practising the ability to read and understand the material quickly.
c. Invite them to prepare for the situation.
d. encourage students to learn more actively;

2. Deficiencies

a. This model may not be suitable for students who are not emotionally trained to speak in front of the teacher.
b. Fear of questions that the teacher will give.
c. Not all students are ready to receive questions.

This research is supported by previous research by Kharis & Rahmawati (2014), entitled "The effect of the talking stick type cooperative learning model to improve student learning outcomes in electronics engineering subjects at SMK Negeri 7 Surabaya" is an example showing that the Talking Stick learning model is more suitable for improving cognitive learning performance. The average pre-test score was 51.33, and the average post-test score was 78.01. Students who apply the Talking Stick cooperative learning model have better learning outcomes. Subsequent research was supported by researchers conducted by Paramita & Retno (2017) with the title "The Effect of the Talking Stick Learning Model on Student Learning Outcomes in Class X - Iis SMA Negeri 17 Surabaya". Researchers apply the talking stick learning model. After the post-test, the value applied was 85.00 in the experimental class and 73.28 in the control class. Therefore, it was concluded that using the talking stick learning model affected student learning outcomes in Class X IIS Economic Management material at SMA Negeri 17 Surabaya. Based on the research above, the novelty of this research that researchers use is the use of a cooperative learning model stalking stick with the help of PowerPoint media (images and videos, which are applied to cell material).

This study aims to determine the effect of the type of cooperative learning model Talking Stick Against Biology Learning Outcomes at SMA Negeri 1 Waingapu. The results of this study are expected to provide input for ideas, ideas and the development of knowledge regarding talking sticks and also provide benefits for students, teachers and schools. The material used is KD 3.1 Cells to describe the chemical components that makeup cells, their structures and functions, and the processes that occur in cells as the smallest units of life. The learning outcomes measured are cognitive learning outcomes through pre-test and post-test.

METHOD

This research was conducted at SMA Negeri 1 Waingapu with the address Jalan Majapahit No.1, Waingapu, East Sumba, in the academic year 2022/2023, with a total of 74 students. The research was from July to August 2022. The research subjects consisted of 37 students from class XI MIPA 1 as a class control and 37 from class XI MIPA 5 as the experimental class. Sampling using the technique of Purposive Sampling because in taking samples, the researcher has certain considerations (Sugiyono, 2015). This study used experimental research with a quantitative approach and Nonequivalent control group design, as shown in table 1 (Sugiyono, 2015):

P-ISSN: 1693-8585
E-ISSN: 2622-9218
http://jurnal.unipasby.ac.id/index.php/jurnal_buana_pendidik

Table 1. *Nonequivalent control grup desain*

Group	*Pre-test*	Treatment	*Postest*
E	O1	X	O2
K	O3	-	O4

Data collection techniques using tests. The research instruments (pre-test and post-test questions) were tested for validity and reliability before being given to research subjects (control and experimental classes). The data analysis technique in this study used the SPSS version 23 program. The validity test aims to determine the reliability and validity of the measuring instruments used. In contrast, the reliability test is carried out to know how consistent the measurements are when measuring the same aspect ((Nazaruddin & Basuki, 2015). The validity test uses the Person product moment with a significance value of 0.05 (<0.05 = valid), while the reliability test uses an alpha cronbach > 0.07 (reliable). The pre-test and post-test data obtained in this study were analyzed, including; Normality test with Shapiro-Wilk, Homogeneity with values Based on the mean, and Testing the hypothesis by test paired samples t-test with a significance level of 0.05.

RESULT AND DISCUSSION

Based on the pre-test results on cell material, control class students achieved 32% completeness with an average score of 58, while experimental class students achieved 48% completeness with an average score of 61. After the pre-test, control class students were given material with a learning model. What is usually done by the teacher is the discovery learning model, while students in the experimental class are given material using the type cooperative learning model talking stick. After that, the post-test was given to both classes. Based on the post-test cell material results, control class students who achieved completeness were 35% with an average score of 69. Meanwhile, experimental class students who achieved completeness were 81%, with an average score of 76.

Before doing the test, paired sample t-test data results in the first pre-test and post-test must carry out normality and homogeneity tests as prerequisite tests. The normality test used in this study uses the help of the SPSS version 23 program with the techniques Shapiro-Wilk. The data is normally distributed if the significance value is greater than 0.05. While the homogeneity test was carried out using the Homogeneity of variance test. This data is declared homogeneous if the value is based on a mean > 0.05. The results of the normality and homogeneity tests are shown in table 2.

Table 2. Prerequisite test

Prerequisite test	Sig. Value	
	Control	Experiment
Normality test results	0.162	0.335
Homogeneity test results	0.309	

Based on Table 2, it is known that the normality test has sig values of 0.162 and 0.335. This value is more than 0.05 (> 0.05), so it can be concluded that the data is normally distributed. The normal distribution is a perfectly symmetrical distribution or distribution of the average score. The sig value of the

P-ISSN: 1693-8585
E-ISSN: 2622-9218
http://jurnal.unipasby.ac.id/index.php/jurnal_buana_pendidik

homogeneity test above is 0.309, meaning that the value is more than 0.05 (>0.05), so it can be concluded that the data is homogeneous. The easiest value to compare parametrically is when the variance or distribution in the two groups is the same (homogeneous). If the two groups tested show the same average, but the distribution is different, then the parametric test will be difficult to interpret because of differences in distribution or variance within the groups (Setyosari, 2016: 254)

Based on the results of the normality and homogeneity tests, it can be continued with the test paired sample t-test to find out the learning outcomes after applying the type cooperative learning model Talking Stick. Testpaired sample t-test in this study using the help of the SPSS version 23 program by looking at the significance value. Suppose the significance value is less than 0.05. In that case, it can be stated that the use of the type cooperative learning model talking stick has an influence on the learning outcomes of class XI Mipa 5 on Cell material at SMA Negeri 1 Waingapu. As for the test results paired sample t-test is shown in table 3.

Table 3. Paired samples t-test

Paired Sample T Test			
Class	Df	Say. (2-tailed)	Conclusion
Experiment	36	0,000	Influential

Based on test paired samples t-test in table 3, the sig (2-tailed) value is 0.000. This value is less than 0.05, and it can be concluded that H0 is rejected, and H1 is accepted, meaning that the use of the cooperative learning model talking stick has an influence on the learning outcomes of class XI Mipa 5 on Cell material at SMA Negeri 1 Waingapu. These results align with the research conducted by Awuy (2014: 114), which revealed that the type of cooperative learning model, the talking stick, influences the cognitive learning outcome of the student.

Gintoe et al. (2015) explain that students who take part in cooperative learning type talking stick better than students who take part in learning using conventional learning models. Wahyudiantari et al. (2015) also stated that the cooperative learning model of talking sticks greatly influences student learning outcomes. Puspitawangi et al. (2016) found that students who underwent a type of cooperative learning model, talking Stick influenced learning outcomes more than students who underwent conventional learning models. The three researchers concluded that the talking stick learning model (talking Stick) affects student learning outcomes.

Based on the explanation above, the type of cooperative learning model, talking Stick, influences learning outcomes. This happens because in the learning process, using the cooperative type model, talking sticks make students more active and directly involved in the learning process in class, both independently and in groups, interacting with the teacher and their group mates. With this cooperative learning model, in addition to making students active, students can also play while learning by opening their horizons about the lessons they have learned. This shows that student activity during the learning process when the teacher

P-ISSN: 1693-8585
E-ISSN: 2622-9218
http://jurnal.unipasby.ac.id/index.php/jurnal_buana_pendidik

teaches by applying the cooperative learning model of talking stick students are more enthusiastic in learning.

CONCLUSION

Based on the results of the research and discussion, it can be concluded that the cooperative learning model of the talking stick type affects the learning outcomes of class XI Mipa 5 students at SMA Negeri 1 Waingapu which can be shown from the results of the paired sample t-test which has a sig (2-tailed) value of 0.000, meaning that the value is less than 0.05 so that H0 is rejected and H1 is accepted.

REFERENCES

Fajri, N., Yoesoef, A., & Nur, M. (2016). Pengaruh model pembelajaran kooperatif tipe talking stick dengan strategi joyful learning terhadap prestasi belajar siswa pada mata pelajaran IPS kelas VII MTsN Meuraxa Banda Aceh. JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah, 1(1).

Fatayah, F., Yuliana, I. F., & Mufidah, L. (2022). Validity and Reliability Analysis in Supporting Mastery Learning STEM Model. Buana Pendidikan: Jurnal Fakultas Keguruan dan Ilmu Pendidikan Unipa Surabaya, 18(1), 49-60.

Gintoe, K. Y., Kendek, Y., & Hatibe, A. (2015). Pengaruh Model Pembelajaran Kooperatif Tipe Talking Stick Terhadap Hasil Belajar IPA Fisika Pada Siswa Kelas VII SMP Negeri 9 Palu. Jurnal pendidikan fisika tadulako (JPFT), 3(4), 1-12.

Hayati, P. N. (2017). Pengaruh Model Pembelajaran Talking Stick Terhadap Hasil Belajar Siswa Kelas X–IIS SMA Negeri 17 Surabaya. Jurnal Pendidikan Ekonomi (JUPE), 5(3).

Husda, A., Tampubolon, W., & Sibarani, S. O. R. (2022). Language Literacy Enhancement Through Zoom Cloud Meeting. Buana Pendidikan: Jurnal Fakultas Keguruan dan Ilmu Pendidikan Unipa Surabaya, 18(1), 153-163.

Idrus, C. (2013). Perbedaan Hasil Belajar Siswa Menggunakan Model Pembelajaran Tipe Talking Stick Dengan Pembelajaran Konvensional Padamata Pelajaran Ekonomi Siswa Kelas X Sman 1 Bonjol Kabupaten Pasaman. Journal of Economic and Economic Education, 2(1), 77-84.

Kharis, L., & Rakhmawati, L. (2014). Pengaruh Model Pembelajaran Kooperatif Tipe Talking Stick Untuk Meningkatkan Hasil Belajar Siswa Pada Mata Pelajaran Teknik Elektronika Di SMK Negeri 7 Surabaya. Jurnal Pendidikan Teknik Elektro, 3(2).

Nazaruddin, I., & Basuki, A. T. (2015). Analisis Statistik Dengan SPSS. Yogyakarta: Danisa Media

Paridah, S., Hidayat, O. S., & Komalasari, G. (2022). CIPP Evaluation Model (Context, Input, Process, Product) Program For Strengthening Character Education Through Thematic Learning In The Era Of The Covid-19 Pandemic. Buana Pendidikan: Jurnal Fakultas Keguruan dan Ilmu Pendidikan Unipa Surabaya, 18(1), 61-72.

Rahmawati, D., Maladona, A., & Gaffar, A. A. (2018). Pengaruh Metode Pembelajaran Eksperimen terhadap Peningkatan Hasil Belajar Siswa (Studi Eksperimen di Kelas VII SMP pada Konsep Energi dalam Sistem Kehidupan). Bio Educatio, 3(2), 279511.

Rahmawati, S. U. (2019). Pengaruh model pembelajaran kooperatif tipe talking stick. Jurnal Basicedu.Volume 5. Nomor 6. Tahun 2021. Hal 5481 - 5487.

Ramayanti, M., & Awuy, E. (2014). Pengaruh Penerapan Model Pembelajaran Kooperatif Tipe Talking Stick terhadap Hasil Belajar Matematika (Studi Eksperimen pada Materi Bilangan Bulat di Kelas VII SMPN 1 Sausu). Jurnal Elektronik Pendidikan Matematika Tadulako, 2(2), 109-116.

P-ISSN: 1693-8585
E-ISSN: 2622-9218
http://jurnal.unipasby.ac.id/index.php/jurnal_buana_pendidik

Subroto, W. T. (2022). The Effect of Time Management on Economics Learning Outcomes for Class X SMA Labschool Unesa During Online Learning. Buana Pendidikan: Jurnal Fakultas Keguruan dan Ilmu Pendidikan Unipa Surabaya, 18(1), 81-92.

Sugiyona, (2015). Metode penelitian pendidikan. Bandung. Alfabeta

Suyatno. 2009.*Menjelajah Pembelajaran Inovatif. Sidoarjo*. Masmedia Buana Pustaka.

Syahputra, D. P. B., & Inayah, A. (2022). Note-Taking Technique Achievement In Narrative Text At Senior High School. Buana Pendidikan: Jurnal Fakultas Keguruan dan Ilmu Pendidikan Unipa Surabaya, 18(1), 124-134.

Tampubolon,Saur. (2014).Penelitian Tindakan Kelas Sebagai Pengembangan Profesi Pendidik Dan Keilmuan. Jakarta. Penerbit Erlangga

Tefa, P. I., Bulu, V. R., & Nitte, Y. M. (2020). Pengaruh Model Pembelajaran Kooperatif Tipe Talking Stick Terhadap Hasil Belajar Ilmu Pengetahuan Alam (Ipa) Pada Siswa Kelas Iii Sdi Bakunase 1 Kupang. SPASI: Jurnal Mahasiswa Pendidikan Dasar, 1(1), 13-28.

Wijayanti, E. (2011). Penerapan model pembelajaran kooperatif tipe talking stick sebagai upaya peningkatan hasil belajar mata pelajaran statika pada siswa kelas X TGB SMK Negeri 2 Surakarta.

Wijayanti, N. N. D., Arini, N. W., & Suarni, N. K. (2017). Pengaruh Model Pembelajaran Kooperatif Tipe Talking Stick Berbantuan Media Audio Visual Terhadap Hasil Belajar IPS. Mimbar PGSD Undiksha, 5(2).

Maria Wanda, Vidriana Oktoviana Bano, Anita Tamu Ina

ORIGINALITY REPORT

24%	22%	24%	8%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.researchgate.net Internet Source	3%
2	jurnal.uinbanten.ac.id Internet Source	3%
3	journal.universitaspahlawan.ac.id Internet Source	2%
4	isindexing.com Internet Source	2%
5	Lidia Wijayanti, Imam Sukwatus Sujai, Dian Septi Nur Afifah. "Effect of cooperative learning model type of talking stick against student learning", Journal of Physics: Conference Series, 2019 Publication	2%
6	garuda.kemdikbud.go.id Internet Source	2%
7	journal.gmpionline.com Internet Source	1%

8	Vianida Etyarisky, Marsigit Marsigit. "The Effectiveness of Interactive Learning Multimedia with a Contextual Approach to Student's Understanding Mathematical Concepts", AL-ISHLAH: Jurnal Pendidikan, 2022 Publication	1 %
9	jurnal.fkip.unmul.ac.id Internet Source	1 %
10	etheses.uin-malang.ac.id Internet Source	1 %
11	garuda.ristekdikti.go.id Internet Source	1 %
12	Submitted to Pascasarjana Universitas Negeri Malang Student Paper	1 %
13	eprints.iain-surakarta.ac.id Internet Source	1 %
14	1library.net Internet Source	1 %
15	eudl.eu Internet Source	1 %
16	M Papia, W A R Rombang, M Karundeng. "The effect of the REACT CBA strategy on the material of reaction rate on student	1 %

achievement at SMA Kristen 1 Tomohon",
Journal of Physics: Conference Series, 2021
Publication

17	estd.perpus.untad.ac.id Internet Source	1 %
18	mjltm.org Internet Source	1 %
19	www.atlantis-press.com Internet Source	1 %
20	ejournal.undiksha.ac.id Internet Source	1 %
21	riset.unisma.ac.id Internet Source	1 %

Exclude quotes	On	Exclude matches	< 1%
Exclude bibliography	On		

Maria Wanda, Vidriana Oktoviana Bano, Anita Tamu Ina

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8