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APPLICATION OF THE SNAKE METHOD TO IMPROVE THE STUDENT RESULTS OF CLASS IV STUDENTS OF SD NEGERI NO. 101731 KAMPUNG LALANG

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Abstract: This study aims to determine the i mprovement of science learning outcomes by applying the debt (snakes and ladders) method to class IV students of SD Negeri 101731 Kampung Lalang in understanding the material changes in the appearance of the earth and celestial bodies .This type of research is classroom action research with a total of 33 research subjects from grade IV students at SD Negeri 101731 Kampung Lalang , where activities are carried out while learning science takes place. To obtain data used in this study the authors conducted tests and observations. The data analysis technique in this study is a qualitative description by describing the percentage used. Based on the results of the study in the first cycle of 33 students who have been studying about p okok discussion of changes in the earth's surface appearance and the heavenly bodies was found that students who received grades < 70 or did not complete as many as 17 students (51.52 %) and students who achieve ni lai ≥ 70 or as many as 1 6 students (48.48 %). The average acquisition result or learning value is 68.03. Classical completeness is 57.58%. This proves that the value of student learning outcomes in the implementation of the first cycle does not yet have a success rate of learning because it is still below 80.00%. Based on the acquisition of learning outcomes in the first cycle still has not reached completion so that the second cycle is carried out. The results of the data in the second cycle there were 31 students (93.94%) completeness and did not experience completeness of 2 people (6.06%). Acquisition of classical completeness of 93.94%, this proves that classical learning outcomes in the second cycle has reached completeness because it has reached 80.00% with the acquisition of an average value of 88.79. Thus it can be concluded that an increase in student learning outcomes after learning is done by using the snake ladder method in science lessons the subject of changes in the appearance of the surface of the earth and celestial bodies in class IV SD Negeri N o . 101731 Kampung Lalang for the Academic Year 2017/2018 .

Keywords : *Ladder Snake Mhod, Learning Outcomes*

Abstrak : Penelitian ini bertujuan untuk mengetahui peningkatan hasil belajar IPA dengan menerapkan metode utang (ular tangga) pada siswa kelas IV SD Negeri No.101731 Kampung Lalang dalam memahami materi perubahan kenampakan bumi dan benda langit. Jenis penelitian ini adalah penelitian tindakan kelas dengan jumlah subjek penelitian sebanyak 33 orang siswa yang berasal dari siswa kelas IV SD Negeri No.101731 Kampung Lalang, dimana kegiatan dilakukan saat pembelajaran IPA berlangsung. Untuk memperoleh data yang digunakan dalam penelitian ini penulis melakukan test dan observasi. Adapun teknik analisis data dalam penelitian ini adalah deskripsi kualitatif dengan menguraikan persentase yang digunakan. Berdasarkan hasil pelaksanaan pembelajaran pada siklus I dari 33 siswa yang telah mempelajari tentang pokok bahasan perubahan kenampakan permukaan bumi dan benda langit diperoleh bahwa siswa yang memperoleh nilai < 70 atau tidak tuntas sebanyak 17 siswa (51,52%) dan siswa yang mencapai nilai ≥ 70 atau tuntas sebanyak 16 siswa (48,48%). Rata-rata perolehan hasil atau nilai belajar sebesar 68,03. Tingkat ketuntasan klasikal mencapai 57,58%. Hal ini membuktikan bahwa nilai hasil belajar siswa pada pelaksanaan siklus I belum memiliki tingkat keberhasilan belajar karena masih di bawah 80,00%. Berdasarkan perolehan hasil belajar pada siklus I masih belum mencapai ketuntasan sehingga dilaksanakan siklus II. Hasil data pada siklus II terdapat 31 siswa (93,94%) ketuntasan dan tidak

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mengalami ketuntasan 2 orang (6,06%). Perolehan ketuntasan klasikal sebesar 93,94% hal ini membuktikan bahwa hasil belajar secara klasikal pada siklus II telah mencapai ketuntasan karena telah mencapai 80,00% dengan perolehan nilai rata-rata sebesar 88,79. Dengan demikian dapat disimpulkan bahwa terjadi peningkatan hasil belajar siswa setelah dilakukan pembelajaran dengan menggunakan metode ular tangga pada pelajaran IPA pokok bahasan perubahan kenampakan permukaan bumi dan benda langit di kelas IV SD Negeri No. 101731 Kampung Lalang Tahun Pembelajaran 2017/2018.

Kata Kunci : *Metode Ular Tangga, Hasil Belajar*

INTRODUCTION

Education is the process of changing attitudes and behavior of a person or group of people in an effort to mature humans through teaching and training efforts. education holds a central position in the development process and progress to face future challenges.

As we know the official institution for educating children is that schools have a level of education, starting from kindergarten, elementary, junior high, high school and PT. Institutions S ekolah Basic (SD) is one of the basic institutions that must be passed before admission to a higher level, namely S MP, SMA and PT. Schools have a role as a place for students to express themselves more, as a place to discover students' talents, as a place to learn to socialize and respect others.

Nearly half the time students have spent is spent on activities in schools, which makes the role of schools in education need to be considered. School is a place where they are required to study, it is certain that students at school will be bored. Learning what I mean here is to dwell on lessons to get high academic grades.

Based on the results of researchers' interviews with grade IV elementary school teachers No. 101 731 Kampung Lalang can be stated conclusion that some of the problems found related to poor learning outcomes of students who dise ba b kan teachers tend to use conventional methods, teachers rarely use the media that make the student's interest is reduced in the following study in the classroom , so that the activities and results of learning to learn science low student .

Efforts to overcome these problems include selecting and applying appropriate learning methods. The method that is considered capable of involving student activity in learning is the snake and ladder method . The Ladder Snake Method can make students more active, creative and motivated in learning. This method is expected to improve the learning outcomes of science in one snake and ladder game. For students who reach the finish for the first time, they are declared to have passed the learning process both in terms of character education and science learning. The teacher's task at the beginning is to explain the subject matter but not in depth using expository strategies and lecture learning models. Then, students are given a short time to study the book and ask questions that are not understood. Next students play snakes and ladders lead by the teacher. The Ladder Snake Method can be given both in groups and individually.

The objective to be achieved in this study is to determine the improvement of science learning outcomes by applying the Ladder Snake Method to class IV students of SD Negeri 101731 Kampung Lalang in understanding the material changes in appearance of the earth and celestial bodies.

Slameto (2010: 2) argues that learning is a business process carried out by someone to obtain a new change in behavior as a whole, as a result of his

own experience in interaction with his environment .

Gagne (Agus 200 9: 2) learning is a change in disposition or ability achieved by someone through activity. Changes in these positions are not obtained directly from the natural growth process of a person . Kingskey (W ina 2011: 13) mengataka n learning is a process where behavior (in a broad sense) is concluded or modified through practice or exercise.

Based on the above opinion, it can be concluded that learning is a process of changing behavior that is permanent in a person can be seen from the increase in quality and quantity such as increased knowledge, skills, thinking power, attitudes, habits, interests and others - others.

Factors - factors that affect learning, according Slameto (2010: 54), namely: internal factors and external factors. Internal factors are factors that exist in individuals who are learning for example physical actors which include health factors and bodily disabilities; psychological factors include intelligence, attention, interests, talents, motives, maturity, and fatigue while external factors are factors that exist outside the individual include family factors such as the way parents educate, relationships between families, the atmosphere of the house, economic conditions, cultural background; school factors eg teaching methods, curriculum, teacher relations denagn student, school discipline, lessons and other tools - other , community factors eg student activities in society, mass media, friends hanging out one day - day.

Dick and Reiser (Eka colors 2010 : 40) suggest that learning outcomes are abilities possessed by students as a result of learning activities, which consist of four types, namely: knowledge, skills, intellectuals, motor skills and attitudes ". Briggs (Ekawarna 2010 : 40) "Learning outcomes are all skills and results achieved through the process of teaching and learning in schools that are expressed by numbers or values based on tests of learning outcomes" . Arikunto (2008 : 3) "Student learning outcomes are a decision to obtain the value at the end of learning".

According to Staton (Sardiman, 2010: 39-47) there are six factors that affect learning outcomes, namely: (1) motivation, (2) concentration, (3) reactions, (4) organization, (5) understanding, and (6) tests. Winarno (Hidayati, 2008: 7.21) explained that "Learning methods are ways of implementing the teaching and learning process, or how technical something is given to students in school".

Based on the theories above, it can be concluded that the science learning outcomes are the level of ability in students in the form of mastery of science knowledge that is realized in the form of learning achievement test scores. In this study, learning outcomes obtained by students are limited to the material classification of animal types on cognitive aspects with indicators in the form of abilities in memory, understanding, and application as measured through natural science learning outcomes tests .

Play is an activity that can not be separated in the life of a child, many things can be done and encountered by children in these play activities. Play can train the cognitive, affective and psychomotor abilities of children, in addition to playing children can learn to develop creativity, socialize and cooperate with others. (Pramono, 2012: 8)

According to Vygotsy (Rifa, 2012: 12) states that play has a direct role in the cognitive development of children, where a small child is not able to think abstractly so that they need a way so that they can understand an object, both concretely and abstractly. According to Syafei (Faturrahman, 2012: 150) "play is an important educational tool for children. In playing emotions spontaneity children appear and develop

extraordinary. Act quickly on the pressures and actions that appear to win the game ".

The purpose of the presentation of the various - kinds of teaching methods and their application in science teaching is that teachers have a broad knowledge of methods - methods and have the skills to apply them in character education especially in the field of teaching science. Knowing the strengths and weaknesses of the type - the type of teaching method is very important so we can apply it to the appropriate method, sehinngga our instructional goals can be achieved optimally.

Snakes and ladders is a game that uses dice to determine how many steps the pawn has to take. This game is included in the category of " *board game* " or similar board games with monopoly, halma, ludo, and so on. The board is in the form of pictures of plots consisting of 10 rows and 10 columns with numbers 1-100, as well as pictures of snakes and ladders. Snakes and ladders game is one of the light board games and is quite popular in Indonesia besides other board games such as monopoly, ludo, dam, and halma. Snakes and ladders game is light, simple, educational, entertaining, and very interactive when played together. This snake and ladder game is light if carried, easy to understand because the rules of the game are simple, educating, and entertaining children in a positive way

The Ladder Snake Method can make students more active, creative and motivated in learning. This method is expected to improve the learning outcomes of science in one snake and ladder game. For students who reach the finish for the first time, they are declared to have passed the learning process both in terms of character education and science learning. The teacher's task at the beginning is to explain the subject matter but not in depth using expository strategies and lecture learning models. Then, students are given a short time to study the book and ask questions that are not understood. Next students play snakes and ladders lead by the teacher. Methods Snakes and Ladders can be provided either on a group or indivi d u.

Steps - steps to be followed in the application of the method of Snakes and Ladders is:

a) First phase

In this phase the teacher implements the expository strategy using the lecture method and uses the question and answer method. The goal is that students understand the lesson to be played.

b) Phase two

In this phase, students were given paper game of snakes and holding pins each - each. Who can answer the first question of the teacher is entitled to first shake dice in front and proceed friend - friends. In playing this game groups and individuals can be formed. The goal is that the honest character of students is formed and the students' knowledge increases and curiosity will be high.

c) The third phase

The first student who enters the finish is the winner and the second who enters the second place automatically and so on. After arriving at the finish the students explained the lesson they had played. Students who win in goal appreciation so that students are increasingly motivated.

RESEARCH METHODS

This type of research is P enelitian T indakan K elas (PTK) that is implemented using the cycle . The use of cycles is intended to take action to solve learning problems in order to obtain improvements. Each cycle consists of planning, acting, acting, observing and reflecting.

The study was conducted on students of grade IV SD No. 101731 Kampung Lalang for the 2017/2018 study year . As the subject in this study

were students in grade IV SD Negeri No. 101731 Kampung Lalang as many as one class totaling 33 students. The research object of this class action is the use of methods of Snakes and Ladders in improving learning
outcomes IPA material material changes in the appearance of the earth and celestial bodies .

To collect data needed in conducting this research using data collection instruments, namely:

1) Observation sheet is a format of assessment of the implementation of activities during learning takes place. The observation sheet format consists of:
   (a) Student activities in learning
   (b) Teacher teaching activities
2) Learning Outcomes Test Instrument

The test consists of two stages, namely the initial ability test and the learning achievement test. The initial ability test contains questions related to the material that demands the ability of fourth grade students in science subjects to change the appearance of earth and heavenly bodies .

Initial capability test is given to determine the extent to which the level of student mastery of the material and to determine the problems be la jar her , especially learning difficulties experienced by students. Initial tests are given before administering or implementing an action.

The learning achievement test also contains questions related to the material taken from the worksheet and validity is carried out so that the test is declared valid. Given test aims to determine whether the student's ability to rise after teaching the subjects gave to the science of matter material changes in the appearance of the earth and celestial bodies .

The analysis technique used is in accordance with the data collected. The data of this study were analyzed using analytical techniques in the form of field notes activities that are presented in full during the research process. Data analysis was obtained based on observations, evaluating student learning outcomes, reflection of each cycle performed.

The data analysis technique used in this study is related to the completeness of student learning and observations during the implementation of learning activities carried out. Data analysis technique is the measurement of learning activities, namely:

a) Individual absorption

To find out individual student learning outcomes by using individual absorption using the formula:

$$PPH = \frac{B}{N} x100$$

Information:
PPH = Results Evaluation Achievement (Value)
B = Sk obtained by students (raw score)
N = Total score (ideal ideal score)

Mastery learning criteria:
< 70 Not complete
≥ 70 Completed (Trianto 2010: 24)

b) Classical Absorption

$$P = \frac{f}{n} x100\%$$

Information :
P = Percentage of classes that have been thoroughly studied
f = Number of students who have finished studying
n = Number of students in one class (Zainal aqiib et al. 2010: 41)

The results of the observation were analyzed descriptively and the learning process was said to be effective if the implementation of the learning process was at least running well. Observation of the learning activities ofstudents and activities activit ies of teachers to teach do analysis by using the formula :

$$F_i = \frac{\sum P}{n}$$

Description :

F_i = is the sum of the average score average obtained at each meeting

$\sum P$ = Total number of values obtaine

N = Number of criteria assessed.

RESEARCH RESULT

Based on the results of the t-test the initial ability of students can be expressed completeness of student learning in the following table :

Table 1. Results of completeness of individual learning of students on the initial test

No .	Criteria	Frequency	Percentage	Individual completeness
1 .	< 70	33	100.00%	Not complete
2 .	≥ 70	-	00.00%	Complete
Amount		33	100 , 00 %	

Based on table 1, it can be stated that students' learning completeness based on the pre-test results, as many as 33 students (100.00%) scored <70 and it can be stated that individual students did not experience mastery learning.

Furthermore, it can be stated the level of individual completeness (individual absorption) can be stated in the following table:

Table 2 Results of Individual Student Mastery Test in Cycle I

No .	Criteria	Frequency	Percentage	Individual completeness
1 .	< 70	17	51.52%	Not complete
2 .	≥ 70	16	48.48%	Complete
Amount		33	100 , 00 %	

Based on the table above, it can be stated that individual completeness (individual absorption) based on the results of student tests in the first cycle, as many as 16 students (48.48%) obtained a score of ≥ 70 and stated experiencing individual completeness, as many as 17 students (51.52%) students do not experience mastery learning individually.

Furthermore, it can be stated a description of the percentage of completeness of science learning outcomes of students in the second cycle as follows:

Table 3. Results of Individual Student Mastery Test in Cycle II

No .	Criteria	Frequency	Percentage	Individual completeness
1 .	< 70	2	6.06%	Not complete
2 .	≥ 70	31	93.94 %	Complete
Amount		33	100.00%	

Based on table 3 it can be stated that individual completeness based on student test results in cycle II, as many as 31 students (93.94.00%) received a score of ≥ 70 and were declared to have experienced individual completeness , and those who did not experience individual completeness were 2 students (6 , 06%).

Furthermore, it can be stated the completeness table of student learning outcomes in science subjects the subject of changes in appearance of the earth's surface and celestial bodies by using the method of playing snakes and ladders as follows:

Table 4 completeness table individual student learning outcomes

No	Test Implementation	Percentage of Individual Completeness	
		Not complete	Complete
1 .	Pre Test	100 , 00%	0 0 , 00%

2 .	Cycle I	51.52 %	48.48 %
3 .	Cycle II	6.06 %	93.94 %

Based on table 4 it can be stated that in the implementation of pre-test the results of student learning mastery are known to be 00.00%, then an increase after the implementation of learning with the first cycle where the mastery of learning obtained by 48.48% and an increase after the implementation of the second cycle learning with the acquisition completeness learning outcomes of 93.94%. Then the following individual completeness charts can be presented as follows:

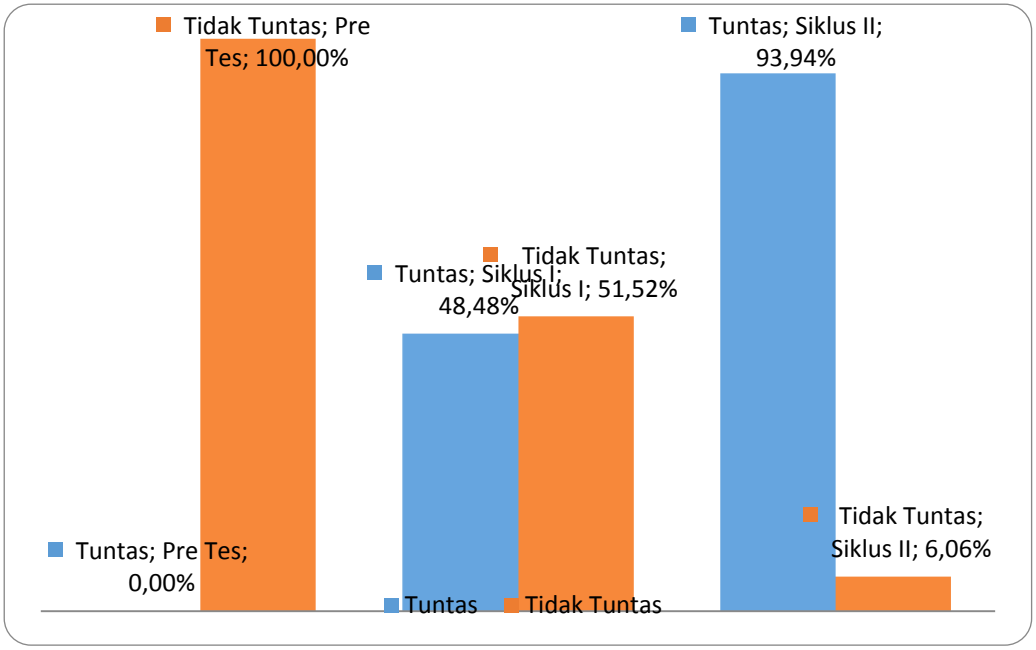

Figure 4.1 Graphic Improvement of Student Learning Completeness

CONCLUSION

Based on the results of research and discussion previously stated, it can be concluded that the use of the snake ladder method can improve student learning outcomes in science subjects the subject of changes in appearance of the earth's surface and celestial bodies in class IV SD Negeri N o . 101731 Kampung Lalang for the 2017/2018 study year .

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