



Flipped Classroom Learning Model in Improving Thematic Learning Outcomes of Class V Elementary School Students

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Abstract. The approach in this research is a descriptive qualitative approach. This type of research is classroom action research (PTK). The aim to be achieved from the results of this research is to describe the application of the Flipped Classroom learning model as being able to improve the learning outcomes of class 29 A PGSD Campus VI UNM Bone students. The design in this research consists of 4 stages, namely planning, implementation, observation, and reflection. The focus of this research is the application of the Flipped Classroom learning model and student thematic learning outcomes. Description The focus of this research is lecturers and students in class 29 A PGSD Campus VI UNM Bone. Data collection procedures and techniques are obtained through observation, tests and documentation. The research instruments and tools used in this research are learning implementation plans, cycle tests, observation sheets and documentation. The data analysis techniques in this research are data reduction, data presentation, and verification. The research results show that there is a significant increase in the application of the Flipped Classroom learning model from very poor learning outcome qualifications to good qualifications. The conclusion of the research is that the application of the Flipped Classroom learning model in science education learning for class 29 A PGSD Campus VI UNM Bone can improve learning outcomes.

Keywords: Learning, flipped classroom, learning outcomes.

1 Introduction

Education is a means of improving the quality of human resources because success in the world of education is a determining factor in achieving educational goals. As is known, the success and progress of a nation can be seen from the quality of its human resources, while the high or low quality of a nation's human resources can be seen from the quality of the education it receives. Therefore, educational reform efforts are needed to improve the quality of the nation's education itself.

Education is an effort to guide and develop students' potential from not knowing to knowing. According to Majid (2014: 24) "education is the main environment that

provides opportunities and support for the development of students' potentials". The potential of students can be developed in real terms through education so that people who are intelligent, skilled and have responsibility for the nation and state will be formed. One way to prepare a better future generation for the nation is by improving the quality of education. This is in accordance with the function and objectives of education in Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System in article 3 which states that:

National Education functions to develop abilities and shape the character and civilization of a nation with dignity in order to make the nation's life more intelligent, aimed at developing the potential of students to become human beings who have faith and are devoted to God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens.

Education is essentially a conscious and planned effort to create a learning atmosphere and learning process so that students are more active in developing their potential to have religious spiritual strength, noble morals, and the skills needed by themselves, society, nation and state. Talking about the educational process, of course it cannot be separated from the efforts that must be made to develop quality human resources, while quality humans when viewed from an educational perspective are clearly contained in the national education goals.

It is believed that the implementation of good education can create quality resources thereby improving the quality of education. To realize the ideals and goals of education, as a teacher, you must make changes in the teaching and learning process, especially in thematic learning in the 2013 curriculum. The 2013 curriculum is a form of change in the education system in Indonesia. The 2013 curriculum provides a change from conventional teaching patterns with students who tend to be passive becoming more active and meaningful. In active and meaningful learning, teachers/lecturers not only convey knowledge to students, but teachers/lecturers also actively involve students in learning activities or are student-centred.

The goal to be achieved from a student-centered learning process according to Tronova (Apriyanah (2018: 1) "is that students are expected to be able to have the freedom to play an active and independent role in building knowledge and achieving competence with the sources of information they obtain themselves through the learning process active, interactive, collaborative and cooperative". So student-centered learning is students who actively and independently develop their knowledge through learning resources obtained by themselves in learning.

According to Ahmadi (Munfaridah 2017: 1) "The learning process also has other factors that determine the success of learning, these factors are student learning independence." With learning independence, students will tend to learn better, be able to monitor, evaluate and organize their learning effectively, save time efficiently, and will be able to direct and control themselves in thinking and acting. The reality of thematic learning in schools still tends to be partial. Learning activities are still centered on the teacher as a source of knowledge. Teachers still dominate the learning process. In the learning process, students are less active, students listen and write more so that student activities in class become passive, stiff and boring, as a result, student learning outcomes are still less than expectations.

Based on pre-research conducted during online lectures, there were still many students who were less active in lectures and had low absorption capacity. So, lectures certainly require strategies from the lecturer so that students can learn well independently.

After exploring this learning, we can see that the teacher's aspect of the presentation of material by teachers still tends to teach based on textbooks, is dominant in teaching, uses monotonous learning models such as using lecture and assignment methods so that students are less interested in learning and do not maximize learning media. Meanwhile, the aspect of students is that students in the learning process are passive, less motivated, less interactive, less active and less independent so that learning outcomes are less than optimal.

As an effort in the learning process to improve student learning outcomes, researchers will take action to overcome this problem by implementing an interesting learning model that can train students' learning independence. One model that can be applied is the Flipped Classroom learning model introduced by Jonathan Bergman and Aaron Sams. A model that involves students learning material through digital media in the form of learning videos, e-books, handouts, images and so on. Students can access material online or offline anytime and anywhere so that it can foster student activity and independence in learning. This is in line with research conducted by Widyastuti and Sujadi (2018) whose research revealed that the application of the Flipped Classroom learning model can improve students' mathematics learning outcomes. Likewise, research conducted by Apriyanah (2018) stated that student learning outcomes improved by using the Flipped Classroom learning model compared to using the conventional model. From the results of these two studies, it is stated that the application of the Flipped Classroom learning model can be used as a learning model that can improve student learning outcomes.

Based on the background above, the prospective researcher intends to conduct Classroom Action Research (PTK) with the title "Application of the Flipped Classroom Learning Model in Improving Thematic Learning Outcomes of Class V Students at SD Negeri 72 Lamurukung, Tellu Siattinge District, Bone Regency". Based on the problems above, the problem in this research, namely the low learning outcomes of students in thematic learning in class V of SD Negeri 72 Lamurukung, Tellu Siattinge District, Bone Regency, was overcome by implementing the Flipped Classroom learning model.

2 Method

This research was conducted using a qualitative approach. This approach is descriptive, meaning it describes all the events that occurred during the research. Bogdan and Taylor (Lexy. 2015: 4) define "qualitative methodology as a research procedure that produces descriptive data in the form of written or spoken words from people and observable behavior". This means that this approach is directed at the setting and the individual as a whole. So, in this case it is not permissible to isolate

individuals or organizations into variables or hypotheses, but it is necessary to view them as part of a whole.

Williams (Lexy, 2015: 5) states that "qualitative research is collecting data in a scientific setting, using scientific methods, and carried out by people or researchers who are scientifically interested". So this definition illustrates that qualitative researchers prioritize scientific settings, scientific methods, and are carried out by people who have scientific concerns.

This type of research is Classroom Action Research (PTK). According to Arikunto et al (2015: 1-2) "Classroom action research is research that describes the causes and effects of treatment, as well as explaining the entire process from the beginning of the treatment to the impact of the treatment." Thus, classroom action research (PTK) is a type of research that describes both the process and results, which is carried out in the classroom to improve the quality of learning.

Based on the description above, this classroom action research will be carried out in collaboration with the fifth grade teacher at SD Negeri 72 Lamurukung, Tellu Siattinge District, Bone Regency in an effort to improve the learning process to improve thematic learning outcomes for theme 9 Objects Around Us, Subtheme 1 Objects Single and Mixed with the research title "Application of the Flipped Classroom Learning Model in Improving Thematic Learning Outcomes for Class V of SD Negeri 72 Lamurukung, Tellu Siattinge District, Bone Regency"

This research uses a class action plan (Action research). According to Arikunto (2016), a recycling research plan (cycle) consists of planning, implementation, observation and reflection. Each of these stages can be described as follows:

Action Planning

Researchers collaborate with the science education subject team by preparing Semester Learning Plans (RPS), student worksheets (LKM), tests, and assessment instruments as well as making lecturer and student observation sheets to find out what the teaching and learning conditions are in the classroom at the time the learning activities take place, both students and teachers.

Implementation of Actions

This stage is the implementation of the design that has been prepared collaboratively between researchers and the lecturer team. The activities carried out in each cycle are by applying the Flipped Classroom Learning model to thematic learning. Each action ends with a test or learning evaluation.

Observation Stage

At the observation stage, it is carried out in 3 stages, namely:

Researchers pay attention to everything that happens from the beginning of the learning activity to the end of the learning.

Monitoring student activity during learning takes place based on the prepared observation format.

Monitoring the teacher's teaching process during learning takes place based on the observation format that has been prepared.

Researchers pay attention to the extent of students' success in group study to solve evaluation questions.

Reflection Stage

This stage is carried out to review and reflect on initial information regarding any discrepancies with learning practices. The aim is to formulate an initial formulation which will then be incorporated into an initial action plan. This further reflection is carried out jointly (collaboratively) between prospective researchers and teachers, to find materials for improvement for further plans.

Data analysis in this research was carried out during and after data collection. The collected data was analyzed using qualitative data analysis techniques. Miles and Huberman (Sugiyono, 2018: 246) state that "activities in qualitative data analysis are carried out interactively and continue continuously until completion, so that the data is saturated". According to Sugiyono (2018), data analysis activities are: Data Reduction, reducing data means summarizing, selecting the main or principal things, focusing on the important parts, looking for themes and patterns, and discarding what is not necessary, Data Display (data presentation), after the data has been reduced, the next step is to display the data. What is most often used to present data in qualitative research is narrative text, Conclusion Drawing (verification), the third step in qualitative data analysis is drawing conclusions and verifying. The initial conclusions found are still temporary, and will change if strong supporting evidence is not found at the next stage of data collection. However, if the conclusions found at the initial stage are supported by valid and consistent evidence when the researcher returns to the field to collect data, then the conclusions found are definite conclusions.

Indicators of success in this research are seen from the process aspects and aspects of student learning outcomes in thematic learning theme 8 Our Friendly Environment, Subtheme 2 Environmental Change. From the process aspect, it can be seen from the suitability of the steps of the Flipped Classroom learning model with teacher and student activities in thematic learning. Meanwhile, from the aspect of learning outcomes, learning is said to be successful if 75% of the number of students reaches 75. The criteria used to determine the qualifications for the level of student learning outcomes and the success of the teacher's teaching process are in accordance with the standard criteria expressed by Arikunto and Cepi (2014) as follows :

Table 1. Qualification Student Learning Outcomes and Teacher Teaching Process

Achievement Level	Qualification
80 – 100%	Excellent
66 - 79%	Good
59 - 65%	Medium
41 - 55%	Less
0 - 40%	Very Less

Source: Education Program Evaluation (Arikunto and Cepi, 2014)

3 Research Result and Discussion

In this section, the findings and results of science learning actions using the Flipped Classroom learning model are presented for students in class 29A PGSD Campus VI UNM Bone. Action data, findings and reflections were obtained through observation and documentation of student learning outcomes. Data for each cycle is displayed separately. This aims to see similarities, differences, changes and developments in the flow of each cycle. Thematic learning by applying the Flipped Classroom learning model includes planning, implementation, observation and reflection. The results of the implementation of actions in cycle I and cycle II are described as follows:

The results of observations of researcher activities in cycle I, meeting 1, were that there were no activities carried out with very good qualifications (SB) so the presentation was 0%, activities carried out with medium qualifications (C) with a percentage of 42%, namely the researcher united concepts about the material that had been studied, The researcher distributed LKS to each student, the researcher gave each student the opportunity to work on the LKS, the researcher gave each student the opportunity to present the results of their work and give tests on the material they had studied. Activities carried out with less qualifications (K) with a percentage of 11%, namely researchers checking students' learning activities at home and giving each student the opportunity to respond to their friends' work. There were no activities carried out with very poor qualifications (SK) so the presentation was 0%, so the percentage of achievement of indicators for implementing the Flipped Classroom learning model was 54%.

The results of observations of students in cycle I, meeting 1, were that there were no activities carried out with very good (SB) and good (B) qualifications so the presentation was 0%. Activities carried out with moderate qualifications (C) with a percentage of 42%, namely students show their learning results at home, each student gets a worksheet in the form of problems in the form of questions, each student works on the worksheet that has been given, students present the results of their work in front of the class, and answer given quizzes or tests. Activities carried out with less qualifications (K) with a percentage of 11%, namely students unite concepts about the material they have studied and students respond to their friends' work. There were no activities carried out with very poor qualifications (SK) so the presentation was 0%, so the percentage of achievement of indicators for implementing the Flipped Classroom learning model was 54%.

In general, the results of observation in cycle I of meeting 2 were an improvement compared to meeting 1. This can be seen in the results of observation aspects of researchers and students. The results of observations of teachers in cycle I, meeting 2, did not have activities with very good (SB) and good (B) qualifications so the presentation was 0%. Teacher activities carried out with moderate qualifications (C) with a percentage of 60%, namely the teacher checking students' learning activities at home, the researcher uniting concepts about the material that has been studied, the teacher distributing LKS to each student, the researcher giving each student the opportunity to work on the LKS, The researcher gave each student the opportunity to present the results of their work, the researcher gave each student the opportunity to

respond to their friend's work and the researcher gave a test on the material they had studied. There were no activities carried out with poor (K) and very poor (SK) qualifications so the presentation was 0%, so the percentage of achievement in implementing learning through the Flipped Classroom learning model was 60%.

The results of observations of students in cycle I of meeting 2 were that there were no activities carried out with very good (SB) and good (B) qualifications so the presentation was 0%. Activities carried out with moderate qualifications (C) with a percentage of 51%, namely students show their learning results at home, students combine concepts about the material they have studied, each student gets a worksheet in the form of problems in the form of questions, each student works on the worksheet that has been given, students present the results of their work in front of the class, and students answer the quiz or test given. Activities carried out with less qualifications (K) with a percentage of 5%, namely students responding to their friends' work. There were no activities carried out with very poor qualifications (SK) so the presentation was 0%, so the percentage of achievement of indicators for implementing the Flipped Classroom learning model was 57%.

Cycle I reflection is carried out to review and reflect on the planning and implementation processes which are deemed not to have been implemented optimally and must be improved further in the learning process of cycle II. Based on a comparison between initial data, the average pretest score, the average score was 70.9, with student learning completion only reaching 40%, so it was categorized as poor. The implementation of cycle I actions has seen an increase in student learning processes and outcomes with an average score of 73.8 so it is categorized as moderate with a percentage of 60%. This did not meet the specified success indicators, namely 75% learning completeness, so the researchers continued the action in cycle II. The causes of incomplete processes and low student learning outcomes can be found based on the results and tests of cycle I so that they become material for reflection to be improved in cycle II, including:

1) Researcher Teaching Activities

The researcher's teaching activities were not implemented optimally in the learning process through the Flipped Classroom learning model, namely:

- a) not thoroughly checking student learning activities at home
- b) less than optimal in integrating the concepts of the material that has been studied
- c) not optimally explaining LKS instructions to students which contain problems in the form of questions
- d) lack of motivation for students to confidently present their work
- e) not directing students to respond to comparing their answers with their friends' answers

2) Student Learning Activities

Student learning activities are considered to have not been implemented well in the application of the Flipped Classroom learning model in cycle I, namely:

- a) not taking notes or summarizing material that has been studied at home

- b) less than optimal in integrating the concepts of the material that has been studied
- c) less enthusiastic in working on the worksheets given
- d) lack of confidence in presenting the results of their work in front of the class
- e) lack of confidence in responding to differences in answers with the results of their friends' work

The shortcomings of the aspects of researchers and students mentioned above are the results of observations of meetings 1 and 2, it was concluded that the learning process using the Flipped Classroom learning model in cycle I was not successful. The researcher, in this case as a teacher, then made improvements by planning cycle II which is described as follows:

1) Researcher Teaching Activities

- a) Researchers must maximize comprehensive checking of students' learning activities at home
- b) Researchers must maximize the integration of concepts from the material they have studied
- c) Researchers should explain the LKS instructions to students which contain problems in the form of questions
- d) Researchers should motivate students to be confident in presenting their work
- e) Researchers must direct students to respond to differences in the results of their work

2) Student Learning Activities

- a) It is best for students to take notes or summarize the material they have studied at home
- b) Students should maximize their integration of the concepts of the material they have studied
- c) Students should be more active in working on the worksheets given
- d) Students should be trained to be more confident when presenting their work
- e) Students should be trained to be more confident in responding to differences in answers to their work.

The results of observations of researchers in cycle II, meeting 1, were that there were no activities carried out with very good qualifications (SB) so the presentation was 0%. Activities carried out with good qualifications (B) with a percentage of 22%, namely the researcher gave students the opportunity to work on LKS and the researcher gave tests/quizzes on the material they had studied. Activities carried out with moderate qualifications (C) with a percentage of 42%, namely, the researcher checked students' learning activities at home, the researcher put together concepts regarding the material that had been studied, the researcher distributed worksheets to each student, the researcher gave each student the opportunity to respond to their friend's work. . There are no activities carried out with poor (K) and very poor (SK) qualifications so the presentation is 0%, so the achievement percentage is 65%.

The results of observations of students in cycle II, meeting 1, were that there were no activities carried out with very good qualifications (SB) so the presentation was 0%. Activities carried out with good qualifications (B) with a percentage of 57%, namely, each student shows the results of their learning at home, each student gets a worksheet in the form of problems in the form of questions, each student works on the worksheet given, students present the results of their work in front of the class, and students answer quizzes/tests given by the teacher. Activities carried out with moderate qualifications (C) with a percentage of 17%, namely, students unite concepts about the material they have studied and students respond to their friends' work. There were no activities carried out with poor (K) and very poor (SK) qualifications so the presentation was 0%, so the percentage of achievement of indicators for implementing the Flipped Classroom learning model was 74%.

In general, the results of observations in cycle II of meeting 2 showed an increase, this can be seen in the results of observations of aspects of researchers and students. The results of observations of researchers in cycle II of meeting 2 were that there were no activities carried out with very good qualifications (SB) so the presentation was 0%. Activities carried out with good qualifications (B) with a percentage of 68%, namely, the researcher checks student learning activities, the researcher combines concepts about the material that has been studied, the researcher distributes LKS to each student, the researcher gives students to work on the given LKS, the researcher gives the opportunity each student to present the results of their work and the researcher gives a quiz/test about the material they have studied. Activities carried out with moderate qualifications (C) with a percentage of 8%, namely, the researcher gave each student the opportunity to respond to their friend's work. There were no activities carried out with poor (K) and very poor (SK) qualifications so the presentation was 0%, so the achievement percentage was 77%.

The results of observations of students in cycle II, meeting 1, were that there were no activities carried out with very good qualifications (SB) so the presentation was 0%. Activities carried out with good qualifications (B) with a percentage of 68%, namely, each student shows the results of their learning at home, students combine concepts about the material they have studied, each student gets a worksheet in the form of problems in the form of questions, each student works on the worksheet given, students present the results of their work in front of the class, and students answer quizzes/tests given by the teacher. Activities carried out with moderate qualifications (C) with a percentage of 8%, namely, students responding to their friends' work. There were no activities carried out with poor (K) and very poor (SK) qualifications so the presentation was 0%, so the percentage of achievement of indicators for implementing the Flipped Classroom learning model was 77%.

The implementation of learning in cycle II using the Flipped Classroom learning model went well. Based on the analysis and reflection of the observation data, it can be seen that the success of the action learning process in cycle II has generally increased. Apart from that, based on the data from the second cycle evaluation test results with reference to the established KKM, it was concluded that the learning for the second cycle actions had been successful. In total, there are 21 students in class 29B, 17 students who achieved learning completion reaching 75% and the students'

learning outcomes have reached or in other words have reached the specified KKM, namely ≥ 75 .

At the time of implementing the action, students had carried out all stages of learning and carried out optimally, although some were still categorized as sufficient. All data summarized through observation sheets (evaluation of processes and results) have been compiled and discussed together with the research team. The results of the analysis and reflection of the entire series of activities that occurred in cycle II are as follows:

- 1) Researchers have carried out teaching and learning activities including initial activities, core activities and final activities well, although there are still things that need to be improved, such as time management during the learning process and maximizing teaching materials so that learning objectives can be achieved well.
- 2) Researchers are able to carry out the learning process according to the steps in the Flipped Classroom learning model optimally.
- 3) Student learning outcomes in cycle II actions have met the expected categories.

This shows that the indicators of success in the learning process and the criteria for success in this research have been achieved, it can be seen from the learning outcomes and student activities in learning have increased. The learning outcomes described above can be achieved because of improvements made by teachers in implementing the thematic learning process by implementing the Flipped Classroom learning model. Based on the analysis and reflection of cycle II, it shows that there is an increase in thematic learning completeness reaching the predetermined success indicators, namely 75% and the learning process is carried out well, so the learning process by implementing the Flipped Classroom learning model has been successful.

The discussion of research results consists of the activities of researchers and students in improving learning outcomes by implementing the Flipped Classroom learning model. Starting learning activities, researchers prepare students to study, check attendance, pray together, convey learning objectives and learning activities. After that, the teacher checks the students' learning activities at home (students study the material at home by watching learning videos, observing pictures and reading reading material) in the form of notes or summaries. Next, researchers and students combine the concepts of learning material that have been studied at home. Then the teacher distributes worksheets to each student and students are given the opportunity to work on the worksheets given according to what they have learned at home. Next, the researcher gave each student the opportunity to present the results of their work in front of the class. After that, students are given the opportunity to respond to their friends' work. Then students are given a quiz/test according to the material they have studied. In the final activity, researchers and students together conclude the learning material.

The research results were obtained in the first cycle of learning which was carried out face to face on Wednesday, 27 October and Wednesday, 3 November. In the first cycle of action, which was carried out twice in meetings with the development of lesson plans and teaching materials, the expected process and results had not been

achieved. Researchers have not been able to carry out learning optimally, because researchers have not fully implemented the steps of the Flipped Classroom learning model in learning. The observation results show that there are several indicators of learning that have not been implemented well by researchers and students with the implementation of teacher activities at meeting 1 being in the poor category and meeting 2 being in the moderate category. Meanwhile, the implementation of student activities at meeting 1 was in the poor category and at meeting 2 was in the moderate category. In cycle I, the level of student learning outcomes in answering tests was only in the medium category with a percentage of 60%.

In the second cycle of actions carried out face to face on Wednesday, 10 November and Wednesday, 17 November 2021, success had achieved the desired target because in learning activities, researchers and students were able to carry out all the indicators for implementing the Flipped Classroom learning model well, with the implementation of research activities and student activities at meeting 1 being in the good category and meeting 2 being in the good category. This is shown by the level of student learning outcomes in cycle II which is in the very good category with a percentage of 80%.

The research was carried out over 2 cycles, of course there were several obstacles, including students not being confident enough to convey their work results and not being confident enough to respond to differences in answers to their work results in front of the class so that teachers created learning conditions that could activate students and make students more confident. Apart from that, there are still students who do not understand what they will do when studying at home and problems related to the network so that the learning process is slow.

Thanks to collaboration with parents, lecturers and other students, the obstacles that have been discovered can be overcome. Based on cycle II learning results data, researchers regarding improving learning outcomes in class 29 A have succeeded in achieving the specified success indicators. The level of criteria for the success of actions in this research is seen from the process and results. The success of the process can be seen from the implementation of learning model activities which are in the good category, and overall student learning outcomes are in the very good category with a percentage of 80%, thus this learning is considered complete and stopped. The application of the Flipped Classroom model can develop students' independence and activeness in learning. Where students will study independently at home with material that has been previously provided and while in class students will actively work on the assignments given according to what they have learned. In line with research by Rogers (2013), he concluded that the Flipped Classroom learning model can improve learning outcomes, communication skills and student learning activities actively and independently. The research results show that improving learning outcomes in each cycle through the implementation of the Flipped Classroom learning model has been successful. This can be proven by the results of the cycle tests showing a significant increase as evidenced by the increase in student learning outcomes. The percentage of student learning completion based on initial data with very poor qualifications is 40%. In the first cycle of research, it increased to moderate

qualifications with a percentage of 60% and in cycle II to very good qualifications with a percentage of 80% which had achieved the predetermined KKM value.

4 Conclusion

Based on the problem formulation, results of data analysis and discussion, the results of this research can be concluded that the application of the Flipped Classroom learning model can improve student learning outcomes in class 29 A PGSD Campus VI UNM Bone. This is proven by improving student learning processes and outcomes. Improvement of learning processes and outcomes from cycle I was in the moderate category and in cycle II it was increased to the very good category so that it reached the predetermined criteria.

Based on the conclusions outlined, several suggestions are put forward as follows:

- 1) The PGSD study program should be able to provide information to lecturers to be able to apply the Flipped Classroom learning model in the lecture process.
- 2) Other lecturers in implementing the Flipped Classroom learning model are expected to carry out the model steps well so that student learning outcomes can improve.
- 3) Future researchers can use it as reference or reference material for conducting further research.

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