

## PICTURE AND PICTURE MODEL TO IMPROVE IPA LEARNING FOR THE STUDENTS WITH MILD INTELLECTUAL DISABILITY IN THE GRADE III SDLB B-C KEPANJEN, MALANG REGENCY

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**ABSTRACT:** The purpose of this research was to describe (1) the applying of Picture and Picture learning method in Sains teaching and learning process for the third grade of intellectual disability students in SDLB B-C Kepanjen, Malang Regency. (2) the activities of the mild intellectual disability students in SDLB B-C Kepanjen while they was applying picture and picture method in Sains learning. (3) the result of the mild intellectual disability students in SDLB B-C Kepanjen after they was applying by picture and picture method. This research used Class Action Research (CAR). This research did in 2 cyecles that divided into four steps: planing, acting, observing, and reflection. The data collecting was observation technique and test. The result of the pre-research was 54,29 with learning completeness 29%. In the first cycle was about 64,99 with the class learning completeness was 42,86%. While in the second cycle was about 74,29 with the learning completeness was 85,71%. The conclusion of the research was through applying Picture and Picture learning method in Sains teaching and learning process of the third grade the mild intellectual disability students in SDLB B-C Kepanjen, Malang Regency could be increased.

**Keyword :** Learning, Sains, Picture and Picture method, Intellectual Disability Students.

### INTRODUCTION

Science subjects is one of the subjects taught in formal education (schools). Ministry of Education (2006: 484) states that "The science of science related to how to find out about nature systematically, so that, the science is not only mastery collection of knowledge of facts, concepts, or principles, but also a process of discovery. science education is expected to become a vehicle for students to learn about themselves and the environment, as well as prospects for further development in implementing them in daily life. "Sciences (Ilmu Pengetahuan Alam /IPA) is essential for human life in meeting the daily needs associated with nature around, so that, it is not negatively impact the surrounding environment and can be used in right way".

Based on observations and interviews conducted by the researcher for the teachers of grade III SDLB BC Kepanjen obtained that five students of SDLB BC are less interested in science lessons. In science learning process, the teachers only explain the material orally and then write on the chalkboard. The teachers are also less use instructional media, just fixated on the textbook, then give the task of copying the sentence. Students tend to be passive and lazy when being given task by the teachers. The students speak with their friends and find difficulty to understand the material presented by the teacher. Various learning model has been applied but the

students are still experiencing difficulties. Based on the activity, it was obtained by the following data: 57% of all students in the class was passive and did not like this lesson, and only 43% of all students in the class were active. Therefore, in this study, the researcher focused on third-grade students, because of lack ineterst on the science lessons.

Based on the data obtained by researcher, the number of third-grade students is 7 students consisting of four female and three male students, with a minimum passing standard in science subjects is 65. Achievement of student learning outcomes described in the following data: the number of students getting value > 65 is two students (29%) and the number of students who scored <65 is 5 students (71%). Based on the above explanation, the teacher is expected to use a learning model that is close to the students. With the creativity of teachers who will make better students 'motivation and increasing students' understanding of materials science subjects.

For responding this problem, the teacher can utilize the learning model picture and picture because it can help students to learn well, and students will be more active in participating in learning. According to Suyanto (2008: 76) "picture and picture is a learning model that uses an image paired or sorted into a logical sequence". Based on the characteristics of third-grade students who are still at the stage of concrete operations, picture and picture model of learning is

very useful and helps students to learn science so that students can understand the material of describing parts-body of animals and plants well.

The purpose of this study was to describe: (1) the application of learning models *picture and picture* in science subjects for intellectual disability students SDLB B-C, Kepanjen, Malang. (2) the students' activity of mild Intellectual Disability Students of Class III SDLB BC Kepanjen when being applied *Picture and Picture* learning model on learning science, and (3) the results of the students to learn science class III of the mild intellectual disability students SDLB BC Kepanjen after being implemented of model picture and picture learning.

## METHOD

This study used the design of Classroom Action Research (PTK). Classroom Action Research is a collaborative activity of a group of teachers to improve the conditions of teaching practices in the classroom at the same time address the problems that arise in the classroom. Classroom Action Research must be done repeatedly until the actions taken have achieved the expected goals.

Research subjects in this study were 7 students consists of 3 boys and 4 female of the mild Intellectual Disability Students in the grade III of SDLB B-C Kepanjen, Malang Regency.

The data was obtained through teachers and students. Data collection techniques were observation, testing, and documentation. Observation is meant to determine the activity of teachers in implementing the learning and to determine the activities of students during learning by applying the *picture and picture* learning model. While the test was the evaluation at the end of the lesson in every cycle. The instrument was the observation sheet and test questions for the evaluation of each end of the lesson.

The procedure of this study included planning, implementation, observation and reflection. Descriptive data were analyzed both quantitatively (percentage and average) and qualitative data that have been obtained. The data analyzed in descriptive-qualitative was containing in the observation sheet application of picture and picture learning model. The data collected through the student activity guide to observation. The students' observation sheet activity using model picture and picture. Data were analyzed descriptively qualitative form of the observation of the learning that will be analyzed by several stages, including: the exposure of data, simplification of data, grouping data in accordance with a focus on the problem and meaning.

## RESULTS

Implementation of the learning model picture and picture in science subjects of class III Tunagrahita SDLB B-C Kepanjen, the material of body parts animals that have been implemented in the first and the second

cycle increased. Such improvements can be seen from the results of the implementation of learning by using the model picture and picture in the first cycle obtained an average score of 61 with a success percentage of 84.72%, while in the second cycle obtain an average score of 65.5 with a success percentage of 90.98%.

Students's Activities of class III Tunagrahita SDLB B-C Kepanjen, Village Ardirejo Kepanjen District of Malang after applied learning model picture and picture increased. This increase is in view of the results of observations in the first cycle were obtained an average score of 60.76 and learning activities, and increased in the second cycle into 82.74. While the pre-action as much as 57% of students and 43% of students passive active.

The results of students of class III Tunagrahita SDLB B-C Kepanjen before and after application of the learning model picture and picture in the eyes of science teaching has increased. Such improvements can be seen from the results of pre-action who obtained an average score of 54.29, or 28.57% of students who pass the study, the first cycle obtained an average score of 64.99, or 42.86% of students who pass the study, and the second cycle obtain the average score of 74.29, or 85.71% of students who pass the study.

## DISCUSSION

### A. Application of Science Lesson with Picture and Picture Model

The application of the picture and picture model for third-grade of intellectual disability students SDLB B-C, Kepanjen, Malang regency indicate that the model picture and picture is very effective to improve learning. Before using picture and picture model of science learning, it is restricted to the teacher using the lecturing method and provision of copying tasks. While the students during the learning just listen and copy writing given by the teacher, as result, the student's activity can not thrive.

Otherwise, by using picture and picture model, the teachers act more as mentors of students, so the students is more active to think in learning. This is in accordance with the opinion of Nurwahidah (2011) picture and picture seen as: a) train students do not just memorize a learning material but also know the reasons expressed the idea opinion, b) students have quick response of the material to be delivered because it was accompanied by drawings, c) easier for students to understand what is meant by the teacher when delivering course material, d) students are more concentration and exciting for those on the assignment of teachers as it pertains to their game everyday that play pictures, e) the existence of mutual competence between groups in jigsaw has been prepared by the teacher so that the classroom atmosphere is lively, f) students are more robust considering the concepts or reading in the picture, g) being attractive for students because the learning is use the images, h) teachers are aware of their students' abilities, trained to think

logically and systematically. "Through learning with picture and picture model of indirect hone thinking ability to sort images into a logical sequence.

In this study, the application of the picture and picture model can be measured successfully by observation sheet implementation of the picture and picture model. The observation sheet assess the RPP accuracy manufacture and success of teachers in the application of the picture and picture model. The scores was obtained during the application of learning with picture and picture models at two cycles used.

Acquisition of teacher data analysis in implementing the learning according to the model's picture and picture has increased significantly in the second cycle of the first and second meeting. In the second cycle meeting I, it was obtained a score of 64 with a percentage success of 88.89% that is included in the excellent category. While on the second cycle of meeting II gained score in the application of the model's picture and picture also increased sucha as obtaining a score of 67 with a success percentage of 93.06% which included a very good category. The average obtained in the second cycle is the percentage of success of 90.98%. In this case it can be said that the teachers succeeded in applying learning in accordance with the model picture and picture.

In the application of the model picture and picture in the first cycle is not maximized achievement, because there are still many students who do not understand the content of LKS and there are still many students who just saw his work on worksheets. While on the second cycle, based on the reflections of the first cycle, so that, the constraints that exist in the first cycle has been resolved and it is anticipated in the second cycle, the attainment of the model picture and picture better than the cycle I. This is reinforced by the opinion Trianto ( 2010: 17) "Learning is an aspect of human activity complex, which is not fully explained. Learning is simple can be understood as the product of interaction between sustainable development and life experience. Learning the meaning of the complex is a conscious effort from a teacher to teach students (directing interaction students with other learning resources) in order to achieve the desired objectives ".

### **B. Students' activities during Science Lesson with Model Picture And Picture**

Activities of students with intellectual disability in the grader III of SDLB B-C Kepanjen, Malang regency increased during study uses a model picture and picture. Students' activities before using model picture and picture tend to be crowded and walk around to other class, while after using the model picture and picture students in science learning activities further increased when compared before using model picture and picture.

In the picture and picture model, students work in groups, discussions, demonstrations and debriefing. The statement is in accordance with the opinion of D. Dierich in Hamalik (2007: 90-91), among others "1)

visual activities: reading, viewing pictures, watching experiments, demonstrations, exhibits observing others who work or play; 2) oral activities: suggests a fact or principle, linking an event, ask questions, make suggestions, express opinions, interview or discussion; 3) the following activities: listening to the presentation of the material, listen to conversations or group discussions, listening to a game of musical instruments, listening to radio; 4) act of writing: writing stories, write reports, check the essay, sketch or summary, taking a test, fill out a questionnaire; 5) the activities of drawing: drawing, graph, diagram maps, patterns; 6) work by activity metrics: experimenting, selecting tools, carrying out exhibitions, modeling, simulation; 7) mental activities: reflect, remember, solve problems, analyze the factors, make a decision; 8) emotional activities: interest, differentiate, brave and calm ".

Thus, learning with using picture and picture model can improve students' learning activities this is because in the learning precedence indirectly involvement of students, while teachers only as a mentor and student-centered learning activities.

Based on the results of students' observation activity showed that every student is experiencing increased activity for 7 students, and no student who experienced a decline in activity, so all students' activity increases. Active criteria obtained from the learning activities of students in accordance with the model picture and picture among others sort pictures, reveal the reason, express concepts, concluded. Student activity during the learning with picture and picture increases due in student-centered learning design. This is reinforced by the advantages of the picture and picture model is the advantages of the picture and picture model that this model is reinforced by the design of the form of student-centered learning.

The first cycle of the average classical obtained is 77.38% which is included in both categories. Activity increased in the second cycle students get an average of 88.09% classical included in the excellent category above statement proves that the application of the picture and picture model in science subjects presenting " Main Parts of Body Animals (Head, Body, And Feet ) "third-grade students Tunagrahita SDLB BC Kepanjen increased student activity.

### **C. Student Results For Learning Science by Model Picture And Picture**

Based on observations on science learning materials "Parts Main Body Animals (Head, Body, And Feet)" third-grade students with intellectual disability of SDLB BC Kepanjen, the students learning outcomes have not met the KKM defined, namely 65. From the results of the pre-test conducted by researchers showed that students who pass the study of 2 students or 29% of 7 students, it can be said that the students with intellectual disability in class III SDLB BC Kepanjen unresolved science learning materials " Main Parts of Animals Body (Head, Body, And Feet)".

The results of students with intellectual disability in the class III B-C, Kepanjen increased after applied the picture and picture model while the description of the results of student learning first cycle of meetings 1 and 2 meetings of 7 students. In the first cycle of a meeting to-1 can be analyzed students who have not completed learn as much as 3 or 42.86% with sufficient criteria, in the first cycle of 2nd meeting, the complete students in learning were 5 or 71,43% with good criteria. In the second cycle-one meetings, the complete students in learning were 6 students or 85.71% with the criteria very well, the second cycle 2nd meeting, the complete students in learning were 6 students or 85.71% with a very good. The statement above criteria prove that the application of the model picture and picture in science subjects presenting "Parts Main Body Animals (Head, Body, And Feet)" third-grade of students with intellectual disability SDLB BC Kepanjen increased student learning outcomes.

To find out improving student learning outcomes are determined by the mastery learning individually and classically. Minimal mastery learning used in this study is individually, are considered to have "thoroughly studied" if it has reached 65% of the number of students with absorption of 65. While classically considered to have been "thoroughly studied" when 65% of the number of students who achieve absorption. In the first cycle 1 meeting classical completeness is 62.14%, less than the targeted 65% of the first cycle was continued to a meeting 2 with the hope of mastery learning can be achieved. While the first cycle of meetings 2 classical completeness is 67.85%, more than the targeted 65%.

So on this first cycle of the thoroughness of the target class has been reached. Although already reached, but investigators still wanted to continue in the second cycle and the first meeting of the 2nd meeting for the first cycle 2 meeting there are still 2 students who have not thoroughly studied. It is expected to continue in the second cycle and the first meeting of the 2nd meeting of all students can be thoroughly studied. In the second cycle was a meeting to-1 learning outcomes classical KKM has exceeded the target that has been determined that 77.38% from 65%, but research is still ongoing at the 2nd meeting with consideration there is still 1 students who have not reached the SKM. while in the second cycle of the 2nd meeting of student learning outcomes kalsikal has reached 88.09% of the target set at 65%.

This study was stopped in the second cycle and 2<sup>nd</sup> meeting because the targets are achieved already exceeded the planned target. In this study actually meet the target in the first cycle and 2<sup>nd</sup> meeting but investigators still continue in the second cycle with the hope of learning science with the matter "Parts Main Body Animals (Head, Body, And Feet)" third-grade students Tunagrahita SDLB BC Kepanjen results increased student learning to be better. The assumption

that causes the target completeness of student learning outcomes are achieved in the first cycle of a 2<sup>nd</sup> meeting because it is caused by: students have been studying this material before the study is done so that the student is ready to learn the material that has been taught, besides the second is a matter that is made by researchers many variants of pictures that can stimulate memories students will find it easy to work on.

Based on observations made by the observer can be seen that individual student mastery of class III of SDLB B-C Kepanjen were 6 students, and the number of students who did not complete as many as 1 student learning. Students who do not pass the study will be given additional material by the class teacher. While the classical completeness third grade students of SDLB B-C Kepanjen reached 60.75% cycle 1 and cycle II 82.74% of the total students. It is assumed that the third-grade students SDLB B-C Kepanjen on science lesson "thoroughly studied".

It can be concluded that the application of learning models of picture and picture can make science learning with the matter "Parts Main Body Animals (Head, Body, And Feet)" third-grade students in the SDLB B-C Kepanjen seem interesting and not monotonous. This is evidenced by the activity of students and increase student learning outcomes. And reinforced by the opinions Snelbelker (in Rusmono, 2012: 8) says that "change or new skills obtained by the students after committing learning

## Conclusion

From the discussion above, it can be summarized as follows:

1. Application of learning by using the picture and picture model can improve science teaching in the third grade of students with intellectual intelligent SDLB B-C Kepanjen, Malang Regency. This increase was shown in the pre-action stage inadequate student learning outcomes, defined KKM is 65. At the pre-action study results obtained score average 54.29, or 28.57% of students who pass the study. In the first cycle obtained a mean score - average 64.99, or 42.86% of students who completed the second cycle belajar. It was obtained a mean score - average 74.29, or 85.71% of students who pass the study. While the pre-action learning activities indicated by 57% the number of students passive less active, only 43% are active. In the first cycle obtained a mean score - 60.76 average learning activities and on the second cycle increased to 82.74%.
2. Activities of students with intellectual disability in the grader III of SDLB B-C Kepanjen, Malang regency after learning by using the picture and picture model in science teaching increases. This increase can be seen from the acquisition of the results of student learning activities at this stage

of the cycle I sort pictures obtained was 2.64%, in the second cycle to 2.79%. At this stage reveal the reasons in the first cycle gained 2.07%, in the second cycle to 2.57%. At this stage in the cycle I express the concept gained 1.14%, in the second cycle becomes 2.14%. In the last stage to conclude the first cycle gained 1.43%, in the second cycle to 2.43%. While the classical picture and picture of all components of the first cycle gained 77.38% to 88.09% in siklus II.

3. The results of the third grade students with intellectual disability SDLB B-C Kepanjen, Malang aregency after learning by using the picture and picture model in science teaching increases. This increase can be seen from the acquisition of student learning outcomes in the first cycle of meetings to one complete student learn as much as 3 students or 42.86% with sufficient criteria, in the first cycle 2 meeting complete student learn as much as 5 or 71,43% with good criteria, While on the second cycle of meeting one complete student learn as much as 6 students 85.71% with the criteria very well and at the confluence of two complete student learn as much as 6 students or 85.71% with the criteria very well.

### Suggestions

Based on the above conclusions, there are some suggestions presented as follows:

1. In order to lesson preparation more mature in the application of the model of picture and picture needs to be prepared beforehand material that will be learned by the students. This would further add to the preparation of the application of the model picture and picture. It would be nice if the learning model picture and picture applied to children with hearing impairment.
2. To make it easier to condition classes and organize classes well, teachers are expected to

provide a good reinforcement to spur students' activity, but it also awarded a prize student.

3. During the implementation of the model picture and picture so that learning does not make saturated or bored students, teachers can use the game to momentarily divert students 'attention after it had focused attention on the students' learning.

### DAFTAR PUSTAKA

- Afniafandi. 2013. *Model Pembelajaran Picture And Picture*, (online), (<http://afniafandi.wordpress.com/2013/05/27/model-pembelajaran-picture-and-picture/>), diakses 22 Mei 2014.
- Akbar, Sa'dun. 2009. *Penelitian Tindakan Kelas*. Yogyakarta: Cipta Media Aksara.
- Arikunto, Suharsimi. 2003. *Dasar-Dasar Evaluasi Pendidikan*. Jakarta : PT. Bumi Aksara.
- BSNP. 2006. *Standar Kompetensi dan Kompetensi Dasar Sekolah Luar Biasa Tunagrahita Ringan (SDLB-C)*. Jakarta:
- BSNP Depdiknas. 2006. *Kurikulum Tingkat Satuan Pendidikan*. Jakarta: Depdiknas.
- Effendi, Muhammad. 2009. *Pengantar Psikopedagogik Anak Berkelainan*. Jakarta : PT. Bumi Aksara.
- Mangunsong, Frieda. 1998. *Psikologi dan Pendidikan Anak Luar Biasa*. Jakarta: LPSP3 UI.
- Rochyadi, Endang. 2005. *Pengembangan Program Pembelajaran Individual Bagi Anak Tunagrahita*. Jakarta: Departemen Pendidikan Nasional.
- Samatowa, Usman. 2010. *Pembelajaran IPA di Sekolah Dasar. Jakarta Barat*: PT. Indeks Permata Puri Media.
- Sudijono, Anas. 2008. *Pengantar Evaluasi Pendidikan*. Jakarta : PT. Raja Grafindo Persada.
- Sudjana, Nana. 2009. *Penilaian Hasil Proses Belajar Mengajar*. Bandung: Remaja Rosdakarya.

