## IMPROVING THE EFFECTIVENESS OF LEARNING USING PICTURES CARDS "ROCKY DUST" FOR STUDENTS WITH DISORDER AUTISM SENSORY INTEGRATION IN SLB-B TPA JEMBER, EAST JAVA, INDONESIA

Arida Choirun Nisa SLB-A TPA Jember, East Java, Indonesia

#### CLASS ACTION RESEARCH REPORT Abstract

Classroom Action Research (PTK) was made after researchers observed the implementation of learning conducted mostly school teachers Extraordinary show symptoms not as expected, because the teacher still dominates teaching and learning activities centered on teachers, by looking at the lecture method is a method that The main. This raises a very adverse impact on the students, especially on improving the effectiveness of learning.

To obtain optimal results the need for continuous efforts, planned and gradual, then one of the efforts that have been implemented in this direction is the development of methods and learning strategies. Where this learning strategy is one specific strategy, making it easier for students to understand and master the subject matter. Therefore, so that the learning process effectively with memergunakan media card picture Rocky Dust by researchers considered to be something that is appropriate to be applied in the learning activities of children autism are then formulated into a "Is the use of the media card image Rocky Dust can improve the effectiveness of learning in students of Autism in SLB-B landfill Patrang District of Jember ". This type of research used by researchers is quantitative descriptive, with steps of data collection, data reduction, data presentation, verification and drawing conclusions. The research was conducted in the first half of October to December 2009 in the academic year 2009-2010. By producing a conclusion that the use of media cards Rocky Dust image can enhance the effectiveness and Learning in students Autism in SLB-B Patrang District of Jember. **Key words:** Effectiveness and Learning, picture cards Rocky Dust, Sensory Integration.

#### 1.Background

Language is a means of introduction of communication within a social group ,. Without the language agreed upon the formation process of cultural interaction as a condition of civilization to be created will be hampered. According to Dodge, Colker and Heroman in the book The Creative Curriculum for Preschool, "Language Becomes the principal tool for estabilishing and maintaining relationships with adult and other children". This means that the language is the main tool in creating and building a relationship between the adults and other children.

Schools in particular on a class that handles students with autism, the language barrier is most often the biggest obstacle in the learning process. Limitations perception of communication and interaction of students to the intent of the words spoken teacher makes the success of the learning objectives are not achieved optimally.

In these classes, teachers set a goal before the success of academic values in students, then that becomes the initial capital as a bridge of communication is language. The language used in everyday life in general is verbal language, auditory sensory means that only students who used to listen to the sound. But in fact, the majority of students with autism particularly impaired in sensory integration. Included is one of the students Autism in SLB-B Jember.

• Kientz & Dunn (1997) observed that approximately 85% of the study that bears autism experience hypersensitivity to touch and sound (Grandin; 1992). Autistic students with sensory integration disorder is often very extreme in showing their response to auditory and tactile stimulation. The response can be either ear holes punched out loud, flopped, mumble or shout as loud as possible and the most worried about is banging his head to the floor or wall. If such things happen, then the teachers are suspending teaching and learning activities. Consequently predictable, that the process of learning to be blocked.

Along with experience of dealing with difficult students receive verbal communication, the researchers consider it necessary to pilot a media / learning tool that will be useful for the effectiveness of teaching and learning activities. The media card in the form of a picture "Rocky Dust". This card is a simple drawing card, which adds an element of tactile stimulation (tactile) therein. The form is to attach coarse sand on the surface of the card. The result is that students can activate two sensory once, namely visual and tactile.

This card has a picture of the sequence of activities to be implemented in school activities of students. Applying a structure in teaching students with autism hádala important things that will help the understanding of the teacher's instructions Improved understanding of this communication is a major cornerstone of the commencement of two-way communication between teachers and students.

Card picture "Rocky Dust" is widely used in the implementation of teaching and learning activities in the classroom for students with autism, especially autism sensory integration disorder. Therefore, after the implementation of learning media by using picture cards "Rocky Dust", it is expected the process of learning to be more effective.

#### 2. Formulation of the problem:

Of the problems that have been described in the background, then the problem formulation in this study are:

"Is the use of the picture cards" Rocky Dust "for students with autism with Sensory Integration disorders can improve the effectiveness of teaching and learning in the classroom?"

#### 3. Objective:

The purpose of this study is divided into two objectives:

#### a) General Purpose:

Improving the quality of teaching in the classroom by improving the effectiveness of teaching and learning activities

## b) Specific Objectives:

Finding the right media in the process of teaching and learning activities for students with autism accompanied by sensory integration disorder.

Creating structure learning activities in order to create the discipline of teaching and learning patterns

\* Understanding of students to teachers in the classroom instruction be increased.

• Improving critical thinking teacher in seeking alternative solutions to solving problems in the classroom.

#### 4. Benefits Research:

The benefits to be achieved in this research is

a) For students: the student becomes easier to understand the communication that occurs during the learning and stages of learning activities

b) For the teacher: supporting components such as time, energy, and mind in mencurahan science teaching and become more efficient in its use so as to make the process of learning to be more effective.

#### **Conceptual Framework**

## a. Effectiveness of Teaching and Learning Activities

Effective Teaching and Learning is the main requirement in successful achievement of learning objectives. Effective means not excessive and does not lack. All this potential can be optimized should be used in the implementation of teaching and learning activities in class. Effective could also mean the right target, where the teacher as a transmitter of learning materials, and the students that are in place as per the position that the person who will receive learning materials.

## b. media Teaching

Teaching materials is a set of scientific material that consists of facts, concepts, principles, generalizing a knowledge that comes from the curriculum and can support the achievement of learning goals.

Arifin (VSO: 2005), suggests a pattern of aided learning media:

The media are most effective in the management of a class is the media that is easy to use, inexpensive, and most importantly, can be major facilities in structuring students' academic understanding

#### c. Card picture "Rocky Dust"

Card picture "Rocky Dust", this card is a simple picture cards (sensory Visual), which adds an element of tactile stimulation (tactile) therein. The form is to attach coarse sand on the surface of the card. So students can activate two sensory once, namely visual and tactile. This card has a picture of the sequence of activities in school activities to be implemented student visual strategy of the most easily applied to students of preschool age is to use a favorite image, the image must be concrete and often encountered by children.

Criteria efficient drawing card for students by Linda A. Hogdon: 1995:

1.Easy to prepared

2. Easy to understand

3. Understandably universally

This means that the pictures used are images that are easy to absorb its meaning by students who have the characteristics of autism is difficult to think abstractly.

## d. Autism

Many terms of autism are often found in various literature, but the most popular is the term "Living in a world of his own '. Later it turned out the concept of "living didunianya itself evolved into" living in another world ", whereas the experience of someone who never appropriated the autistic and can get out of autism, stating that someone else (not autistic) who live in the world strange he never knew why they want live there. Donna William: 1998.

Someone may say bears autism after age 3 years. Assessment devices most commonly used among practitioners is the DSM IV (Diagnostic Statistical Manual 4th Edition, developed by the American Psychiatrical Association) Sensory Integration (S.I)

Sensory integration is the foundation of learning for all things within the individual. All components of the human body is a complete system which if from zero point one millionth of a percent of the systems are compromised, then the whole body coordination body will falter, A.J. Ayres: 1972.

The body and the environment to transfer information to the brain so that we feel something. This information is processed and arranged so that we can feel a sense of comfort and security so we were able to respond to everything that might happen in various situations that arise either from inside or also derived from the environment.

Here is an overview of how sensory integration participate fully in the development foundation within the individual self

## **RESEARCH METHODS**

#### A. The study design

Prior conducted the study, the researchers compiled stages in the research activities.

These stages are:

a. Action planning stage

Preparation research facilities **\*** 

These include preparation facilities;

o Provision of picture cards "Rocky Dust"

- Duplex carton Materials, Size 15 x 10 cm, white base color

- Sand coarse crystals glued together using wood glue

- Coated plastic laminating adhesives

- The image used is a concrete image to the original color of the categories of objects, activities and human images

- Board Infraboard to paste a picture card

#### o Setting the room

- The room was not too narrow nor too broad

- Color space is a neutral color that does not give rise to negative emotions (eg, orange and red colors distracting the student, white color makes the students more passive).

- The room should be free of ornaments, picture or poster rich colors and ornaments, as it will distract students

- The number of adults in the room should not be more than two people, and the number of students a maximum of 3 people.

#### **Performance indicators**

As a measure of success for students that students easily understand the meaning of the teacher's instructions, so that the process of learning in the classroom more effectively.

b. Stages of observation and implementation of the action (observation and action)

To facilitate the implementation of the action study, the researchers set about learning scenarios

## Learning Scenarios

- Positioning students sit face to face with the teacher, the student should be able to reach a position to reach their vision and hearing

- Ensure that visibility should be clear and free of obstacles, meaning there is no barrier between teachers and students

- Noting that the student must be currently in a state of conscious state at the time that he was in the classroom, and with the teacher will conduct learning activities, if students do not focus on verbal instructions and visual, then the teacher merabakan part coarse sand on the fingers of students.

- Check that the students are not suffering pain especially in the visual organ and her palpability

- Convincing students that students must feel comfortable with the treatment given

- Prepare yourself that teachers do not hold any object except a picture card that will be shown to students.

- As teachers say the word while showing the picture cards, voice intonation was meaning that there is no attempt to force students to follow the teacher's instructions.

- Observing changes in behavior shown by the students before and after receiving treatment through audiovisual recording.

- If students do not show the response after the image shown, means that students do not understand about the instructions, repeat up to 2 times while naming the image and make sure the students see the picture.

- By the time the students show a response to the actions of teachers, observe every stage of the development of appropriate indicators of behavior change that has been made.

## c) Stages of Reflection

At this stage, the researchers conducted several stages of the process in achieving the reflection.

### - Data analysis:

After the recorded data through audiovisual means to play back, then researchers conducted discussions with peers who are collaborating on the results already obtained. Discussions include the successes, failures and obstacles encountered during the action

#### - Reduce Data

The data is obtained, and then have a really necessary and can be used as a reference in preparing research reports. The data are considered unused, saved as an archive for later use again at any time if needed

#### - Establish corrective measures

After getting an overview of the problems and obstacles encountered, then the next step researchers reconstitute the action plan refers to the deficiency that has not been acquired, so as to obtain better results in the cycle to the next cycle 2

#### **B.** Location and Research Subjects

Area:

The location of this research is in the autistic class of SLB-B Jember.

Research subjects:

Students with autism accompanied by sensory integration disorder, age 6 years, male gender.

#### **C. Data Collection Techniques**

Techniques used in collecting data is by observation

Instruments used:

• Observation Sheet: record manually with the points indicator is the reference or observation map. These data also will become a benchmark for assessment and reflection in cycle 1, cycle 2 and cycle 3.

• audio-visual recording equipment: the captured data is data that is the process. So the recorded data is the process of -cycle cycles that have been implemented.

#### D. Analysis of data

Once the data is recorded by means of audiovisual rotated back and look at the various indicators that exist in observation sheet, the researchers conduct discussions with peers who are collaborating on the results already obtained. Discussions include the successes, failures and obstacles encountered during the action. From the discussion, analysis of the data obtained, the research team decided to make a re-planning (next cycle) on the actions to be carried out.

# RESULTS AND DISCUSSION

# A. Description of Data Research

CYCLE 1

#### PLANNING

1. Teacher compiling a list of observations consists of the activities, results obtained and information.

2. Teachers record things that happen when the activities take place based on the sequence of events.

3. The order of shooting audiovisual is:

Recording a glimpse of student behavior research subjects before learning takes place

Recording begins when the student activities just arrived to school until end activities

Teacher shows the picture cards in the order of activities

Students stick the card to the clipboard in the order of activities

Students carry out activities in accordance with the sequence of cards that have been affixed Students removing the picture card activities carried out

#### ACTION

The actions undertaken are:

1. Teacher shows a picture card in accordance with the sequence of activities planned

2. Students attach a card on the board to help introduce the structure of activity.

3. Once the activity is completed, the student remove the graphics card with the help of teachers.

For more details, please refer to the audio-visual recording cycle 1

#### REFLECTION

After the implementation of planning and action, the research team found that the data obtained are some discrepancies between the planning, action and purpose of the study itself.

The results obtained are:

1. Students often do not focus on the existing image on the card, so the teacher must be up to 3 times the image shows.

At the time of execution, the student is not completely in a state of "conscious" of the conditions keautisannya.
Students feel confused about the structure of the activity, due to repeated sticking and reassemble.

4. Conditions shooting involving only one student, makes students research subjects unmotivated and no classical atmosphere in the classroom.

5. At the time of the action, teachers are often wrong in giving instruction and often distracted (not serious)

6. The absence of a clear picture of the structure of the activities that you want visible

7. Not visible relationship between the use of picture cards with the effectiveness of learning in class, because the teacher is still visible difficulty in conditioning the student to understand the instructions given.

#### Data analysis cycle 1

1. In this cycle, the plan that is prepared not all be implemented, and has not revealed the formulation of research.

2. The use of the graphics card also has not been results as a tool that can assist teachers in the learning process, because teachers often have difficulty in using it.

3. Structure activity is limited to general activities, yet detailed and specific.

8. Master difficulty record things that happen during the implementation of observation, being busy "awaken" the condition of students who do not focus on activities.

9. The absence of a clear picture of the structure of the activities that you want visible

10. Not seen the relationship between the use of picture cards with the effectiveness of learning in class, because the teacher is still visible difficulty in conditioning the student to understand the instructions given.

# CYCLE 2

#### PLANNING

In accordance with the discussion at the reflection stage cycle 1, then on to the second cycle, the researchers compiled the planning stages consisting of:

A. Preparation

1. The allocation of the classroom setting and the room that will be used as the implementation of measures intended to facilitate teachers in preparing the categories of picture cards Rocky Dust.

Setting the division of classes and the room is:

Kindergarten classrooms activity: Circle time early Core activities Circle time end The dining room activity: independence Picket toilet child activity: learning cleanliness Playroom in door activity: Exercise socializing learning discipline

2. In the classroom and the room, the teacher prepares the card images associated with activities to be carried out following the kit, such as board infraboard to install the card and the card storage box where activities have been completed.

3. Teacher pairing picture cards on the board in the order of activities

4. Once the project is implemented, students removing the card as notification that the activity was carried out.

5. In activities that are classical (together) the graphics card is not removed by the students but by teachers and notified to all the students that the activity has been completed.

## ACTION

In the action / action cycle to 2, the obtained data comprising:

1. Before learning activities, audiovisual recording is taken pictures of the room with a structure that will be used in the second cycle activities.

2. Data recorded in the form of individual activities and activities in the classical style.

3. In cycle 2, the graphics card affixed activities by teachers, and then after the activity is completed, students are removing the card and keep the card into the appropriate box

4. Card structured image is applied also in the dining room, living room and playroom brush your teeth.

5. In the implementation of the action / action, students are involved not just one person, but two people, because he wanted to show the atmosphere of the classical and the use of concrete picture cards (for students with autism) and card drawing / compic (for other students without autism).

For more details, please refer to the audio-visual recording cycle 2

#### REFLECTION

After the implementation of the action / action in cycle 2, a team of researchers conducted a discussion and then there are the data as follows:

1. There is an error in placing the picture cards in the order of activities planned

2. When the card shows, should the teacher in a position (and trying) attempt face to face with students, but on the action cycles 1 and 2, showing his teacher several times while sideways or even from behind the students.

3. The student tactile function as one step toward the goal of the research is not tapped, ought sand stuck on the card serves to help focus student attention when activities take place, the way is with a finger merabakan students on the sand on the graphics card.

4. At the time when dining, is not very conducive atmosphere and cause the structure to be fucked

5. Decision-step structure of activities with the help of picture cards in class, dining room, brushing and playroom has not been recorded properly

#### Data analysis cycle 2

1. In this second cycle, the planning has been more mature and detailed look

2. Structure of activities that are used include classroom activities, dining room, brushing and playroom

3. At the time of execution, tactile function in the graphics card Rocky Dust unused optimally

4. There is the addition of the idea to use the extras in the implementation of the observation, the point is to accentuate the atmosphere of a classical and "fishing" students' active subject of research.

5. There are still errors in drawing card activity structure

6. The position of the teacher when showing the card image is not correct

7. The recording process activity is not recorded properly.

## CONCLUSIONS AND SUGGESTIONS

#### A. CONCLUSION

The conclusion reached in this class action research are:

1. Increased understanding students need habituation to the method / means to be applied.

2. Habituation can be through learning structure patterns, repetition and consistency of teaching.

3. Students with autism sensory integration disorder requires a structured learning patterns and constant.

4. Provision of multisensory stimulation using measurable will further enhance students' understanding of autism and sensory integration disorder to the instructions given.

5. The use of media such as a drawing card visuospatial Rocky Dust consistent and structured can enhance students' understanding of autism and sensory integration disorder

6. Media visuospatial like picture cards Rocky Dust can enhance students' understanding of autism stimulation with sensory integration disorders due to use more than one sensory organ.

7. optimizing sensory potential of the students makes it easy for teachers to implement the knowledge in learning and teaching and for students it means a valuable self-actualization of the potential he has.

8. Support from friends of different characteristics is helpful in increasing activeness and willingness to cooperate for autistic students with sensory integration disorder

9. The drawing card of Rocky Dust can be applied to assist the introduction of structural activities in students with Down syndrome and mental retardation.

10. Media visuospatial like picture cards Rocky Dust can enhance students' understanding autism and sensory integration disorder and therefore efktivitas learning to be increased.

#### SUGGESTION

1. Provision of new inputs to students with autism with sensory integration disorder should be through repetition that is consistent.

Students with autism sensory integration disorder at first refused and distracted against foreign objects that he met, therefore, the use of teaching aids cultivated uncomplicated and easy to be kept out of the reach of students
Duration of media consumption between 5 s.d 10 seconds, because if longer would make the students glued to continue to see, without moving work instruction in question

4. The length of the cycle to the next cycle should not be too long, because it would lead to foreign students into the media reused

## REFERENCES

- Ayres, Sensory Integrations, and Learning Disabilities, Los Angeles. Western Psychological Services. 1972
- Budi Susetyo, Sample Proposal PTK, Training Class Action Research, Bogor, 2005
- Dodge, Colker & Heroman, The Creative Curriculum For Preschool Fourth Edition, Washington, dc.Teaching Strategies, 2002
- Donna William. The world behind the mirror, Bandung, Kaifa. 2003
- E. Yack, s. Sutton, P. Aquilla, Building Bridges Through Sensory Integration, Ontario. 1998
- Linda A. Hodgdon. Visual Strategies For Improving Communications, QuirkRobert. Michigan. 1999.
- Ma. Lordes de Vera-Tan, Structure Based On TEACCH, Bandung.2003
- Muhardjito, models PTK, Training Class Action Research, Bogor, 2005
- M. Cholik, Writing Research Report. Training Class Action Research, Bogor, 2005
- Theo Peeters, Autism. Relationships theoretical knowledge and educational interventions for persons with autis.Dian Rakyat, Jakarta, in 2004
- Triyanto.P.Kawasan Action Research. Training Class Action Research, Bogor, 2005
- Thailand VSO and VSO Indonesia, Box System Manual Book, Box System Training, Jogjakarta, 2005