

# APPLICATION OF THE MAKE A MATCH METHOD TO THE LEARNING OUTCOMES OF SCIENCE MATERIALS IN ENERGY RESOURCES IN PARTICIPANTS LIGHTLY MENTALLY DISABLED STUDENTS CLASS VIII SMPLB AT SLB ABCD ASYIFA BANDUNG

Dea Muti Salsabila<sup>1</sup>, Ria Andriani<sup>2</sup>, Sri Mulyani<sup>3</sup>

[dmutisalsabila@gmail.com](mailto:dmutisalsabila@gmail.com)<sup>1</sup>, [riaandriani341@gmail.com](mailto:riaandriani341@gmail.com)<sup>2</sup>, [msri32899@gmail.com](mailto:msri32899@gmail.com)<sup>3</sup>

Program Study Master of Psychology, Faculty of Psychology  
University of Persada Indonesia YAI

## ABSTRACT

The problem faced by students with intellectual disability in class VIII SLB ABCD Asyifa Bandung in science learning is the low learning outcomes. This is because in the learning process educators still use the lecture method, questions and answers and assignments, the method used by educators is conventional in nature, which is centered only on educators so that students lack an active role in learning. Therefore, learning needs to be applied that can make active students. One method used is the Make a Match method. The Make a Match method is for students to find a partner while learning about a concept or topic, in a pleasant atmosphere. The purpose of this study was to determine whether there was an effect of the Make A Match method on the learning outcomes of intellectual disability with boredom characteristics, and lack of abstract thinking. The method used in this study is a single subject research (SSR) experimental method with A-B-A design and quantitative approach. The research sample consisted of 2 people and data collection techniques used tests. Data validation uses expert judgment. Analysis of research data using performance analysis and between conditions with descriptive statistical techniques. The results of subject 1 (FH) data at baseline-1 (A1) mean of 47%, intervention (B) of 69%, and baseline-2 (A2) of 77%. Subject data 2 (FI) at baseline-1 (A1) was 57%, intervention was 77%, and baseline-2 (A2) increased by 83%. Based on the results of the study it can be concluded that the application of the Make A Match method to the science learning outcomes can have a positive impact on intellectual disability.

**Key word:** Method of Make A Match, Science, Intellectual Disability.

## INTRODUCTION

A mentally retarded child is someone who has intelligence significantly below the normal average and is lacking in abstract thinking. In such conditions, this can suppress all activities of daily life such as socializing and communicating, as well as lowering the level of ability to capture academic learning like children of their peers so that they require special education services.

Pedagogic ability is one of the main competencies that must be possessed by an educator, especially in teaching natural sciences (IPA) where Natural Sciences (IPA) is a field of study that deals with nature in a systematic manner, so that the field of Science studies is not only an understanding of a collection of knowledge. in the form of facts, concepts, or principles but also a process of discovery. Not a few educators provide teaching materials with one-way techniques that only focus on educators (teacher center). While students will feel bored. Given the intellectual abilities of students with mild mental retardation who have limitations in their logical thinking about objects and events limited to concrete things, learning methods are needed that are adapted to their constraints and needs.

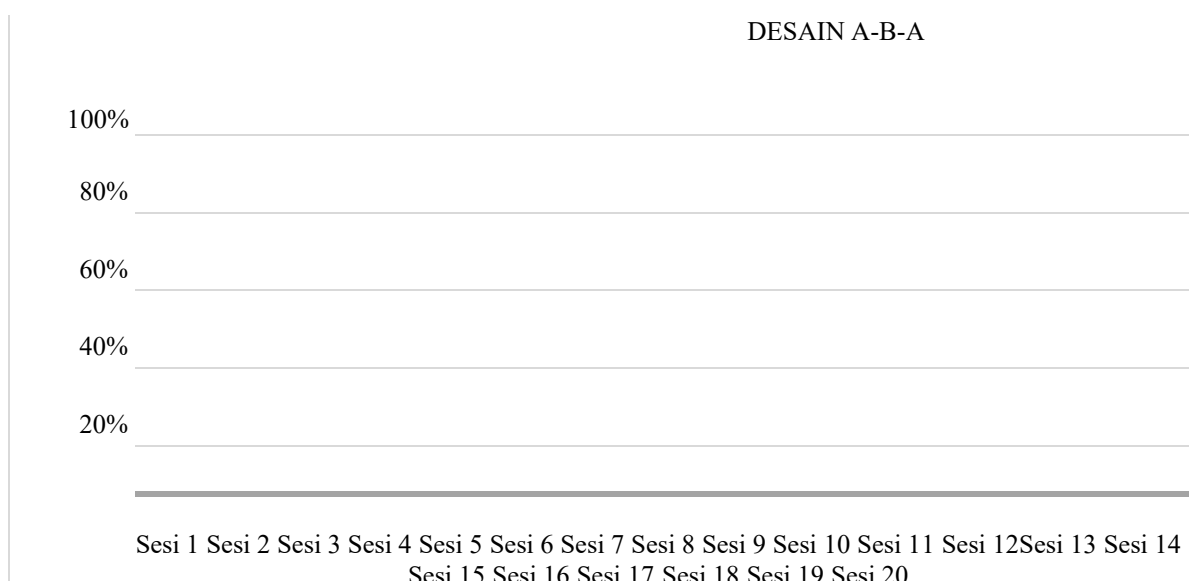
One of the learning models that can be used in the natural sciences learning process is to utilize the Make A Match cooperative learning model. Using cooperative techniques can encourage students to work in teams while studying. The purpose of cooperative techniques is to provide opportunities for all students to be able to actively involve each other during the learning process and learning activities (Trianto, 2011: 56). Students are encouraged not only to sit and listen to the teacher's teaching but also to move physically and open their minds through working in teams. Students will become more enthusiastic while participating in learning if there are activities that can be completed by working together in groups.

The advantage of this technique is that students can learn more exciting by finding their own partners for a concept or topic, so students can be actively involved in the learning process. The learning process can lead to interactions between teachers and students, or fellow students. Student activities involved in the learning process can increase knowledge and skills which will then improve learning outcomes (Nugroho and Slameto, Journal of Basic Education, Vol. 4 No.2, p. 96).

## METHOD

The experimental quantitative method is used by researchers to seek influence in a problem. The method used in this study is an experimental method in the form of SSR (single subject research). According to Susanto (2013: 56) single subject single subject research (SSR), which is a technique that aims to obtain the necessary data by looking at the results of whether there are influences and changes that occur from a treatment given to the subject repeatedly in the past. certain.

Aims to determine the effect of the treatment given repeatedly with a certain time. The treatment given to the subject was in the form of applying the Make A Match learning technique to the science learning outcomes of energy sources for students with mild mental retardation class VIII SMPLB ABCD Asyifa and these observations could be seen from the conditions before the intervention (treatment), when the intervention (treatment) was given, after given intervention (treatment).



To carry out the preparation of the instrument grid, the researcher looked at the limits of children's abilities in science subjects based on core competencies (KI) and basic competencies (KD) in the 2013 curriculum for mentally retarded students in class VIII SMPLB ABCD Asyifa. Researchers compiled and developed tests based on Basic Competency (KD) 3.3 about identifying energy sources and their use in everyday life and KD 4.3 telling about various sources of energy and their use in everyday life. The researcher developed the KD into eleven indicators. The eleven indicators were developed into 30 multiple choice questions. The preparation of the instruments and questions was tested for content validity by one UNINUS lecturer, one educator at SLB ABCD Asyifa Bandung, and educators in the science field at SMP Setia Bhakti Bandung. The next stage is the implementation of research. In this stage, there are several activities and implementation carried out including :

a. Baseline-1 (A1)

In the baseline-1 phase (A1) the researcher conducted 5 sessions of measurement. In this activity, the children were asked to do a science learning test for the material "source of energy" as many as 30 questions with the time given by the researcher in each session being 45 minutes.

b. Intervention (B)

In the intervention phase (B) the researcher applied the Make A Match cooperative technique to improve the learning outcomes of science lessons for "source of energy" materials for students with mild mental retardation. Where the intervention was given to children in 10 sessions with a time of 45 minutes. At the end of each intervention session, the children were given test questions to measure the learning outcomes of science lessons in the "source of energy" material for mildly mentally retarded students with 45 minutes of processing time. The activities carried out in the intervention phase (B) are :

1) Preliminary Activities

- a) Give greetings and motivation to children so that they are enthusiastic about carrying out teaching and learning activities.
- b) Informing children about the learning activities that will be carried out.
- c) Prepare the media needed in applying the cooperative technique of the Make A Match type, namely in the form of picture cards.

2) Core Activities

- a) Researchers provide materials to students.
- b) Students are divided into two teams, namely teams A and B, the two teams are asked to face each other.
- c) The next stage is the educator distributes question cards to team A and answer cards to team B.
- d) Researchers ask students to match the cards that have been held to other friends. Before the partner-finding game was carried out, the researcher first conveyed the time limit given.
- e) The researcher asks students to find a partner. For students who have found a card pair, it is mandatory to report themselves to the researcher.
- f) When the allotted time is up, the researcher will notify the students that the game time is up.
- g) Researchers call students to present the results of their work.
- h) The last stage, the researcher provides confirmation about the correctness and suitability of the questions and answers that have been done by students.

- 3) Closing Activities
  - a) Students listen to reinforcement material from researchers.
  - b) Students and researchers make conclusions.
  - c) Students work on evaluation questions.
  - d) The researcher ends the meeting by greeting the students.
  
- c. Baseline-2 (A2)

In the baseline2 phase (A2) the researcher conducted 5 sessions of measurement. In this activity, the children were asked to do a science learning test for the material "source of energy" as many as 30 questions with the time given by the researcher in each session being 45 minutes. This activity was carried out to see the effect of applying cooperative techniques of the Make A Match type to science learning outcomes.
  
- d. The data processing carried out consists of:
  - 1) Make calculations about the score table in the baseline-1, intervention and baseline-2 phases.
  - 2) Add up and compare all scores.
  - 3) Make a graphical analysis.
  - 4) Make data analysis in conditions and between conditions.

## RESEARCH RESULT

The results of this study reveal the application of the Make A Match technique to mild mentally retarded students in class VIII SMPLB at SLB ABCD Asyifa Bandung. The data obtained is the ability to learn natural science from energy sources which are carried out in each meeting.

The results of science learning on energy sources for class VIII students of SMPLB at SLB ABCD Asyifa Bandung before applying the Make A Match technique according to the results of calculations on subject 1 (FH) obtained estimated trend direction data, namely (+) at baseline-1, (+) at intervention, and (+) at baseline-2 which means that it has increased in each session, and subject 2 (FI) obtained estimation data for the direction trend, namely (+) at baseline-1, (+) at intervention, and (+) at baseline -2 which means it has increased in each session.

Based on the results of calculating the mean percentage of subject 1's ability level (FH) at baseline-1 (A1) the mean was 47%, intervention (B) was 69%, and baseline-2 (A2) was 77%. Data subject 2 (FI) at baseline-1 (A1) was 57%, intervention was 77%, and baseline-2 (A2) increased by 83%. Based on the results of the study it can be concluded that the application of the Make A Match method to science learning outcomes can have a positive impact on children with mild mental retardation.

## CONCLUSION

Based on the results of the data analysis described above, it can be concluded that the use of the make a match method can have a positive influence on science learning outcomes in the subject of "energy sources" in the two research subjects, namely FI and FH subjects. The increase that occurred in both subjects during the research was due to when teaching using the make a match technique because this technique is one of the learning techniques that can encourage students to be active in the learning process.

The make a match technique can attract the attention of students to participate in the learning

process by looking for paired cards together with learning about the material in an exciting atmosphere. Through these learning techniques, students will be brave in giving their opinions, students will also find it easier to grasp the material provided. Given the intellectual abilities of students with mild mental retardation who have limitations in their logical thinking about objects and events limited to concrete things, when the make a match method is applied using the visual media of word cards and pictures. Students' understanding of the material provided will have an impact on improving student learning outcomes. By looking at this increase, it shows that the use of the make a match method can have a positive influence on the science learning outcomes of the "source of energy" material for mentally retarded students in class VIII SLB ABCD Asyifa Bandung.

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