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Development of Work Vocational Programs (Create Ape Puzzle 3d) for Children with Light Temperature Class of X at Slb Bc Yplab Cibaduyut

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Abstract

The background of this research was that it was found that there was no preparation of a woodworking vocational program for mild mentally retarded children in class X at SLB BC YPLAB Cibaduyut. The aim of the research is to direct children with mild mental retardation to one or more types of work so that they can be applied in the world of work (home industry) so that children can have the opportunity to work. The research method used is descriptive qualitative, the techniques used are observation, interviews, documentation, FGD and validation. The results showed that children were able to recognize materials, wood craft tools, were able to make 3D animal puzzle APE except for the process of forming 3mm plywood into A4 size. The teacher carries out an assessment at the beginning of each semester. However, based on the results of the documentation of the woodworking vocational program for children with mild mental retardation in class X, no program arrangements had been made. Validation is carried out for the teacher by adding points at the beginning of the program complemented by the initial conditions of the students. Whereas validator 2 agreed to the preparation of a woodworking skills program (APE 3D puzzle) and provided suggestions for adding a sub-aspect in the task analysis instrument regarding how to use a manual hacksaw.Recommendations for teachers are to provide references in improving the quality of learning, for school principals, namely as input material to improve school quality through the vocational woodworking program (APE 3D puzzle) to provide expertise for graduates with mild mental retardation, and for further researchers, namely to redevelop what researchers have been doing at this time, for example by developing a woodworking vocational program (APE puzzles 3D).

Keywords:
Wood Craft, APE 3D Puzzle, Mild Mentally Disabled Children.

Education is one of the main areas in the advancement of a nation's civilization. When the role of education is not strong, the civilization of a nation will decline. Education must be felt by all people, both middle to lower and upper. As the 1945 Constitution

Article 3 paragraphs 1 and 2. Paragraph 1 states that every citizen has the right to education, paragraph 2 states that "the government seeks and organizes a national education system to increase faith and piety and noble character in the context of educating the life of the nation".

From paragraph 1 it is stated that every citizen has the right to education. This is no exception for children with special needs. Children with special needs are children with special characters that are different from children in general, those who have physical, emotional, mental, intellectual and social disorders. Children with special needs need a form of special education services that are tailored to their abilities and potential. According to Mulyati (2011: 9) states that:

Children with special needs are children who have abnormalities that are permanent or permanent (children who lack or have excess from ordinary children) and abnormalities that are temporary or temporary (ordinary children do not get optimal education due to external factors) so that they need special education services.

Based on the explanation above, every child with special needs, both permanent and temporary, has different developmental learning barriers and learning needs. One of the children with special needs is a mentally retarded child. Mental retardation is a term used to refer to children who have intellectual abilities far below average. The American Association of Intellectual Disabilities (AAIDD) in Hallahan (2012: 104), defines that "intellectual disability is a disability characterized by significant limitations both in intellectual functioning (reasoning, learning, problem solving) and in adaptive behavior, as expressed in conceptual, social and practical adaptive skills. This disability is original before age 18"

This definition, loosely translated, is "mental disability, namely an obstacle characterized by significant limitations both in intellectual functioning as well as in adaptive behavior and social problems. These obstacles appear before the age of 18 years." Meanwhile, according to Astati (2015: 8) the ability of mentally retarded children is "inadequate in thinking about abstract things, which are difficult and convoluted, so that they are less/inhibited in adjusting to with the environment".

According to the quote above, it can be concluded that the ability of mentally retarded children is very limited in adjusting to their environment. As a result of these conditions mentally retarded children always experience difficulties in learning that are academic in nature due to the difficulty of thinking abstractly or convolutedly. Children with mental retardation lack the ability to do jobs that are appropriate for their age, so they are only able to do work that can be done/carried out by children who are younger than them. However, with education and guidance according to their needs, it is hoped that children can develop their potential.

In general, skills education according to the Ministry of National Education in Mastiani and Suwandari (2018: 30) "skills education covers all aspects of life skills which include personal skills, social skills, vocational skills, and academic skills". Meanwhile, skills education according to Mastiani and Suwandari (2017: 89), is as follows:

Skills education is an optional learning program that can be given to students who are directed at mastering one type of skill or more aimed at cultivating various potentials of students according to their talents and interests so that they can become provisions for living in society by having an income.

One of the skills that has been taught to mentally retarded children is woodcraft as a vocational program. According to Enget, et al (2008: 2) explained that "wooden craft are all human works that require special skills related to crafts that use wood as a base material". Enget also mentioned that the concept of wooden craft "is a work of art which is broadly divided into three categories, namely as decoration (decoration), applied object (ready to use), and toy object". Meanwhile, according to Zuhdi (http://staffnew.uny.ac.id/upload/131666726/dinding/(9)+Kriya-Kayu.pdf) explains that "wooden craft is a field of craft whose job is to make objects that have functional and decorate with wood.

Based on this, the researchers concluded that wood craft is a part of wood-based handicraft art made by humans so that it has functional

value (used for activities) and has a partial decorative value (display).

Field studies conducted at SLB BC YPLAB Cibaduyut taught woodcraft skills, but the program had not yet been established. A number of researchers have conducted research on woodcraft vocational programs. Research with the same theme was conducted by Zuliatun (2019) entitled "Implementation of Learning Wood Craft Skills in Class X Mild Mentally Disabled Children at SLB Negeri 2 Yogyakarta". From this research, it was obtained the achievement of results in the implementation of wood craft skills, namely that children with mild mental retardation could create a product made of wood. Many functional products have been produced by every mentally retarded child who participates in wood craft skills. The products produced in wood craft skills include several products of Educational Game Tools or often abbreviated as APE, in the form of puzzles, miniature transportation tools, calculators, shape recognition tools, and so on.

Research with the same theme was also conducted by Prihanto (2017) with the title "Implementation of Learning Wood Craft Skills in Mild Category Mentally Disabled Children at Special Schools Yapenas Sleman". From this research, the results showed that the teacher oversees the learning preparation stage by determining learning objectives, materials and methods followed by the learning process. The material provided regarding the stages of product processing from the preparation of tools and materials, the work process, and the finishing process. The method used by the teacher is the lecture method and giving assignments, while the learning strategies used are shaping, prompting, and fading. Evaluation through work practices at each stage of product development. Both subjects were able to prepare and use manual and semi-manual equipment and mastered some woodworking techniques. The difficulties experienced by both subjects included product design, material measurement marking and machine equipment operation.

The third research with a similar theme was conducted by Ba'its (2021) with the title "Vocational Education for Children with Special Needs in the Post-Graduation Transition Period in Special Schools". The results of this study indicate that (1) the implementation of vocational education at SLB Dharma Bhakti Piyungan is carried out by adjusting the conditions and abilities of children, teachers and schools. In terms of its application, from planning, process and evaluation the school has made a good enough effort to meet the requirements in implementing vocational education, although there are still obstacles to infrastructure, places, teaching staff, communication and advanced programs, but on the other hand these constraints can be minimized by alternative ways that are adapted to the conditions of the child, teacher and school. (2) The vocational education program provided by the school to alumni of children with special needs at SLB Dharma Bhakti Piyungan includes, namely, for child Y is batik and craft skills, for child R is wood or craft skills, and for child M is self-development skills.

As for the fourth study with the same theme, namely "Implementation of Self-Development of Productive Vocational Skills Wood Crafts for Children with Mental Disabilities SMPLB in Sragen State SLB". The research was conducted by Dewi (2014). The results of this study show the following results: (1) The implementation of self-development of woodcraft vocational skills is carried out for 16 hours of lessons or with a portion of 50% of all learning given. The scope of wood craft vocational skills material at the SMPLB level at Sragen State SLB is manual wood work, scroll work, knowledge of wood materials, basic technical drawings, and basic level wood finishing. (2) Achievement of the results of self-development of vocational skills for mentally retarded students' wood crafts is in the form of goods, namely tree figures, figures, puzzles, tables and chairs, traffic signs, handles for sickles, handles for frying tools, and vandels. (3) Obstacles in implementing self-development of vocational skills for woodworking mentally retarded students, namely from the behavior of mentally retarded students it is difficult to direct, the provision of infrastructure and raw materials, the absence of teaching staff with appropriate

educational qualifications, and constraints in product marketing.

In some of these studies, there are similarities with researchers, namely discussing vocational skills in the form of wood crafts. While the difference is that the first and second studies discuss the implementation of woodcraft programs that already exist in schools, the third study discusses vocational programs in general in schools, and the fourth study discusses the implementation/application of woodcraft skills in two schools. As a differentiator, thus the researcher is interested in conducting research entitled "Compilation of the Woodcraft Vocational Program (Making APE 3D Puzzle Animals) for Class X Mild Mentally Disabled Children at SLB BC YPLAB Cibaduyut".

Research Methodology

This study used a qualitative research approach with a descriptive method. Arikunto (2015: 12) suggests the following:

Among the many existing models in qualitative research known in Indonesia is naturalistic research. The term naturalistic indicates that the implementation of this research does occur naturally, as it is, in normal situations that are not manipulated by circumstances and conditions that emphasize natural descriptions.

Thus it can be concluded that qualitative research is research conducted by researchers directly in the field without engineering because it describes the current situation. Through the use of descriptive methods with a qualitative approach, it is hoped that researchers will be able to produce accurate data about the preparation of a woodcraft vocational program (making 3D animal puzzle APE) for mild mentally retarded children in class X at BC YPLAB Cibaduyut Special School.

In addition to research instruments, there are data collection techniques. Creswell (in Fawaid (2019: 253) states "the data collection technique in this study is a discussion of the role of research which will also determine the explanation of the problems that arise during the data collection process". Meanwhile Abidin (2015: 134) states "technique qualitative data collection produces oral descriptions to describe the richness and complexity of events that occur in a natural design from the participant's point of view." Based on these opinions, it can be concluded that data collection techniques are ways of finding data or problems to be discussed in research in order to produce an oral description from respondents so that the data obtained is more accurate.

As for several strategies that will be used by researchers in collecting data in this study, the first is observation. Observations are made to see a behavior that occurs in the field as supporting evidence. Observation according to Creswell in Fawaid (2019: 254) is "when researchers go directly to the field to observe the behavior and activities of individuals that occur at the research site". Based on this opinion, observations are made directly (face to face) to see student activities so that the data obtained is clearer. The thing that is emphasized in this study is to see firsthand the ability of mentally retarded students in class X at SLB BC YPLAB Cibaduyut in wood craft vocational learning.

The second data collection technique is interviews. Dian (2016: 21-22) states "interviews are conducted to obtain more in-depth explanations of information from people who are considered to know more about students' conditions". Based on this opinion, the interview is a method used to obtain information by asking the respondent directly because they are considered to know more about the matter being asked by the researcher. In qualitative research, observation is often combined with interviews. This method is done because there are things that are not visible in observation but can be known after conducting data collection techniques in the form of interviews. In this study, interviews were conducted with class teachers and skills teachers.

The third data collection technique is a documentation study. This technique is used to obtain various documents related to research problems. This was stated by Ridwan (2005: 77) that: "Documentation study is a method used to obtain data directly from the research site, including relevant books, regulations, reports, photographs,

documentaries, relevant data with research". The documents collected in this study were in the form of documents about vocational learning for woodcraft at SLB BC YPLAB Cibaduyut.

The fourth data collection technique is the FGD (Focus Group Discussion) method or focus group discussion. Afiyanti (2008: 61) states "FGD is a strategy for collecting data that involves social interaction among individuals in a serial discussion. This method has proven to be widely used for data collection in various qualitative research projects. Based on this opinion, the data generated by the FGD was carried out through participant activities in discussion groups by asking questions and answering each other and expressing comments to one another about experiences or opinions on a problem to be resolved together. In this study, FGDs were conducted with class teachers and skills teachers.

The fifth data collection technique is the validation method. Validation is an aspect of the accuracy of measurement, a valid measuring instrument is not only able to produce the right data but also must provide a careful description of the data. According to Wahyuni, et al (2012: 34) validation is "A condition of an evaluation instrument that can be measured quickly". Validation in this study was carried out to see the legibility and implementability of the woodworking vocational learning program (APE 3D puzzle) through collaborative collaboration between teachers and researchers, the program was validated against 1 (one) teacher at SLB Sejahtera Bogor City and SLB Yakalimu Purwakarta.

Research Results and Discussion

The results of observations made by researchers on two mentally retarded children, which aims to determine the vocational skills of woodworking in mentally retarded children in class X at SLB BC YPLAB Cibaduyut, namely that children are already able to recognize materials and tools for making 3D puzzles such as mentioning, showing and distinguishing 3D puzzle materials and tools. . Furthermore, children are already capable of making 3D animal puzzle processes such as preparing 3D puzzle tools and materials, gluing the HVS designs onto A4 sized plywood, cutting the plywood according to the animal design, and smoothing the cut animal designs. Meanwhile, in the process of forming 3mm plywood into A4 size, such as when marking plywood, using a tape measure and connecting to form a rectangle, the child has difficulty so he needs help.

The results of interviews conducted by researchers with classroom teachers and skills teachers, which aimed to find out the design of the 3D puzzle woodworking vocational program for class X mild mentally retarded children at SLB BC YPLAB Cibaduyut can be analyzed as follows:

In the aspect of preparation the class teacher carries out the assessment before starting learning. Assessment is carried out at the beginning of each semester. Aspects seen in the assessment are in terms of social, emotional, physical, and skills. Furthermore, in the aspect of compiling the program, the teacher organizes a 3D puzzle woodworking vocational program for mild mentally retarded children with the aim that children have woodworking skills and are familiar with woodworking tools and materials for making 3D puzzles. The material provided by the teacher is to recognize and distinguish tools and materials for making 3D puzzles. The method used is demonstration and simulation through the media in the form of YouTube videos. Then the teacher conducts an assessment by filling out the task analysis sheet.

In the implementation aspect, the teacher begins the activity by preparing a place for learning in the skills room. Teachers condition children by attracting the attention of children's learning interests. Before learning begins, the teacher prepares tools and materials to make 3D puzzles. The teacher also conducts affirmations before learning begins such as question and answer regarding the material to be delivered. The teacher and student attendance. Then, in the core activities, The teacher mentions and explains the names of the 3D puzzle tools and materials one by one. The way the teacher explains the use of these tools and materials is to practice them directly and provide examples of how to use them. The teacher determines how to

choose the tools and materials according to making puzzles in general. The teacher also takes care of tools and materials by cleaning them regularly after use. In the follow-up or final activity, the teacher reflects after learning by asking questions related to the material that has been presented. The teacher also gives the opportunity to ask children if there is material that is considered difficult. However, children's assignments at home are not given because the teacher thinks it is difficult for parents. The teacher closed the lesson by making conclusions, reading a prayer with the students and then greeting.

Based on the results of the documentation in class X SLB BC YPLAB Cibaduyut at the time of the research, namely the wood craft vocational program for mild mental retardation children of class X, there had not been any program arrangements made such as lesson plans, but the teacher has carried out the learning so far because it is contained in the self-development handbook for mentally retarded children in which there are basic woodcraft competencies, this curriculum refers to the 2013 curriculum. Supported by the existence of a wood craft learning teacher module book. The components of the learning program used by the teacher include: objectives, learning materials, methods, media, steps and assessment. Thus, the researchers created a wood craft vocational program for class X mild mentally retarded children.

Based on the validation results, validator 1 from SLB Sejahtera, Bogor City, stated that the instrument for compiling the woodworking skills program (APE 3D puzzle) was appropriate for use in learning for mildly mentally retarded children and the validator added the points at the beginning of the program complemented by the initial conditions of the students. As for validator 2 from SLB Yakalimu Purwakarta, the validator agreed to the preparation of a woodworking skills program (APE 3D puzzle) and provided suggestions for adding a sub-aspect in the task analysis instrument regarding how to use a manual hacksaw.

Conclusions and Recommendations

Conclusion

In discussing the results of the research, it can be concluded that the implementation of woodworking vocational learning for mildly mentally retarded children at SLB BC YPLAB Cibaduyut does not yet have an arrangement of woodworking vocational learning programs for mildly mentally retarded children that are in accordance with the contextual lesson, in other words there is no special material, but the teacher prepares SBdP lessons such as 3d art. In reality, in the field, the school has not prepared a vocational woodworking program. Thus, at SLB BC YPLAB Cibaduyut there is no vocational woodworking program for mildly mentally retarded children. The plan for the woodworking vocational program to make 3D puzzle APE for mildly mentally retarded children in class X at SLB BC YPLAB Cibaduyut has the goal of directing mildly mentally retarded children to one or more types of work so that they can be applied in the world of work (home industry) so that children have the opportunity to work. With the existence of a woodworking vocational program, it can be used as a guide for teachers who can assist in conveying learning.

Based on the results of the validation from two different schools, the two validators agreed that a vocational woodworking program (APE 3D puzzle) would be arranged and that the tools and materials used were considered sufficiently appropriate to the abilities of mentally retarded children.

Recommendation

Based on the data that researchers got from this study, it turns out that there are still some deficiencies that need to be corrected, for that the researchers provide several recommendations. Recommendations are addressed to:

Teacher

The results of this study are expected to provide a reference for teachers in improving the quality of vocational woodworking learning (3D puzzle APE).

Headmaster

As input for improving school quality, such as improving the vocational woodworking program (APE 3D puzzle) in schools to

provide skills for graduates with mild mental retardation.

Further Researcher

The development of methodologies in learning skills continues, along with this it would be nice if further researchers redeveloped what researchers have been doing at this time, for example by developing a woodworking vocational program (APE 3D puzzle).

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