



The development of vocational skill programs to improve job readiness for students with mental disabilities

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Abstract

Vocational education is closely related to life skills or life skills needed in society. Vocational skills are very important in education for students with mental disabilities to optimize their abilities towards independence in their lives. This study aims to develop vocational skills programs for students with mental disabilities to improve job readiness. This research uses a qualitative approach with a descriptive method. Data collection is carried out through observation, interviews and documentation of the work of students. Data processing techniques are carried out with descriptive data analysis techniques that are used to analyze the meaning and findings that have existed before with the aim of describing and describing clearly and in detail the development of vocational programs for the mentally impaired in schools. The study was conducted in 3 outstanding schools and involved 6 students and teachers in those schools. This development research is carried out in two stages, namely the first stage to see the objective conditions of existing vocational skills

programs and make program development plans. The second phase of research includes planning that begins with student assessment, program mapping and program implementation. Program planning which includes aspects of: 1) observation of the types of vocational skills programs; 2) setting standards for learning outcomes; 3) involving students in planning the implementation of vocational programs; 4) making program materials based on processes in the real world; 5) project-based vocational skills programs; 6) integrating vocational skills programs into school communities; 7) real-world strengthening in the planning and implementation of vocational skills programs. The results of the program implementation are: 1) students with mental disabilities can carry out vocational skills learning with program materials that are adjusted in terms of content and learning methods; 2) material adjustments in the form of task analysis; 3) the use of video tutorials as an attractive visual medium so that learning steps can be understood more clearly ; 4) schools collaborate with parents and school committees both in the learning process and marketing the results or products of vocational skills learning

Keywords

Development, job readiness, vocational programs, students with mental disabilities

Introduction

Education is the right of every citizen without being excluded. Law No.20 of 2003 concerning the national education system provides opportunities for all citizens to get quality education, including those with physical, emotional, mental disorders,

"Intellectual and/social are entitled to special education. Education is basically an effort to improve the ability of human resources so that they can become human beings who have character and can live independently" (Raharjo, 2010). Children with special needs have the right to get an education in order to optimize their potential in order to achieve independence.

Basically, the abilities of each student are different, especially for children with special needs with intellectual barriers known as mental impairments. Children with mental disabilities can develop their potential through special education services tailored to their abilities. *The American Association on Intellectual and Developmental Disabilities (AAIDD)* provides a statement that children with intellectual disabilities deserve a decent education with high-quality teaching with individualized support and have access to an appropriate curriculum (Thompson et al., 2020)

In order to achieve better independence for students with mental disabilities, comprehensive learning is needed to include physical, mental social and vocational aspects. Vocational skills education is closely related to life skills. Vocational skills or skills are skills that are associated with a certain field of work found in society. This vocational education aims to optimize the potential in children

and also provide provisions for children to prepare themselves to be involved in the environment where they live (Anggana & Sudarto, 2021).

Vocational skills include personal skills, social skills, and academic skills that must be contained in them so that children can have the ability and can be independent in society after graduating from school. Skills are very much needed by children with special needs, especially children with special needs and this is also stated in the legislation that regulates the provision of vocational skills in schools with special needs. Law Number 20 of 2003 sets standards for providing learning for high-grade SLB children, 40% academic learning and 60% vocational skills specified for children with special needs who are able to follow learning well (Umma & Sopandi, 2021).

Vocational skills provided for students with mental disabilities in the upper class are aimed at preparing themselves to be able to work in the community. The development of vocational skills can increase work productivity in essence oriented towards preparing for work, because work is a basic activity and is made an essential part of human life. "The vocational skills education material provided emphasizes the productive aspects so as to produce a work or product". (Suparya, 2021) The types of skills taught pay attention to the situation of students and the resources that the school has, both teachers and adequate facilities.

Vocational learning basically includes the basic level, the skilled level and the advanced level. Of these three skill levels, the types of skills are developed in each school and submitted to the education unit according to its interests, potential and the needs of the educational unit. Examples of types of vocational skills developed for children with special needs in Extraordinary Schools are fashion, woodworking, wicker, culinary, computer, beauty, acupressure, automotive, delivery, laying-kite, and others (Umar & Martasuta, n.d.)

The results showed that mentally impaired students have significant difficulties in adult life and obstacles to adaptive behavior often lead to problems in social relationships with others. (Milazzo et al., 2008). In children with mental disabilities, the main weaknesses lie in numeracy, language, lack of control over the situation in the environment and not reaching maturity according to their age (2017, 2017) Therefore, in learning the vocational skills provided, it is necessary to pay attention to aspects of individual abilities and the difficulties they have so that the programs provided are in accordance with their particular needs.

The development of vocational skills provided must be planned in a phased and continuous manner. These stages follow the stages of program development management that are tailored to the learning needs of students with mental disabilities, which include assessment steps, program preparation and evaluation so that overall it meets the aspects of accuracy and suitability to the unique learning needs of students. Assessment in education for students with mental disabilities is interpreted as an effort to obtain information about students related to their specificity or differentiation (Hopkins & O'Donovan, 2021). Assessment is a very essential thing that must be done before providing appropriate services to students

with mental disabilities, because exploring one's interests, needs and abilities in vocational skills is a very important basis as a reference for teachers to develop vocational skills programs.

Talent interest is also something that needs to be considered in planning the right vocational development. In program planning, the interest factor will foster interest in students with mental disabilities and make them well connected to the learning provided (So et al., 2022).. Therefore, the interest factor is a consideration and needs to be planned carefully. Interest is closely related to a person's productivity so to explore this it is very important to do an assessment so that the discovery of his ability and interest in a vocational skill.

Based on preliminary studies related to the vocational skills program at SLB YPI Al-Maghfiroh Purwadadi, SLBN Depok City, and SLB Tunas Tekad Sumberjaya Majalengka, it was informed that the process of developing vocational skills programs that have been carried out by schools has not followed the planning stages of program development. All students are required to follow all forms of vocational services provided by the school when the implementation of vocational skills learning is felt that there is no compatibility between the program and the abilities of students with mental disabilities. This certainly needs to be considered in order to encourage the creation of the right program. Therefore, this research will focus on developing vocational skills programs based on the interests, abilities and needs of students in SLB to produce more appropriate programs and can prepare students with mental disabilities towards work readiness in the post-school community.

Research methods

The research uses a qualitative approach and a descriptive method with 2 stages. The first stage is to reveal how the objective conditions of the vocational skills program exist in 3 Extraordinary Schools and the second stage is the development of existing programs by following the stages of assessing the ability and interest of talents

needs analysis and development of programs that the school already has. Qualitative research emphasizes the depth of data obtained by researchers. The deeper and more detailed the data obtained, the better the quality of this qualitative research. In contrast to quantitative, objects in qualitative research are generally limited in number. In this study, researchers participated in the events /conditions being studied. For this reason, the results of this study require depth of analysis from the researcher. In addition, the results of this study are subjective so they cannot be generalized (Research & Bogdan, 2013)

Datacollection was carried out through observation, interviews and documentation as well as a combination of all three or triangulation. Through this method, researchers will analyze data in the field in detail. The subjects in this study were three extraordinary schools, namely SLBN Depok (School A), SLB YPI Al Magfiroh (SLB B), SLB Tunas Tekad Sumber Jaya Majalengka (SLB C) with 6

students. In the second phase of research, the development of the program was tested for its implementation through a semi and workshop consisting of teachers and stakeholders of vocational skills in food and delivery, namely skill course instructors.

The data analysis carried out in this study is a descriptive data analysis technique used to analyze the meaning and findings that have existed before with the aim of describing and describing clearly and in detail the development of vocational programs for the mentally impaired in schools.

Result of the research and discussions

Result and Discussion Stage 1

In this stage 1 of study, the data obtained is the objective condition of the vocational skills program in 3 Special Needs Schools. The data includes existing programs, available facilities, objective conditions of students, educators, program planning, program implementation, program evaluation and market conditions. From the results of this stage 1 of study, data was obtained containing information on the objective conditions of vocational skills programs in schools in the following table:

Table. 1. Vocational Skills Program of School A

Vocational Skills Programs	Facility available	Teacher	Planning Program (Lesson Plan)	Implementation of Program	Program Evaluation
Culinary Arts	Available and sufficient	2 available	v	2 kinds of pastries in one semester	During learning activity
Fashion Arts	Unavailable	x	v	x	x
Automotive	Unavailable	x	v	x	x
Cosmetic	Unavailable	x	v	x	x
Bridal Hantaran	Unavailable	x	x	x	x

Table 2. Vocational Skills Program of School B

Vocational Skills Programs	Facility available	Teacher	Planning Program (Lesson Plan)	Implementation of Program	Program Evaluation
Culinary Arts	Available and sufficient	1 available	v	1 kind of pastry in one semester	During learning activity
Fashion Arts	Unavailable	x	v	x	x
Automotive	Unavailable	x	v	x	x
Cosmetic	Unavailable	x	v	x	x
Bridal Hantaran	Unavailable	x	x	x	x

Table 3. Vocational School Program of School C

Vocational Skills Programs	Facility available	Teacher	Planning Program (Lesson Plan)	Implementation of Program	Program Evaluation
Culinary Arts	Available and sufficient	1 available	v		During learning activity
Fashion Arts	Unavailable	x	v	x	x
Automotive	Unavailable	x	v	x	x
Cosmetic	Unavailable	x	v	x	x
Bridal Hantaran	Available	1 available	v		During learning activity

Data related to market conditions were obtained through the results of interviews and observations conducted in several places around the school site. For school B, the market for the products produced is individual school residents, both teachers and parents and the community outside the school individually because they are offered the product. For school A, the market for the products is a shop

near the school, while for school C, the market for the products produced is parents, an exhibition event and two shops near the school, namely Toko Prima and Toko Sahabat.

From the data obtained, an analysis was carried out that in the vocational skills program in schools have not assessed the functional abilities of students, interests and success indicators of vocational programs. This functional assessment of the ability of students with mental disabilities is very important not only to know the strengths and weaknesses possessed by students related to abilities related to the implementation of the program but also related to the determination of learning outcomes that are expected to be achieved associated with demands from the world outside the school or society (McCue et al., 1994). The results of this assessment will affect the implementation methods and specific methods that need to be considered (Williams & Williams, 2013). The assessment carried out is also not only on the cognitive abilities of students but on psychological aspects, namely behavior and comfort. It is important for teachers to be able to make observations related to aspects of attitudes and behaviors of students with mental disabilities when participating in the learning process (Khoeriah et al., 2021).

The next step in the development of this vocational skills program is to analyze the needs and development of pre-existing programs in accordance with the steps described in the chart as follows:

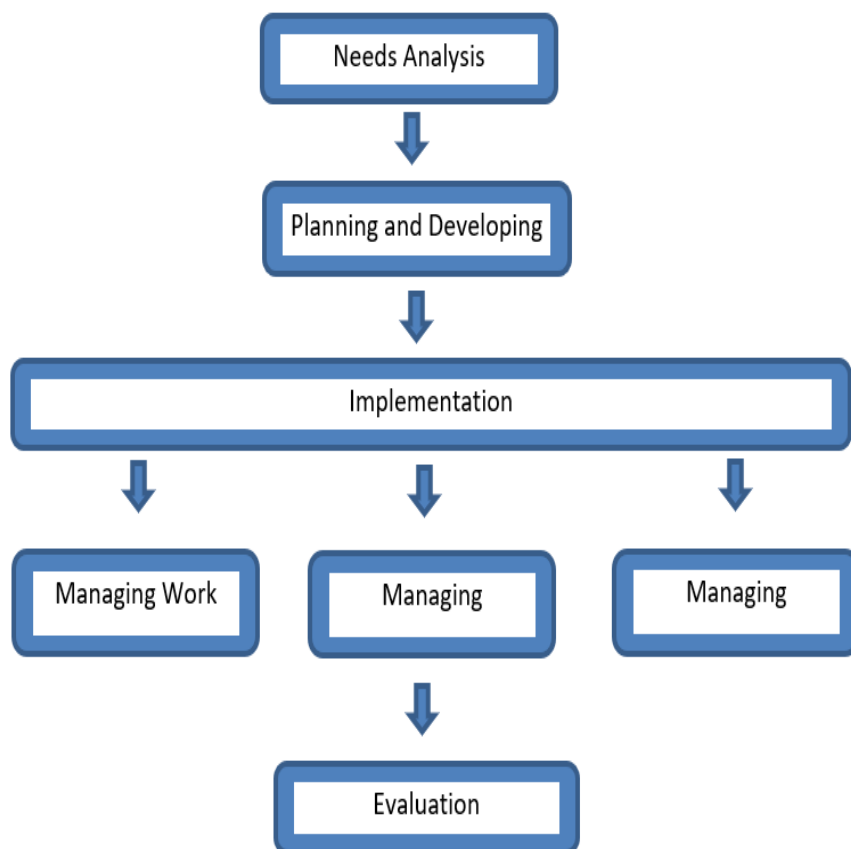


Figure 1. Chart of Development of Vocational Skills Program

1. Result and Discussions Stage 2

In the second phase of the study, the steps of program development were carried out by starting with the steps of assessing students' functional abilities. Thus, result that in can be as follows :

Table 4. Result of Functional Aessment Skills of School A's Students

Basic competencies/Indicator	Student 1		Student 2	
	Evaluation	Description	Evaluation	Description
	Capable	Not capable	Capable	Not capable
Aspect of Physical function				
Do the body movements in the coordinated manner	v	Able to do well	v	Able to do well
Do the coordinate the movement Between the eyes, lehs, hands in receiving orders	v	Able to do well	v	Able to do well
Skilled in using the right and left hands	v	When using left hand is not as good as right hand	v	Able to do well
Create a drawing according to the instructions	v	Able to do well	v	Able to do well
Form or fold the image	v	Able to do well	v	Able to do well
Aspect of Psychology				
Focus in implementing the activity	v	Able to do well	v	Able to do well
Receiving instruction well	v	Able to do well and like to asking some questions	v	Able to do well
Have a strong will	v	Able to do well	v	Able to do well
Aspect of Social Function				
Have an honest attitude	v	Able to do well	v	Able to do well
Have a discipline attitude	v	Able to do well	v	Able to do well
Have a caring attitude	v	Able to do well	v	Able to do well
Have responsibility	v	Able to do well	v	Able to do well
Convenience Aspect				
Cooperative	v	Able to do well	v	Able to do well as instructed

Tabel 5. Result of Functional Aesessment Skills of School B’s Students

Basic competencies/Indicator	Student 1		Student 2	
	Evaluation	Description	Evaluation	Description
	Capable	Not capable	Capable	Not capable
Aspect of Physical function				
Do the body movements in the coordinated manner	v	Able to do well	v	Able to do well
Do the coordinate the movement Between the eyes, lehs, hands in receiving orders	v	Able to do well	v	Able to do well
Skilled in using the right and left hands	v	Able to do well	v	Able to do well, left hand is not as good as right hand
Create a drawing according to the instructions	v	Able to do well by teacher’s help	v	Able to do well
Form the image (folding)	v	Able to do well by teacher’s help	v	Able to do well
Aspect of Psychology				
Focus in implementing the activity	v	Able to do well	v	Able to do well
Receiving instruction well	v	Able to do well and like to asking some questions	v	Able to do well
Have a strong will	v	Able to do well	v	Able to do well
Aspect of Social Function				
Have an honest attittude	v	Able to do well	v	Able to do well
Have a discipline attittude	v	Able to do well	v	Able to do well
Have a caring attittude	v	Able to do well	v	Able to do well
Have responsibility	v	Able to do well	v	Able to do well
Convenience Aspect				
Cooperative	v	Able to do well	v	Able to do well as instructed

Tabel 6. Result of Functional Assesment Skills of School C's Students

Basic competencies/Indicator	Student 1		Student 2	
	Evaluation	Description	Evaluation	Description
	Capable	Not capable	Capable	Not capable
Aspect of Physical function				
Do the body movements in the coordinated manner	v	Able to do well	v	Able to do well
Do the coordinate the movement Between the eyes, lehs, hands in receiving orders	v	Able to do well	v	Able to do well
Skilled in using the right and left hands	v	When using the left hand is not as goo as when using the right hand	v	Able to do well, left hand is not as good as right hand
Create a drawing according to the instructions	v	Able to do well	v	Able to do well
Form or fold the image	v	Able to do well	v	Able to do well
Aspect of Psychology				
Focus in implementing the activity	v	Able to do well	v	Able to do well
Receiving instruction well	v	Able to do well after asking	v	Able to do well
Have a strong will	v	Able to do well	v	Able to have a strong will
Aspect of Social Function				
Have an honest attititude	v	Able to do well	v	Able to do well
Have a discipline attititude	v	Able to do well	v	Able to do well
Have a caring attititude	v	Able to do well	v	Able to do well
Have a responsibility	v	Able to do well	v	Able to do well
Convenience Aspect	v	Able to do well	v	Able to do well
Cooperative	v	Able to do well	v	Able to do well as instructed

From the results of the assessment, data was obtained that these students already had the functional ability to carry out the stages of the vocational learning program, namely food management and marriage delivery. Based on the interview results obtained overall data students have an interest in the types of vocational

program skills that exist. The development of this program is carried out by schools to optimize the implementation of vocational learning carried out by schools. Furthermore, in this second stage, mapping is carried out from the planning stage to program evaluation. The draft planning of the program then goes through a semi-stage conducted by the teachers with the course instructors in this case for food and wedding delivery. The final results of the mapping after going through the revision of the seminar and workshop results are described in the following chart:

Table 7. Indicator of mindmapping success stage in vocational skills program development.

Indicator of Success	School A (Culinary Arts)	School B (Culinary Arts)	School C (Culinary Arts and Hantaran)
Observation of the type of vocational skills program	Students have potential to make the various kinds of pastries and salted eggs with consideration of the steps for making them according to their abilities	Notice the potentials in life skills development of culinary arts in school environment Support system of potential interests and talents of students in culinary arts skill in making simple pastries	Notice the potentials in life skills development of culinary arts and simple hantaran in school environment Support system of students' potentials interests and talents in culinary arts vocational of making simple pastries and hantaran
Determination of learning outcomes	The students be able to prepare tools and materials The students be able to mention the tools and materials of pastries and salted eggs The students be able to follow the steps of making pastries and salted eggs	The students be able to mention the tools and materials in making pastries The students be able to prepare the tools and materials for making pastries The students be able to follow the learning steps of making pastries as taught	The students mention the tools and materials needed in making simple pastries and hantaran The students bring the tools and materials for making simple pastries and hantaran
Involve the students in planning the implementation of vocational program	The teacher assesses the experience of students in making pastries and salted eggs	Identification of the materials in making pastries and salted eggs program Identification of the kitchen set program	Identification of the materials in making pastries program Identification of the kitchen set program Identification of the materials and support tools in making simple hantaran program

Creating program materials based on processes in the real life	Making pastries when there is a holiday celebration because everyone needs it and continuously making of salted eggs Presented in the form of video tutorial	Collection of tools and materials and students assignment The learning steps are outlined in the video tutorial	Collection of tools and materials and students assignment The learning steps are outlined in the video tutorial
Project-based vocational skills program	Students practice how to make pastries and salted eggs which are monitored by teacher and in collaboration with parents	Pastries product sales program to school stake holders	Sales program of skills result to school's stake holders Sales program of skills result to school stake holders and parents of students with a pre order system
Integrate vocational skills programs into school community	The school committee helps in providing tools and materials	Baking program and marketing the results through the committee and continues to the community	Baking and hantaran programs (bouquet) and marketing results of vocational skills that are marketed in the community around the school
Real world reinforcement in the planning and implementation of vocational skills program	Cooperation program with home-based pastries entrepreneurs to observe the work process and marketing of produce to stalls, shops and supermakets	Students' introuction assignment program in a pastries factory around the school Giving assignments in the form of observation reports	Student observation assignment pogram in the pastries and hantaran craftsmen around the school Giving assignments in the fom of: preparation of pastries making and hantaran to marketing

The step of developing this program is an effort to optimize the implementation of learning by taking into account the abilities of students with mental disabilities. Learning steps, selection of types of vocational skills, learning outcomes and also the evaluation process certainly consider students' abilities. Students with mental disabilities in general have difficulty in understanding the instructions that are abstract, therefore the program material is made in the form of an analysis of tasks. Task analysis has an important role so that the practical steps of learning can be better understood by students with mental disabilities (Khoeriah et al., 2021). The use of tutorial media is also intended to make it easier for students to understand the learning steps and the use of this tutorial video has been seen as effective in learning vocational skills for students with mental

disabilities (Anggana & Sudarto, 2021). In the development of the program, parents and the school community, namely through committees, are involved in both the learning and marketing practice processes. Parental factors can be the main support in achieving learning effectiveness (Ratnawulan et al., 2021)

The next step in this stage 2 research is the implementation of the program. The results of the program implementation are described in the following table:

Tabel 8. Result of Implementation Programs

	Attendance	Implementation of Work Practice	Presentation of Work Results
School A	100%	Preparing tools and materials independently	Mentioning the tools and materials independently
		Following step by step the making of cake independently	Explaining the steps of making cake independently and by the help of teacher
School B	100%	Preparing tools and materials independently	Mentioning the tools and materials independently
		Following step by step the making of cake independently	Explaining the steps of making cake independently and by the help of teacher
School C	100%	Preparing tools and materials independently	Mentioning the tools and materials independently
		Following step by step the making of cake independently	Explaining the steps of making cake independently and by the help of teacher

From the results of the implementation of the program, data can be obtained that the vocational skills program that has been developed can be implemented properly. The implementation of vocational skills programs in these three Special Needs schools can be carried out well with the cooperation of teachers, parents and the school community. Through this collaboration, programs and methods can be designed that suit the needs of mental disabilities students (Pristiwaluyo, 2017). The implementation of vocational skills education programs requires the involvement of stakeholders, be it teachers, parents, communities and the world of work.

Conclusion

The implementation of vocational skills programs that have been carried out by schools so far has been carried out but has not been optimal in its development both in that it has not assessed student abilities, student interests and there are no evaluation indicators to measure its implementation. For the availability of facilities and teaching staff are available and sufficient. Therefore, the development of vocational skills programs carried out by researchers follows the planning stages starting from the analysis of needs by assessing students' abilities and talents of interest and then planning and development by designing indicators of success in program planning which include aspects of: 1) observation of the types of vocational skills programs; 2) setting standards for learning outcomes; 3) involving students in planning the implementation of vocational programs; 4) making materials process-based programs in the real world; 5) project-based vocational skills programs; 6) integrating vocational skills programs into school communities; 7) real-world strengthening in the planning and implementation of vocational skills programs. Some important things in the implementation of the program that have been implemented are: 1) students with mental disabilities can carry out vocational skills learning with program materials that are adjusted in aspects of content and learning methods; 2) material adjustments in the form of task analysis; 3) the use of video tutorials as an attractive visual medium so that learning steps can be understood more clearly ; 4) schools collaborate with parents and school committees both in the learning process and marketing the results or products of vocational skills learning. The development of vocational skills programs that are carried out on an ongoing basis is an educational service needed by mental disabilities students to support their potential in order to have the necessary life skills in social life.

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