

# Vocational Education for Autism Spectrum Disorder Students towards the Market Employment

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**Abstract---** *Autism is the disability of complex childhood development that is usually realized within the first three years of neurological disorders that affect the functioning of the brain. Autism problems occur without the exception of ethnicity, the level of family income, lifestyle, and education level. The case study attempts to explore the knowledge and skills provided by private institutions to Autism Spectrum Disorder (ASD) students before they enter the job market. Five teachers at private institutions of vocational education were interviewed using a set of interview protocols. The interviewed teacher has over five years of teaching experience of ASD students. The interview data obtained was transcribed in verbatim form. Keywords or phrases have been extracted, grouped, and translated in the form of a theme. The themes are the basic skills, job-related skills and personal qualities. The findings show that teachers have applied the ability to work (marketability) to ASD students. This study has implications for the provision of appropriate workability capability based on the strengths and abilities of ASD students.*

**Keywords---** *Autism Spectrum Disorder, Vocational Education, Workability.*

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## I. INTRODUCTION

Autism is a developmental disorder that has a severe impact on one's ability to communicate and interact with its surroundings (1). By using DSM-5, ASD patients can be diagnosed in four different disorders namely autistic, Asperger, childhood disintegrative disorder, or pervasive developmental disorder. Despite having disabilities in learning disabilities, these ASD groups also have certain desires and abilities to work. According to Center for Disease Control (CDC) in the United States, autism incidents occur in one of 68 children (2). This means that an estimated 9000 Malaysian children are born with ASD every year. In one to three years, a confirmed child with ASD will seek an intervention program, even increasing every year. This will provide a challenge to education in meeting the needs of the autism children.

### 1.1 Symptom of ASD

According to the National Institute of Mental Health, autism is a developmental disorder that affects communication and behavior. It is also categorized as a psychiatric illness by the Diagnostic & Statistical Manual of Mental Disorders (DSM - 5), also known as Autism Spectrum Disorder (ASD).

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Among the symptoms of autism is such as difficulty communicating and socializing, exhibiting aggressive and hyperactive behaviors, experiencing problems processing sensory stimuli, difficult to control emotions, repetitive behaviors and conversations, does not show interest in friendship and play with other children, restraints of interest, unreasonable tantrums, too sensitive to something and do not show eye contact (3)

Autism can be detected in the early stages of the development of children between 12 months up to 3 years. It can happen to all ethnic or economic backgrounds. However, boys are more likely to experience it 4 times than girls as reported by CDC in 2018. Every autistic individual has varying degrees of condition and autism spectrum with each other. Hence, there are significant differences in the intellectual, cognitive, emotional, social and behavioral aspects of autism. Although autism can be a lifelong disorder, with early diagnosis and medical and rehabilitation treatment can quickly improve the symptoms and capabilities of the sufferer to function more optimally in everyday life (3)

### ***1.2 Vocational Education for ASD Students***

Vocational education should be set up to provide practical and meaningful experiences to problematic special students especially to ASD students. The main objective of vocational education is to make effective consolidation of special problem students to work environment. To achieve this dream, the teaching of special career skills and basic academic skills is essential. Most importantly, the skills learned are needed in real-world employment (4).

Vocational education covers all aspects of employment, including theories and technical skills. Vocational education, also known as Life Centered Career Education is especially beneficial as its teaching approach is based on three areas of curriculum; namely daily life skills, personal social skills, and guidance or preparation for a career nature (4). The aim and objectives of vocational education are also to maximize the ability of special students, especially ASD students in conducting independent living among local communities.

Besides that, employment needs for ASD groups are the same as other normal people's needs. However, since these groups have their own disability and uniqueness, they have not received the due diligence from some of the parties in terms of employment. Acceptance of this group is still low. In general, there are some problems and challenges that are faced by the various parties involved in the education process to the career nature. In Malaysia, special-purpose students are placed in the special education section unless students with physical disabilities and no mental problems are placed in the mainstream school with other typical students (5). But it is difficult for researchers to find out how many ASD students are placed in government schools of special education division. Therefore, researchers choose some private institutions that focus on ASD students in vocational education in Malaysia. There are several private institutions offering vocational education to ASD students such as The National Autism Society of Malaysia (NASOM), Center for Comprehensive Cognitive-Occupational Therapeutic (CENCOT) and Autism Link.

As ASD students can also be an important asset to the country and can contribute to economic development, some private parties have provided vocational education programs to them. Vocational education programs provide opportunities for students with special needs to acquire knowledge and skills-related training (6). In addition, vocational education is a basic training of work that is in line with their shortcomings.

The vocational education and training is one of the efforts to develop ASD students' capabilities in the workforce. Through vocational education, the students acquire the skills that enable them to get a job (7). Preparations into the workplace require the acquisition of knowledge and skills that can meet the needs of employers (5).

However, some ASD students do not master the skills such as communication, cognitive thinking, behavioral skills, group work, interpersonal, time management, self-management, unsure, follow-up, personality management and social integration (8,9). These skills are the skills needed to get someone to work. Most employers require employees who master the various skills of workability (8). However, what happens during the preparation of students in educational institutions is that students cannot master the essential skills of the worker according to the employer's needs (10). Therefore, an exploratory study is conducted on the workability skills applied by teachers to special needs students.

## **II. METHODOLOGY / MATERIALS**

This study uses a qualitative approach where collection and analysis involves non-numerical data. Research methods are based on interviews and transcriptions in understanding specific issues. This approach can allow researchers to collect large amounts of data in depth and it cannot be done through quantitative methods such as questionnaires, especially this study is an exploratory study. After all, interviewing techniques can produce detailed data and give context combinations in understanding the phenomena of a study.

Semi structured interviews have been set up to collect the required data. This design provides an opportunity for researchers to obtain information related to teacher experience in the provision of vocational education for ASD students. An interview protocol was used as a guide during interview sessions and follow-up questions were built based on feedback from the study participants. This flexibility has provided space for researchers to obtain unexpected significant information. Keywords or phrases have been extracted, grouped, and translated in the form of a theme. The reviewer confirmed the data that has been analyzed for reliability and validity. Researchers have also allowed the study participants to give their views during the data interpretation process to increase legitimacy and reduce bias.

The study participants were teachers with more than five years of experience teaching ASD students at a private vocational education institution in Kuala Lumpur, Malaysia. They were randomly selected based on the criteria needed by the researcher.

The researcher has obtained permission from the private institution before the data collection. The permission letter was distributed and signed by all study participants to state their consent to participate in the study. They are also informed that all interviewing activities will be recorded using a voice recorder as evidence in addition to facilitating the transcription process.

A face-to-face interview was conducted against all study participants. The researcher started the interview session by explaining the purpose of the study and followed by general questions related to the background of the study participants. The duration of the interview session is between 45 minutes to two hours.

An appointment is made with all study participants prior to the interview session. An interview session is conducted during leisure time study participants to avoid interruption to their teaching and learning process.

### III. RESULTS AND DISCUSSION

The participants were 5 teachers and all were female teachers. Only one Indian teacher while another is Malay. All of these teachers have a vocational education background. The profile of the study participants can be summarized in Table 1.

Table 1: Participant Profile Review

Study Participants (SP)	Nation	Teaching Experience (years)
SP 1	Malay	26
SP 2	Indian	7
SP 3	Malay	9
SP 4	Malay	8
SP 5	Malay	15

The findings provide in-depth information on the workability skills applied by teachers to ASD students. Table 2 shows the themes of workability skills arising from teacher interview data. 15 sub themes are evident in data analysis conducted by researchers.

Table 2: Themes and Sub-Themes for Workplace Skills Applied by Teachers

Themes	Sub-Themes	Quotation of the selected statement
<b>Basic skills</b>	Reading	<ul style="list-style-type: none"> <li>Students need to calculate the coin. So that time, students need to know how much the value of the coin is. Students should divide, multiply, add and subtract with the coin (SP1)</li> <li>Often I will correct the verse. For example "... was asked by a teacher," I replied, "you did not ask but you told me." Ask and tell differently. Ask for more information than people ... (SP5).</li> </ul>
	Writing	
	Calculation	
	Communication	
<b>Job-related skills</b>	Vocational skills	<ul style="list-style-type: none"> <li>Packing kfc, bakery and laundry according to schedule and they will be taught until proficient. (SP 3)</li> </ul>
	Ethics at work	
	Security	
	Find information	
	Cognitive	
	Thinking skills	
<b>Personal qualities</b>	Brave	<ul style="list-style-type: none"> <li>At the beginning, they do not know how to respect teachers, when they see teachers what are they supposed to say. When they want to go to the toilet, what should they do? So here, we train them. If you meet a teacher, you must say Assalamualaikum or good morning. If they had not been reminded, here they knew. See us, they always say Assalamualaikum and for non-Muslims they will say good morning..... (SP4)</li> </ul>
	Discipline	
	Punctual	
	Respect	
	Cleanliness	
	Self confidence	

#### IV. CONCLUSION

Vocational education is an organized educational and training program to produce a workforce that can equip ASD students with the skills required by the employers. Studies show that individuals with this ASD have talent and can contribute to productivity (11). In fact, these individuals can also contribute to national development and become taxpayers if job opportunities are given to them (8). Most ASD individuals can also perform as well as be productive as other typical employees if given the opportunity (7,12). Hence, job opportunities need to be given to ASD students so that their abilities and capabilities can be highlighted as a result of the received education.

Investing on special education students with special needs, especially ASD students, is a capital to human development which is an asset to the nation's economic development. The government expects the provision of vocational education to students especially to ASD students will enable them to penetrate the job market (7). However, the skills of this ASD student acquired while in vocational education do not necessarily meet the needs of the employer. Therefore, the employer's need for employees with ASD needs to be considered in order to meet their expectations. By understanding the employer's needs, it can create a competency of worker skills applied by the teacher with the skills required by the employer.

In addition, the government and the private sector should also emphasize vocational education especially for ASD students so that they can be given the same educational opportunities as other normal students. As a result, governments and non-governmental organizations need to increase vocational education institutions especially for autism groups so that these groups are not left out of the mainstream of education. At the same time, teacher training for teachers also needs to be expanded where teaching programs for ASD students need to be expanded so that teachers can diversify their teaching methods for those ASD students. This is because teaching practice for teachers for normal students is very different than ASD students.

Finally, the awareness of ASD students' needs to be adopted by all groups of people so that they can give these ASD people the opportunity to live their lives just like any normal human being and to assure ASD that they are not marginalized by society.

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