

# A Conceptual Paper: Career Self-Efficacy as The Role of Career Transition Programme for Students on the Autism Spectrum in Malaysia

Mohd Syazwan Zainal

School of Education Studies, Universiti Sains Malaysia, 11800, Pulau Pinang, Malaysia,

Faculty of Education, Universiti Kebangsaan Malaysia, 43600, Selangor, Malaysia

Corresponding Author Email: syazwanzainal@student.usm.my

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## Abstract

The autism spectrum is a lifelong disability. Despite the condition, young adults with autism spectrum disorder are those with good intellectual ability who are enrolled in university. However, the transition to work remains challenging for many of them. They face various issues, from the aspect of preparation to their career, as well as the challenges of being on the job. However, support for the transition to work at the university is sparse, and still less attention is given to it. One perspective that we sought to put forward in this paper is the importance of improving career self-efficacy among students on the autism spectrum in universities. Career self-efficacy is defined as an individual's confidence in managing and performing cognitive, behavioural, and social skills to accomplish the desired career goal. Career self-efficacy is seen as a critical component in easing their transition to work. By paying attention to improving individual career self-efficacy, it is seen as being able to improve the job landscape among students. It is further reinforced that sources of career self-efficacy are also important components of improving career self-efficacy. This conceptual paper also discusses the employment issues faced, how Malaysia can move forward, and how career self-efficacy is seen as an important component in preparing autistic students for the job market.

**Keywords:** Students on the Autism Spectrum, Higher Education, Career Transition, Career Self-Efficacy

## Introduction

Pursuing study at the university is part of the milestone that young adults want to achieve (Kee et al., 2020). Besides that, improving the level of education is seen as an option to ensure a good quality of life and opportunities for earning a good income (Alcañiz & Solé-Auró, 2018; Lei et al., 2020). Therefore, the university's role is seen as significant in providing graduates who are competent, innovative, and meet the job market's needs. In discussing the preparation of youths for adulthood, higher education institution in Malaysia aims to meet the country's demands to produce skilled and qualified human capital. These demands require a competent and globally competitive workforce that is still in line with the local

community's culture. The history of the development of higher education in Malaysia it is started when the University of Malaya operated in Kuala Lumpur in 1949, which triggered *Dasar Pendidikan Kebangsaan*. It is supported by the national agenda where *Rancangan Malaysia Pertama (RMK-1)* clearly shows the emphasis on higher education is increasingly progressive in terms of quantity and quality.

Based on *Rancangan Malaysia Kesembilan (RMK-9)* until *Rancangan Malaysia Kesebelas (RMK-11)*, the role of higher education in Malaysia is to achieve a developed nation by 2020 as the country needing a workforce with knowledgeable and innovative higher education skills, having high technical and professional skills and a high level of productivity (Jabatan Perdana Menteri, 2021). This effort is expected to continue through *Rancangan Malaysia Kedua-belas (RMK-12)* to prioritize employment for citizens with a planned strategy in which by improving and expanding career guidance services at every level as well as increasing employment opportunities to specific target groups including women, youth, people with disabilities, the elderly, and others.

In addition, the importance of higher education in producing knowledgeable and competent graduates in the 21st century continues to be strengthened through *Pelan Induk Pendidikan Tinggi 2015 – 2025* (Kementerian Pengajian Tinggi Malaysia, 2015) in line with *Pelan Pembangunan Pendidikan Malaysia 2013 – 2025* (Kementerian Pendidikan Malaysia, 2013). The transformation of education based on higher basic thinking that has been applied at the level of basic education to higher education can ensure Malaysia to achieve the transformation of the country. In this context, the university's role in providing graduates who are competent, innovative and meet the needs of the job market are important to ensure that graduates have the skills and knowledge of the job market. This role and responsibility are placed on 20 public universities in Malaysia, which accommodate 567,625 undergrad students in 2019. Some of these statistics are also students with disabilities. This is because the *Dasar Inklusif Orang Kurang Upaya 2019* that was introduced aims to give special access to students with disabilities enrolled in higher education institutions in Malaysia. The guidelines developed also intended to guide higher education institutions to formulate an action plan for implementing the *Dasar Inklusif Orang Kurang Upaya 2019* systematically and comprehensively.

In 2019, the statistics showed 1234 students with disabilities at our public universities (Kementerian Pengajian Tinggi, 2019). This number shows that only 0.35% of the population are students with disabilities as compared to the total population of undergraduate students in public universities. It further reflects the low admission number of students with disabilities. However, there is no accurate data to represent the autistic students at our local universities based on many reasons (Hoekstra et al., 2007; Palmer et al., 2015; Robinson et al., 2011, 2016) but based on current trends and developments in the world, there is an increasing rate of students with ASD going to university. A study in the United States (US) estimates that almost 2% of university students have ASD (White et al., 2011). However, this rate is expected to increase in anticipation of the 45% of children and adolescents with ASD who will continue their studies at university (Jackson, Hart, & Volkmar, 2018). It is supported by current trends that show many studies on students with ASD looking at their development in university (Cai & Richdale, 2016; Gurbuz et al., 2018; Vincent et al., 2022; Vincent & Fabri, 2022).

**Transition to Adulthood: Career Transition**

Autism Spectrum Disorder (ASD) is defined as conditions characterized by challenges with social skills, repetitive behaviours, speech, and nonverbal communication (Autism Speaks, 2020). ASD is also associated with neurodevelopmental and psychiatric conditions physical health alterations (Cashin et al., 2016). Besides that, ASD is characterized by two key indicators; i) challenges with social communication and ii) restricted, repetitive patterns of behaviour (APA, 2013). This is seen as having an impact on autistic students, especially in the process of transitioning to adulthood. This is because transition and future planning can be complicated for individuals on the autism spectrum. They need to cope with independent living and new routines (Heijst & Geurts, 2015; Jackson, Hart, Brown, et al., 2018; Vincent et al., 2017). This is because during the transitional phase, young adults are gradually acquiring the skills and experience to take over the roles and responsibilities of adulthood (Arnett, 2016). Coping with independent living and new routines while adapting can also feed into difficulties for autistic students (Heijst & Geurts, 2015; Jackson, Hart, Brown, et al., 2018; Vincent et al., 2017).

Therefore, continuing studies at the university is an option because university qualifications have been associated with a better quality of life for adults on the autism spectrum (Baldwin et al., 2014; Baldwin et al., 2014). Besides that, it is supported by studies stating that after-school education can provide good financial security for people on the spectrum (Lei et al., 2020). With the qualifications they get after continuing their studies, there is no doubt that autistic students want to get a job. However, the transition to a career is a crucial phase for young adults with ASD (Wehman et al., 2014). This is proven by findings indicating that transitioning out of higher education is challenging on both practical and psychological levels, manifested by feelings of anxiety and loss (Vincent, 2019). This is because studies have found that it is daunting for young adults with ASD not to know or grasp what their future will be like, and this causes them to become anxious about what the world of work is like (Griffiths et al., 2016).

Indeed, we will not let the effort and time spent by the student with ASD in the university to go in vain. Many students on the autism spectrum report strengths, including a strong memory, good technical skills, and passion for the subject they are studying (Gurbuz et al., 2018). Besides that, employers identified several benefits to hiring people with ASD, including unique individual skills and broader workplace benefits (Albright et al., 2020). Moreover, employers also identified individuals with ASD's preference for routine/repetitive work tasks and attention to detail, both highly valued and difficult to find in employees (Albright et al., 2020). Employees on the autism spectrum also demonstrate evident abilities and a high motivation to work (Waisman-Nitzan et al., 2019). The advantages they possess should not be underestimated and they are seen to be able to be part of the contributors to the development of the country.

By making sure this group is successful in the working world, it will also promote the quality of life. Studies showed that individuals on the autism spectrum have a lower quality of life than their peers (Heijst & Geurts, 2015; Sosnowy et al., 2019). It can have a more detrimental effect on them. As a result, individuals on the autism spectrum can experience high social isolation, loneliness, bullying, and stigmatization compared to their peers (Gelbar et al., 2014; Madriaga et al., 2010). In addition, this effect does not only affect themselves but also to their families and people around them.

**Career Issues for Autistic Students**

However, the workplace presents challenges to those with autism. Due to the difficulty of future planning for those with ASD, autistic people frequently struggle to find competitive employment (Kirby et al., 2016) (Kirby et al., 2016). In addition, since they finished their education, young adults with ASD have a particularly high unemployment rate (Barneveld et al., 2014; Roux et al., 2013). According to a study, autistic young adults took an average of 14 months to find a job and were the least likely to be looking for work or to have done so on their own (Wei et al., 2018). In fact, research indicates that graduates with ASD have a lower marketability rate than graduates with other types of disabilities (Hedley et al., 2017; Jackson, Hart, & Volkmar, 2018)

Discussing the difficulties in entering the job market, existing employees with ASD face their own challenges. Employees with ASD will likely show deficits in time management, organization, communication, self-determination, and flexibility (White et al., 2016). Thus, social and behavioral factors have shown that employees with ASD have issues at work (Chiang et al., 2013; Flower et al., 2019; Lorenz et al., 2016; Solomon, 2020), which ultimately contributes to the job loss factor (Baldwin et al., 2014; Chen et al., 2015). When employed, people on the autism spectrum tend to be underemployed or working in positions under their formal education level and below their skill level (Hedley et al., 2017; Shattuck et al., 2012).

It proves that entering the job market is a big challenge for many adults with ASD (Hedley et al., 2017; Scott et al., 2018). Completing higher education did not serve as a direct stepping stone for many students with ASD, as participation in competitive part/full-time employment is relatively poor. This issue can also be attributed to the aspect of career self-efficacy. Career self-efficacy plays a massive role in an individual's career planning/transition. Career self-efficacy is the confidence of individuals in their ability to make career decisions including self-knowledge, career information, selection aim, planning and problem-solving (Mahmud et al., 2019). Studies prove that it is important to assess an individual's career self-efficacy because career self-efficacy is an important component in determining a person's career direction (Chan, 2020).

Besides that, self-efficacy is a motivational concept related to self-confidence and individual goals (Pearlman-Avni & Aloni, 2016). Past studies indicated that young adults with ASD have a low level of self-efficacy in their ability to work (Lorenz et al., 2016). However, gaps in self-efficacy in career readiness are still prominent (Westbrook et al., 2013), and these gaps have caused issues in the transition from higher education to work and, more generally, adulthood life. With that, career self-efficacy is seen as one thing that needs to be seen in ensuring ASD students are ready for the job market.

**The concept of career self-efficacy as part of career transition**

One of the main tenets of Albert Bandura's social cognitive theory is self-efficacy (Bandura, 1977). The ability to successfully carry out a behaviour required to produce an outcome is known as self-efficacy. The higher one's level of self-efficacy, the more one believes one can carry out the behaviour required to produce a specific outcome (Bandura, 1977). Additionally, self-efficacy is defined as a person's assessment of their capacity for action and supports the significance of a determinant for behavioural performance (Bandura, 1994).

Self-efficacy is further developed and discussed in career through social cognitive career theory by (Lent et al., 1994). Career self-efficacy is defined as an individual's confidence in managing and performing cognitive, behavioural, and social skills to accomplish the desired career goal. Career self-efficacy has been seen to play an essential role throughout the

process of making career decisions (Komarraju et al., 2014; Sidiropoulou-Dimakakou et al., 2012). Individuals with a low level of career self-efficacy are more vulnerable to the development of dysfunctional career thoughts. Additionally, they are unconfident in making career decisions and would avoid involving themselves in any career-related activity (Andrews et al., 2014). A sense of low self-efficacy reduces the chances of successful employment. In contrast, individuals with a high level of career self-efficacy are more likely to explore careers easily and efficiently resolve career tasks. As a result, they will be responsible for their decisions and involved in a variety of career programmes and training activities to prepare themselves for the world of work (Andrews et al., 2014; Sidiropoulou-Dimakakou et al., 2012). Five domains (as in Figure 1) measure a person's career self-efficacy (Mahmud et al., 2020); i) Self-appraisal (an individual's ability to identify and evaluate self -strengths includes tendencies of interests, talents, abilities and self-worth), ii) occupational information (the ability and confidence of an individual to have career-related information including job type, job description, salary and incentives, as well as future career advancement opportunities), iii) goal selection (the ability and confidence of an individual to match self -potential with job-related information appropriate to self.), iv) planning (the ability and confidence of individuals in making plans related to education and career by taking into account the factors of self -interest, parental influence and work environment), and v) problem-solving (the ability and confidence of an individual to have career-related problem-solving skills).

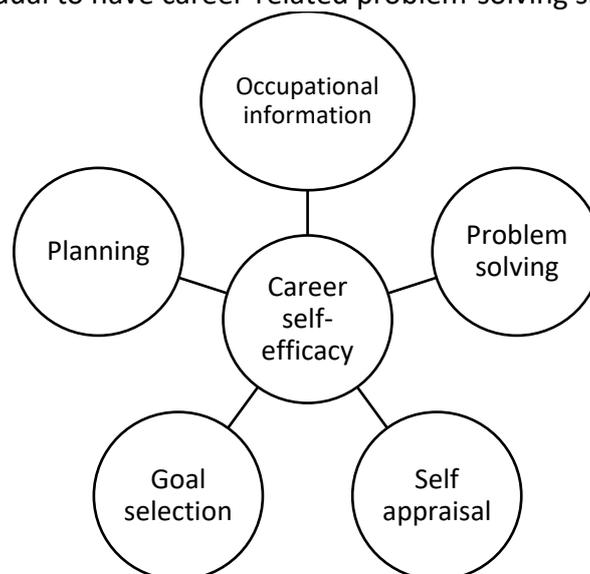


Figure 1. Concept of career self-efficacy

It leads to the need for intervention to improve individual career self-efficacy, especially among students. It is evidenced that some studies on students at university found students' career self-efficacy increased after joining the career intervention (Fouad et al., 2009; Lam & Santos, 2018). A study in Malaysia also conducted by Mahmud et. al. found that students' career self-efficacy was seen to increase after attending courses related to career preparation (Xiong, et al., 2020). In addition, findings suggest that program participation is linked to career self-efficacy, and program participants report significantly higher levels of confidence in their major and career path. A qualitative study indicates that major and career support from college transition program staff and being connected to an ecology of major and career-related activities contributed to the development of program participants' career self-efficacy (Kezar et al., 2020).

### Roles of Sources of career-self-efficacy

Consistent with Bandura's theory, the career self-efficacy model postulates four primary sources of career self-efficacy (as in Figure 2): (a) personal experience (e.g., succeeding in an internship in one's field); (b) vicarious learning (e.g., exposure to successful peer role models); (c) physiological or psychological states (e.g., stress experienced making career-related decisions); and (d) verbal persuasion (e.g., encouragement). These efficacy information sources are significant because they form the theoretical foundation of the design of counseling interventions, which can increase and strengthen self-efficacy perception.

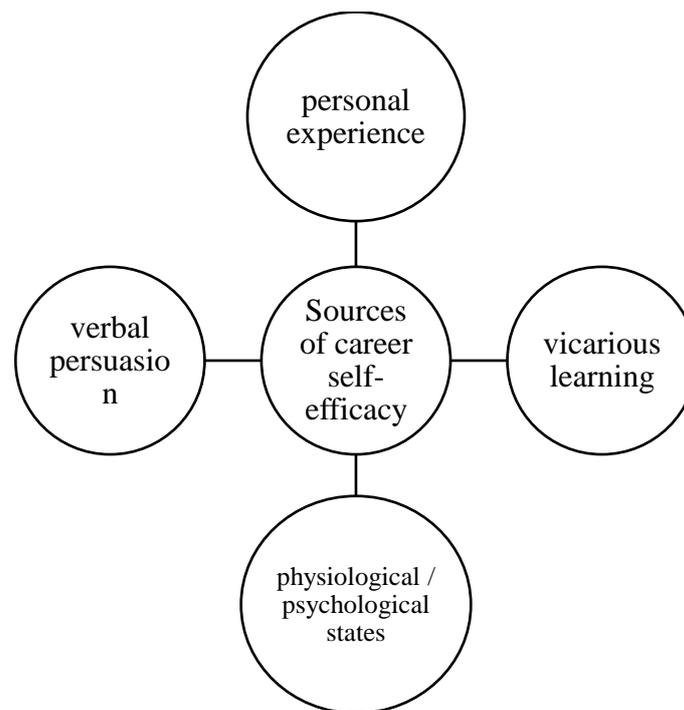


Figure 2. Concept of sources career self-efficacy

The first source, also known as active mastery experiences or personal experiences, has the biggest influence on self-efficacy beliefs because it entails interpreting prior experiences. This source offers accurate information about a person's behaviour and predicts their chances of success in a specific endeavour (Bandura et al., 2001). Early failure or failure that provides little or no insight into the effort itself tends to undermine self-efficacy beliefs, whereas success situations tend to reinforce them. New experiences are given to a person in "doses" and integrated into his or her pre-existing beliefs in accordance with their pre-existing perceptions.

The second source, also known as "vicarious experiences" or "vicarious learning," entails both watching others do a task and evaluating one's own abilities based on comparisons with others who are perceived to be similar. This source of information can be helpful when people are unsure of their skills or lack prior experience in a particular field, though it is typically less effective than the first one. One's perception of one's own self-efficacy can be improved or diminished by witnessing others succeed or fail at a task (Bandura et al., 2001).

The verbal opinions of other people that are communicated in the form of supportive or critical feedback and can either strengthen or weaken one's self-efficacy belief are considered the third information source, also referred to as verbal persuasion. The value of this source is constrained if there is little chance of the person completing the task successfully. However,

if the person gets encouraging feedback, they may work harder to complete the necessary action. When people think there is a chance that their behaviour will result in the desired outcome, verbal persuasion has a greater effect on the development of self-efficacy beliefs (Bandura et al., 2001).

The fourth and final source of self-efficacy data is how individuals interpret their physiological and emotional states, such as stress, anxiety, and mood. When performing a task, people can learn some information about their self-efficacy by assessing their emotional and physical state. Their physical and emotional responses serve as a gauge of the activity's success or failure. An individual's perceived self-efficacy can be decreased by anxiety, fear, and negative self-talk, which can lead to stress and subpar performance. Promote emotional well-being and lessen negative emotional states in order to increase one's perceived self-efficacy (Bandura et al., 2001).

The sources of self-efficacy can work separately or simultaneously, so people can assess their performance while also observing how others behave, receiving feedback on how they performed, and assessing their physical and emotional well-being. People also assess their prior experiences and the effort they put into a task. Since the sources interact with one another, each source can have a greater or lesser impact on the formation of beliefs depending on its strength. According to the culture the person is a part of and the field in which it is being used, the information provided by the sources for the development of self-efficacy beliefs can come from the most diverse environments in which the person may find himself (Ahn et al., 2017).

As aforementioned, the self-efficacy construct must be applied within specific performance contexts; for example, it can be studied within the career-counselling context. Within the context of studies focusing on careers, the Social Cognitive Career Theory which was proposed by Lent et al. (1994), has stood out.

### **Future Direction and Conclusion**

Employment is essential in ensuring autistic person improve well-being, quality of life, and social relationships (Flower et al., 2019; Roux et al., 2013; Walsh et al., 2014). With the increased number of autistic students enrolled in university (Ames et al., 2016; Ward & Webster, 2018), improving employment marketability for these groups of students in providing career transition programs to them should be the main agenda for universities. This is because the study found the majority of adults on the spectrum remain in their parents' homes during adulthood (Farley et al., 2018). Therefore, in facing the real world of work, students with ASD need a career transition planning (Jetha et al., 2019; Wehman et al., 2018). Much research addresses how transition services can be optimally designed and delivered to meet the needs autistic students in university (Bennett et al., 2018; Hotez et al., 2018).

Malaysia already has various policies to celebrate students with disabilities. However, the main point highlighted in this paper is how universities need to detect autistic students and provide appropriate support, especially in relation to career preparation. Efforts need to be increased by involving all the stakeholders in the university. The programme designed must be appropriate to the issues and problems faced by them since each autistic student is unique. Besides that, the university needs relevant and current knowledge of the attitudes of employers so that can prepare autistic students for workforce expectations.

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