

# Career Decision Self-Efficacy as a Mediator to Bridging the Effect of Social Support on Career Adaptability (Study in Individuals With Special Needs)

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**Abstract:** The present study examines the mediation effect of career decision self-efficacy on bridging the association between social support and career adaptability in individuals with special needs. Measurements of career adaptability, career decision self-efficacy and social support were by conducted using the Career Adapt-Abilities Scale (CAAS) [4], Career Decision-Making Self-Efficacy–Short Form (CDSE-SF) [21] and the verbal persuasion and vicarious experience dimensions of the Career Exploration and Decision Learning Experience (CEDLE) scales [6]. The study involved 210 individuals with special needs including visual impairment, hearing impairment and physical disability. Statistical analysis was performed via a multiple regression with mediation role tests analyzed using the PROCESS macro developed by Hayes [35]. The results demonstrated that career decision self-efficacy successfully mediate the relationship between social support from family, friends, and teachers in developing career adaptability. The study concludes that family, friends, and teachers have a significant role in developing the confidence of individuals with special needs to determine which career path they will take. This also influences their ability to adapt to changes in the working environment.

**Keywords:** Religious, Stress management, Young Muslims, Indonesia

## 1 Introduction

Indonesian Government Regulation no. 72, 1991, states that the main goal of education for students with disabilities is to assist individuals with special needs to achieve optimal development so that they can fully participate in society. Through this Government Regulation, individuals with special needs are allowed to obtain proper education to prepare them for participation in society. However, in practice, individuals with special needs have not taken full advantage of this opportunity [1].

During the selection of Civil Servant Candidates (CPNS) in 2016, the government provided positions for individuals with special needs who were interested in working as civil servants. The two percent quota for individuals with special needs was provided by all agencies. However, not all administrative requirements could be met by applicants with disabilities. Some requirements that were often not fulfilled were high school diploma and higher education

degree requirements [2]. This happened because individuals with special needs often do not finish high school and their education is not complete. They often think that formal education will not be beneficial to them in the future (Sumiyati, personal communication, 30 March 2017). A teacher who teaches at special schools for individuals with hearing impairments stated that individuals with special needs who do not complete their secondary education remain employable and can earn income. This leads students into thinking that they will get a job even if they did not complete a formal education.

[3] discovered a unique phenomenon that occurs in individuals with visual impairment which is that they tend to have problems in decision making about pursuing higher education. They do not seek information about departments or courses. They tend to take majors although they have no interest in them because they doubt that they will get a job if they chose other areas. Some of them do not finish their studies because their subjects do not suit their interests. This suggests that a lack of information seeking and planning a career can lead to difficulties in adapting to the changes that occur while fulfilling a career development task [4].

[5] found that one's ability to fulfil career development tasks and adapt to any changes that occur in the environment is influenced by proactive personality traits mediated by career decision self-efficacy. Based on the findings of Huo, Wu and Liu's research, it can be concluded that individuals with highly proactive personalities (actively seeking information and planning before taking action) have high self-efficacy when completing career development tasks. Individuals with higher career decision self-efficacy will be able to assess their desired career path, so that in the future they are equipped to anticipate potential problems that may arise [6]. Another research study found that there is a significant relationship between confidence in career decision making and career expansion with the intention to explore a career [7]. This was found in a group of respondents pursuing a general education without disabilities, and those with learning difficulties. The higher the level of one's career decision self-efficacy, the higher the intention to explore and plan a career. Exploring a desired career path helps one prepare for making informed decisions [6].

However, many individuals with special needs do prepare a plan and search for career-related information. We conducted a survey of career aspirations on 100 individuals with special needs such as visual impairment, hearing impairment and physical disability. A total of 46 respondents stated that they wanted to become entrepreneurs. All respondents with visual impairment (a total of 30 respondents) expressed that they wanted to become entrepreneurs and open a massage practice, while 16 respondents who were hearing impaired and physically disabled wanted to become entrepreneurs in fields such as IT, automotive services, machinery and fashion. In addition, 34 respondents expressed an interest in employment in fields of multimedia, electronics, computers, fashion design, machinery and the civil service. There were 12 respondents who were interested in becoming chefs. These findings show that individuals with hearing impairment and physical disability have more varied information on the field of work they are interested in than individuals with visual impairment. This might occur because the information provided to individuals with visual impairment is limited to occupations such as a

professional massager, while individuals with hearing impairment and physical disability are introduced to various fields of work, such as informatics engineering, mechanical engineering, cooking, governance, textiles, among others. The differences in the provision of information and job skills training for individuals with special needs could lead them to feel like their disabilities are a barrier to achieving their desired career (perceived career barrier) [8].

Social support is needed to help individuals with special needs build the confidence to accomplish tasks [9]. Social support derived from figures such as family members, friends, teachers and community members could help the career development of individuals with sensory and motor impairment [10]. Interaction with friends with experience in a particular field of work can increase the motivation of individual with disabilities to seek information about a particular career path [11].

## **1.1 Career Adaptability**

Adaptability is the ability to cope with the various possible work conditions that might come in participating in the working environment and fulfilling the work role [4]. A person possessing good career adaptability will plan their career, explore their interests and environment, gather information related to the future career field and be able to make career decisions [4]. A lack of progress or the existence of problems in any of the dimensions of career adaptability can cause problems in career development or career selection [12].

Career adaptability develops due to internal factors, e.g., intelligence [13], physical conditions [6], age [14], self-efficacy in performing career decision making [15] and external factors such as support from family, friends and teachers [16]. The social support provided for career adaptability can comprise emotional or informational support [17] which leads one to feel more worthy, confident and valuable [18]. Furthermore, social support can help a person make judgements about their own performance. When individuals receive adequate emotional support, respect and information, they can assess their capabilities which have a significant impact on the development of self-efficacy [9].

## **1.2 Career Decision Self-Efficacy**

Career decision self-efficacy was derived from the theory of self-efficacy proposed by [19]. Self-efficacy is defined as person's beliefs about their ability to accomplish tasks or achieve goals [19]. Self-efficacy works based on specific task or goal related that needs to be achieved [20]. During the process of career decision making, career decision self-efficacy is self-efficacy that pay an important role [21].

Career decision self-efficacy refers to one's inner belief that they can choose the right career for themselves [21]. Career decision self-efficacy is needed to determine which career path is the most appropriate [22]. Someone's career decision self-efficacy is reflected in their ability to conduct self-evaluation, to collect information related to the field of work, to choose goals, plan their achievements and solve problems related to career decision making [21]. A

person with a high career decision self-efficacy will consider different courses or forms of employment and consciously link their current behaviour to future goals [15].

Self-efficacy can be developed in four ways, namely mastery experiences (past successes), vicarious learning (success/failure experience shared by others), verbal persuasion (feedback received upon completion of a task) and physiological state (the physical and emotional response that occurs when performing a task) [19]. [23] then classified these four sources of self-efficacy into two dimensions, namely mastery experiences and affective states as internal source and verbal persuasion along with vicarious experience as external source. [17] found that mastery experiences and physiological states are the most stable predictors of the development of self-efficacy, especially when performing tasks related to career decision making.

### **1.3 Career Adaptability and Career Decision Self-Efficacy In Individuals With Special Needs**

Individuals with and without special needs undergo the same stages of career development and career decision-making processes [24]. However, individuals with special needs interact with the environment differently compared to individuals without disabilities. These different experiences subsequently affect their development [25]. One of the career development processes undertaken by individuals with special needs is a self-assessment of their strengths and weaknesses [24] based on the results of their interaction with their environment (self-concept) [26]. This process varies according to the type of disability they have. Individuals who experience difficulties interacting with their environment are more likely to believe they will face difficulties pursuing their desired career. However, individuals who do not experience difficulty interacting with their environment are more likely to believe that they will be able to pursue their desired career [27].

One of the main career development task facing individuals aged between 15 and 25 years old is gathering information about work options to choose their desired career path [14]. Such information can be obtained by individuals in various ways, for example by asking people who have mastered a particular career or imitating successful peers who are performing the same task [17]

During the self-assessment process, individuals need to research information about the desired job field and educational requirements [28] before determining the fit between themselves and their desired job field [29]. The information needed to assess self-capacity when performing career decision-making tasks is obtained in several ways, including feedback received after successfully performing tasks related to career decision making [17]. Positive feedback from family, teachers and friends provides information that allows individuals to assess their ability to perform similar tasks in the future [9].

Based on the above descriptions of career adaptability, career decision self-efficacy and social support, we conducted a study to investigate the effects of social support on the career adaptability and mediation of career decision self-efficacy of individuals with special needs. This study comprised a

quantitative, cross-sectional research design which investigated the relationships between social supports from family, friend and teacher, career decision self efficacy and career adaptability. Investigations were conducted on individuals with sensory-motor disabilities, such as visual impairment, hearing impairment and a physical disability. We hypothesized that the mediation of career decision self-efficacy has a significant impact on mediating the effect of social support on the career adaptability of individuals with special needs. Furthermore, a deeper understanding of the role of social support and career decision self-efficacy on individuals with special needs' career adaptability will assist schools, support institutions, psychologists, counsellors and teachers to support students with special needs more effectively as they plan their future careers.

## **2 METHODS**

### **2.1 Respondents**

Respondents were grouped into three types of special needs, namely hearing impairment, visual impairment and physical disability. All individuals in all three groups were aged between 15 and 25 years old, both men and women. According to [29] individuals between the ages of 15 and 25 are at the second stage of career development, which is known as the career exploration stage. This stage is characterised by the determination to choose an education which supports future career development, or to pursue a career based on the education provided during high school. Respondents in this study were recruited from two types of educational institutions, with different academic purposes. The first type was a higher education institution and the second was a vocational educational institution. Another characteristic used to recruit respondents was a lack of intellectual impairment which was checked by referring to the IQ test results of students at the beginning of the school year. This was one of the requirements for admitting new students to each educational institution.

210 individuals with special needs responded to this study, divided into groups suffering from visual impairment, hearing impairment or a physical disability. The sample age ranged from 15 to 25 years old ( $M = 20.8$ ,  $SD = 2.95$ ). There were 124 men (59%) and 86 women (41%). Each disability group had an equal number of respondents, which were 70 people in total.

### **2.2 Procedure**

Data collection was conducted by first requesting the approval of the school/institution to conduct the research. After obtaining approval from the principal and the list of respondents meeting the criteria for the study, the researchers began to distribute the questionnaires to several institutions from both types of institutions: vocational and educational. Before asking respondents to fill in the questionnaire, we handed out a consent form and brief explanation of the on-going research. If the respondents agreed to participate in our study, they signed the consent form and completed the questionnaire. We also explained that we would keep the names of

respondents and institutions confidential and that they would not be used for any other type of analysis or mentioned in our paper. For individuals with visual impairment, the caregiver gave a check mark and wrote down respondents' names in the space given to consent to the respondents' participation in the study.

The techniques that we used to collect data differed according to the characteristics of the respondent's disability. Respondents with visual impairments were assisted by caregivers provided by the institution to perform data collection. We provided training to caregivers and explained how to assist and record the responses given by visually impaired individuals. Caregivers read the items on the questionnaire to the respondent and the respondent's response was written on the questionnaire provided. However, due to the limited time availability, and to respect the caregivers' other responsibilities, we were only able to provide training to three caregivers (there were a total of eighteen caregivers helping the researchers with the visual impairment group). We also did not control how caregivers filled in the questionnaire because the data collection was conducted during each respondent's leisure time at the institution or school. We followed the same procedure with respondents in the hearing impairment group. The researcher provided training to several student council members at the schools and we expected that they would later help direct their friends to answer the questionnaire. Respondents with a physical disability were assembled in the hall and asked to complete the questionnaire together. The respondents with physical disabilities completed the questionnaire by themselves, while we and teachers of the institutions monitored and helped respondents if they had any difficulties.

### **2.3 Measurements**

This study was conducted using three measuring instruments to measure each research variable. The first variable was career adaptability. The instrument used to measure career adaptability was developed by [30] and called the Career Adapt-Abilities Scale-International Form (CAAS-IF). The instrument for career adaptability was first translated into the Indonesian language (Bahasa Indonesia) with a total of 24 items, with six unfavourable items. The first adaptation was conducted by [31] and modified by Jasmine to be applied to high school respondents [32]. Items on this questionnaire were answered by selecting a response that matched the existing statement. The instrument applied Likert-type scales with an interval range from 1 (that the statement does not correspond to the respondent's self) to 4 (that the statement corresponds to the respondent's self). After reliability testing with alpha coefficient calculations, the total reliability value of the career adaptability measuring instrument was 0.713 with an internal validity value of  $-0.209$  to  $0.63$ . We decided to eliminate items that had corrected item-total correlation values below 0.2, which comprised three items. Following the removal of three invalid items, the reliability value rose to 0.871 with an internal validity value ranging from 0.231 to 0.746. Finally, there were twenty-one valid and reliable career adaptability items on this scale.

The instrument used to measure career decision self-efficacy was the career decision-making self-efficacy-short form (CDSE-SF) developed by [33]. Twenty-five instrument items were adapted to the Indonesian language by [34]. All items on this questionnaire were favourable types. Responses were selected to an existing statement. The scale response ranged from intervals 1 (the respondent is not at all confident of doing the statement) to 6 (the respondent is very confident to do the statement). After reliability testing with alpha coefficient calculations, the reliability value of the instrument measuring career decision self-efficacy was 0.854 with internal validity value of 0.194 to 0.562. We decided to eliminate four items that had corrected item-total correlation values below 0.2. Following the removal of invalid items, the reliability value rose to 0.855 with an internal validity value ranging from 0.252 to 0.551. There were twenty-one valid and reliable career decision self-efficacy instrument items used in this study.

The social support measurement was taken from the verbal persuasion and vicarious experience dimensions of the Career Exploration and Decision Learning Experience (CEDLE) scale devised by [19]. In this study, we only use two dimensions related to external sources of support, which were the verbal persuasion and vicarious experience factors. Each dimension was measured by four items. The original items developed by Lent et al. did not specifically mention the significant person needed. Therefore, we modified the items by entering a significant person for each item so that the final item modification results comprised 24 items (8 items for family, 8 items for friends and 8 items for teacher figure). The reliability test using the Cronbach alpha on family, friends and teachers yielded internal consistency values of 0.843, 0.814 and 0.9, respectively. Mean while, the validity testing was completed by utilising CFA for each significant person. Each item that measured family, peer and teacher support had an adequate significance. The factor loading for the family member ranged from 0.66 to 0.86, for friends ranged from 0.5 to 0.95 and for teachers ranged from 0.56 to 0.87.

Data processing was conducted by first changing the total score of respondents on each measuring instrument into a standard value (z-score). This was performed due to the scale differences of each of the three measuring instruments. Once the z-score was obtained, it was processed by a macro formula called PROCESS to test for mediation effects [35]. The researcher applied model 4 of the model provided by the template macro to perform a simple mediation test.

### **3 RESULTS**

Table 1: Demographic data.

Variable	Min	Max	M	SD	1	2	3	4	5	6	7	8
1. Type of special need	-	-	-	-	-							
2. Sex	-	-	-	-	0.012	-						
3. Age	15	25	20.8	2.95	0.261**	-0.173*	-					
4. Family support	1	6	4.642	1.006	-0.057	-0.056	0.123	-				
5. Friend support	1	6	4.417	0.967	-0.134	0.149*	0.075	0.569**	-			
6. Teacher support	1	6	4.710	1.098	-0.172*	0.118	0.064	0.506**	0.621**	-		
7. CDSE	1	6	4.617	0.575	0.111	-0.035	0.298**	0.218**	0.172*	0.266**	-	
8. Career adaptability	1	4	3.291	0.437	0.141	-0.056	0.245**	0.178**	0.056	0.032	0.350**	-

The role of mediation was tested three times. The first test was conducted to assess the role of mediation between family support and career adaptability. The second test was conducted to assess the mediation between friend support and career adaptability. The last test was conducted to test the mediation between teacher support and career adaptability. The mediation test between each pair of social support categories was done separately because each of the variables has a fairly strong correlation with the others so that if tested together, the effect on the mediator will be mutually defeating [35]. Demographic results and correlations between variables can be seen in table 1.

Table 2: Mediation testing for family support

Antecedent	Outcome							
		M			Y			
		Co e ff.	SE	P		Co e ff.	SE	P
X	a	0.189	0.066	p<0.01	C	0.106	0.066	p>0.05
M		-	-	-	B	0.280	0.068	p<0.01



<b>C1</b>	f <sub>1</sub>	0.37	0.088	p<0.01	G <sub>1</sub>	0.156	0.089	p>0.05
<b>C2</b>	f <sub>2</sub>	0.043	0.134	p>0.05	G <sub>2</sub>	–0.040	0.132	p>0.05
<b>C3</b>	f <sub>3</sub>	0.064	0.083	p>0.05	G <sub>3</sub>	0.102	0.081	p>0.05
<b>Constant</b>	i <sub>1</sub>	–0.934	0.313	p<0.01	I <sub>2</sub>	–0.500	0.314	p>0.05
		R <sup>2</sup> = 0.125 F(4,205) = 7.319; p = 0.000			R <sup>2</sup> = 0.160 F(5,204) = 7.768; p = 0,000			

Notes: X is family support, M is career decision self- efficacy, Y is career adaptability, C<sub>1</sub> is age, C<sub>2</sub> is sex, C<sub>3</sub> is type of special need

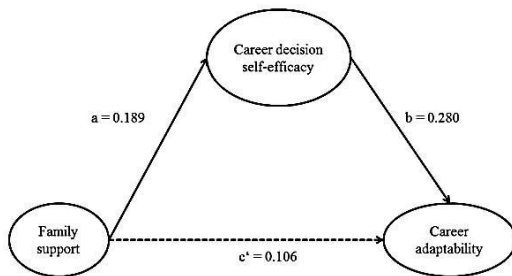


Figure 1: Mediation test on family support.

The first hypothesis testing conducted using Hayes macro formula found that family support indirectly influenced readiness to deal with changes in the work role or working environment through one's belief in their ability to make career decisions. As can be seen in figure 1 and table 2, family support would develop respondent efficacy in making career decisions ( $a = 0.189$ ), and respondents with high efficacy in making career decisions will be ready to cope with changes that come from the self or the working environment ( $b = 0.280$ ). A bias-corrected bootstrap confidence interval for indirect effect ( $ab = 0.053$ ) based on 10,000 bootstrapped sample was entirely above zero (0.013–0.117). There was no evidence

of family support influencing career adaptability independent of its effect on career decision self-efficacy ( $c' = 0.106$ ;  $p = 0.111$ )

Table 3: Mediation testing for friend support

Antecedent	Outcome							
		M			Y			
		Co eff.	SE	p		Co eff.	SE	P
<b>X</b>	a	0.163	0.067	p<0.05	c	0.008	0.067	p>0.05
<b>M</b>		–	–	–	b	0.300	0.068	p<0.01
<b>C1</b>	f <sub>1</sub>	0.339	0.089	p<0.01	g <sub>1</sub>	0.167	0.090	p>0.05
<b>C2</b>	f <sub>2</sub>	–0.027	0.037	p>0.05	g <sub>2</sub>	–0.050	0.135	p>0.05
<b>C3</b>	f <sub>3</sub>	0.077	0.085	p>0.05	g <sub>3</sub>	0.091	0.083	p>0.05
<b>Constant</b>	i <sub>1</sub>	–0.836	0.316	p<0.01	i <sub>2</sub>	–0.416	0.316	p>0.05
		67				80		
		R <sup>2</sup> = 0.115 F(4,205) = 6.648; p = 0.000				R <sup>2</sup> = 0.149 F(5,204) = 7.171; p = 0,000		

Notes: X is friend support, M is career decision self- efficacy, Y is career adaptability, C<sub>1</sub> is age, C<sub>2</sub> is sex, C<sub>3</sub> is type of

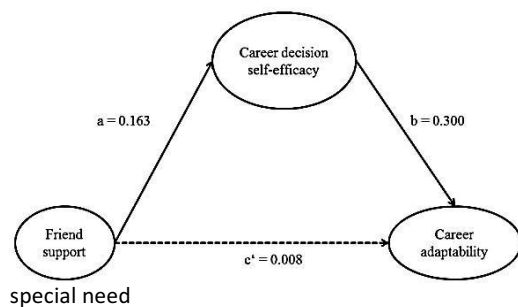


Figure 2: Mediation test on friend support.

The second hypothesis testing found that friend support indirectly influenced readiness to deal with change in career and work through career decision self-efficacy in making career decisions. The results can be seen in figure 2 and table 3. Friend support influenced respondent efficacy in making career decisions ( $a = 0.163$ ), and respondents with high efficacy in making career decisions will be ready to cope with changes in career and environment ( $b = 0.300$ ). A bias-corrected bootstrap confidence interval for indirect effect ( $ab = 0.050$ ) based on a 10,000 bootstrapped sample was entirely above zero ( $0.005-0.114$ ). There was also no evidence of friend support influencing career adaptability independent of its effect on career decision self-efficacy ( $c' = 0.008$ ;  $p = 0.899$ ).

Table 4: Mediation testing for teacher support

Antecedent	Outcome							
		M			Y			
		Coeff.	SE	p		Coeff.	SE	P
X	A	0.270	0.066	p<0.01	c	-0.048	0.069	p>0.05
M		-	-	-	B	0.315	0.070	p<0.01
C1	F <sub>1</sub>	0.321	0.087	p<0.01	g <sub>1</sub>	0.172	0.090	p>0.05
C2	F <sub>2</sub>	-0.048	0.133	p>0.05	g <sub>2</sub>	-0.034	0.134	p>0.05
C3	F <sub>3</sub>	0.112	0.083	p>0.05	g <sub>3</sub>	0.076	0.084	p>0.05
Constant	1	-0.867	0.307	p>0.01	1	-0.484	0.315	p>0.05
		R <sup>2</sup> = 0.157 F(4,205) = 9.570; p = 0.000			R <sup>2</sup> = 0.151 F(5,204) = 7.280; p = 0.000			

Notes: X is teacher support, M is career decision self- efficacy, Y is career adaptability, C<sub>1</sub> is age, C<sub>2</sub> is sex, C<sub>3</sub> is type of special need

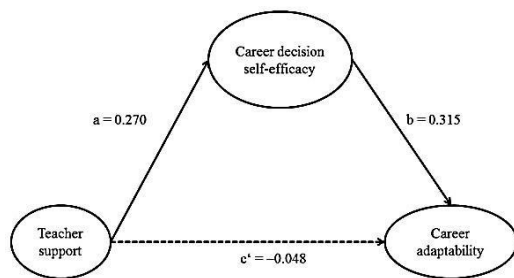


Figure 3: Mediation test on teacher support

The last hypothesis testing was done to examine the mediation role of career decision self-efficacy on teacher support and career adaptability. As can be seen in figure 3 and table 4, teacher support influenced respondents' belief in their ability to make career decisions ( $a = 0.270$ ), and respondents with high self-efficacy in making career decision will be ready to cope with changes in career and environment ( $b = 0.315$ ). A bias-corrected bootstrap confidence interval for indirect effect ( $ab = 0.084$ ) based on 10,000 bootstrapped sample was entirely above zero (0.024–0.170). Just as previous hypothesis testing showed, there was no evidence of teacher support influencing career adaptability independent of its effect on career decision self- efficacy ( $c' = 0.048$ ;  $p = 0.489$ ).

A further analysis based on demographic data was conducted to examine in detail how respondents' demographic data affected the measurements. The demographic data analysis was conducted by comparing the mean career decision self-efficacy and career adaptability scores with the existing demographic data categories using the Kruskal–Wallis Test nonparametric test. If significant differences were found, post hoc testing was carried out using the Mann–Whitney U group test. The test results are presented in Table 5.

Table 5: Career decision self-efficacy based on age group

Age	Career decision self-efficacy				
	M	S D	1-2	1-3	2-3
(1) 15- 17	4. 3 5	0. 64	-0.23	-0.45 ***	-0.22 *
(2) 18- 21	4. 5 8	0. 60			
(3) 22- 25	4. 8 0	0. 47			

Notes: 1-2 is the mean difference between the group aged 15-18 years and 19-22 years; 1-3 is the mean difference between group aged 15-18 years and 23- 25 years; 2-3 is the mean difference between the group aged 19-22 and 23-25 years.

According to Table 5 above, there were significant differences in career decision self- efficacy and career adaptability based on age group. The 22-25-year-old age group had the highest mean scores for career decision self-efficacy and career adaptability. When the mean scores of this group were compared to the 15-17 year-old and 18-22 year-old age groups, the differences held a significant value ( $p < 0.05$ ). However, the difference in career decision self-efficacy and career adaptability scores between the 15-17 and 18-21 year-old age groups did not hold a significant value ( $p > 0.05$ ). Based on these results, it can be concluded that age influences the development of career decision self-efficacy and career adaptability. The older someone gets, the higher their career decision self-efficacy score.

## 4 DISCUSSION

The results obtained in this study demonstrated that career decision self-efficacy mediates the influence of social support on career adaptability. All three significant figures, which are family, friends and teachers, play an important role in developing efficacy in making career decisions. Respondents with high efficacy in making career decisions would become more adaptable to any changes occurring in the environment or in themselves. Teacher support has the biggest influence in developing career adaptability through the mediation of career decision self-efficacy while friend support has the smallest influence.

Present study findings support previous findings conducted by [10]. [10]found that social support from significant figures such as family members, (especially parents), friends, teachers and community members was able to support the career development of individuals with sensory and motor impairment. These findings also support the results of the study conducted by [16] that parents, teachers, and friends influence the development of career maturity through the role of self-efficacy as mediator. Interaction with friends who had experience in a particular field of work enhanced individuals' intentions to seek information about a particular career path [11].

One important result that emerged from this study was that teachers played a significant role supporting special needs individuals' career adaptability through their mediation of career decision self-efficacy. The teacher was the one person who had a significant influence on the formation of career adaptability [36].This happens because individuals in vocational training institutions and secondary schools have higher quality and a greater quantity of meetings with teachers than other significant figures. Support in any form and encouragement offered by the teachers build the confidence that individuals with special need require to pursue the career path they desire [10]. Researchers observed that teachers in schools and vocational institutions demonstrated a positive attitude so that individuals with special needs felt capable of pursuing whatever field of work they are interested in. The positive attitude of teachers leads to stronger attachment between teachers and individuals with special needs in schools and vocational institutions. This attachment means teachers influence the formation of career aspirations more than other significant figures.

The results from teacher support analysis lead to the consideration of other significant figure influences. When investigating the influence of significant figures on career development, the degree of closeness (attachment) in the relationship is one aspect that should be considered important. Very close friends have

the ability to influence decision making [37]. This was one of the controls carried out by [38] who measured the degree of friendship between their research respondents before assessing its influence on career decision making.

While some studies have found that families, specifically parents, play a significant role in developing their child's career adaptability [31], [39], (Zimmer-Gembeck, 2014). Similar to friends, family figures have a significant influence when perceived with a high degree of attachment. Meanwhile, in this study, respondents were free to reflect upon anyone they considered a friend or family member. The researchers did not control for the degree of closeness between respondents and their significant figures. Thus, it may be necessary to review the controlled use of significant friends to ensure that their influence is better illustrated.

The analysis of demographic data revealed that age groups and type of disability have a significant influence on career decision self-efficacy. Those from the 15–17 year-old age group had the lowest mean score for career decision self-efficacy that while the 22–25 year-old age group has the highest mean scores for career decision self-efficacy. This is likely to be related to differences in developmental tasks that must be fulfilled during each life stage. Individuals between the age of 15 and 17 years old are still exploring and seeking information about their needs, interests, capacities, values, and career opportunities [40]. This exploration and search for information is related to the self-assessment and information seeking dimension of career decision self-efficacy. Individuals aged 18–21 years old face the developmental task of narrowing job choices by entering the labour market, training as professionals, working side by side and trying to actualise their self-concept [40]. This developmental stage relates to the goal selection dimension of career decision self-efficacy. Career development tasks for individuals aged 22–25 years old include making plans to fulfil their established career goals by starting to build relationships with people who can help them get hired, and consulting counsellors in universities. This age group are learning to write job application letters, conduct job interviews and make job choices by entering the workforce [40]. Planning and involvement in the increasingly intense world of work are related to the the planning and solving problems dimensions of career decision self-efficacy.

One conclusion that the researchers reached from the demographic analysis was that the older someone is, the greater the confidence they have when making career-related decisions and the greater their ability to adapt to a changing environment. This is explained by the theory of career development proposed by [35]. Career adaptability and career-related decision making is a developmental process that starts with recognising oneself (interests, talents, capacities and the needs of the environment), gathering information about work, making choices that explore a particular field of work and planning related fields of desired work to predict what problems might arise if someone pursues a particular career. The older a person is, the more experience and information they have, meaning the greater their confidence when making such decisions.

## **5 FUTURE DIRECTION AND LIMITATIONS**

Although our study has implications for enhancing special needs individuals' career adaptability and career decision making, some limitations of the study results should be highlighted. First, our data was based on self-reported measures and may not accurately capture the relationship dynamics between individuals with special needs and their significant others, which were not measured in this study in depth. In further research, we suggest using mixed methods by combining self-reported measures with interview techniques. Second, in future studies, controlled measurement of the influence of social figures could be performed by mentioning their names or positions. For example, replacing the word 'family' / 'teacher' / 'friend' with 'the name' or 'position in the family/school'. Third, respondents in the hearing impairment group were mostly obtained from a special needs secondary school (less than ten people were from vocational education institutions). We suspected this would cause an indirect significant difference in career decision self-efficacy. Therefore, it is necessary to add varied hearing impairment respondents from vocational education institutions to ensure a more diverse age range. Disability type could also be an input to ensure the type of special needs and age range are separate predictor variables in subsequent studies. The last limitation of the present study was the data collection process with the visual impairment group. We were assisted by a number of caregivers who read questionnaire items to individuals with visual impairment, who then gave their responses, which caregivers recorded in the questionnaire. However, due to the caregiver's busyness, we were only able to explain the research and instructions for filling out the questionnaire to three caregivers out of a total of eighteen. More over, we did not observe the completion of the questionnaire. Therefore, we are concerned that caregivers' misunderstandings may have led to bias filling out the questionnaire which could affect the results. Therefore, a suggestion for future research is that prior to the data collection process, training and explanations should be provided to all caregivers who assist the researchers to ensure there are similarities in perception and the results obtained are not affected by bias.

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## REFERENCES

- [1] Government Regulation number 72 year 1991 (2017, February 26). Retrieved from: <http://www.hukumonline.com/pusatdata/detail/lt4cc14b3f2315c/node/683/pp-no-72-tahun-1991-pendidikan-luar-biasa>
- [2] Nugraheny, D. E. (2016, October 27). Kemenaker: Penyerapan tenaga kerja penyandang disabilitas proporsional. *Republika*. Retrieved from: <http://www.republika.co.id/berita/nasional/umum/16/10/27/ofpdeq335-kemenaker-penyserapan-tenaga-kerja-penyandang-disabilitas-proporsional>.
- [3] Brebabama, A., & Akmal, S. Z. (2016). Hubungan antara kematangan karier dengan motivasi berprestasi pada remaja tuna netra di DKI Jakarta. *Prosiding SnaPP2016 kesehatan*, 6(1), 62–71.
- [4] Savickas, M. L. (1997). Career adaptability: An integrative construct for life-span, life-space theory. *The Career Development Quarterly*, 45, 247–259.
- [5] Huo, C., Wu, L., & Liu, Z. (2014). Effect of proactive personalities and decision making self-efficacy on career adaptability among Chinese graduates. *Social Behavior and Personality*, 42(6), 903–912.
- [6] Lent, R., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45, 79–122.
- [7] Ochs, L. A., & Roessler, R. T. (2004). Predictors of career exploration intentions: A social cognitive career theory perspective. *Rehabilitation Counseling Bulletin*, 47(4), 224–233.
- [8] Loprest, P., & Maag, E. (2003). The relationship between early disability onset and education and employment. *Journal of Vocational Rehabilitation*, 26(1), 49–62.
- [9] Ahn, H. S., Bong, M., & Kim, S. I. (2017). Social model in the cognitive appraisal of self-efficacy information. *Contemporary Educational Psychology*, 48, 149–166.
- [10] Berry, S. J., & Domene, J. F. (2015). Supporting postsecondary students with sensory or mobility impairments in reaching their career aspirations. *Career Development and Transition for Exceptional Individuals*, 28(2), 78–88.
- [11] Kracke, B. (2002). The role of personality, parents and peers in adolescents career exploration. *Journal of Adolescence*, 25, 19–30.
- [12] Savickas, M. L. (2013). Career construction theory and practice. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research into work* (2nd ed., pp. 147–183). Hoboken, NJ: Wiley.
- [13] Sternberg, R. J. (2003). Implications of the theory of successful intelligence for career choice and development. *Journal of Career Assessment*, 11(2), 136–152.
- [14] Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 16, 282–298.
- [15] Powell, D. F., & Luzzo, D. A. (1998). Evaluating factors associated with the career maturity of high school students. *The Career Development Quarterly*, 47, 145–158.
- [16] Lee, S. A., Lee, H. S., Song, H. S., & Kim, S. G. (2015). The relationship between attachment and career maturity: The mediating role of self-efficacy. *International Social Work*, 58(1), 153–164.
- [17] Lent, R. W., Ireland, G. W., Penn, L. T., Morris, T. R., & Sappington, R. (2017). Sources of self-efficacy and outcome expectations for career exploration and decision-making: A test of the social cognitive model of career self-management. *Journal of Vocational Behavior*, 99, 107–117.
- [18] Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5), 300–314.
- [19] Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122–147.
- [20] Bandura, A. (1997). Self-efficacy and health behaviour. In A. Baum, S. Newman, J. Wienman, R. West, & C. McManus (Eds.), *Cambridge handbook of psychology, health and medicine* (pp. 160–162). Cambridge: Cambridge University Press.
- [21] Taylor, K. M., & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. *Journal of Vocational Behavior*, 22, 63–81.
- [22] Betz, N. E., & Voyten, K. K. (1997). Efficacy and outcome expectations influence career exploration and decidedness. *The Career Development Quarterly*, 46, 179–189.
- [23] Klassen, R. M. (2004). A cross-cultural investigation of the efficacy beliefs of South Asian immigrant and Anglo Canadian nonimmigrant early adolescents. *Journal of Educational Psychology*, 96(4), 731–742

- [24] Fabian, E. S., & Pebdani, R. The Career Development of Youth and Young Adults With Disabilities. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research into work* (2nd ed., pp. 357–384). Hoboken, NJ: Wiley.
- [25] Olkin, R., & Pledger, C. (2003). Can disability studies and psychology join hands? *American Psychologist*, 58(4), 296–304.
- [26] Bong, M., & Clark, R. E. (1999). Comparison between self-concept and self-efficacy in academic motivation research. *Educational Psychologist*, 34(3), 139–153.
- [27] Lieberman, L. J., Houston-Wilson, C., & Kozub, F. M. (2002). Perceived barriers to including students with visual impairments in general physical education. *Adapted Physical Activity Quarterly*, 19, 364–377.
- [28] Savickas, M. L. (2011). *Career counseling: Theory of psychotherapy series*. USA: American Psychological Association.
- [29] Super, D. E., & Hall, D. T. (1978). Career development: exploration and planning. *Annual Reviews*, 29, 333–372.
- [30] Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80, 661–673.
- [31] Indianti, W. (2015). Dukungan sosial dan regulasi diri dalam belajar untuk membangun adaptabilitas karier pada mahasiswa baru Universitas Indonesia. *Dissertation*. Depok: Universitas Indonesia.
- [32] Jasmine, J. (2016). Hubungan antara persepsi siswa terhadap program bimbingan konseling karier dan adaptabilitas karir pada siswa SMA kelas 3. *Bachelor theses*. Depok: Universitas Indonesia
- [33] Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the Career Decision-Making Self-Efficacy Scale. *Journal of Career Assessment*, 5, 413–428.
- [34] Sawitri, D. R. (2009). Pengaruh status identitas dan efikasi diri keputusan karir terhadap keraguan mengambil keputusan karir pada mahasiswa tahun pertama di Universitas Diponegoro. *Jurnal Psikologi Undip*, 5(2).
- [35] Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- [36] Han, H., & Rojewski, J. W. (2015). Gender-specific models of work-bound Korean adolescents social supports and career adaptability on subsequent job satisfaction. *Journal of Career Development*, 42(2), 149–164.
- [37] Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology*, 29(4), 611–621.
- [38] Sinclair, S., Carlsson, R., & Björklund, B. (2014). The role of friends in career compromise: Same-gender friendship intensifies gender differences in educational choice. *Journal of Vocational Behavior*, 84, 109–118.
- [39] Sawitri, D. R., Creed, P. A., & Zimmer-Gembeck, M. J. (2014). Parental influences and adolescent career behaviours in a collectivist cultural setting. *International Journal For Education and Vocational Guidance*, 14, 161–180.
- [40] Super, D. E., & Jordaan, J. P. (1973) Career development theory. *British Journal of Guidance & Counselling*, 1(1), 3–16.