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Author Name(s): P. Tommy Y. S. Suyasa, Jessyca Jessyca, Felita Oktaviani, Amala Fahditia

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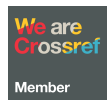
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P. Tommy Y. S. Suyasa^{*)}, Jessyca Jessyca, Felita Oktaviani, Amala Fahditia

Department of Psychology, Universitas Tarumanagara, Jakarta, Indonesia

ABSTRACT

This study aimed to assess the construct validity of Indonesian version of the Career Decision-Making Self-Efficacy Scale (CDESES) by conducting a convergent evidence test. This version comprised 30 items that measured individual confidence in making career-related decision across seven dimensions, including occupational information (OI), goal selection (GS), self-appraisal (SA), school achievement (ScA), problem-solving (PS), social support (SS), and planning. Despite passing the content validity test, CDESES-Indonesian version lacked psychometric properties in terms of convergent evidence. A construct validation analysis was carried out, incorporating the NEO-PI instruments developed by Costa & McCrae in 1992 into CDESES-Indonesia version. This study involved 211 respondents, including 123 women and 88 men aged between 17 and 35, all being university students. Google Form was used as a platform to distribute the questionnaires for the two measuring instruments to the participants. The results showed a significant relationship between CDESES and personality traits. Four personality traits, namely conscientiousness, openness, extraversion, and agreeableness, exhibited positive correlations with CDESES, while neuroticism showed a negative relationship.

Keywords:

Career Decision-Making, Self-Efficacy Scale, Indonesian version, Construct validity.

Corresponding Author:

P. Tommy Y. S. Suyasa,
Universitas Tarumanagara
Email: tommys@fpsi.untar.ac.id

Introduction

Career Decision Making Self-Efficacy (CDSE) is crucial in predicting the level of participation of an individual in occupational quest activities (Gushue, Clarke, et al., 2006), and their openness to various experiences necessary for achieving professional goals (Jin et al., 2009). A higher level of CDSE is associated with greater success in making career decision or choice (Conkel-Ziebell et al., 2019; Dik et al., 2008). To facilitate the identification of individual beliefs, there exists a measuring tool known as the Indonesian version of the Career Decision-Making Self-Efficacy Scale (CDESES)-Indonesian version (Jessyca & Suyasa, 2021). This adapted version, based on the Career Decision Self-Efficacy Scale-Short Form (CDSE-SF) (Betz et al., 1996), underwent adjustments in measuring scale, grammar, items, and dimensions to address professional problems in Indonesia.

The main focus of CDESES-Indonesian version is to measure the level of individual confidence in making career-related decision across seven dimensions, namely occupational information (OI), goal selection (GS), self-appraisal (SA), problem-solving (PS), and planning, with school achievement (ScA) and social support (SS) added during the adaptation process. Despite passing the content validation analysis through expert judgment, the Indonesian version instrument stills lacks internal consistency reliability and convergent evidence. Ensuring the credibility and appropriateness of this measuring tool involves testing the reliability and validity. This analysis is crucial to ascertain its accuracy in

capturing the intended behavior or aspect within a specific population and time (Clark & Watson, 2019; Garg et al., 2021). A reliable instrument would show consistency in repeated assessments and accuracy in capturing the targeted career decision-making aspects (Cohen et al., 2018).

In an analysis involving students from the China region, CDSE exhibited positive correlation with personality traits such as conscientiousness, agreeableness, openness, and extraversion. However, a negative association was observed between CDSE and the traits of neuroticism (Wu et al., 2020). The results provided evidence of the construct validity in relation to personality traits. The alignment between both elements was also observed in a previous publication by Rogers et al., (2008), where high school students in grades 10 to 12, with an average age of 15 years old, showed a negative impact of neuroticism traits such as anxiety, irritability, paranoia, and depression on CDSE. Therefore, individuals with neuroticism traits exhibit lower confidence in their career decision.

Considering the results, performing a construct validation also known as convergent evidence, on CDESES-Indonesian version and its association with personality traits becomes essential. CDESES-Indonesian version (Jessyca & Suyasa, 2021) introduces two additional dimensions, setting it apart from the five dimensions extensively used in several previous publications (Betz et al., 1996; Rogers et al., 2008; Wu et al., 2020). The relationship of CDESES-Indonesian version with personality traits and neuroticism still remains unclear. Therefore, this study aims to examine the construct validity of the Indonesian version concerning personality traits.

Validity, according to Cohen et al., (2018), refers to the assessment of how effectively a measuring instrument captures its intended behavior within a specific context. For an assessment tool to be deemed valid, it should accurately measure the intended behavior of a particular target population and time. Ensuring the validity of the instrument requires periodic validation, as its value diminishes over some period and with cultural changes. Adequate evidence of validity is essential during the development process of such tools, and this is collected and evaluated through a process called validation (Gushue, Clarke, et al., 2006). There are four types of validity used as evidence for measuring instrument reliability, namely content, criterion, construct, and face validity.

Construct validity assesses the accuracy of conclusions drawn from individual scores on a variable. A valid test in the construct should produce high and low scores as predicted by the theory (Cohen et al., 2018). This array consists of several sub-types, namely evidence of homogeneity, age-related variations, pretest-posttest change, distinct groups, convergent, and discriminant. For this study, the focus is on establishing the construct validity or convergent evidence. This involves establishing correlations between a measuring instrument and other tools that measure the same or related concepts (Cohen et al., 2018).

Developing CDESES-Indonesian version of the instrument becomes essential as it significantly bolsters career counselling services provided by school counsellors. The existing scarcity and the lack of career decision-making services (El-Hassan & Ghalayini, 2020) emphasizes the importance of self-efficacy in guiding students through their educational choices (Ardiyanti, 2016). Individuals with high self-efficacy assist students in making informed choices that align with their aspirations (Ardiyanti, 2016). The importance of career decision in the development of adolescents has been emphasized in publications by Ardini & Rosmila (2021), Nur et al., (2023), Prasetyo & Kustanti, (2022), Rahayu, (2022), Yunita & Rahayu, (2021). Ardiyanti, (2016) highlighted the high relevance of developing a self-efficacy scale for career decision-making, rooted in the theory of Bandura in 1997. Umam, (2021) also explored the use of group guidance services to enhance self-efficacy. There still remains a notable absence of self-efficacy instruments for career decision in an Indonesian version despite these efforts. Therefore, this study is anticipated to the advancement of career decision-related publications, particularly by providing information on the construct validity or convergent evidence of CDESES-Indonesian version. The results are expected to supplement the existing psychometric property information and prove valuable for education and clinical practitioners, including lecturers, teachers, and counsellors, in assessing the university career decision confidence of the students using the right measuring instrument. The analysis further offers valuable insights and interventions to boost confidence in career decision of various stakeholders.

Definition of career decision

Career decision is a continuous process involving the identification of various alternative career choice, assessing their importance and relevance, and progressively eliminating less significant aspects (Gati, 1986). This sequential-elimination model (SEM) is derived from the elimination-by-aspects theory of choice which was proposed by Tversky in 1972 (Gati, 1986). Career decision is intricately linked to the decision-making process, with optimal choice leading to the goal fulfilment of the decision-maker (Gati et al., 1996).

According to Lent & Brown, (2013), career decision is considered part of adaptive behavior within the context of the Social Cognitive Career Theory (SCCT). This perspective defines career decision as adaptive behavior encompassing elements such as self-efficacy, goals, outcomes expectations, obstacles, support, and relevant traits/personalities. The SCCT, initially proposed by Lent, Brown, and Hackett in 1994 (Lent & Brown, 2013), comprises four interrelated models, namely addressing educational and work interests, decision-making, performance, and well-being. Based on these definitions, it is evident that career decision involves actions in the process of determining an occupational path among various available choices. This journey encompasses several stages of career planning to ultimately achieve career goals.

Career decision making self-efficacy

The concept of career decision is a process involving a series of events rather than a directly measurable psychological construct. To be effectively measured, the concept needs to be linked or combined with other constructs, such as CDSE. Bandura (Taylor & Betz, 1983), formulated the concept of CDSE within a behavioral domain framework, with a special focus on competence associated with making career choice (Taylor & Betz, 1983). This competence comprises five key aspects, namely accurate SA or identity description, gathering work-related information, goal setting, future planning, and PS. These five competencies serve as indicators of self-efficacy constructs, reflecting the confidence of an individual in performing tasks and activities related to these indices (Taylor & Betz, 1983).

Personality as a factor of career decision-making self-efficacy

According to the Five Factor Model (FFM), personality traits are described across five dimensions, namely Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. The measurement of these traits is carried out using the Revised NEO Personality Inventory (NEO-PI-R), which was developed by Costa and McCrae in 1992 (McCrae & Costa Jr, 1997), with each attribute comprising 6 facets (McCrae & Costa Jr, 1997). Within the Openness trait, there are facets, namely fantasy, aesthetics, feelings, actions, ideas, and values. The Conscientiousness attribute includes competence, order, dutifulness, achievement striving, self-discipline, and deliberation facets. As for Extraversion, it encompasses the facets of warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotions. In the case of Agreeableness, the facets are trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness. Lastly, neuroticism trait involves anxiety, angry hostility, depression, self-consciousness, impulsiveness, and vulnerability.

According to an analysis by Rogers et al., (2008) on high school students in grades 10 to 12, personality traits play a significant role in individual self-efficacy regarding career decision. The neuroticism trait, characterized by anxiety, irritability, paranoia, and depression, negatively impacts self-confidence in career-related actions. However, other traits such as conscientiousness, openness, agreeableness, and extraversion have a positive effect on beliefs in career decision-making. Individuals displaying good planning, openness to new experiences, curiosity, empathy, altruism, friendliness, proactivity, and sociability tend to have higher confidence in career-related activities, including planning and exploration to achieve occupational goals through self-efficacy. Additional sources, such as those conducted on students with low well-being in China, further support the notion that the levels of anxiety in an individual lead to uncertainty in all their career decision-making actions (Wu et al., 2020). The results emphasize the significant influence of personality traits on the CDSE of an individual. Conscientiousness, agreeableness, openness, and extraversion are positively correlated with CDSE, while the neuroticism trait shows a negative association.

Methods

Participants

This study employed a quantitative analysis design with a parametric statistical technique, with a participant pool of 211 university students currently enrolled in Higher Education. Among the selected population, 123 and 88 respondents were female and male representing 58.29% and 41.71%, respectively. The age of participants ranged from 17 to 35 years, with a mean of 20.43 years and a *Standard Deviation of 2.870*.

Procedure

Google Form was used to distribute questionnaires to the intended participants, allowing them approximately 30 to 60 minutes to complete the survey. Informed consent was presented within Google Form, ensuring the consent of participants to participate and provide their responses. Data analysis was carried out using SPSS 23.0 software, and the study procedures were executed systematically as follows, (1) Collecting the data of the participants based on predetermined characteristics outlined in the questionnaire, (2) Testing internal consistency reliability, and (3) Testing construct validity also known as convergent evidence.

Measures

CDEES-Indonesian version. CDEES-Indonesian version consisted of 30 items spread across seven dimensions, namely OI, GS, SA, ScA, PS, SS, and planning. Each item was responded to on a bipolar scale of 1 to 4, where numbers 1 and 4 represented the left and right sides with specific response descriptions (Jessyca & Suyasa, 2021). OI dimension assessed the confidence level of individuals in collecting information related to their desired job/career. The positive item in OI dimension was “I am (...) to have discussions with people who have worked in the field that I am interested in”, with the response statement ranging from “not yet able” (number 1) to “able” (number 4). A negative item was “I am (...) in using the internet to obtain information related to the job I am interested in”, with response statements ranging from “skilled” (number 1) to “not yet skilled” (number 4). Higher scores on OI dimension indicated greater confidence in collecting information, either through discussions internet skills. The internal consistency reliability for this dimension was 0.71 79, indicating a satisfactory level of reliability in measuring OI aspect of career decision.

GS facet assessed the level of confidence of an individual in setting career goals from a range of available choices. For example, a positive GS item was stated as “I am (...) to select one job from a variety of potential professions for my future”, with response statements ranging from “not yet able” (number 1) to “able” (number 4). A negative item was “I am (...) in selecting a major or career that matches my interests”, with response statements ranging from “decisive” (number 1), to “indecisive” (number 4). The Internal consistency reliability for GS dimension was 0.79, indicating a reliable measure in career decision. For SA component, it evaluated the level of confidence of the individual in properly assessing themselves concerning career decision. An example of a positive SA item was “I am (...) I could accurately measure my abilities”, with response statements ranging from “doubtful” (number 1) to “certain” (number 4). For a negative item was “I (...) what I can sacrifice to achieve my career goals”, with response statements ranging from “know” (number 1) to “do not know” (number 4). The Internal consistency for this dimension was 0.73, indicating a satisfactory level of reliability in measuring SA aspect of career decision.

ScA dimension showed the level of confidence of individuals in their career decision based on the achievement obtained. For instance, a positive item was “skills in certain fields at school make me more (...) in selecting a major or career in the future”, with response statements ranging from “doubtful” (number 1) to “certain” (number 4). The negative item for ScA facet was “I am (...) the non-academic achievements I have achieved are sufficient to meet the requirements of the major or career I am interested in”, with response statements ranging from “confident” (number 1) to “undecided” (number 4). The internal consistency reliability for this dimension was 0.75, indicating a reliable measure of ScA in career decision.

PS facet indicated the level of confidence of individuals in their ability to overcome obstacles or challenges related to career decision. The positive item for PS dimension was “I am (...) I will find alternative career choices when I experience obstacles in the occupation I select”, with the response statements ranging from “doubtful” (number 1) to “certain” (number 4). The negative item stated was “I am (...) I can find solutions to academic and non-academic problems in the major I will select”, with response statements ranging from “certain” (number 1) to “doubtful” (number 4). The internal consistency reliability for this dimension was 0.72, indicating a satisfactory level of reliability in measuring PS aspect of career decision.

SS dimension showed the belief level of individuals in the various collective resources available for career decision. For example, a positive item was “I am (...) my family supports the major or career I am interested in”, with the response statements ranging from “pessimistic” (number 1) to “optimistic” (number 4). A negative item was “I am (...) my friends support the major or career I am interested in”, with response statements ranging from “optimistic” (number 1) to “pessimistic” (number 4). The Internal consistency reliability for SS dimension was 0.70, indicating a reliable measure of SS in career decision. In the Planning component, the level of confidence in planning for the future was measured based on the career field. A positive item for Planning dimension was “I am (...) to make plans regarding goals for the next five years”, with response statements “not yet able” (number 1) to “able” (number 4). The negative item was “I am (...) to prepare a good CV”, with the response statements ranging from “able” (number 1) to “not yet able” (number 4). The internal consistency reliability for the planning dimension was 0.69, indicating a satisfactory level of reliability in the measure of career decision.

The NEO-PI Instrument was used to assess personality trait, which consisted five dimensions, namely openness, conscientiousness, extraversion, agreeableness, and neuroticism (McCrae & Costa Jr, 1997). The measurements for each of these five dimensions was detailed in Table 1.

Tables 1. Dimension to Measure Personality

Dimension	Example of the Statement
The openness dimension used consisted of 9 items with an internal consistency value of 0.69	“I want to discuss various things (nature, history, explanation, etc.) related to something” “I like readings such as poetry/arts/culture in addition to other readings”.
The conscientiousness facet used involved 12 items with an internal consistency value of 0.78	“I am classified as a person who is very disciplined in completing my tasks/work” “I am a bit reckless/careless in arranging things properly and neatly”
The extraversion aspect used consisted of 12 items with an internal consistency value of 0.84	“I often express my opinion to the community/environment around me”
The agreeableness component used involved 6 items with an internal consistency value of 0.64	“I do not like party situations with many people” “Usually, I find it difficult to accept/follow opinions of other people” “I do not want to be excessively generous to other people”
The neuroticism dimension used consisted of 10 items with an internal consistency value of 0.81	“Sometimes I feel less valuable” “I rarely feel sad/depressed”

Data Analysis

Parametric statistical approach, including multiple evaluation, was employed as the analysis technique. The data underwent descriptive, correlational, regression coefficient, and multiple regression using the Statistical Package for the Social Sciences (SPSS).

Results and Discussion

Correlation between personality and career decision self-efficacy

The relationship test between the dimensions of CDESE-Indonesian version and the NEO-PI was conducted using the Pearson correlation analysis method. An overview of the correlation results was shown in Table 2.

The correlation test between the dimensions of CDESE-Indonesian version measuring instrument and the NEO-PI neuroticism scale provided evidence of construct validity, namely convergent evidence. CDSE exhibited a positive relationship with personality traits of conscientiousness, extraversion, openness, and agreeableness, with a coefficient of .52, .40, .29, .23, respectively. Neuroticism on the other hand, showed a negative correlation coefficient of .43 with CDSE.

Among the personality traits, conscientiousness emerged as the strongest predictor CDSE. The dimension of CDSE most influenced by the conscientiousness personality trait were SA, planning, and GS, having a coefficient of .56, .52, and .52, respectively. Agreeableness was the least influential personality trait in predicting CDSE. The dimensions that showed the least predictability were planning and PS, with a coefficient of .14.

Table 2. Efficacy Matrix Correlation of Personality Variable with Career Decision Self-Efficacy.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Openness	1												
2 Conscientiousness	.08	1											
3 Extraversion	.12	.20**	1										
4 Agreeableness	-.20**	.21**	.16*	1									
5 Neuroticism	.03	-.35**	-.34**	-.35**	1								
6 Occupational Information	.24**	.39**	.26**	.22**	-.39**	1							
7 Goal Selection	.31**	.52**	.32**	.21**	-.42**	.74**	1						
8 Self-Appraisal	.24**	.56**	.31**	.22**	-.33**	.70**	.80**	1					
9 School Achievement	.24**	.35**	.43**	.16*	-.43**	.60**	.63**	.58**	1				
10 Problem-Solving	.27**	.36**	.42**	.14*	-.35**	.60**	.66**	.63**	.62**	1			
11 Social Support	.17*	.34**	.28**	.16*	-.28**	.63**	.58**	.53**	.57**	.58**	1		
12 Planning	.35**	.52**	.31**	.14*	-.33**	.74**	.82**	.79**	.67**	.63**	.59**	1	
13 CDSE	.29**	.52**	.40**	.23**	-.43**	.85**	.89**	.86**	.80**	.80**	.75**	.89**	1
M	3,57	3,40	3,18	2,91	3,25	2,86	2,94	2,92	3,01	2,95	3,19	2,93	2,97
SD	0,59	0,58	0,71	0,68	0,71	0,62	0,64	0,63	0,71	0,64	0,57	0,63	0,53

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 3, 4, and 5 presented the results of the regression that examined the influence of personality traits on career decision self-efficacy.

Table 3. Analysis of the Personality Variable on Career Decision Self-Efficacy.

<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	<i>F</i>	Sig.
.70a	.49	.48	39,12	.00b

a. Predictors: (Constant), Neuroticism, Openness, Conscientiousness, Extraversion, Agreeableness

Table 4. Coefficient Regression Analysis of Personality on Career Decision Self-Efficacy.

	B	β	<i>t</i>	Sig.
(Constant)	,79		2,13	,03
Openness	,24	,27	5,02	,00
Conscientiousnes	,31	,34	6,23	,00
Extraversion	,17	,23	4,12	,00
Agreeableness	,09	,11	2,01	,05
Neuroticism	-,17	-,22	-3,70	,00

a. Dependent Variable: CDSE

The resulting multiple correlation coefficient (R) was .70 and the total explained variance (R^2) was .49, indicating that the five personality traits predicted 49% of the variance in CDSE. The resulting standard regression equation was as follows:

$$CDSE = .79 + .24 \times openness + .31 \times conscientiousness + .17 \times extraversion + .09 \times agreeableness - .17 \times neuroticism.$$

Based on the standardized beta regression coefficient, conscientiousness emerged as a strong predictor of CDSE, with a value of .34. Openness, extraversion, and agreeableness, having a coefficient of .27, .23 and .11 respectively, also showed positive relationships. Conversely, neuroticism indicated a negative correlation of -.22 with CDSE. The conscientiousness attribute predicted all CDSE dimensions positively, while the neuroticism trait had a negative effect on each components. Additionally, all personality traits were found to predict GS dimension.

This study aimed to identify the construct validity of the convergent evidence of CDSE, namely personality traits. This analysis was carried out on 211 students who were enrolled in a university in Jakarta, Indonesia. The results indicated that CDSE was predicted by five personality traits and had a significant relationship with all dimensions of CDSE. The neuroticism personality trait showed a negative relationship with CDSE, while the other four personality traits (conscientiousness, extraversion, openness, and agreeableness) showed a positive relationship with CDSE. CDSES-Indonesian version used had more aspects than the previous CDSE (Taylor & Betz, 1983), which were the existence of two additional dimensions in the form of SS and ScA. Previously, CDSE only described five aspects (OI, GS, SA, PS, and planning). By using CDSES-Indonesian version, a description of the aspects of CDSE that students have can be described more comprehensively than the previous CDSE.

Comparing to previous sources (Wu et al., 2020) regarding convergent evidence of personality traits, this study exhibited a higher coefficient of determination ($R^2 = .49$). In this case, the agreeableness traits emerged as a stronger predictor of CDSE than previous analysis (Wu et al., 2020). This was attributed to cultural factors, as agreeableness among participants in Indonesia appeared more diverse when compared to their Chinese counterparts. Future investigations should explore the impact of agreeableness on CDSE while considering cultural factors as potential moderators. Variations in agreeableness scores were less comparable as the measurement scale (Wu et al., 2020). In this study, the measurement scale for personality traits (1 – 5) and CDSES-Indonesian version (1 – 4) was different from the measurement scale used in a previous publication (Wu et al., 2020), namely personality trait (1–6) and CDSE (1–5).

CDSES was crucial for students in determining their educational path (Chuang et al., 2020; Hamzah et al., 2021). Strong self-confidence led to better career decision aligned with abilities (He et al., 2021; Park et al., 2019; Rahim et al., 2021) and potential (Murisal et al., 2022). Analysis focused on the development of self-efficacy instruments for career decision-making showed association with various factors. Parental attachment has been linked to this variable (Amoako et al., 2020; Qonitatin & Kustanti, 2021; To et al., 2022; Wasif & Nawab, 2020), as well as dysfunctional career thoughts (Kronholz & Osborn, 2022; Mahmud et al., 2019; Özek & Ferraris, 2020; Ulas-Kilic et al., 2020), and career exploration (El-Hassan & Ghalayini, 2020; Kanten et al., 2021; Kleine et al., 2021; Lent et al., 2019). In this case, career exploration contributed significantly to CDSE (El-Hassan & Ghalayini, 2020).

A significant mediator of the relationship between SS and career adaptability was the impact of CDSE (Hou et al., 2019).

Table 5. Hierarchical Multiple Regression Personality Trait on Career Decision Self-Efficacy.

Dependent Variable	Independent Variable	B	β	t	Sig.	F	ΔR^2
Occupational Information	Neuroticism	-,24	-,28	-4,19	,00	20,98	,29
	Conscientiousness	,25	,24	3,66	,00		
	Openness	,25	,24	3,86	,00		
Goal Selection	Agreeableness	,13	,14	2,11	,04	32,45	,44
	Conscientiousness	,39	,35	6,11	,00		
	Extraversion	,15	,17	2,92	,00		
	Openness	,31	,28	5,08	,00		
Self-Appraisal	Neuroticism	-,18	-,20	-3,18	,00	32,89	,39
	Agreeableness	,12	,12	2,12	,03		
	Conscientiousness	,51	,47	8,15	,00		
	Extraversion	,16	,18	3,21	,00		
School Achievement	Openness	,18	,17	2,95	,00	31,90	,38
	Agreeableness	,14	,15	2,58	,01		
	Extraversion	,30	,30	4,95	,00		
	Neuroticism	-,28	-,28	-4,40	,00		
Problem-Solving	Openness	,22	,18	3,33	,00	27,08	,35
	Conscientiousness	,23	,18	3,10	,00		
	Extraversion	,22	,24	3,93	,00		
	Conscientiousness	,26	,23	3,74	,00		
	Openness	,27	,24	4,25	,00		
Social Support	Neuroticism	-,20	-,22	-3,32	,00	15,08	,18
	Conscientiousness	,22	,22	3,21	,00		
	Extraversion	,16	,20	2,91	,00		
Planning	Neuroticism	-,12	-,15	-2,04	,04	35,97	,41
	Conscientiousness	,43	,39	6,71	,00		
	Openness	,29	,27	5,05	,00		
	Extraversion	,15	,17	2,86	,00		
	Neuroticism	-,15	-,17	-2,67	,01		

The results showed how the career development of an individual was shaped by the interaction between the personal attribute and the environment, such as the SS received. In terms of demographics, this study featured higher representation of women than men. The results indicated that while there was no disparity in self-efficacy for making career decision between both genders, women tended to receive more SS from their environment. This supportive environment contributed to the development of CDSE (Wasif & Nawab, 2020). An analysis conducted by Koçak et al., (2021) further highlighted that family influence had a significant impact on academic satisfaction and contentment. This relationship remained significant even after controlling for variables such as gender, age, income, and parental education. Happiness and career decision self-efficacy were positively correlated with family influence and academic satisfaction. This study observed that family influence and support, work of students, and academic satisfaction positively impacted career development and happiness. It also recognized the need for a comprehensive evaluation of career dynamics encompassing family, school, and work experience.

Extensive analysis related to CDSE has been widely performed in Indonesia (Febriana & Masykur, 2022; Liana et al., 2022; Murisal et al., 2022; Rahmawati & Santhoso, 2020; Sholiha & Sawitri, 2021). However, there was no publications regarding the development of CDSES-Indonesian version. The introduction of this instrument potentially served as a widely applicable tool, particularly in Indonesia. This scale found application within career counselling guidance services provided by

educators and counselors. The results showed that implanting the method in career guidance and counselling services supported students in making occupational decision (Fatimah et al., 2019). It is important to note that the outcome for the scale interpreted descriptively through mean and standard deviation/score variation analysis. For further study, it was recommended to create a standardized measurement scale to facilitate more accurate evaluation.

Conclusion

In conclusion, CDSES-Indonesian version indicated construct validity (convergent evidence) with personality traits as it predicted all the attributes. Specifically, four personality traits, namely conscientiousness, openness, extraversion, and agreeableness, were positively correlated with CDSES, while the neuroticism attribute was negatively associated. This newly developed instrument showed potential for being used by the school counsellors in providing career counselling services to enhance CDSE of the individual.

References

- Amoako, B. M., Danyoh, J. D., & Buku, D. K. (2020). The impact of family background on career decisions of senior high school students: A case of Ghana. *International Journal of Didactical Studies*, 1(1), 22-29.
- Ardini, F. M., & Rosmila, M. (2021). Profil Perencanaan Karir Mahasiswa Bimbingan Dan Konseling Universitas Mathla'ul Anwar. *Jurnal Selaras: Kajian Bimbingan dan Konseling serta Psikologi Pendidikan*, 4(1), 9-16.
- Ardiyanti, D. (2016). Aplikasi model rasch pada pengembangan skala efikasi diri dalam pengambilan keputusan karir siswa. *Jurnal Psikologi*, 43(3), 248-263.
- 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*, 4(1), 47-57.
- Chuang, N.-K., Lee, P. C., & Kwok, L. (2020). Assisting students with career decision-making difficulties: Can career decision-making self-efficacy and career decision-making profile help? *Journal of Hospitality, Leisure, Sport & Tourism Education*, 26, 100235.
- Clark, L. A., & Watson, D. (2019). Constructing validity: New developments in creating objective measuring instruments. *Psychological assessment*, 31(12), 1412.
- Cohen, R. J., Swerdlik, M. E., & Phillips, S. M. (2018). *Psychological testing and assessment: An introduction to tests and measurement*. Mayfield Publishing Co.
- Conkel-Ziebell, J. L., Gushue, G. V., & Turner, S. L. (2019). Anticipation of racism and sexism: Factors related to setting career goals for urban youth of colour. *Journal of Counseling Psychology*, 66(5), 588.
- Dik, B. J., Sargent, A. M., & Steger, M. F. (2008). Career development strivings: Assessing goals and motivation in career decision-making and planning. *Journal of career development*, 35(1), 23-41.
- El-Hassan, K., & Ghalayini, N. (2020). Parental attachment bonds, dysfunctional career thoughts and career exploration as predictors of career decision-making self-efficacy of Grade 11 students. *British Journal of Guidance & Counselling*, 48(5), 597-610.
- Fatimah, S., Suherman, M. M., & Rohaeti, E. E. (2019). Pelatihan penerapan metode plans untuk mengembangkan efikasi diri dalam pengambilan keputusan karier siswa di Kabupaten Purwakarta. *Jurnal Bimbingan dan Konseling Islam*, 9(2), 121-130.
- Febriana, L. Z., & Masykur, A. M. (2022). Hubungan Antara Dukungan Sosial Keluarga Dengan Efikasi Diri Pengambilan Keputusan Karir Pada Siswa kelas XI SMA Negeri 1 Sayung Demak. *Jurnal Empati*, 10(6), 390-396.
- Garg, P., Gupta, B., Chauhan, A. K., Sivarajah, U., Gupta, S., & Modgil, S. (2021). Measuring the perceived benefits of implementing blockchain technology in the banking sector. *Technological forecasting and social change*, 163, 120407.

- Gati, I. (1986). Making career decisions: A sequential elimination approach. *Journal of Counseling Psychology, 33*(4), 408.
- Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology, 43*(4), 510.
- Gushue, G. V., Clarke, C. P., Pantzer, K. M., & Scanlan, K. R. (2006). Self-efficacy, perceptions of barriers, vocational identity, and the career exploration behaviour of Latino/ high school students. *The Career Development Quarterly, 54*(4), 307-317.
- Gushue, G. V., Scanlan, K. R., Pantzer, K. M., & Clarke, C. P. (2006). The relationship of career decision-making self-efficacy, vocational identity, and career exploration behaviour in African American high school students. *Journal of career development, 33*(1), 19-28.
- Hamzah, S. R. a., Kai Le, K., & Musa, S. N. S. (2021). The mediating role of career decision self-efficacy on the relationship of career emotional intelligence and self-esteem with career adaptability among university students. *International Journal of Adolescence and Youth, 26*(1), 83-93.
- He, Z., Zhou, Y., Li, F., Rao, Z., & Yang, Y. (2021). The effect of proactive personality on college students' career decision-making difficulties: Moderating and mediating effects. *Journal of Adult Development, 28*, 116-125.
- Hou, C., Wu, Y., & Liu, Z. (2019). Career decision-making self-efficacy mediates the effect of social support on career adaptability: A longitudinal study. *Social Behavior and Personality: an international journal, 47*(5), 1-13.
- Jessyca, J., & Suyasa, P. T. Y. (2021). Uji Validitas Isi Tarumanagara Career Decision Self-Efficacy Scale. *Jurnal Muara Ilmu Sosial, Humaniora, dan Seni, 5*(1), 189-198.
- Jin, L., Watkins, D., & Yuen, M. (2009). Personality, career decision self-efficacy and commitment to the career choices process among Chinese graduate students. *Journal of Vocational Behavior, 74*(1), 47-52.
- Kanten, S., Kanten, P., & Yeşiltaş, M. (2021). The role of career self-efficacy on the effect of parental career behaviours on career exploration: A study on school of tourism and hotel management students. *European Journal of Multidisciplinary Studies, 6*(1), 152-171.
- Kleine, A.-K., Schmitt, A., & Wisse, B. (2021). Students' career exploration: A meta-analysis. *Journal of Vocational Behavior, 131*, 103645.
- Koçak, O., Ak, N., Erdem, S. S., Sinan, M., Younis, M. Z., & Erdoğan, A. (2021). The role of family influence and academic satisfaction on career Decision-making self-efficacy and happiness. *International journal of environmental research and public health, 18*(11), 5919.
- Kronholz, J., & Osborn, D. S. (2022). Dysfunctional career thoughts, profile elevation, and RIASEC skills of career counselling clients. *Journal of Employment Counseling, 59*(2), 52-63.
- Lent, R. W., & Brown, S. D. (2013). A social cognitive model of career self-management: toward a unifying view of adaptive career behaviour across the life span. *Journal of Counseling Psychology, 60*(4), 557.
- Lent, R. W., Morris, T. R., Penn, L. T., & Ireland, G. W. (2019). Social-cognitive predictors of career exploration and decision-making: Longitudinal test of the career self-management model. *Journal of Counseling Psychology, 66*(2), 184.
- Liana, H., Hairina, Y., & Komalasari, S. (2022). Pelatihan Islamic Goal Setting untuk Meningkatkan Efikasi Diri Siswa dalam Pengambilan Keputusan Karier. *Jurnal Psikologi Islam Dan Budaya, 5*(1), 11-22.
- Mahmud, M. I., Noah, S. M., Jaafar, W., Bakar, A., & Amat, S. (2019). The career readiness construct between dysfunctional career thinking and career self-efficacy among undergraduate students. *strategies, 7*(1), 74-81.
- McCrae, R. R., & Costa Jr, P. T. (1997). Personality trait structure as a human universal. *American psychologist, 52*(5), 509.
- Murisal, M., Dewita, E., Maiseptian, F., & Oktafia, S. D. K. (2022). Efikasi Diri dan Pengambilan Keputusan Karir Siswa Kelas XII SMAN 1 Tilatang Kamang Kabupaten Agam. *Jurnal Pendidikan dan Konseling (JPDK), 4*(4), 1112-1119.

- Nur, N. W., Harum, A., & Rahman, A. (2023). Analisis kebutuhan modul career information processing (CIP) bagi guru bimbingan dan konseling sebagai media pengambilan keputusan karir peserta didik. *EDUCANDUM*, 9(1), 86-94.
- Özek, H., & Ferraris, A. (2020). A cross-cultural analysis on career decision making of the students: the role of self-awareness and self-efficacy. *Global Business and Economics Review*, 23(1), 1-22.
- Park, I. J., Lee, J., Kim, M., Kim, J. Y., & Jahng, S. (2019). Affect in daily career decision self-efficacy and career choice anxiety. *The Career Development Quarterly*, 67(4), 313-326.
- Prasetyo, A. A. P. A., & Kustanti, E. R. (2022). Hubungan antara Kelekatan Aman dengan Efikasi Diri Pengambilan Keputusan Karier Pada Siswa Kelas XII SMA Kesatrian 2 Semarang. *Jurnal Empati*, 11(3), 164-171.
- Qonitatin, N., & Kustanti, E. R. (2021). Models of career maturity in adolescents. International Conference on Psychological Studies (ICPSYCHE 2020),
- Rahayu, P. P. (2022). Perencanaan Karir Di Masa Pandemi Covid-19 Bagi Siswa Kelas Xii Sma Negeri 5 Semarang. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 3(1).
- Rahim, N. S. A., Jaafar, W. M. W., & Arsad, N. M. (2021). Career maturity and career decision-making self-efficacy as predictors of career adaptability among students in foundation program, Universiti Putra Malaysia. *Asian Journal of University Education*, 17(4), 464-477.
- Rahmawati, Y., & Santhoso, F. H. (2020). Pelatihan “Perencanaan Lanjut Studi”(PLANS) terhadap efikasi diri dalam pengambilan keputusan karier pada Siswa SMP. *Gadjah Mada Journal of Professional Psychology (GamaJPP)*, 6(1), 76-91.
- Rogers, M. E., Creed, P. A., & Glendon, A. I. (2008). The role of personality in adolescent career planning and exploration: A social cognitive perspective. *Journal of Vocational Behavior*, 73(1), 132-142.
- Sholiha, R. A., & Sawitri, D. R. (2021). Hubungan antara kecerdasan emosional dan efikasi diri dalam mengambil keputusan karir pada mahasiswa tahun keempat angkatan 2017 fakultas psikologi universitas diponegoro. *Jurnal Empati*, 10(4), 294-299.
- 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(1), 63-81.
- To, S.-m., Yang, L., Lau, C. D., Wong, C.-w. V., & Su, X. (2022). Associations of parental variables and youth's career decision-making self-efficacy: A meta-analysis. *Journal of Child and Family Studies*, 1-15.
- Ulas-Kilic, O., Peila-Shuster, J. J., Demirtas-Zorbaz, S., & Kizildag, S. (2020). Career decision-making self-efficacy of young adolescent students in Turkey. *International Journal of School & Educational Psychology*, 8(sup1), 38-48.
- Umam, R. N. u. (2021). Pengembangan Efikasi Diri Siswa SMK dalam Menentukan Keputusan Karir Melalui Layanan Bimbingan Kelompok. *Islamic Counseling: Jurnal Bimbingan dan Konseling Islam*, 5(1), 115-132.
- Wasif, S., & Nawab, M. (2020). Significance of perceived social support for career decision self efficacy- a co-relational study. *Foundation University Journal of Psychology*, 4(2), 75.
- Wu, S., Zhang, K., Zhou, S., & Chen, W. (2020). Personality and career decision-making self-efficacy of students from poor rural areas in China. *Social Behavior and Personality: an international journal*, 48(5), 1-18.
- Yunita, I., & Rahayu, A. (2021). Internal locus of control dan konsep diri hubungannya dengan kematangan karir siswa SMA X Bekasi. *IKRA-ITH HUMANIORA: Jurnal Sosial Dan Humaniora*, 5(1), 1-9.