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The Adaptation of Career Adaptability Scale on Vocational High School Students

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Abstract

Career Adapt-Abilities Scale is the most frequently used scale to assess career adaptability that has been tested in various countries. Since there has been no adaptation of this scale in Indonesian version, therefore, this study aimed to adapt Career Adapt-Abilities Scale to Indonesian, and examine its validity as well as reliability. The adaptation processes covered (1) understanding original test behavioral indicators, (2) performing back translation, (3) readability test, (4) items discrimination test, (5) validity estimation, and (6) reliability test. The respondents of this study were 797 students coming from Vocational High School (SMK) throughout Temanggung Regency. After the processes were carried out, the study resulted the Indonesian version of Career Adapt-Abilities Scale that consisted of 24 items. Further, the results of confirmatory factor analysis found that all items in Indonesian version were valid, and gained the coefficient values of 0.77 to 0.85 in reliability test. At last, this Career Adapt-Abilities Scale is recommended to be applied as one of career guidance instruments in Vocational High School, and researches

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INTRODUCTION

The transition from school to work is one of critical steps in one's career development because it can determine his achievement and career success in the future. (Koen, Klehe, & Vianen, 2012). To face the transitions, developmental tasks, and work trauma, one needs to have self-adjustment or adaptability. Savickas (2005) states that the process of one's readiness in facing any situations and changes in the world of work is called as career adaptability.

Career adaptability can be manifested by various activities related to planning, effective task performance in any conditions, and search for new challenges (Nugraheni, Wibowo, & Murtadho, 2017). In this case, career adaptability is aimed at improving self-understanding, improving abilities and self-competence, supporting the development of position and competencies by motivating individuals to develop intellectuality, and personality, encouraging a desire to do career exploration, and strategies to gain the career. The adaptability helps individuals to develop skills and help career decisiveness as well as abilities in career planning. In short, career adaptability can increase career success, and even well-being (Hirschi, 2010). Regarding this importance, students are required to have career adaptability. It is because studies with the topic of career adaptability showed that adolescences who have higher career adaptability are more successful in the transition from school to work (Creed, Muller, & Patton, 2003).

To assess career adaptability and to decide the suitable intervention for its improvement, there is a need for an instrument that has good psychometrical inventory. Career Adapt-Abilities Scale (CAAS) designed by Savikas and a team consisting of 13 countries is the most frequently used instrument to assess career adaptability. Moreover, this instrument has been tested in many countries. The scale consists of 24 items sourced from four dimensions of career adaptability, namely concern, control, curiosity, and confidence with six items for each dimension. The combination of all items of these dimensions result a total score that indicates career adaptability (Savickas, & Porfeli, 2012). The greater total score indicates the stronger adaptability of one's career.

The international team consisting of career psychologists from 13 countries were involved in designing the scale. Together, they developed a framework, and drafted a general contract regarding career adaptability to produce a blue print of career adaptability. Then, the team defined career adaptability to each member's native language and identified various aspects of career adaptability based on the respective cultures. After that, the members of the team arranged some lists to specify, and gain the essence of the specific career adaptability construct. Through these steps, it proves that the validity of this scale is very strong, especially those related to logical validity since it involved a number of psychologists, and counseling experts all over the world (Gunawan, 2014). Based on some trials, this instrument gained high reliability coefficients in both English and the other 13 languages. In addition, the international version of this scale was reported to have the reliability score of 0.92 (Savickas & Porfeli, 2012).

Even though CASS scale has been used in many countries to examine the level of career adaptability, it cannot be directly used to assess the career adaptability in Indonesia. The instrument must initially be adapted or modified into Indonesian language and culture. Efforts to adopt and develop psychological measurement instrument can be done by the adaptation process from the foreign language into Indonesian (Azwar, 2017). Therefore, this study was aimed at adapting Career Adapt-Abilities Scale to Indonesian. In this way, it was expected that this instrument is applicable to assess both guidance counseling services, and the future studies.

METHODS

The subjects of this study were 797 SMK students whose age ranged from 15 to 20 (M: 16.55, SD = 0.83), consisting of 379 male students (47.55%) and 418 female students (52.45%). This population was sampled using stratified random sampling method. This method was selected because the population was heterogeneous, and from different grades.

The instrument used in this study was Career Adapt-Abilities Scale (CAAS). It consists of four dimension of career adaptability, namely concern, control, curiosity, and confidence. Each of these dimensions has six statement items, so there are 24 items in total. The scale developed in this study had five answer choices that used likert scale ranging from not strong to strongest categories. The five answer choices were strongest=5, very strong=4, strong=3, somewhat strong=2, and not strong=1. The answers were converted into number for the ease of analysis process. In details, the steps carried out for the instrument adaptation were (1) studying and understanding the original scale behavioral indicators, (2) performing back translation, (3) readability test, (4) items discrimination test, (5) validity estimation, and (6) reliability test.

RESULTS AND DISCUSSION

The results of this study were presented in two categories, namely translation category, and testing category. The translation step consisted of a series of back translation processes to obtain the Indonesian version of career adaptability scale. Meanwhile, the second step was scale test using Confirmatory Factor Analysis (CFA).

This career adaptability scale has four dimensions, namely concern, control, curiosity, and confidence. The first and the most significant dimension of career adaptability is related to one's concern about the future of a career. Career concern is related to confidence that everyone has a valuable and worthy future to prepare. One who has career concern will have foresight, and confidence in the future realized by career planning.

Career control means one believes that he is responsible for developing his own career. If one is confidence in his career control, he will be more confident in making alternative career choices, and not feel down when one of his plan did not work. Conversely, if someone has low career concern, he will tend to feel under pressure when his planning fails.

Career curiosity refers to one's diligence, and thirst to learn further about types of interesting work, and available opportunities around the work. Oppositely, one who has low curiosity tends to be apathetic, and does not care about any interesting work for him.

Career confidence has two components that are strongly related. It is related to the increase in problem solving, and confidence in effective actions. One who has career confidence will use his problem solving technique to make better career decision. He will also be able to use his weaknesses and adapt to career challenges he deals with.

After studying behavioral indicators, the researchers proceeded to back translation step. Once the measurement tool and permission from the compilers were collected, the researchers asked professional translators from language institute to translate the instrument into Indonesian. Then, the translation product was back-translated into English by other language experts to obtain an accurate and equivalent translation product. From the translation, there there were several words having the same meaning (see appendix 1)

The next step was readability test. This test was carried out in a small group that was relevant to the subject of the study. The purpose was to check alternative words, ease of understanding, interpretation, and cultural relevance of the translation product. Before the readability test, the translation product was consulted with two experts

of guidance and counseling and psychology. The experts gave feedbacks to revise some statements, such as changing passive voice to active voice, adding more information for the detail of translation, and refining the instructions more precise delivery and interpretation.

The revised scale was trialed to 30 students. The result was in general the statement items were understandable and lacked of confusion. The items that have passed the readability test and been revised were assembled as the initial scale for then to be tested to the subjects to gain scores as a basis for index computation of item discrimination. To test 24 items, the researchers needed around 300 people as the subject, while the sample should be five until ten times greater than the number of items (Azwar, 2015). By having larger sample size, the estimation of accurate item discrimination could be obtained.

Item discrimination is a parameter used to item selection. It shows how far items can discriminate individuals who have and do not have attributes measured. The index of item discrimination proves consistency between item function, and the whole scale functions. The researchers used item analysis as the parameter of item discrimination. It was done by calculating the correlation coefficient between item score distribution, and scale score distribution to get total items correlation coefficient. Based on the analysis on the correlation between item score, and total score the researchers found out that all items had the correlation value between 0.51 – 0.71. These results showed that all items of the career adaptability passed the item discrimination test, so they can go further to the next steps, namely validity and reliability test.

The next step was validity and reliability test. The results of confirmatory factor analysis indicated that the data of the Indonesian version of career adaptability scale met the theoretical model very well. It gained the sustainability index of $\chi 2 = 93$, $\chi 2/df = 3{,}74$, RMSEA = 0.59, GFI = 0.91, CFI = 0.93, df = 248 SMSR = 0,038. It proved that the model has met fit criterion.

The validity of each latent variable or construct was tested by using the loading factor of the relationship between each observed variable and latent variable. Meanwhile, the reliability test used cornbach alpha. These tests were carried out to observe the loading factor values. If the scale met 0.5 or more loading factor value, it would be considered as having strong validity to explain the latent construct. In details, the measurement results are presented in the following table 1.

Table 1. The Results of Validity and Reliability Tests

Aspects	STATEMENTS	Mean	SD	r_{xy}	Loading	α
Concern	Memikirkan seperti apa masa depan saya	4.86	0.41	0.65	0.70	0.85
	Menyadari bahwa pilihan saya sekarang akan menentukan masa depan saya	4.29	0.82	0.59	0.62	
	Menyiapkan masa depan saya	4.29	0.52	0.64	0.70	
	Menyadari akan pilihan pendidikan dan keterampilan yang harus saya ambil	4.29	1.21	0.63	0.67	
	Merencanakan cara mencapai tujuan saya	4.43	0.55	0.68	0.74	
	Memperhatikan karier saya	4.29	0.55	0.66	0.72	
Control	Selalu optimis	4.71	0.41	0.61	0.62	0.77
	Membuat keputusan sendiri	4.14	0.52	0.51	0.51	
	Bertanggung jawab atas perbuatan saya	4.29	0.82	0.64	0.66	
	Teguh dengan keyakinan saya	4.29	0.82	0.66	0.68	
	Mengandalkan diri sendiri	3.86	0.41	0.53	0.52	
	Melakukan yang baik bagi diri sendiri	4.29	0.52	0.63	0.63	
Curiosity	Mengeksplorasi lingkungan saya	3.57	1.03	0.53	0.53	0.81
	Mencari kesempatan untuk berkembang sebagai pribadi	4.00	0.75	0.60	0.61	
	Menyelidiki pilihan sebelum membuat keputusan	4.14	0.75	0.67	0.75	
	Mengamati berbagai cara dalam melakukan sesuatu	4.43	0.55	0.68	0.71	
	Menyelidiki dengan mendalam pertanyaan yang saya miliki	4.00	0.41	0.62	0.66	
	Selalu ingin tahu tentang kesempatan baru	4.14	1.10	0.61	0.61	
Confidence	Mengerjakan tugas secara efisien	3.71	0.52	0.63	0.64	0.84
	Berhati-hati untuk melakukan sesuatu dengan baik	4.29	0.52	0.65	0.67	
	Mempelajari keterampilan baru	4.14	0.82	0.63	0.63	
	Bekerja dengan kemampuan saya	4.14	1.17	0.65	0.68	
	Mengatasi rintangan	4.00	0.00	0.71	0.77	
	Menyelesaikan masalah	3.86	0.75	0.65	0.71	

The results of confirmatory factor analysis showed in Table 1 indicated that the variable had a high loading factor (>0.5). A greater loading factor value than 0.5 is a requirement to meet valid criterion in measuring the dimension of latent variable. Thus, the dimensions of concern, control, curiosity, and confidence have been valid in measuring career adaptability variable. Further, the reliability test results showed that the Cronbach Alpha value of concern dimension was 0.85, control dimension was 0.77, curiosity dimension was 0.81, and confidence dimension was 0.84. These values have generally surpassed 0.6. It meant that all items used in the scale have been reliable to measure the dimensions. These results also proved that the dimensions of concern, control, curiosity, and confidence were highly reliable to measure adaptability. Moreover, based on correlation test, the correlation values between the dimensions of concern, control, curiosity, and confidence were high and positive, meaning that there was a positive and significant relationship between the dimensions. Similarly, the correlation between the dimensions and variables was also high and positive. It proved that there was a positive, and strong-very strong relationship between the dimensions, and CASS as showed in the following table 2.

Table 2. The Results *CAAS* Aspects Intercorrelation

	CAAS	Confidence	Curiosity	Control	Concern
CAAS	1				
Confidence	0.92	1			
Curiosity	0.90	0.83	1		
Control	0.94	0.86	0.85	1	
Concern	0.86	0.79	0.77	0.80	1

This study aimed at adapting CAAS instrument to Indonesian. CAAS scale is a measurement tool for career adaptability developed by Savickas and his team from 13 countries. This scale can be used as an assessment instrument of guidance and counseling, and researches. The adaptation process has been done in line with the steps, and criteria in the scale adaptation procedures (Azwar, 2017). Even, the item analysis indicated that 24 items of the scale were valid and reliable.

Generally, the adapted version of measurement tool was equal to the original version. The researchers proved it by obtaining similar mean values of all four subscales, including total scale for Indonesian version samples with the international sample. Additionally, confirmatory factor analysis also showed that the Indonesian version of career adaptability scale was similar to international version of CAAS in terms of psychometrical characteristics, and factor structures. Another similarity was found in the results of the measurement value of the Indonesian version model, and the international model, namely both resulted goodness of fit. This measurement results were similar when compared to the international version of CAAS, namely X2 = 4987,1 df= 248 CFI = 0,93 RMSEA = 0,050 SRMR = 0,039 (Savickas dan Porfeli, 2012).

The results of the Confirmatory Factor Analysis showed the value of loading factors in Indonesia was not much different when compared to other countries. In reliability test, it can be seen that the Cronbach Alpha of Concern dimension was as much as the Control dimension, the Curiosity dimension was as much as the Confidence dimension and Adaptability was between the Min α and Max α values. This showed that the Cronbach Alpha value between countries was not so different. The reliability test results showed that the scores obtained from this study were even higher than the total of international CAAS reliability scores (Savickas and Porfeli, 2012).

In this study, career concern was found to have the highest value among the subscales, and revealed that SMK students truly paid attention to the career because they were demanded to

find work after they graduate. In relation to this, the trial of USA version of CASS reported that career adaptability has a strong relationship with the vocational identity, and career exploration (Porfeli & Savickas, 2012). This provides strong support that this instrument is recommended to use in career guidance assessments.

There found a limitation in this study, namely the unavailability of parallel measurement tools to assess convergent and discrimination validity of the career adaptability scale. Therefore, further studies are required to meet a better career adaptability scale.

CONCLUSION

Based on the results of the analysis, the career adaptability instrument that has been developed theoretically and trialed empirically proves to be valid. The number of final items of the finding are 24 items. These findings are in accordance with previous studies that have tested the validity of career adaptability in 13 countries. At last, this valid and reliable instrument can be used to measure career adaptability, especially for vocational school students.

REFERENCES

Azwar, S. 2015. Reliabilitas dan Validitas. Yogyakarta : Pustaka Pelajar

Azwar, S. 2017. Metode Penelitian Psikologi. Yogyakarta : Pustaka Pelajar

Creed, P. A., Muller, J., & Patton, W. (2003). Leaving high school: The influence and consequences for psychological well-being and career-related confidence. Journal of Adolescence, 26(3), 295–311, doi:10.1016/j.jvb.2008.12.004

Hirschi, A. (2010). The role of chance events in the school-to-work transition: The influence of demographic, personality and career development variables. Journal of Vocational Behavior, 77, 39–49, doi:10.1016/j.jvb.2009.01.002

Koen, J., Klehe, U. C., Van Vianen, A. E. M. 2012). Training Career Adaptability to facilitate a successful School-to- Work Transition. Journal of Vocational Behavior, 81, 395-408, http://dx.doi.org/10.1016/j.jvb.2012.10.003

Porfeli, E. J. & Savickas, M. L. 2012. Career Adapt-Abilities Scale-USA Form: Psychometric properties and relation to vocational identity. Journal of Vocational Behaviour, 80, 748-753, doi:10.1016/j.jvb.2012.01.009

Savickas, M. L. 2005. The theory and Practice of career construction. In S. D. Brown, & R.W. Lent (eds). Career development and counseling (pp. 42-70).

Savickas, M. L. 2012. Life Design: A Paradigm for Career Intervention in the 21st Century. Journal of Counseling & Development, 90, DOI: 10.1177/1069072711409342

Savickas, M. L., & Porfeli, E. J. (2012). The Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. Journal of Vocational Behavior. 80, 661–673, doi:10.1016/j.jvb.2012.01.011

Nugraheni, E., P, Wibowo., M E., Murtadho, A. 2017. Hubungan Kecerdasan Emosional dengan Prestasi Belajar: Analisis Mediasi Adaptabilitas Karier pada Prestasi Belajar. Jurnal Bimbingan Konseling, 6 (2),127-134, http://journal.unnes.ac.id/sju/index.php/jubk