# The Use of Career Self-Efficacy in Mediating Career Decision Ambiguity Tolerance and Career Decision-Making Difficulties

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| Article Info | Abstract |
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| | This study aimed at identifying and analyzing the relationship between career decision ambiguity tolerance and career decision-making difficulties by using self-efficacy as the mediator. The population involved in this study was Public Senior High School (SMA Negeri) students throughout Semarang City with the sample of 329 students selected using Cluster Random Sampling. Their data were collected using career decision-making difficulties scale, career decision ambiguity tolerance scale, and career self-efficacy scale. The results of direct relationship analysis showed that the ambiguity tolerance had a positive and significant relationship with career self-efficacy, and career self-efficacy had a negative and significant relationship with career decision-making difficulties. For more, the results of mediation analysis showed that there was an indirect effect between ambiguity tolerance in career decisions and the difficulties in career decision-making mediated by career self-efficacy. The implications of these findings are discussed in the discussion. |

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## INTRODUCTION

In adolescence, decision-making is a significant thing to be made by individuals, especially SMA students. They need to plan and make career decision regarding their career choices after graduating from school. To do so, the students are required to have self-understanding, and sufficient career information (May, Wei, & Newmeyer, 2008).

Career decision-making is one of challenging processes for adolescents because it requires self-information processing and career world. Since career decision-making is important, and has an impact to the entire life, it is obvious that the majority of individuals experience confusion because of the unlimited career choices (Gati & Levin 2014).

Gati & Tal, (2008) state that overall, decision-making can cause stress, and anxiety resulted by inappropriate and undesirable decisions made by individuals. For more, some of them may have negative career thoughts which hinder their decision-making. The dysfunctional thoughts may be related to poor self-understanding or work knowledge. In addition, anxiety caused by the future and ambivalent thoughts about their skills or supports they obtain from people close to them can also create additional confusion (Bullock-Yowel et al, 2012).

Yowell et. al's study (2014) found that 80% SMA students who wanted to continue to study in higher education are hesitant and have difficulties in determining majors to choose, while the other 50% complained about changes during the process of registration. They conclude that many students experience difficulties in career decision-making that is potential for their future. Besides, it is also known that SMA students in Semarang City mostly face difficulties in career decision-making. It was found 53% of them having difficulties in deciding career for the future, 27% is hesitant and unsure of career choices, and the rest 20% is sure for their career decision. Lack of information and curiosity about careers are the reasons why students have difficulties in career decision-making.

The dynamics that occur in complex and dynamic career decision-making processes in adolescents arise propositions which emphasize the importance of ambiguity tolerance. Most adolescents almost never have clear and reliable career information. Therefore, the key variable in career decision-making is the ability to overcome ambiguity (Xu & Tracey, 2014, 2015a,). Given the fact that the key component of career decision-making is related to reluctance, complex, inconsistent, or unexpected information (Gati, Krausz, & Osipow, 1996).

Xu and Tracey (2015b) define ambiguity tolerance of career decision as individuals' evaluation and responds to information that is unknown, complex, or inconsistent in career decision-making. Those who have high career decision-making ambiguity tolerance will tend to be comfortable with unreliable information and consider it interesting and even desirable. Meanwhile, individuals with low career decision-making ambiguity tolerance consider it as a trigger for anxiety and choose to avoid or react prematurely. Unknown information in career decision-making refers to new information found by career decision-makers.

A study by Endres, Ghowdhury, and Milner (2009) found that ambiguity tolerance moderates the relationship between task complexity, and self-efficacy. In complex tasks, individuals with higher ambiguity tolerance can gain higher and more accurate self-efficacy than others with low ambiguity tolerance. Next, Ghosh and Ray's study (1997) found that ambiguity tolerance contributes positive effects on individuals beliefs in decision-making. However, the beliefs in their study was not called as self-efficacy, but had the same definition as individuals subjective assessment on their abilities.

Betz and betz (2001) argue that career self-efficacy can lead to avoidance or motivation to career behavior. Low career self-efficacy can cause someone to postpone making career decisions, and following up the decisions that have been made. On the other hand, someone

who has high career self-efficacy tends to visualize success for himself by looking for positive supports for his career ambition. Moreover, improving career self-efficacy and outcome expectations can help students to face risks and problems in decision-making in entering the world of career, and hopes in the future (Ana, Wibowo, & Wagimin, 2017).

Interestingly, this study attempted to examine the relationship between career decision ambiguity tolerance and career decision-making difficulties by SMA students through career self-efficacy as the mediator. Individuals who have high self-efficacy tend to consider difficult tasks as challenges to pass rather than as threats to avoid (Krapp, in Santosa & Himam, 2014). Those individuals also define the difficult tasks as challenging objectives for themselves, and maintain strong commitments to achieve them. If it is associated with career decision-making, individuals who have high self-efficacy tend to be able to make choices in career decision making, face challenges, and accept the risk of actions taken.

By referring to the above explanation, this study was focused on the provision of contribution related to career self-efficacy as a mediator in career decision ambiguity tolerance and career decision-making difficulties by SMA students. The results of this study are expected to be able to generalize the contribution of career self-efficacy in mediating the assessment of career ambiguity with the difficulty of making career decisions in high school students.

**METHODS**

This correlational descriptive study used sample of 329 respondents chosen using cluster random sampling from 5 schools. The details are as follows.

**Table 1**. Details of the Study Sample

| Sub-districts | Sampel |
| --- | --- |
| SMA 2 Kota Semarang | 66 |
| SMA 3 Kota Semarang | 66 |
| SMA 8 Kota Semarang | 66 |
| SMA 12Kota Semarang | 66 |
| SMA 14 Kota Semarang | 65 |
| $\Sigma$ | 329 |

The data collection in this study was realized by the instrument adapted from back-translation process. This process was used to translate the document into Indonesian from the original version of English. For more, to collect data on career decision-making difficulties, the instrument used was Career Decision Difficulties Questionnare (CDDQ), the data on career decision ambiguity tolerance were collected using the instrument of Career Decision Ambiguity Tolerance (CDAT), and the self-efficacy data were collected using career decision self-efficacy scale-short (CDSE-SF).

CDDQ is a measurement tool for career decision-making developed by Gati, Krausz, and Osipow (1996). It was based on the taxonomy of difficulties from the theory of career decision-making by Gati, Krausz, and Osipow. This scale was interpreted in 9 points of response-scales (1= does not describe me until 9=describes me well). This instrument is aimed at measuring the level of difficulties experienced in career decision-making using 3 indicators, namely (1) Lack of Readiness; (2) Lack of Information; (3) Inconsistent Information. For the reliability, this instrument showed satisfactory consistency with α coefficient of 0.91.

Career Decision Ambiguity Tolerance Scale (CDAT) developed by Xu & Tracey (2014) is used to measure individuals' perceptions of complex, original, inconsistent, and unexpected information during career decision-making process. This scale consists of 18 items, and 3 indicators, namely: (1) Preference; (2) Tolerance; (3) Aversion. Participants responded to this questionnaire by giving 5 points of Likert scale, covering 1 (strongly disagree) until 5 (strongly agree). For the reliability, this instrument gained satisfactory consistency with with α coefficient of 0.85.

Career decision self-efficacy scale was adapted from Betz, Klein, & Taylor (1996). This data collection tool is used to assess career self-efficacy related to the tasks of making career decisions. It consists of 25 items to measure the level of self-confidence in fulfilling career decision-making tasks, and 5 indicators, namely (1) Self-Appraisal, (2) Occupational Information

(3) Goal Selection, (4) Planning for The Future, (5) Problem Solving. The interpretation of the agreement in this scale uses a Likert scale, which is 1- no confidence at all; 2 – incomplete confidence; 3 – somewhat confidence, and somewhat not confidence; 4 – confidence; 5 – complete confidence. Based on the reliability test, this instrument gained satisfactory consistency with with α coefficient of 0.86.

Furthermore, data analysis in this study was carried out using regression analysis. The effect of mediator was examined through bias corrected bootstrapping technique with N=5000 and confidential interval (CI) of 95%.

**RESULTS AND DISCUSSION**

This study had three variables, namely dependent variable (career decision-making difficulties), independent variable (career decision ambiguity tolerance), and mediator variable (career self-efficacy). Based on descriptive statistical results, it was known that the mean and standard deviation of each variable was career decision-making difficulties (M = 168.58; SD = 42.80), career decision ambiguity tolerance (M = 63.95; SD = 7.23), and career self-efficacy (M = 98.28; SD = 9.46). The results of the analysis of the mean and standard deviations are presented in table 2.

**Table 2**. The Results of Mean and Standard Deviation

| Variables | N | M | SD |
|---|---|---|---|
| Career decision-making difficulties | 329 | 168.58 | 42.80 |
| Career decision ambiguity tolerance | 329 | 63.95 | 7.23 |
| Career self-efficacy | 329 | 98.28 | 9.46 |

The results of analysis of career self-efficacy as the mediator can be seen in table 3. It shows that the variable of career decision ambiguity tolerance had significant and positive relationship with career self-efficacy (β = 0, 57; p < 0.05). In addition, the analysis results of career self-efficacy and career decision-making difficulties showed that these variables had significant and negative relationship with the value of (β = -0.93; p < 0.05). Next, the results of career decision ambiguity tolerance had significant and negative relationship with career decision-making difficulties (β = -0.91; p < 0.05).

Other results indicated that there was a mediating role of career self-efficacy in the non-direct relationship between career decision ambiguity tolerance and career decision-making difficulties. This mediator variable was tested using bias corrected bootstrap method N=5000. From the results of bootstrapping, 95% confidence interval of bootstrap for the indirect effect resulted the indirect coefficient results of career decision ambiguity tolerance and career decision-making difficulties of β = -0.53. The interval of confidence of bootstrap results showed Boot LLCI (lower level for confidential interval) = -0.87 and Boot ULCI (upper level for confidential interval) = -0.21. If the range of the Boot LLCI and Boot ULCI values did not include zero (0), then a significant estimate can be concluded and a mediating effect can occur. From the results of the above analysis, the value of the bootstrap standardized indirect effect was -0.53, and the 95% confidence interval (CI) ranged from -0.87 to -0.21. Since zero was not included in the 95% confidence interval range, it could be concluded that there was a significant indirect effect between t career decision ambiguity tolerance and career decision-making difficulties through career self-efficacy.

**Table 3**. The Influence of Career Self-Efficacy as The Mediator

| CI= 95% Predictor | B | t | P | SE | LLCI | ULCI | R | R² | F | P |
|---|---|---|---|---|---|---|---|---|---|---|
| Criterium : career self-efficcy | | | | | | | 0.14 | 0.19 | 76.8 | < 0.00 |
| Career decision tolerance ambiguity | 0.57 | 8.76 | < 0.05 | 0.06 | 0.44 | 0.69 | | | | |
| Criterium: careerdecision difficulties | | | | | | | 0.45 | 0.20 | 41.3 | < 0.00 |
| Career decision tolerance ambiguity | -0.91 | -5.84 | < 0.05 | 0.33 | -2.54 | -1.26 | | | | |
| Career self-efficcy | -0.93 | -3.73 | < 0.05 | 0.25 | -1.41 | -4.44 | | | | |
| Indirect | -0.53 | | | 0.17 | -0.87 | -0.21 | | | | |
| Total effect | -2.43 | -8.14 | < 0.05 | 0.29 | -3.02 | -1.84 | | | | |

The following is a conceptual figure of the mediation analysis using bias corrected bootstrapping which examined the effect of career decision ambiguity tolerance and career decision-making difficulties.
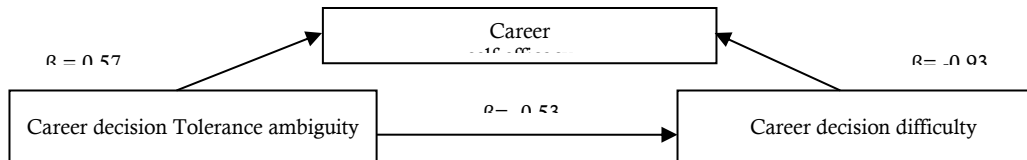


All path had a sign level at $p < 0.05$
**Figure 1**. The Analyses Results of the Study

These findings are in line with the results of previous studies done by Xu and Tracey (2014) that high career decision ambiguity tolerance tends to have better career self-efficacy in career decision which contributes to the assistance of career decision difficulties caused by the lack of motivation, unreliable information, and inconsistent information.

Besides, Lane & Klenke (2004) reveal that ambiguity tolerance is important in establishing self-efficacy when individuals face complex situations. Individuals whose ambiguity tolerance is higher have more accurate career self-efficacy perceptions to predict the future when making career decision compared to those who have low ambiguity.

Next, according to Budner (1962) individuals who have higher ambiguity tolerance consider themselves as having control over their environment. As a results they will have self-confidence and be better at focusing on career decision-making than the individuals who see no control over themselves.

The above explanation describes the importance of career self-efficacy mediating effects on career decision ambiguity tolerance and career decision-making difficulties. Career self-efficacy played important roles for the indirect relationship between career decision ambiguity tolerance and career decision-making difficulties. That is, individuals with higher ambiguity tolerance tend to have high career self-efficacy and consequently have more motivation for career decision-making, sufficient information, and lack of information conflict. Career decision ambiguity tolerance is also an antecedent of career self-efficacy. In other words, individuals with low tolerance levels for ambiguity in career decisions tended to feel less confident when engaging in activities related to career decisions. It could explain why they experience difficulties in career decision making. Meanwhile, individuals with high tolerance for ambiguity in career decisions tended to have high self-efficacy and would be low in the case of career decision-making difficulties.

The implication of the findings of this study for school counselors is to help students overcome difficulties in career decision making, it is important to improve students' career self-efficacy and an attitude of tolerance for ambiguity to overcome the difficulties of career decision making in students. When students are faced to ambiguous situations, those who have high ambiguity tolerance will not avoid any ambiguous stimulus, but turn it into something interesting and desirable. In the same time, they will be sure of their abilities in career decision-making so that they will be easy in accomplishing tasks and avoid the difficulties encountered in career decision-making.

## CONCLUSION

The findings of this study prove that career self-efficacy has mediating roles for career decision ambiguity tolerance and career decision-making difficulties. Therefore, this study can be used as a reference or information for counselors to minimize students' difficulties in career decision-making.

In addition, future researchers are advised to use experimental approaches, mixed methods, model development, and include other variables that have not been discussed in this study.

## REFERENCES

Ana, A., Wibowo, M. E., & Wagimin, W. (2017). Group guidance with role playing techniques to improve students' self-efficacy and career outcome expectations. *Journal Guidance and Counseling*, 6(1), 49-53. Retrieved from

Betz, N. E., & Taylor, K.M. (2001). *Manual for the career decision self-efficacy scale and CDMSE ShortForm*. Retrieved from

Budner, S. (1962). Intolerance of ambiguity as a personality variable. *Journal of personality*, 30(1), 29-50.

Bullock-Yowell, E., McConnell, A. E., & Schedin, E. A. (2014). Decided and undecided students: career self-efficacy, negative thinking, and decision-making difficulties. *Nacada Journal*, 34(1), 22-34. Retrieved from

Bullok-yowel, E., Lindsay, A., McConnel, A., Campbell, M. (2012). Unemployed adults thought, career-self-efficacy, and interest: any similarity to college students?. *Jurnal Of Employment Counseling*. 49, 18-30. Retrieved from

Endres, M.L. Chowdury, S. &Milner, M. (2009). Ambiguity tolerance and accurate assessment of self- efficacy in a complex decision task. *Journal of Management & Organization*. Retrieved from Gati, I., & Levin, N. (2014). Counseling for career decision-making difficulties: Measures and methods. *Journal of The Career Development Quarterly*, 62(2),98-113. Retrieved from

Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology*, 43, 510–526.

Gati, I., & Tal, S. (2008). Decision-making models and career guidance. *International Handbook of Career Guidance,* 157-185.

Ghosh D and Ray MR (1997). Risk ambiguity and decision choice: some additional evidence, *Decision Sciences* 28(1), 81-104. Retrieved from

Mei, T., Wei, P., & Newmeyer, M. (2008). Factors influencing high school students career aspiraons. *Professional School Counseling,* 11(5), 285-295. Retrieved from

Lane, M. S., & Klenke, K. (2004). The ambiguity tolerance interface: A modified social cognitive model for leading under uncertainty. *Journal of Leadership & Organizational Studies*, 10(3), 69-81. Retrieved from

Santosa, E. I., & Himam, F. (2014). Effects of Knowledge SHARING on career planning on career decision achievement. *Jurnal Intervensi Psikologi*, 6(1), 1-24. Retrieved from

Xu, H., & Tracey, T. J. (2014). The role of ambiguity tolerance in career decision making. *Journal of Vocational Behavior,* 85, 18–26.

Xu, H., & Tracey, T. J. (2015a). Ambiguity Tolerance with Career Indecision: An Examination of the Mediation Effect of Career Decision-Making Self-efficacy. *Journal of Career Assessment*, 23, 519-532.

Xu, H., & Tracey, T. J. (2015b). Career Decision Ambiguty Tolerance Scale: Construction and initial validations. *Journal of Vocational Behavior,* 88,1–9.