



The Effect of Career Intervention on Career Self-Efficacy Among Secondary School Students

Mohd Izwan Mahmud¹, Abu Yazid Abu Bakar^{1*}, Salleh Amat¹, Azlin Norhaini Mansor²,
Muhammad Syawal Amran³

¹ Centre of Educational Diversity, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Bangi, Selangor, MALAYSIA.

² Centre of Educational Leadership & Policy, Faculty of Education, UKM Bangi, Selangor. MALAYSIA.

³ Centre of Innovation in Teaching & Learning, Faculty of Education, UKM Bangi, Selangor MALAYSIA.

*Corresponding Author (Tel: +601 9224 6917, Email: yazid3338@ukm.edu.my).

Paper ID: 13A7B

Volume 13 Issue 7

Received 06 March 2021

Received in revised form 08
May 2022

Accepted 15 May 2022

Available online 23 May
2022

Keywords:

Career counseling;
Career self-efficacy;
Career intervention;
School; Malaysia

Abstract

Education and career development are critical for students transitioning from school to work, there must go through career planning, goal selection, and decision-making procedures. This study aimed to examine the effectiveness of Career Intervention in increasing secondary students' career self-efficacy using the Malay Version of career decision self-efficacy. The research design uses a quasi-experimental study. This program has four activities which were Career Exploration, Career Matching, Career Genogram, and Individual Learning Plan. This program was conducted for six hours and encompassed a variety of career activities, role play, presentation, and group training. A total of 30 secondary school students were involved as subjects who were selected through pre-test based on random assignment. Findings show, there are significant difference in students' career self-efficacy, ($t = -2.595$, $p\text{-value} < .05$). Meanwhile, there was a no significant difference based on gender, ($t = -.744$, $p\text{-value} > .05$). The implications of the study on career support programs in schools are also discussed.

Disciplinary: Counseling, Education, Social Science.

©2022 INT TRANS J ENG MANAG SCI TECH.

Cite This Article:

Mahmud, M. I., Bakar, A. Y. A., Amat, S., Mansor, A. N., and Amran, M. S. (2022). The Effect of Career Intervention Program on Career Self-Efficacy among Secondary School Students. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, 13(7), 13A7B, 1-8. <http://TUENGR.COM/V13/13A7B.pdf> DOI: 10.14456/ITJEMAST.2022.128

1 Introduction

The dropout issue is the main challenge that needs to be addressed in every school so that students can access education fairly. Various studies have confirmed that the causes of students at risk of dropouts include school environment, family, parents and even the local communities (Gill,

Anteim-Lanzat, Cacheiro-Gonzalez & Perez-Navio, 2019; Balkis, 2018) The Ministry of Education Malaysia has implemented various strategies to eradicate student dropouts through the Malaysia Education Blueprint 2013-2025. Several aspects have been given the attention which is the emphasis on school ecosystems including conducive learning opportunities capable of increasing students' engagement in learning and schooling (Furlong & Christenson, 2018; Lam et al. 2012). Studies show students' engagement in schools is a high predictor of achievement and educational and career aspirations (Jelas, et al., 2013 Wang & Eccles, 2012).

In addition, emphasis on educational and career aspirations is an important element learned either formally or otherwise to develop the potential of students in schools. Educational and career aspirations are measured based on factors of planning, selection and future career decision-making (Brown & Lent, 2013; Gadassi, Gati & Wagman-Rolnick, 2013). This factor can explain the readiness of students in the process of career development transition between education at school and university level up to the job market (Mahmud, Noah, Ahmad & Jaafar, 2013). However, this process of transition change should be given attention in developing students' self-efficiency especially in determining their willingness to plan and make decisions in determining the direction of their careers upon completion of school.

2 Literature Review

Career readiness is one of the predictive factors of the individual's ability to make career choices, decision-making, and problem-solving, which may be evaluated by looking at an individual's capability to make a career decision while considering cognitive, emotional, and attitudinal factors, expected outcomes (Yowell, et al., 2013; Betz & Taylor, 2001). Career self-efficacy, on the other hand, is an ability to achieve a specific career goal by planning and implementing solutions that take into account one's abilities. Rather than just possessing career-related skills and information, students with high career self-efficacy can utilize what they've learned to make appropriate career goals and decisions. Andrews et al. (2014) found that those with high levels of career self-efficacy had a higher likelihood of making better career decisions.

Self-efficacy is a basic concept that describes an ability to attain goals (Peter et al., 2017; Austin, 2010; Adika et al., 2013; Austin 2010). Self-efficacy is self-confidence in the ability to complete a task in a particular situation. Meanwhile, self-efficacy is described as confidence in developing, managing and executing cognitive, behavioral and social abilities to achieve desired career objectives (Bandura, 1986). Basically, an individual with a low level of career self-efficacy is more prone to developing dysfunctional career thinking. As a result, those who are less confident in their ability to make decisions will avoid engaging in any career activities (Andrews, et al., 2014; Komarraju, et al., 2013). While individuals with good levels of career self-efficacy are more likely to explore jobs and complete career responsibilities effectively. They can choose the appropriate profession, accept responsibility for their decisions, and engage in career activities. (Nilforooshan, 2020; Komarraju, Swanson, & Nadler, 2013; Sidiropoulou-Dimakakou, et al., 2012; Kristin, 2009).

3 Method

3.1 Research Design and Sampling

This study aims to examine the effectiveness of the Career Intervention on career self-efficacy among secondary students. A total of 30 secondary school students were involved as subjects who were selected through pre-test based on random assignments on a moderate level of career self-efficacy.

3.2 Instruments

In this study, the Career Decision Self-Efficacy-Short Form (CDSE-SF) was used to measure career self-efficacy. It consists of 25 items (Betz & Taylor, 2001). The five subscales of career self-efficacy are accurate self-appraisal, obtaining occupational information, goal selection, decision-making, and problem-solving. This test uses 5 Likert scales, namely 1 (not confident at all) to 5 (fully confident) (Betz & Taylor, 2001). Luzzo (1996) discovered that CDSE-SF had strong validity in a cohort of Australian undergraduates in prior research. The study also discovered a strong positive link between CDSE-SF and Career Decision-Making Attitudes ($r = .41$), individuals with higher career self-efficacy scores were more likely to have better career decision-making attitudes. Another study by Chung (2002) found that there was a significant difference between the CDMSE-SF and the Career Commitment Scale. Meanwhile, a study by Taylor and Betz (1983), found that Cronbach's Alpha coefficient for CDSE-SF was .96, and each subscale ranged from .86 to .89. In the Malaysia context, Jelas et al. (2014) evaluated the instrument's reliability with a coefficient of .92, and similarly, based on the results of pilot research among higher education students, with a coefficient of .91 (Mahmud, 2017)

3.3 Career Intervention Program

Career Interventions are designed to give relevant students professional awareness, broad job activities orientation, in-depth examination of specific groups, career preparedness, and a comprehension of the current economy. A module is defined as a collection of teaching that focused on a concept of the subject. It is an organised and planned method of career intervention module (Russell, 1974). Previous research on the modules' development and evaluation of career interventions or career activities has indicated that they benefit students. The career interventions are based on Cognitive Information Processing (CIP) theory, which is designed to eliminate dysfunction of career thinking and improve the capability of career decision making. The proof was local research on module development based on the CIP theory (Mahmud, 2017) and international research found that CIP interventions are effective to improve the ability to make career decisions and reducing irrational thinking and (Osborn et al., 2016; Bullock-Yowell et al., 2013).

This Career Intervention aims to increase the level of preparation of students to engage in the learning process by exploring and making decisions on various career choices (Sampson, et al., 2016). These include knowledge, skills and learning strategies as well as cognitive strategies such as the ability to make interpretations, problem-solving and career decision-making abilities.

Generally, this program uses a career readiness module built based on a career information processing model based on a cognitive approach. The purpose of this module is to enhance the ability and complexity of form four students in making effective and accurate career planning. This module also serves to train students to master decision-making skills and can even increase self-confidence when faced with challenging choices in life in the future. When students have the right skills in making career selection, therefore, indirectly, learning motivation will also increase, thus reducing the risk of dropouts in school.

The career readiness module was created to increase participants' competence and complexity in developing effective and accurate career plans. The Career Readiness Module-Cognitive Information Processing Module (CRP- CIP) has been adapted to develop this module. In career decision-making, the CRM-CIP was developed based on the pyramid of information processing domain (Gu, et al., 2020; Peterson et al., 1996). The CRM-CIP was based on three main domains such as knowledge, decision making, and executive processing sub-modules. In the context of this study, there are four activities used from the CRM-CIP which are Activity 1: Career Exploration; Activity 2: Career Matching; Activity 3: Career Genogram; Activity 4: Individual Learning Plan. The duration of implementation of all activities is six hours conducted by the facilitators in large groups and small groups. Each study subject was given a complete module kit, including the intervention effectiveness evaluation test which is the Career Self-Efficacy test.

4 Result and Discussion

Table 1 shows that overall level of career self-efficacy for pre-tests (M = 3.50, SD = 0.680) and post-test (M = 3.92, SD = 0.492). In the pre-test, the self-efficacy of a student's career is at a moderate level, whatever the post-test there is an increase at a high level. This shows that the Career Intervention can enhance students' ability in making career decisions.

Table 1: Mean Score of Career Self-Efficacy

Construct	Pre-test		Post-test	
	M	SD	M	SD
Career Self-Efficacy	3.50	.680	3.92	.492

Level: Low = 1.00-2.33, Moderate = 2.34-3.66, High = 3.67-5.00

Moreover in Table 1, there were significant differences in career self -efficacy after attending the Career Intervention [t = -2.595, p< .05]. Using structured modules in career interventions can increase career self-efficacy among university and secondary school students (Mahmud, et al. 2017). This is consistent with a few previous studies, which emphasized the effectiveness of structured training. Consequently, career intervention using psychoeducation approaches such as teaching, and learning, role play, assignment and training in a group is effective in increasing career self-efficacy (Park et al., 2020). As a result, the exercises were created to help students to collect occupational knowledge, choose a goal, and start planning, while the course evaluations were created to stimulate their decision-making and problem-solving abilities. As a result, participants' job-seeking behaviour and confidence in performing job-related activities improved.

Table 2: Paired sample t-test between pre-test and post-test

		N	Mean	SD	t-test	p-value
Career Self-Efficacy (CSE)	Pre-test	30	3.50	.680	-2.595	.015*
	Post-test	30	3.92	.492		

*Note: $p < .05$

The finding in Table 3, there is no significant difference in career self-efficacy based on gender, [$t = -.744, p > .05$]. These findings indicated males and females have the same mean score and this finding show that a career intervention is suitable for both genders. Similarly, the previous study found that the gender has the same career decision self-efficacy and career adaptability (Maree, 2019; Gadassi, Gati and Wagman-Rolnick, 2013). In addition, the role of career counselors in implementing career development programs for students of different genders. In other words, the purpose of career interventions to increase career readiness can be implemented for both genders.

Table 3: Paired sample t-test between gender

	Gender	N	Mean	SD	t	p
Pre-test	Male	13	3.42	.698	-1.290	.208
	Female	17	3.74	.652		
Post-test	Male	13	3.75	.421	-.744	.92
	Female	17	4.05	.513		

Overall, career interventions conducted on students can increase career self-efficacy from moderate scores to high scores. Post-test results found that all participants showed (i) improvements in the aspect of self-knowledge; (ii) have knowledge of employment; (iii) have clear educational and career goals; (iv) make career planning; and (v) be able to master problem-solving skills. These results can explain, that the structured Career Intervention can help participants improve career readiness by making career exploration at an earlier stage and can increase motivation in learning, career adaptation and readiness to make a career decision. This study has also indirectly expanded the efficacy of students to explore and obtain career-related inputs in the early stages of school. This created a gap in knowledge about careers and raised students' awareness of careers.

The findings also provide input in improving guidance and counseling services in schools in order to carry out a structured career development program. A structured career program should include several elements namely (i) conducting needs research; (ii) designing and developing activities modularly (iii) carrying out structured interventions (Maree, 2019); (iv) using effective evaluation tests and (v) monitoring the program. Besides assisting counselors to use the Malay version of the CDSE-SF test in counseling sessions, psychoeducation programs, mentoring programs, and students' career profiles. Even counselor teachers should also design programs that emphasize gender needs in order to develop the career efficacy of male and female students fairly.

5 Conclusion

All in all, career interventions conducted on students can increase career self-efficacy from moderate scores to high scores. It is recommended that further study should focus on a larger population to make a comprehensive comparison of students by taking into account, school factors, student academic achievement, and the student's family background. Besides, conducting a pure experimental study, by making comparisons between control groups and experimental groups.

6 Availability of Data and Material

Data can be provided by contacting the corresponding author.

7 Acknowledgement

The authors are grateful to the Ministry of Higher Education (MOHE) and the Faculty of Education, Universiti Kebangsaan Malaysia (UKM) for funding the research that leads to the publication of this article (Research Grant Codes: FRGS/1/2019/SSI09/UKM/03/1, GG-2020-001, GG-2019-078).

8 References

- Andrews, L. M., Bullock-Yowell, E., Dahlen, E. R., & Nicholson, B. C. (2014). Can perfectionism affect career development? Exploring career thoughts and self-efficacy. *Journal of Counseling & Development, 92*(3), 270-279.
- Adika, L. O., Adesina, O. J., & Oriyomi, R. (2013). Career self-efficacy, achievement motivation and organizational commitment to conflict preventive behaviour of lecturers in Oyo Town in Nigeria. *An International Multidisciplinary Journal, 7*(3), 308-323.
- Austin, C. Y. (2010). Perceived factors that influence career decision self-efficacy and engineering related goal intentions of African American high school students. *Career and Technical Education Research, 35*, 119-135.
- Balkis, M. (2018). Academic motivation and intention to school dropout: the mediation role of academic achievement and absenteeism, *Asia Pacific Journal of Education, 38*(2), 257-270.
- Bandura, A. (1986). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.
- Betz, N. E., & Taylor, K. M. (2001). *Manual for the Career Decision Self-Efficacy Scale and CDSE-Short Form*. United States: Assessment Resources, Inc.
- Brown, S. D., & Lent, R. W. (2013). *Career development and counseling (2nd ed.)*. Hoboken, NJ: John Wiley & Sons.
- Bullock-Yowell, E., Chason, A. K., Sampson, J. P., Lenz, J. G., & Reardon, R. C. (2013). Relationships among career thoughts, career interests, and career decision state. *The Canadian Journal of Career Development, 12*(1), 39-47.
- Chung, Y. B. (2002). Career decision-making self-efficacy and career commitment: Gender and ethnic differences among college students. *Journal of Career Development, 28*(4), 277-284.
- Furlong, M. J., & Christenson, S. L. (2018). Engaging students at school and with learning: A relevant construct for all students. *Psychology in the Schools, 45*, 365-368.
- Gadassi, R., Gati, I., & Wagman-Rolnick, H. (2013). The adaptability of career decision-making profiles:

Associations with self-efficacy, emotional difficulties, and decision status. *Journal of Career Development*, 40(6), 490-507.

- Gil, A. J., Antelm-Lanzat, A. M., Cacheiro-González, M. L., & Pérez-Navío, E. (2019). School dropout factors: a teacher and school manager perspective, *Educational Studies*, 45(6), 756-770.
- Gu, X., Tang, M., Chen, S., & Montgomery, M. L. T. (2020). Effects of a career course on Chinese high school students' career decision-making readiness. *Career Development Quarterly*, 68(3), 222-237.
- Ismail, M. S. (2014). *Career maturity, self-efficacy and student engagement in guidance programmes and career counseling activities*. Unpublished Doctoral Dissertation. Faculty of Education, Universiti Kebangsaan Malaysia, Bangi.
- Jelas, Z. M., Salleh, A. M., Azman, N., Hamzah, R., Jani, R., Hamzah, H., Hamid, Z. A., & Mahmud, M. I. (2014). Gender disparity in school participation and achievement: The case in Malaysia. *Procedia-Social and Behavioral Sciences* 140, 62-68.
- Jelas, Z. M., Salleh, A. M., Azman, N., Hamzah, R., Jani, R., Hamzah, H., Mahmud, M. I., & Hamid, Z. A. (2013). *Laporan penyelidikan: Analisis gender dalam pendidikan (Investigation report: Gender analysis in education)*. Putrajaya, Malaysia: Ministry of Education.
- Kristin, L. C. (2009). Predicting career decision-making difficulties among undergraduate students: the role of career decision making self-efficacy, career optimism, and coping. Unpublished Dissertation. Southern Illinois University, Carbondale.
- Komaraju, M., Swanson, J., & Nadler, D. (2013). Increased career self-efficacy predicts college students' motivation, and course and major satisfaction. *Journal of Career Assessment*, 22(3), 420-432.
- Lam, S. F., Jimerson, S., Kikas, E., Cefai, C., Verga, F. H., Nelson, B., Hatzichristou, C., Polychroni, F., Basnett, J., Duck, R., Farrell, P., Liu, Y., Negovan, V., Shin, H., Stanculescu, E., Wong, B. P. H., Yang, H., & Zollneritsch, J. (2012). Do girls and boys perceive themselves as equally engaged in school? The results of an international study from 12 countries. *Journal of School Psychology*, 50, 77-94.
- Luzzo, A. D. (1996). A psychometric evaluation of the Career Decision-Making Self-Efficacy Scale. *Journal of Counseling & Development*, 74, 276-279.
- Mahmud, M. I. (2017). Effects of cognitive information processing's psycho-education career programme on career thinking and self-efficacy of students' career at a public university. Unpublished Doctoral Dissertation. Faculty of Educational Studies, Universiti Putra Malaysia, Serdang.
- Mahmud, M. I., Noah, S. M., Ahmad, J., & Jaafar, W. M. W. (2017). Analysis study on career readiness module among public university students. *Journal of Psychology and Counseling*, 8, 38-60.
- Maree, J. G. (2019). Group career construction counseling: A mixed-methods intervention study with high school students. *Accounting and Finance*, 59(1), 47-61.
- Nilforooshan, P. (2020). From adaptivity to adaptation: Examining the career construction model of adaptation. *Career Development Quarterly*, 68(2), 98-111.
- Osborn, D. S., Hayden, S. W., Peterson, G. W., & Sampson Jr., J. P. (2016). Effect of brief staff-assisted career service delivery on drop-in clients. *The Career Development Quarterly*, 64, 181-187.
- Park, I. J., Rie, J., Kim, H. S., & Park, J. (2020). Effects of a future time perspective-based career intervention on career decisions. *Journal of Career Development*, 47(1), 96-110.
- Peter, J., Peter, O., Samuel, O., & Maragia, N. 2017. Self-efficacy as a predictor of career decision making

among secondary school students in Busia County, Kenya. *Journal of Education and Practice*, 8(11), 201.

Peterson, G. W., Sampson, J. P., Reardon, R. C., & Lenz, J. G. (1996). *A cognitive information processing approach to career problem solving and decision making*. (3rd ed.). San Francisco: Josey-Bass Publishers.

Russell, J. D. (1974). *Modular instruction: A guide to the design, selection, utilization and evaluation of modular materials*. New York: Publishing Company.

Sampson, J. P., McClain, M. C., Musch, E., & Reardon, R. C. (2013). Variables affecting readiness to benefit from career interventions. *The Career Development Quarterly*, 61(2), 98-109.

Sidiropoulou-Dimakakou, D., Mylonas, K., Argyropoulou, K., & Tampouri, S. (2012). Career decision-making difficulties, dysfunctional thinking and generalized self-efficacy of university students in Greece. *World Journal of Education*, 2(1), 117-130.

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.

Wang, M. T., & Eccles, J. S. (2012). Adolescent behavioral, emotional, and cognitive engagement trajectories in school and their differential relations to educational success. *Journal of Research on Adolescence*, 22, 31-39.



Dr. Mohd Izwan Mahmud is an Associate Professor at the Centre of Educational Diversity, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Bangi, Selangor, Malaysia. He got his Master's and Ph.D. degrees in Counseling and Guidance from Universiti Kebangsaan Malaysia (UKM) and Universiti Malaya (UM), consecutively. His research focuses on Career Counseling in Educational Settings.



Dr. Abu Yazid Abu Bakar is an Associate Professor at the Centre of Educational Diversity, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Bangi, Selangor, Malaysia. He got his Master's and Ph.D. degrees in Counseling and Guidance from Universiti Kebangsaan Malaysia (UKM). His research focuses on Counseling Provision for Students Population with Special Needs.



Dr. Salleh Amat is an Associate Professor at the Centre of Educational Diversity, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Bangi, Selangor, Malaysia. He got his Master's and Ph.D. degrees in Counseling and Guidance from Universiti Kebangsaan Malaysia (UKM) and the University of Wyoming, USA, consecutively. His research focuses on Counseling Services in Higher Education.



Dr. Azlin Norhaini Mansor is an Associate Professor at the Centre of Educational Leadership & Policy, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Bangi, Selangor, Malaysia. She got her Master's and PhD degrees in Educational Administration from Universiti Malaya (UM), Kuala Lumpur, Malaysia. His research focuses on Teachers' Management and Administration.



Dr. Muhammad Syawal Amran is a Senior Lecturer at the Centre of Innovation in Teaching & Learning, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Bangi, Selangor, Malaysia. He got his Master's and PhD degrees in Educational Psychology from Universiti Kebangsaan Malaysia (UKM). His research focuses on Neuropsychological Application in Teaching Pedagogy
