

## PalArch's Journal of Archaeology of Egypt / Egyptology

### EFFECTIVENESS OF JOB READINESS COURSE ON CAREER SELF-EFFICACY BETWEEN TWO GROUPS OF UNDERGRADUATES

*Mohd Izwan Mahmud<sup>1</sup>, Tan Yao Xiong<sup>2</sup>, Nurul Nadia Rosli<sup>3</sup>, Chang Peng Kee<sup>4</sup>, Zalinda Othman<sup>5</sup>, Salleh Amat<sup>6</sup>, Abu Yazid Abu Bakar<sup>7</sup>*

<sup>1</sup>Pusat Kepelebagaan Pendidikan, Fakulti Pendidikan, Universiti Kebangsaan Malaysia

<sup>4</sup>Fakulti Sains Sosial dan Kemanusiaan, Universiti Kebangsaan Malaysia

<sup>5</sup>Fakulti Teknologi dan Sains Maklumat, Universiti Kebangsaan Malaysia

<sup>2,3,6,7</sup>Pusat Pembangunan Karier (UKM-Karier), Universiti Kebangsaan Malaysia

[izwan@ukm.edu.my](mailto:izwan@ukm.edu.my)

**Mohd Izwan Mahmud, Tan Yao Xiong, Nurul Nadia Rosli, Chang Peng Kee, Zalinda Othman, Salleh Amat, Abu Yazid Abu Bakar. Effectiveness Of Job Readiness Course On Career Self-Efficacy Between Two Groups Of Undergraduates-- Palarch's Journal Of Archaralogy Of Egypt/Egyptogy 17(3), 12-24. Issn 1567-214x**

**Keyword: LMCR 3422 Job Readiness Course, Career Readiness, Career Self-Efficacy, Undergraduates**

#### **ABSTRACT**

Career readiness is an important element for undergraduates to undergo transitional period from education to world of work, which involves the processes of career planning, goal selection and decision making. Thus, this research was aimed to study the effectiveness of job readiness course on career self-efficacy among undergraduates who have enrolled into LMCR 3422 Job Readiness Course. This was a quasi-experimental research that studied the difference on career self-efficacy before and after joining this course for two different groups. LMCR 3422 Job Readiness Course was conducted throughout 14 weeks and encompassed a variety of career activities, including mock interview, industrial sharing and resume clinic with the aims of assisting students to gain occupational information and skills, apply the learned skills into practices and build career profile. The new element, such as career counselling and guidance, had been included in second group. The result showed that there was significant difference in term of career self-efficacy before and after joining job readiness course. The result also indicated that the second group

showed better difference than first group. The recommendation and implications of this study had been discussed.

## INTRODUCTION

During 21<sup>st</sup> century, ICT skills and knowledge are highly emphasized in the career development of university students as these are the crucial elements needed to fulfil the requirements of world of work (Pramela Krish, 2012; Brown & Lent, 2013; Othman Mohamed, 2016). However, Institut Penyelidikan Pendidikan Tinggi Negara (IPPTN) (2003) explained that the current graduates are lacking of general knowledge and specific skills demanded by the job market. This situation indicates that there is a discrepancy between the supply (i.e., university) and demand (i.e., world of work) sites. Eventually, being unemployed after completion of study is a common yet worrying issue, which requires immediate actions performed by both industries and universities (Zaini Ujang, 2009).

Career readiness is often known as one of the predictive factors of unemployment, and it can be measured based on individual's ability to make career decision by taking consideration on emotional, cognitive, and attitude aspects as well as outcome expectancy (Bullock-Yowell, Chason, Sampson, Lenz, & Reardon, 2013). On the other hand, career self-efficacy is the capability of an individual to accomplish targeted career goal by planning and executing solutions after taking consideration on one's ability. Basically, individuals with high career self-efficacy are not only possessing career related skills and knowledge, but also having ability to apply learned skills and knowledge to make appropriate career plan and decision. Andrews, Bullock-Yowell, Dahlen and Nicholson (2014) also proposed that individuals with higher level of career self-efficacy are more likely to make better career choice and decision.

The previous researches proposed that undergraduates in university are generally possessing low and moderate levels of career readiness, eventually lead to occurrence of low employment rate (Maznizam Mansor & Abdullah Mat Rashid, 2013; Mohd Izwan Mahmud, 2017a; Mohd Izwan Mahmud, et al., 2018; Mohd Izwan Mahmud et al., 2019). Career readiness is significantly influenced by individual's ability to make appropriate career decision by considering external factors affecting career development, including family, organization, social and economy (Sampson, McClain, Musch, & Reardon, 2013). Therefore, career readiness is the crucial factor impacting undergraduates' ability to explore, adjust and achieve the targeted career in a systematic way.

### *Career Self-Efficacy*

Based on Theory of Social Cognitive, career self-efficacy is defined as individual's confidence on managing and performing cognitive, behavioral and social skills in order to accomplish desired career goal (Bandura, 1986). Career self-efficacy plays influential roles throughout the process of making career decision (Komarraju, Swanson, & Nadler, 2013; Kristin, 2009; Sidiropoulou-Dimakakou, Mylonas, Argyropoulou, & Tampouri, 2012). Basically, individuals with low level of career self-efficacy are more vulnerable to the development of dysfunctional career thoughts. Additionally, they are unconfident in making career decision, and would avoid involving in any career related activity (Andrews et al., 2014; Komarraju et al., 2013). In contrast, individuals with high level of career self-efficacy are more likely to explore career and resolve career tasks easily. They are able to choose appropriate careers, be responsible to their decision, and to involve in a variety of career program and trainings actively in order to prepare themselves to the world of work (Andrews et al., 2014; Kristin, 2009; Sidiropoulou-Dimakakou et al., 2012).

### *Job Readiness Course*

This elective course is a platform aimed to disseminate updated career information and opportunity to the students. All valuable information would be distributed through industrial sharing and hands-on practices conducted by various industrial partners. This course also emphasizes on helping students constructing own career planning and enhancing career decision making skills. At the end of this course, students are able to utilize gathered career information to build their desired career pathway, apply employability skills and information to gain job opportunity, and construct own career profile based on the industrial demands. This course would be opened to all students during every semester. During Semester 1, Session 2018/2019, the class size was big ( $n=250$ ). The details of this course during Semester 1, Session 2018/2019 were illustrated in

**Table 1.**

Contents of job readiness course.

Session	Topic	Aims
1	Introduction	Prepare brief course outlines, learning outcomes and rules and regulations.
2 & 3	Tracer Study	Increase students' awareness on the situation of current graduate employability.
4 – 12	Career Decision Making Module (2M2K) 4 industrial sharing sessions highlighting personal career development and preparation, including personal grooming, personal branding, interview tips, and ways of constructing resume cover letter and video resume.	Help students developing appropriate career decision making skills. Educate students regarding early preparations that are needed to be done before applying job based on industrial demands.

---

<p>4 industrial sharing sessions emphasizing the information of world of work, including digital entrepreneurship, job outlook, career opportunity in government sector and 4<sup>th</sup> industrial revolution.</p> <p>Career Expo &amp; Internship Day</p> <p>Resume Clinic</p>	<p>Help students gaining awareness and understanding on the existing job market.</p> <p>Provide platform allowing students to have opportunity to communicate with the representatives from various industries directly.</p> <p>Help students constructing presentable resume.</p>
<p>13 – 14 Tasks &amp; Assignments</p>	<p>Encourage students applying learned information and skills in gaining job opportunity.</p>

---

During Semester 2, Session 2018/2019, the class size had been reduced to smaller scale ( $n=100$ ). Additionally, new element had been introduced, which was career counselling and guidance. The students were required to participate in a group of 6 people together with a career counsellor for 2 sessions, which discussed about career planning and gaining better understanding by answering psychological instruments.

## RESEARCH OBJECTIVES

There were two objectives in this research, including:

1. To identify the level of career self-efficacy among undergraduates.
2. To determine the effectiveness of Job Readiness Course on career self-efficacy among undergraduates who have enrolled into this course.

## METHODOLOGY

### RESEARCH DESIGN AND SAMPLING

This was a quantitative and quasi experimental research that aimed to investigate the effectiveness of this elective class on career self-efficacy among two groups undergraduates who have enrolled into this course. The courses for both groups consisted of 14 sessions in the forms of class, discussion, group activities and presentations. For group 1 (Semester 1, Session 2018/2019), a total of 231 undergraduates from Universiti Kebangsaan Malaysia (UKM) who have enrolled this class had been selected as the respondents. On the other hands, a total of undergraduates (Semester 2, Session 2018/2019) had been recruited as the respondents.

### *Instruments*

Career Decision Self-Efficacy-Short Form (CDSE-SF) was the self-administered instrument that consists of 25 items designed to measure the career self-efficacy in this research (Betz & Taylor, 2001). There are 5 subscales of career self-efficacy, namely accurate self-appraisal, gathering occupational information, goal

selection, making plans for the future and problem solving. The 5 Likert scale is used, ranging from 1 (no confidence at all) until 5 (complete confident) (Betz & Taylor, 2001). The score interpretation was illustrated in Table 2. The previous study conducted by Luzzo (1996) among the population of Australia students showed that CDSE-SF possessed high validity. The researcher also found that there was a positive significant relationship between the Career Decision-Making Attitudes and CDSE-SF ( $r = .41$ ), which represents students with higher score of CDSE-SF are more likely to have better career decision making attitude. Additionally, Chung (2002) conducted a research to study the differences of gender and races on making career self-efficacy and career commitment among undergraduates. The result showed that there is significant different between CDMSE-SF and Career Commitment Scale. Taylor and Betz (1983) also reported that the overall Cronbach's Alpha coefficient for CDSE-SF was .96, and the Cronbach Alpha coefficient for each subscale was ranged from .86 to .89. In Malaysia, Zalizan Mohd Jelas et al. (2014) assessed the reliability of this instrument, which had been published by Mohd Sani Ismail (2011). The researchers conducted pilot study among students ( $n = 94$ ) from different sectors, and found that this instrument was reliable in Malaysia context as its coefficient was .92. Similarly, Mohd Izwan Mahmud (2017a) also found that CDSE-SF was reliable as its coefficient was .91 based on the result of pilot study among undergraduates.

#### **Data Analysis**

In this research, descriptive analysis was conducted to study the level of career self-efficacy. Additionally, Dependent T Test was used to measure the different the career self-efficacy of respondents before and after attending the entire job readiness course.

**Table 2.**  
*Score interpretation of CDSE-SF.*

<b>Mean Score</b>	<b>Interpretation</b>
1.00 - 2.33	Low
2.34 - 3.66	Moderate
3.67 - 5.00	High

### ***FINDINGS AND DISCUSSIONS***

#### ***First Group***

A total of 226 UKM undergraduates had been selected as respondents. The percentage of female (79.2%) was higher than the male (20.8%) (See Table 3). Before attending job readiness course, the mean score of career self-efficacy was 3.92. To be precise, 30.1% of them possessed moderate level of career self-efficacy, whereas 69.9% of them had high level of career self-efficacy. Career self-efficacy was divided into 5 subscales, namely accurate self-appraisal (moderate: 46.5%; high: 53.5%), gathering occupational information (low: 0.9%, moderate: 28.8%; high: 70.4%), goal selection (moderate: 27.4%; high: 72.6%),

making plans for the future (low: 0.9%, moderate: 29.2%; high: 69.9%) and problem solving (moderate: 36.7%; high: 63.3%).

**Table 3**  
*Descriptive statistic of respondents based on gender (First Group).*

Gender	Amount (n)	Percentage (%)
Male	47	20.8
Female	179	79.2
Total	226	100.0

After attending job readiness course (14 weeks), the mean score of career self-efficacy had been increased to 4.14. The amount of respondents with high level of career self-efficacy had been raised to 81.4%. In contrast, the amount of respondents with moderate level of career self-efficacy was lowered down to 17.3%. Additionally, almost 1.3% of them showed low level of career self-efficacy. Furthermore, the changes in the percentage of every subscale, including accurate self-appraisal (low: 0.4%; moderate: 26.5%; high: 73.0%), gathering occupational information (low: 1.3%, moderate: 17.3%; high: 81.4%), goal selection (low: 0.9%; moderate: 14.6%; high: 84.5%), making plans for the future (low: 1.3%, moderate: 19.0%; high: 79.6%) and problem solving (low: 1.3%; moderate: 17.3%; high: 81.4%) had been found. The mean score of every subscale of career self-efficacy (pre and post) was shown in Table 4.

**Table 4**  
*Mean score of every subscale of career self-efficacy (First Group).*

Category	CSE		ASP		GOI		GS		MPF		PS	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean	3.91	4.14	3.76	4.03	3.98	4.19	3.97	4.20	3.98	4.18	3.88	4.11
SD	.49	.57	.53	.62	.59	.62	.53	.59	.63	.65	.53	.59
Level												
Low (%)	-	1.30	-	.40	.90	1.30	-	.90	.90	1.30	-	.40
Mod. (%)	30.1	17.3	46.5	26.5	28.8	17.3	27.4	14.6	29.2	19.0	36.7	22.6
High (%)	69.9	81.4	53.5	73.0	70.4	81.4	72.6	84.5	69.9	79.6	6.3	77.6

Note:  $n = 226$ , CSE: career self-efficacy, AS: accurate self-appraisal, GOI: gathering occupational information, GS: goal selection, MPF: making plans for the future, PS: problem solving

**H<sub>01</sub>: There was significant difference in term of career self-efficacy among undergraduates before and after enrolling in the job readiness course (Semester 1, Session 2018/2019).**

The result of Paired T-test indicated that the career self-efficacy of undergraduates was significantly different before ( $M = 3.91$ ,  $SD = .49$ ) and after ( $M = 4.14$ ,  $SD = .57$ ) attending job readiness course as  $t(226) = -5.98$ ,  $p < .05$  (See Table 5).

**Table 5**

*The result of Paired T test for the variable of career self-efficacy (First Group).*

	Mean	SD	Std. Error Mean	95% Confidence Interval of the Difference	t	Df	Sig. (2-tailed)		
Pair 1	Mean_CSE_Pre- Mean_CSE_Post	-.23	.57	.04	-.30	-.15	-5.98	225	.000

\*\* Note:  $p < .05$ , CSE: career self-efficacy

**Second Group**

After process of resizing, the amount of students enrolled in the course was lower than previous group, and only 34 respondents participated in this research. 26.5% of them was male, whereas 73.5% of them were female (See Table 6). The mean score of career self-efficacy among respondents before joining this course was 3.64. Around 50.0% of them possessed moderate level of career self-efficacy and 47.1% of them had high level of career self-efficacy. Only 2.9% of them had low level of career self-efficacy. The five subscales, including accurate self-appraisal (low: 5.9%; moderate: 58.8%; high: 35.3%), gathering occupational information (low: 2.9%; moderate: 47.1%; high: 50.0%), goal selection (low: 2.9%; moderate: 35.3%; high: 61.8%), making plans for the future (low: 2.9%; moderate: 38.2%; high: 58.8%) and problem solving (low: 2.9%; moderate: 35.3%; high: 61.8%) were illustrated.

**Table 6***Descriptive statistic of respondents based on gender (Second Group).*

Gender	Amount (n)	Percentage (%)
Male	9	26.5
Female	25	73.5
Total	34	100.0

The mean score of career self-efficacy among respondents after joining this course was higher than before, which was 4.07. The amount of respondents with high level of career self-efficacy had been increased around 74.9%, which was 82.4%. On the other hand, the amount of respondents with moderate level of career self-efficacy was reduced around 64.8%, which was 17.6%. Additionally, the changes in the percentage of every subscale, including accurate self-appraisal (low: 2.9%; moderate: 35.3%; high: 61.8%), gathering occupational information (moderate: 17.6%; high: 82.4%), goal selection (moderate: 14.7%; high: 85.3%), making plans for the future (moderate: 23.5%; high: 76.5%) and problem solving (moderate: 17.6%; high: 82.4%) had been illustrated. The mean score of every subscale of career self-efficacy (pre and post) was shown in Table 7.

**Table 7***Mean score of every subscale of career self-efficacy (Second Group).*

Category	CSE	ASP	GOI	GS	MPF	PS
----------	-----	-----	-----	----	-----	----

		Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean		3.64	4.07	3.46	3.92	3.71	4.12	3.80	4.18	3.72	4.14	3.52	3.99
SD		.54	.55	.61	.64	.68	.52	.56	.64	.70	.58	.54	.60
Level	Low	2.90	-	5.90	2.90	2.90	-	2.90	-	2.90	-	-	-
	(%)												
	Mod.	50.0	17.6	58.8	35.3	47.1	17.6	35.3	14.7	38.2	23.5	70.6	26.5
	(%)												
	High	47.7	82.4	35.3	61.8	50.0	82.4	61.8	85.3	58.8	76.5	29.4	73.5
	(%)												

Note:  $n = 34$ , CSE: career self-efficacy, AS: accurate self-appraisal, GOI: gathering occupational information, GS: goal selection, MPF: making plans for the future, PS: problem solving

**H<sub>02</sub>: There was significant difference in term of career self-efficacy among undergraduates before and after enrolling in the job readiness course (Semester 2, Session 2018/2019).**

Based on Table 8, the result indicated that the career self-efficacy of undergraduates was significantly different before ( $M = 3.64$ ,  $SD = .54$ ) and after ( $M = 4.07$ ,  $SD = .55$ ) joining job readiness course as  $t(33) = -6.47$ ,  $p < .05$ .

**Table 8**

*The result of Paired T test for the variable of career self-efficacy (Second Group).*

		Mean	SD	Std. Error Mean	95% Confidence Interval of the Difference	t	Df	Sig. (2-tailed)	
					Lower	Upper			
Pair 1	Mean_CSE_Pre-Mean_CSE_Post	-.43	.39	.07	-.56	-.29	-6.47	33	.000

\*\* Note:  $p < .05$ , CSE: career self-efficacy

Based on the results of Paired Sample t-Test, there was significant difference in career self-efficacy before and after attending job readiness course for both groups. These findings indicated that job readiness course was effective in increasing career self-efficacy. This finding was similar to the research conducted by Mohd Izwan Mahmud et al. (2017), who proposed that implementation of structural career readiness module was effective in enhancing career-self efficacy among undergraduate students. This was also consistent to the previous researches, which highlighted the effectiveness of attending training in structural way (Amla Salleh, Syed Abdullah, Zuria Mahmud Ghavifekr & Noriah Ishak, 2013; Jasmi Talib, Amla Salleh, Salleh Amat, Ghavifekr, & Azlinda Ariff, 2014; Mohd Izwan Mahmud et al., 2017b). Consequently, career intervention program using structural course, teaching and learning approaches are effective in increasing participants' career self-efficacy. The course in the form of lectures were designed to encourage students gathering occupational information,



selecting goal and making plans for the future, whereas the course assessments were constructed to foster the development of accurate self-appraisal and problem solving skills. Consequently, the participants were able to improve career seeking behavior and confidence in performing career-related tasks, such as joining career fairs and interviews.

Although both groups showed significant differences, second group showed better difference than first group. The second group was conducted for small scale, which was less than 100 participants, whereas the first group was organized for big scale, which was approximately 200 participants. This finding suggested that this course could be provided in both large and small scale with respective advantages as well as disadvantages. Basically, group with smaller group size is cost and time effective. The smaller group size would require less human resources and achieve better effectiveness in enhancing career self-efficacy. This finding was consistent to the findings acquired by Mastura Mahfar (2014) and Mohd Izwan Mahmud (2017a) who proposed that conducting intervention in small group would be more effective than big group. Unlike group with smaller group size, group with bigger group size would be cost and time consuming. However, it would be an appropriate method if the entire population is large since it could disseminate important career information to big amount of participants simultaneously.

Additionally, the element of career group counselling and guidance was introduced in second group, and had been another contributing factors to the improvement of career self-efficacy. This element had been conducted in the form assessment in which participants had to join at least 2 face-to-face career group counselling sessions (i.e., 5 – 6 people per group) with counsellor to discuss about ways to make appropriate career related choice, planning and decision. This finding was similar to the idea proposed by Giallombardo (2005), who highlighted that group counselling was an effective approach to be implemented in career development program among undergraduates. Group counselling was also known as a conducive environment that foster learning process among adolescents as they would be learned through constructive interaction and observation with others as well as created a sense of belonging (Gladding, 1991).

## **RECOMMENDATION AND CONCLUSION**

The effectiveness of a career intervention is largely associated with appropriate contents, methods, and implementation strategies as well as continuous assessments. Career intervention programs designed for the population of university students are remarkably important and it should be highlighted because university students are the main sources of future labour force. They should be well prepared and equipped with necessary skills required in 21<sup>st</sup> century, such as critical thinking, problem solving, negotiation, decision making and etc. Therefore, university and career counsellors play significant roles in improving graduate employability among students. University is suggested to make job readiness course as a compulsory course for all students, especially those who are in their first year of study. This aims to increase readiness among first year

students, so they are able to construct career planning in a more systematic and structural way. On the other hands, career counsellors are recommended to be more aware on the demands from current job market in order to construct and organize career interventions to university students based on year of study. Therefore, career counsellors are suggested to focus on developing career intervention based on career theories, selecting participants based on needs in particular population, implementing module, applying standardized assessments, and revising its effectiveness regularly.

The future research is suggested to focus on studying the graduate employability of all students who have enrolled in the job readiness course based on the tracer study after official graduation. This aims to study the sustainability of this course on maintaining and improving career self-efficacy after the completion of this course. The future research is also recommended to conduct experimental research aimed to compare between control group (i.e., without interventions) and experimental group (i.e., with interventions).

In conclusion, the career self-efficacy of respondents for both groups had improved after participating the job readiness course throughout fourteen weeks. This represents that career intervention in the form of structured course is effective in enhancing career self-efficacy among university students. This course could be implemented in both big and small groups by using similar methods, including industrial sharing, career activities (e.g., career fair and mock interview), interviews, and career counselling and guidance.

#### **ACKNOWLEDGEMENT**

This research was funded by The National University of Malaysia GGPM-2018-035 and PP-FPEND-2019.

#### **REFERENCES**

- Amla Salleh, Syed Abdullah, Zuria Mahmud Ghavifekr, S., & Noriah Ishak. (2013). A structured career intervention program for academically challenged students. *Asia Pacific Education Review*, 14(2) :209–219.
- 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.
- 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* (2<sup>nd</sup> Edition). Hoboken, New Jersey: 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/Revue Canadienne de Développement de Carrière*, 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.
- Giallombardo, L. (2005). Using group counselling to implement a career development program with high school students (Unpublished master thesis). State University of New York, Brockport.
- Gladding, S. T. (1991). *Group work: A counseling specialty*. New York: Macmillan.
- Institut Penyelidikan Pendidikan Tinggi Negara (IPPTN) (2003). Laporan akhir kajian masalah pengangguran di kalangan graduan. Pulau Pinang: Author.
- Jasmi, M. T., Amla, S., Salleh, A., Ghavifekr, S., & Azlinda, M. A. (2014). Effect of career education module on career development of community college students. *International Journal for Educational and Vocational Guidance*, 15(1), 37-55.
- Komarraju, 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.
- 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.
- Luzzo, A.D. (1996). A psychometric evaluation of the career decision-making self-efficacy scale. *Journal of Counseling & Development*, 74, 276-279.
- Mastura, M., Amat, S.A., Sidek, M.N., Jamaluddin, A., & Wan Marzuki, W.J. (2014). Effects of Rational Emotive Education Module on irrational beliefs and stress among Fully Residential School students in Malaysia. *Procedia - Social and Behavioral Sciences*. 114, 239-243.
- Maznizam Mansor & Abdullah Mat Rashid. (2013). Career indecision : A cross-sectional survey among students of National Youth Skills Training Institutes. *Middle-East Journal of Scientific Research*, 17(8),1073-1107.
- Mohd Izwan Mahmud**, Dharatun Nissa Binti Fuad Mohd Karim, Salleh Bin Amat, Abu Yazid Bin Abu Bakar. (2018). Hubungan Antara Ketidakfungsian Pemikiran Kerjaya, Efikasi Kendiri Kerjaya Dan Ketidakupayaan Membuat Keputusan Kerjaya Dalam Kalangan Graduan Ijazah Pertama. *Jurnal Psikologi dan Kaunseling*, 9, 19 – 38.
- Mohd Izwan Mahmud, Sidek Mohd Noah, Jamaludin Ahmad, & Wan Marzuki Wan Jaafar. (2017b). Kajian analisis keperluan pembinaan modul kesediaan kerjaya dalam kalangan pelajar universiti awam. *Jurnal Psikologi dan Kaunseling*, 8, 38-60.
- Mohd Izwan Mahmud, Sidek Mohd Noah, Wan Marzuki Wan Jaafar, Abu Yazid Bin Amat & Salleh Amat. (2019). The career readiness construct between dysfunctional career thinking and career self-efficacy among undergraduate students. *Journal of Engineering Science and Technology*, 74 – 81.
- Mohd Izwan Mahmud. (2017a). Kesan Program Kerjaya Psiko-pendidikan Cognitive Information Processing terhadap Pemikiran Kerjaya dan Efikasi Kendiri Kerjaya Pelajar di Sebuah Universiti Awam (Unpublished doctoral

- dissertation). Fakulti Pengajian Pendidikan, Universiti Putra Malaysia, Serdang Selangor.
- Mohd Sani Ismail, (2011). Kematangan kerjaya, efikasi sendiri kerjaya dan penglibatan pelajar dalam aktiviti program bimbingan dan kaunseling kerjaya (Unpublished doctoral dissertation). Fakulti Pendidikan, Universiti Kebangsaan Malaysia, Bangi.
- Othman Mohamed. (2016). Kaunseling perkembangan kerjaya abad ke 21. Serdang, Selangor: Universiti Putra Malaysia.
- Pramela Krish, Tamby Subahan Mohd Meeraha, Kamisah Osmana & Zanaton Ikhsan. (2012). Are UKM graduates ready to face the challenges of the job market? *Procedia - Social and Behavioral Sciences* 59, 584 – 590.
- 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.
- Zaini Ujang. (2009). The elevation of higher learning (mengangkasa pengajian tinggi). Skudai: UTM Press..
- Zalizan Mohd Jelas, Amla Mohd Salleh, Norzaini Azman, Ramlah Hamzah, Rohana Jani, Hanizah Hamzah, Zaleha Abd Hamid, Mohd Izwan Mahmud. (2014). Gender Disparity in School Participation and Achievement: The Case in Malaysia. *Procedia - Social and Behavioral Sciences* 140 (2014 ) 62 – 68.
- Zalizan Mohd Jelas, Amla Mohd Salleh, Norzaini Azman, Ramlah Hamzah, Rohana Jani, Hanizah Hamzah, Mohd Izwan Mahmud, ...Zaleha Abd Hamid (2013). Laporan penyelidikan: Analisis gender dalam pendidikan. Putrajaya, Malaysia: Kementerian Pendidikan Malaysia.