

The Effects of Career Integration Module as a Strategy to Assists the Undergraduates in Career Selection

Muhammad Bazlan Mustafa, Mohammad Nasir Bistamam,
Mohammad Aziz Shah Mohamed Arip, Syed Sofian Syed
Salim, Samsiah Mohd Jais

Faculty of Education and Human Development,
Sultan Idris Education University, Malaysia

DOI Link: <http://dx.doi.org/10.6007/IJARBSS/v7-i4/2888>

Published Date: 24 April 2017

Abstract

This study aims to examine the effects of Career Module as a strategy to assists the undergraduates in career selection. This study is carried out by using the quasi-experimental design of pre-test and post test of the treatment and control groups. The sample consists of 64 undergraduates from the Education Faculty of Sultan Idris Education University, Malaysia. Students are divided into one treatment group (32 persons) and one control group (32 persons). Data is analyzed with t-test and analysis of covariance (ANCOVA). Descriptive analyses indicate that there are mean increment in the scores of post test compared to the scores of pre-test. Besides, findings also show that there are significant differences of mean in the pre-test and post test of career decision-making self-efficacy (CDMSE) of the treatment group compared to the control group. Furthermore, results indicate that there are no significant differences of pre-test and post test of career decision-making self-efficacy (CDMSE) between the treatment group and control group based on gender. This study testifies the effectiveness of career integration module which is established by a combination of two theories as a strategy to assists the undergraduates in career selection. The undergraduates need to possess self-efficacy in career selection; therefore, the institution must plan a strategy to assists them in career selection, particularly the final year undergraduates.

Keywords: Career Integration Module, Career Strategy, Career Selection

Introduction

Self-efficacy in making a career decision refers to self-trust that the individual themselves is able to successfully decide his or her own career (Taylor and Betz, 1983). Studies on self-efficacy in making a career decision are related to the career development process which involves inability to make a career decision (Gianakos, 2001), career planning and exploration

(Rogers, Creed and Glendon, 2008) and commitment in career selection (Jin, Watkins and Yuen, 2009; Wang, Jome, Haase and Bruch, 2006). The challenge of making a career decision would increase as students become undergraduates (Guay, Senecal, Gauthier and Ferner, 2003). Difficulties in making decisions are associated with anxiety (Santos, 2001), depression (Saunders, Peterson, Sampson & Reardon, 2000) and low self-esteem (Gati & Amir, 2010). Kim, Rhee, Ha, Yang and Lee (2016) agree that career decision and self-efficacy have fully mediated the relationship between happenstance skills and career. According to Yun-Jeong Shin and Kelly (2015), resilience and decision-making strategies have accounted for 46% of the variance in career decision difficulties. Besides, study by Burns, Jasinski, Dunn and Fletcher (2013) indicates that the evaluations of academic support services are positively related to the level of self-efficacy in making a career decision. Furthermore, study by Yoonjung Choi, Jieun Kim and Sunkyung Kim (2015) indicates that students who had participated in career education programs while in school had the highest scores in both career development skills and school result.

On the other hand, study by Norzaini Azman (2013) in Malaysia has found out that both male and female student teachers have similar motives in selecting teaching as a career. Generally, both genders emphasise on altruistic and extrinsic factors. Besides, study by Amla, Zuria and Mokhtar (2007) also indicates that career module is able to assist students in career planning while increases their learning skills and learning motivation. Study by Jasmi, Amla, Salleh, Simin and Azlinda (2015) shows that there are significant differences between the treatment and control groups in career planning, self-efficacy and career maturity through intervention program by using the career education module. According to study by Koivisto, Vinokur & Vuori (2011), the career intervention program has successfully increased positive attitude towards career planning. As such, this study intends to assist the undergraduates of Education of Sultan Idris Education University (UPSI) in decision-making as well as to increase their positive attitude towards career planning. Self-efficacy in making a career decision is essential to the undergraduates of UPSI. UPSI has offered plenty of programs in education; however, the Ministry of Education of Malaysia has no guarantee that every graduate from UPSI will be offered a position as an education service officer in the schools in Malaysia based on open market. As such, UPSI needs to offer guidance and assistance to its undergraduates in making career decisions apart from aiming for the position as Education Service Officers.

Career module is important in assisting the undergraduates of UPSI to choose their career. They can choose to be teachers in other institutions which offer teaching as a profession or use their skills to pursue other careers. As such, a practical career module is needed to prepare the students to choose their career. Career selection is based on self-efficacy of the students in which students will select the career according to their level of confidence in that particular field.

Career Integration Module

The career integration module is established to assist the undergraduates particularly those in the final year to choose their career. This module aims to improve the self-efficacy in career selection among the undergraduates of UPSI. The Career Integration Module is jointly-established by Muhammad Bazlan Mustafa, Mohammad Nasir Bistamam, Mohammad Aziz Shah Mohamed Arip and Syed Sofian Bin Syed Salim (2015). Besides, this module is

established based on the combination of two theories, namely the Social Cognitive Career Theory by Lent, Brown and Hackett (1994) and the Career Selection Theory by Holland (1997).

This module consists of nine strategies and 26 activities. The strategies are:

- Strategy 1 – Clients’ Background;
- Strategy 2 – Learning Experiences;
- Strategy 3 – Self-efficacy in Career;
- Strategy 4 – Identifying Career Interest;
- Strategy 5 – Knowing Personality and Values of Work;
- Strategy 6 – Studying Career Information;
- Strategy 7 – Identifying the Contextual Effects, Surroundings’ Support and Obstacles;
- Strategy 8 – Expected Results; and
- Strategy 9 – Performance and Achievement.

Overall, the Career Module has achieved an accumulative validity value of 85.72% based on the assessment of the counselling experts. Besides, the reliability value of the module is tested with 35 undergraduates from the Education Faculty and the Cronbach alpha value is .972. As such, this study is carried out based on firm theories with high content validity and reliability values to-be-practised by the undergraduates of UPSI in actual career selection.

Social Cognitive Theory examines the interaction of environmental and personal factors such as memories, trust, aptitude and self-perception as well as actual behavior. The keyword is self-efficacy which refers to an individual’s perception to his or her own ability to manage and take actions in order to achieve the intended result (Bandura, 1986). Lent et al. (1994) further expanded the initial concept of the theory to academic and career interest, selection, and achievement based on gender. The concept of cognitive based on self-efficacy, intended result and target selection are significant factors in making decision related to academic and career. These factors will influence their perception towards their own ability; hence, trust that they can achieve it. Social Cognitive Career Theory focuses on the dynamic relationship between the factors of individual cognitive (such as self-efficacy, intended result and target) and personal or environmental (such as gender, ethnic, social support and obstacles) in order to assist the career development process (Lent et al. 1994).

A lot of studies associate individual cognitive factors to environmental/personal factors. Study by Ozlen and Arnaut (2013) indicates that both family and technological environments are found to be influential on students’ career selection. Besides, study shows that the socioeconomic status has positive relationship to career selection related to the field of education (Trusty, Ng and Plata, 2000) as well as career aspiration (Ali and Saunders, 2009). Family’s socioeconomic status will influence an individual’s achievement and opportunity to further study. Individuals from higher socioeconomic status could expect to further their studies to higher learning institution, have role model in work and receive better family support (Turner and Lapan, 2003). Thompson and Subich (2006) also agrees that there is a positive relationship between socioeconomic status and self-efficacy in career decision among college students.

According to Hui-Hsien Hsieh and Jie-Tsuen Huang (2014), both socioeconomic status and proactive personality are positively associated with career decision self-efficacy. Study by

Dimakakou, Mylonas, Argyropoulou and Tampouri (2012) indicates that there are positive correlation between difficulties in making a career decision, lack of information, inconsistency of information, lack of preparation and confused while making decision, as well as less committed and lack of determination. Sadia Hussain and Rafia Rafique (2013) found out that male participants score higher on career salience whereas female participants are found to be better at making career decisions. Study by Betz (2004) shows that individual with fewer efficacies often laid back while searching for career information; hence, fail to make the best career decision. Moreover, their negative attitude would weaken their academic achievement, causing them to be negligent over their weakness; therefore, give in to the situation and accept life as it is. Study by Syed Shahzad Hassan etc (2010) indicates that one of the criterias of students choosing study field is because of its career prospect. As such, students must be guided to make the right career selection. Kelly and Shin (2009) also found out that personality is associated with difficulties in making a career decision. They found out that neurotisme is related to difficulties in acquiring information. As such, negative personality is associated with difficulties in making a career decision.

The Career Selection Theory by Holland is also included in the development of this integration module. According to Holland (1997), this theory consists of several simple ideas with its complex elaborations. Firstly, we characterize people according to their resemblance to each of these six personality types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. The closer a person resembles a particular type of personality; the more likely he or she is to exhibit the personal traits and behavior associated with it. Secondly, the environments in which people live and work can also be characterized by their resemblance to each of these six models of environment: Realistic, Investigative, Artistics, Social, Enterprising, and Conventional. Finally, the pairing of persons and environments will lead to the outcomes which are predictable and understandable based on our knowledges about the personality types and the environmental models. These outcomes include vocational choice, vocational stability and achievements, educational choice and achievement, personal competence, social behavior, and susceptibility to influence.

There are plenty of previous studies related to Holland's Theory. One of them is study by Cevik Perkmen, Alkan and Shelley (2013). However, the main purpose of this study is to examine the utility of Holland's Theory of Personalities in Work Environments in order to understand the relationship between personality and the desire for music education. Chen and Simpson (2015) have conducted a study in which they used John Holland's personality typology and the Social Cognitive Career Theory (SCCT) to examine the factors which may affect students' self-selection into the major of science, technology, engineering, and mathematics (STEM). Ding, Salyers, Kozelka and Laux (2015) on the other hand, have assessed the vocational personality of 104 undergraduates in school counselling, mental health counselling, and school psychology programs using Holland's (1997) theory of personality and career choice. Olitsky (2014) then measured the individual educational preferences based on Holland's theory of career and educational choice which has provided a unique way of control to understand the majority of college students' selection.

Hypotheses Investigation

This study aims to examine the effects of Career Module as a strategy to assist the undergraduates in career selection. There are five hypotheses to measure the career decision-making self-efficacy (CDMSE):

- i) There are no significant differences for CDMSE between the pre-test of treatment group and the control group.
- ii) There are significant differences for CDMSE between the pre-test and post test of treatment group.
- iii) There are no significant differences for CDMSE between the pre-test and post test of control group.
- iv) There are significant differences for CDMSE between the post test of treatment group and control group.
- v) There are no significant differences for CDMSE between the pre-test and post test of male and female treatment groups and the male and female control groups.

Methodology

This is a quasi-experimental study in which the respondents will not be divided randomly. In this study, researchers will use the non-equivalent group pre-test and post test design. This design consists of two groups of respondent; one as the treatment group and the other as the control group. Respondents of this study are not randomly selected due to difficulties in selecting students within the program randomly because of lectures time restriction as well as their willingness to participate as respondents. As such, the comparison between treatment and control groups is not equivalent in terms of gender, family background, races, courses and years of program.

Participants

Subjects consist of 64 students (32 male and 32 female) age between 21 to 25 years old ($M = 22.05$, $SD = 2.65$). They are the undergraduates of Education of UPSI. Subjects are divided into treatment group ($N = 32$) and control group ($N = 32$), selected based on purposive sampling.

Instruments

Instrument of this study is The CDMSE Short-form (Betz, Klein, & Taylor, 1996) which contains 25 items assessing the level of self-efficacy in terms of (a) Self-Appraisal; (b) Gathering Occupational Information; (c) Goal Selection; (d) Making Plans for the Future; and (e) Career Problem-Solving. All items are measured with a five points Likert-type scale. According to Betz et al. (1996), the internal consistency of CDMSE-SF for the five subscale items range from 0.73 to 0.83; whereas for the total 25 items, Cronbach's α indicate 0.94. In this study, the Malay version which has been translated and validated by Sani (2011) is applied and the Cronbach's Alpha coefficient range from 0.74 to 0.86 for the five subscale items; whereas for the total 25 items, Cronbach's α is 0.92 (Sani, 2011). The instrument of this study is translated by Muhammad Bazlan et al. in which Cronbach's Alpha coefficient for the five subscale items and overall CDMSE range from 0.675 to 0.854.

Intervention

The experiment groups are examined with the Career Integration Module established by Muhammad Bazlan Mustafa et al. (2016). The treatment and control groups are given The CDMSE Short-form pre-test by Betz, Klein, & Taylor (1996). The treatment group has undergone training program for two days (16 hours) based on the nine strategies within the Career Integration Module. At the end of the program based on strategies 1 to 9, the treatment and control groups are required to answer the post test questions in The CDMSE Short-form by Betz, Klein, & Taylor (1996).

Procedure

This study is carried out at the Sultan Idris Education University. The researchers have earlier acquired the agreement of the subjects and thoroughly explained about the study and intervention methods. Before the group training intervention begin, the treatment and control groups must first undergo the pre-test. In this study, the treatment group has undergone group training based on the Career Integration Module with 26 activities within two days. Meanwhile, the control group has not undergone any intervention until the study is over. After the intervention on treatment group is over, the post test is carried out on both treatment and control groups.

Data analyses

Descriptive analyses are carried out to find out the mean scores of CDMSE of the treatment and control groups. The independent samples t-test analysis is used to examine the differences between the scores of pre-test of the experiment group and pre-test of the control group of CDMSE (hypothesis 1); as well as the differences between the scores of post test of the experiment group and the post test of the control group of CDMSE variable (hypothesis 4). Besides, the paired samples t-test analysis is used to examine the differences between the scores of post test and pre-test of the treatment group of CDMSE variable (hypothesis 2); and the differences between the scores of post test and pre-test of the control group of CDMSE variable (hypothesis 3) in making a career decision. The ANCOVA analysis is used to find out the differences between the pre-test and post test of CDMSE between the male and female treatment groups and the control group (hypothesis 5).

Results

Data analyses are carried out to examine the findings from the quasi-experimental study in order to find out the effects of the integration module towards CDMSE. Results of the analyses are divided into three parts. The first part is the demography information of the subjects in the study. Second part is the presentation of findings from the descriptive analyses by using the mean differences of pre-test and post test of the dependent variable, namely CDMSE. The third part is the presentation of the analyses by using the statistic analyses of t-test and ANCOVA to find out the effects of treatment and gender of the subjects towards the treatment of career integration module to self-efficacy in making decision among undergraduates.

There are two groups with 32 persons as subjects in each group; total up to 64 persons as subjects in this study. In the aspect of demography, this study focuses on the treatment and control groups in which each group are evaluated by gender. Table 1 shows the total of 64 undergraduates from UPSI involved in this quasi-experimental study. 32 subjects (2 groups)

are selected as experimental groups; while the other 32 subjects (2 groups) are selected as control groups. The pre-test and post test data of both groups (treatment and control) are collected by using The CDMSE Short-form (Betz, Klein, & Taylor, 1996).

Table 1:
Descriptive Statistics of the Pre-test and Post test for Experimental and Control Groups.

Variables	Statistics	Experimental Group		Control Group	
		Pre-test	Post test	Pre-test	Post test
CDMSE	Mean	68.09	105.38	70.19	70.06
	SD	5.26	10.43	4.29	5.08
	Skewness	.137	-.033	-1.76	-1.39
	Kurtosis	-.533	-.529	4.10	2.208

The descriptive data of the subjects in this study according to groups based on gender is shown in Table 1. There are 15 subjects (23.438%) in the male treatment group; 17 subjects (26.563%) in the female treatment group; 15 subjects (23.438%) in the male control group; and 17 subjects (26.563%) in the female control group. Descriptive analyses indicate that there are mean increment in the scores of pre-test compared to post test of CDMSE of the experimental groups. The mean of pre-test of CDMSE of the experimental groups ($M = 68.09$, $SD = 5.26$) compared to post test ($M = 105.38$, $SD = 10.43$). This finding indicates that the module has successfully increased self-efficacy in making career decisions. The scores of pre-test of CDMSE of the experimental groups ($M = 68.09$, $SD = 5.25$) and the control groups ($M = 70.19$, $SD = 4.29$). This shows that there is homogeneity between both the experimental groups and the control groups because the obvious differences of the scores of CDMSE between both groups are only 2.10; while the differences between pre-test ($M = 70.19$, $SD = 4.29$) and post test ($M = 70.06$, $SD = 5.08$) of the control groups is only 0.13. In other words, there is no other factor influencing the career decision of the control group throughout this study. Besides, findings of the study also indicate obvious differences of mean between the post test of the experimental groups ($M = 10.58$, $SD = 10.43$) and the post test of the control groups ($M = 70.06$, $SD = 5.08$).

Table 2:
Descriptive Statistics of the Pre-test and Post test for Experimental and Control groups by Gender.

Variable	Statistics	Experimental Group				Control Group			
		15 male and 17 female				15 male and 17 female			
		Pre-test		Post test		Pre-test		Post test	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
CDMSE	Men	65.87	4.53	108.94	10.85	71.33	3.72	70.80	5.23
	Women	70.06	5.18	102.24	9.25	69.18	4.61	69.41	5.01

Table 2 shows the descriptive analyses of the scores of CDMSE based on gender. As shown in Table 2, the score of pre-test of CDMSE of the female experimental group ($M = 70.06$, $SD = 5.18$) is higher than male ($M = 65.87$, $SD = 4.53$). On the other hand, the score of post test of CDMSE of the male experimental group is higher than female. Besides, there are mean

increment in the scores of pre-test and post test of CDMSE of the male experimental group with 43.07 compared to female experimental group with 32.18. These indicate that the module of this study works better in increasing the CDMSE of male than female. The scores of pre-test of CDMSE of the male experimental group ($M = 65.87$, $SD = 4.53$) is lower compared to the male control group ($M = 71.33$, $SD = 3.72$). On the other hand, the scores of pre-test of the female experimental group ($M = 70.06$, $SD = 5.18$) is higher than the female control group ($M = 69.18$, $SD = 4.61$). These indicate that the samples of this study between the control and experimental groups could not be controlled systematically. Besides, the mean of post test of CDMSE of the male experimental group ($M = 108.94$, $SD = 10.83$) is higher than the post test of the male control group ($M = 70.18$); whereas the mean of post test of CDMSE of the female experimental group ($M = 102.24$, $SD = 9.25$) is also higher than the post test of female control group ($M = 69.41$, $SD = 5.01$). However, the mean differences of post test of the male experimental group ($M = 108.94$) and the male control group ($M = 70.80$) with 38.14 is higher compared to the female groups ($M = 102.24 - M = 69.41$) = 32.83. These finding shows that the career module is efficient in increasing the self-efficacy in making career decisions in both gender groups.

Statistical Analyses on the Effects of Career Integration Module towards the Pre-Test and Post Test of CDMSE of the Treatment and Control Groups.

The independent samples t-test and paired samples t-test analyses are used to examine the effects of Career Integration Module towards CDMSE. The effects of Career Integration Module towards the independent variables of CDMSE are proved through the following hypotheses: i) There are no significant differences of pre-test of CDMSE between treatment group and control group; ii) There are significant differences between the pre-test and post test of CDMSE of the treatment group; iii) There are no significant differences between the pre-test and post test of CDMSE of the control group; and iv) There are significant differences of post test of CDMSE between the treatment group and control group. Table 3 shows the summary of independent samples t-test and paired samples t-test analyses with the results of pre-test and post test of CDMSE between treatment and control groups.

Table 3:
Independent Samples T-Test and Paired Samples T-Test Analyses with Pre-Test and Post Test of CDMSE

Variable	Group/ Test	Test/ Group	Mean	SD	df	t	p
CDMSE	Pre-test	Treatment Group	68.094	5.2570	62	-1.745	.086
		Control Group	70.188	4.2913			
	Treatment Group	Pre-test	68.093	5.2570	31	-17.319	.000*
		Post Test	105.375	10.4318			
	Control Group	Pre-test	70.188	4.2913	31	.248	.806
		Post Test	70.063	5.0796			
	Post Test	Treatment Group	105.375	10.4318	62	17.216	.000*
		Control Group	70.0625	5.0796			

Alpha Value (α) = .05

Table 3 shows the findings of independent samples t-test and paired samples t-test analyses with pre-test and post test of CDMSE between the treatment group and control group. Findings indicate that there are no significant differences of pre-test of CDMSE between the treatment group and control group ($p = .086$). On the other hand, there are significant differences between the pre-test and post test of CDMSE of the treatment group ($p = .000$); whereas for the control group, there are no significant differences between both pre-test and post test of CDMSE for the control group ($p = .806$). Besides, findings also indicate that there are significant differences of post test of CDMSE between the treatment group and control group.

Based on the results, each hypothesis of this study, namely: i) There are no significant differences of pre-test of CDMSE between treatment group and control group; ii) There are significant differences between the pre-test and post test of CDMSE of the treatment group; iii) There are no significant differences between the pre-test and post test of self-efficacy of the control group; and iv) There are significant differences of post test of CDMSE between the treatment group and control group are all proven and accepted. As such, the treatment by using Career Integration Module has successfully increased the CDMSE among the subjects of this study.

Findings of ANCOVA Analysis on the Effects of Career Integration Module towards CDMSE of the Treatment and Control Groups based on Gender.

The ANCOVA statistical analysis is used to examine the effects of Career Integration Module towards the CDMSE based on the gender of both treatment and control groups by looking at the scores of pre-test and post test of both genders. There are altogether four groups based on gender in this study, namely the male treatment group; the female treatment group; the male control group; and the female control group. Table 4 shows the summary of ANCOVA statistical analysis on the effects of Career Integration Module towards the pre-test and post test of self-efficacy based on gender in both treatment and control groups.

Table 4:

Summary of ANCOVA Analysis on the Effects of Career Integration Module towards the Pre-test and Post Test of CDMSE based on Gender of Both Treatment and Control Groups

Source	Sum of Squares	df	Mean Square	F	<i>p</i>
Pre-test of CDMSE	265.684	1	265.684	4.435	.039*
Gender groups	20155.865	3	6718.620	112.141	.000*

* $p < .05$

Findings of ANCOVA analysis in Table 4 indicate that there are significant differences between pre-test and post test of CDMSE of the male treatment group, female treatment group, male control group, and female control group; with CDMSE at F value (1, 4.435) = .039 and ($p < .05$). These show that there are significant differences of CDMSE between the treatment groups and control groups based on gender.

Since findings of ANCOVA analysis indicate that there are significant differences between the pre-test and post test of CDMSE of both treatment and control groups based on gender; therefore, the post hoc test must be carried out. As such, the Tukey post hoc test is used to examine the gender effects as to whether the male treatment group and the female treatment group show intervention effects towards the variables of CDMSE within the Career Integration Module. Table 5 shows the summary of Tukey – post hoc test to examine the differences of post test of self-efficacy between the male treatment group, the female treatment group, the male control group, and the female control group.

Table 5:

Summary of Tukey – Post Hoc Analysis on the differences of post test of CDMSE between the Male Treatment, Female Treatment, Male Control and Female Control Groups.

Variable	Groups		Differences (I – J)	Sig. p
	I	J		
CDMSE	Male Treatment	Female Treatment	6.680	.093
	Male Treatment	Male Control	38.133	.000*
	Male Treatment	Female Control	39.522	.000*
	Female Treatment	Male Control	31.435	.000*
	Female Treatment	Female Control	32.824	.000*

* $p < .05$

As shown in Table 5, the findings of Tukey – post hoc analysis indicate that there are no significant differences of post test of CDMSE between the male treatment group and the female treatment group. Besides, there are also no significant differences of post test between the male treatment group and male and female control groups. On the other hand, findings indicate that there are significant differences of post test of CDMSE between the female treatment group and the male and female control groups.

Results indicate that there are significant treatment effects of the Career Integration Module towards the treatment groups as compared to the control groups. However, the gender factor shows no effect on the treatment of Career Integration Module towards CDMSE. As such, the Career Integration Module shows the same effect on the CDMSE of both male and female subjects.

Discussion

Results of this study indicate that Career Integration Module has successfully increased the self-efficacy in making career decision among undergraduates. This finding is based on the increased mean of the experimental group after the treatment of this module. Besides, findings also indicate significant differences between the pre-test and post test of CDMSE of the treatment group. The high mean scores indicate that the students in treatment group possess high level of confidence in self-efficacy in making career decisions. These show that they possess self-efficacy related to self-appraisal, gathering of occupational information, goal selection, making plans for the future, and career problem-solving. Results of this study

support the previous studies in which career intervention could increase career planning (Amla, Zuria and Mokhtar, 2007); (Koivisto, Vinokur & Vuori, 2011); and self-efficacy in making career decisions (Burns, Jasinski, Dunn and Fletcher, 2013). Moreover, students with high CDMSE scores may also achieve higher academic results (Yoonjung Choi, Jieun Kim and Sunkyung Kim, 2015).

Apart from that, results of this study indicate that there are no significant differences between the male treatment group and the female treatment group. Besides, results also indicate that there are significant differences between the male treatment group and the male control group; between the male treatment group and the female control group; and between the female treatment group and female control group. These show that the treatment of career integration module is efficient for both gender groups; as opposed to previous study whereby results often indicate that female make better career decisions (Sadia Hussain and Rafia Rafique, 2013).

The results of this study show that the integration of two theories, namely the Social Cognitive Career Theory (Lent, Brown and Hackett, 1994) and the Career Selection Theory (Holland, 1997) as the basic of this module complement each other. The Social Cognitive Theory is applied at the early stage of this module whereby counsellors would understand the background of clients toward career selection as in Strategy 1 – Client’s Background; Strategy 2 – Learning Experiences; and Strategy 3 – Self-Efficacy in Career. The family’s backgrounds are factors involving the environment and the socioeconomic status which would influence career selection (Ozlen and Arnaut, 2013; Trusty, Ng and Plata, 2000; Thompson and Subich, 2006) and career aspiration (Ali and Saunders, 2009); whilst they are also expected to be able to further study to higher education, have role model in work and receive better family support (Blustein Turner and Lapan, 2003).

Besides, both theories are also applied in Strategy 4 – Identifying Career Interest in which students must get 3 codes of Holland’s score; followed by Strategy 5 – Knowing Personality and Values of Work; and Strategy 6 – Studying Career Information. The Career Theory by Holland has greatly helped the students in program or courses selection while in university (Perkmen, Alkan & Shelley, 2013; Ding, Salyers, Kozelka and Laux, 2015). Chen and Simpsons (2015) on the other hand, have applied both theories to identify the factors of major courses selection in university.

There are plenty of previous studies related to the Holland’s Theory such as study by Cevik Perkmen, Alkan and Shelley (2013) in which the main purpose of the study was to examine the utility and usefulness of Holland’s Theory of Personalities in Work Environments to understand the relationship between personality and the desire for music education. Chen and Simpsons (2015) have also conducted a study that utilized John Holland’s personality typology and the Social Cognitive Career Theory (SCCT) to examine the factors that may affect students’ self-selection into the major of science, technology, engineering, and mathematics (STEM). Furthermore, Ding, Salyers, Kozelka and Laux (2015) have assessed the vocational personality of 104 graduate students in school counselling, mental health counselling, and school psychology programs using Holland’s (1997) Theory of personality and career choice.

As for Strategy 7 – Identifying the Contextual Influence, Surroundings’ Support and Obstacles; Strategy 8 – Expected Results; and Strategy 9 – Performance and Achievement; these three strategies are related to the demography and individual factors. In the Social Cognitive Career Theory, Lent et al. (1994) suggested that the differences of demography and individual (such as gender, race, ethnic as well as socioeconomic status) would influence the variables of background and contextual; therefore, influence the overall learning experiences of an individual. Moreover, these would also contribute to developing the trust of self-efficacy which would influence the expected results portrayed by the characters of the individual. At last, based on the integration of both theories, decision on the most suitable career for the student is made.

Study Limitations

This study is conducted at the Sultan Idris Education University, a public university in Malaysia. As such, more studies should be conducted to examine this module at the other public and private universities in order to find out its applicability to every undergraduate so as to assist them in career selection when they graduate soon.

Career Implications Of Study Results And Conclusion

Results of this study show that the Career Integration Module is efficient in increasing the CDMSE of the undergraduates of UPSI. Besides, study shows that the undergraduates need guidance in making career selection because some of them made their program/course choices without considering whether it suits them or not. As such, this module will serve as a guidance to select career related to their interest, personality, value and job market as well as the dynamic relationship between the individual-cognitive factors (such as self-efficacy, expected results and target); and personal/environment factors (such as gender, ethnic, social support and obstacles) in their career development process.

This module helps undergraduates to develop self-efficacy in making career decisions. Self-efficacy in making career decisions will reduce anxiety among students (Santos, 2001), depression (Saunders, Peterson, Sampson & Reardon, 2000), and low self-esteem (Gati & Amir, 2010) related to career. Students with self-efficacy in making career decisions will also achieve better result academically and success in examinations (Norzaini Azman, 2013; Chemers, Hu & Garcia, 2001; Multon, Brown & Lent, 1991). As such, the counselling unit or the career centre in university need to carry out intervention programs to assist the undergraduates in career selection as early as possible during their first year of learning.

Corresponding Author

Name : Associate Professor Dr Muhammad Bazlan Mustafa
Affiliation : Sultan Idris Education University.
Country : Malaysia
email ID : bazlan@fppm.upsi.edu.my
Address: Faculty of Education and Human Development, Sultan Idris Education University
35900 Tanjong Malim, Perak

References

- Ali, S. R., & Saunders, J. L. (2009). The career aspirations of rural Appalachian high school students. *Journal of Career Assessment*, 17, 172–188
- Azman, N. (2013). Choosing teaching as a career: perspectives of male and female Malaysian student teachers in training. *European Journal of Teacher Education*. 36(1), 113–130.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Betz, N. E. (2004). Contributions of Self-Efficacy Theory to Career Counseling: A Personal Perspective. *The Career Development Quarterly*, 52(4), 340-353
- Burns, G. N., Jasinski, D., Dunn, S., & Fletcher, D. (2013). Academic support services and career decision-making self-efficacy in student athletes. *The Career Development Quarterly*, 61(2), 161-167.
- Cevik, B., Perkmen, S., Alkan, M., & Shelley, M. (2013). Who should study music education? A vocational personality approach. *Music Education Research*; 15 (3) : 341-356
- Chemers, M. M., Hu, L. T., & Garcia, B. F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology*, 93, 55–64.
- Chen, P. Daniel; Simpson, Patricia A (2015). Does Personality Matter? Applying Holland's Typology to Analyze Students' Self-Selection into Science, Technology, Engineering, and Mathematics Majors. *The Journal of Higher Education*, 86 (5), 725-749.
- Choi, Y., Kim, J., & Kim, S. (2015) Career Development and School Success in Adolescents: The Role of Career Interventions. *The Career Development Quarterly*, 63 (2), 171-186.
- Dimakakou, D.S., 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.
- Ding, Yi; Salyers, K., Kozelka, S., & Laux, J. (2015) Vocational Personality Traits in Counselor Education and School Psychology Students. *Journal of Employment Counseling*, 52 (4), 158-170
- Gati, I., & Amir, T. (2010). Applying a systemic procedure to locate career decision-making difficulties. *The Career Development Quarterly*. 58(4), 301–320.
- Gianakos, I. (2001). Predictors of career decision-making self-efficacy. *Journal of Career Assessment*, 9(2), pp. 101-114.
- Guay, F., Senecal, C., Gauthier, L., & Ferner, C. (2003). Predicting career indecision: A self-determination theory perspective. *Journal of Counseling Psychology*, 50 (2) ,165–177.
- Kelly, K. R., & Shin, Y-J. (2009). Relation of neuroticism and negative career thoughts and feelings to lack of information. *Journal of Career Assessment*, 17(2), pp 201–213
- Hassan, S.S., David, W. K. C., Ahmadi. K., Wong, P.S., Hassali, M, A., Hata, E.M., Hadi, M.A., Sathvik, B.S., Ahmed. S.i., Low. B.E., & Efendie. B. (2010). Influences on Malaysian Pharmacy Students' Career Preferences. *American Journal of Pharmaceutical Education*, 74(9), 1-7.
- Hussain, S., Rafique. R. (2013). Parental Expectation, Career Salience and Career Decision Making. *Journal of Behavioural Sciences*, 23(2), 62-76
- Hsieh, H.H., & Huang. J.T. (2014). The Effects of Socioeconomic Status and Proactive Personality on Career Decision Self-Efficacy. *The Career Development Quarterly*, 62 (1), 29-43
- Holland, J. L. (1997) . *Making Vocational Choices: A Theory of Careers*. 3rd ed. Odessa, FL: Psychological Assessment Resources.

- Jin, L., Watkins, D., & Yuen, M. (2009). Personality, career decision self-efficacy and commitment to the career choices process among Chinese graduate students. *Journal of Vocational Behavior*, 74, 47–52.
- Kim, B., Rhee, E., Ha, G., Yang, J., & Lee, S. M. (2016). Tolerance of Uncertainty: Links to Happenstance, Career Decision Self-Efficacy, and Career Satisfaction, *The Career Development Quarterly*, 64(2),140-152
- Koivisto, P., Vinokur, A. D., & Vuori, J. (2011). Effects of career choice intervention on components of career preparation. *The Career Development Quarterly*,59(4), 345–366.
- Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*, 38 (1), 30–38
- Lent, R.W., Brown, S.D. and Hackett, G. (1994), “Toward a unifying social cognitive theory of career and academic interest, choice, and performance”, *Journal of Vocational Behavior*, 45(1), 79-122.
- Mustafa,M.B., Bistaman. M. N., Mohamed Arip, M. A. S., Syed Salim, S.S. (2015). Career Module as a strategy to assists the undergraduates in career selection. Unpublished Manuscript, Research University Grant. Sultan Idris Education University. Tanjong Malim. Malaysia.
- Rogers, M. E., Creed, P. A., & Glendon, A. I. (2008). The role of personality in adolescent career planning and exploration: A social cognitive perspective. *Journal of Vocational Behavior*, 73, 132–142.
- Santos, P. J. (2001). Predictors of generalized indecision among Portuguese secondary school students. *Journal of Career Assessment*, 9(4), 381–396.
- Saunders, D. E., Peterson, G. W., Sampson, J. P., & Reardon, R. C. (2000). Relation of depression and dysfunctional career thinking to career indecision. *Journal of Vocational Behavior*, 56, 288-298.
- Shin, Y.J., & Kelly, K.R. (2015). Resilience and Decision-Making Strategies as Predictors of Career Decision Difficulties. *The Career Development Quarterly*, 63(4), 291-305.
- Olitsky, N. (2014). How Do Academic Achievement and Gender Affect the Earnings of STEM Majors? A Propensity Score Matching Approach. *Research in Higher Education*. 55(3), 245-271.
- Ozlen ,M. K., & Arnaut. D. (2013) career decisions of university students. *Journal of Community Positive Practices*, 13 (2). 92-107
- Sallah, A, Mahmud. Z., & Taha. M. (2007). Bengkel Kembara kerjaya dan Motivasi Belajar di kalangan Pelajar berprestasi Rendah (*Career Exploration Workshop and Learning Motivation Among low achievers*) , *Jurnal PERKAMA* , 13(7) 29-43.
- Talib, J. A., Salleh, A., Amat, S., Ghavifekr, S., & Ariff, A. M. (2015). Effect of career education module on career development of community college students. *International Journal for Education and Vocational Guidance*, 15 (11), 37-55.
- 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.
- Turner, S. L., & Lapan, R. T. (2003). Native American Adolescent Career Development. *Journal of Career Development*, 30(2), 159-172.
- Trusty, J., Ng, K. and Plata, M. (2000), “Interaction effects of gender SES, and race-ethnicity on postsecondary education choices of US students”. *Career Development Quarterly*, 49(1), pp. 45-59.

- Thompson, M.N., & Subich, L.M. (2006). The relation of social status to the career decision-making process. *Journal of Vocational Behavior*, 69, 289-301
- Wang, N., Jome, L. M., Haase, R. F., & Bruch, M. A. (2006). The role of personality and career decision-making self-efficacy in the career choice commitment of college students. *Journal of Career Assessment*, 14, 312–332.