International Journal of Innovation, Creativity and Change. www.ijicc.net
Volume 10, Issue 1, 2019

Relationship between Career Decision-Making Self-Efficacy, Career Optimism and Career Decision-Making Difficulties among Students in a Private Secondary School

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The purpose of the study was to examine the relationship between career decision-making self-efficacy, career optimism and career decision-making difficulties among students in a private secondary school. 101 respondents of year 10 (equivalent to form 4) classes participated in the study. Data analysis was conducted using IBM Statistical Package for Social Sciences (SPSS) software. The results show that there is a significant negative correlation between career decision-making self-efficacy and career decision-making difficulties. Further, there is a significant negative correlation between career optimism and career decision-making difficulties. Subjects scored moderately in the three aspects of career decision-making self-efficacy, career optimism and career decision-making difficulties. Overall, these results would be useful to researchers and counsellors in designing career interventions for secondary school students.

Key words: *Career Decision-Making, Self-Efficacy, Career Optimism, Career Decision Making Difficulties, secondary school.*

Introduction

In this era of modern technologies, teenagers are exposed to different occupations available worldwide. In Malaysia, Kidzania exists which exposes kids to all kinds of occupations through experiential learning and role-playing activities. There are around 90 professions being featured within a real economy that allow kids to take part in and experience the tricks-of-the-trade of their dream careers. In secondary schools since 2014, the Education Ministry has introduced a Psychometric Test which consisted of Personality Test, Multiple Intelligence Inventory and Career Interest Inventory to make sure that students entered Form four based on their ability and interest, whether in Fully Residential Schools, Religious Schools, Mara Junior Science Colleges (MRSM) including Technical Secondary School and Vocational Colleges ("PT3 replaces PMR, says Muhyiddin", 2014). Based on this test, students have a clearer understanding of their career interests. Patton (2009) stated that students start looking at career choices from high school by taking appropriate courses to prepare them for their future. "People typically make their first career-related decisions during adolescence. Such decisions may have lifelong consequences for individual vocational future, psychological well-being, health, and social acceptance" (Mann, Harmoni, & Power, 1989).

In adolescence, the choice of career in further education is one of the most important decisions that an adolescent has to make. However, some still face difficulties making decisions regarding career choices when they are in Form four or Form five or even after they graduate from high school. They tend to be indecisive about the pathway of their career choices, which is known as career indecision. They rely on their parents, teachers or counsellors to give them suggestions, or they just go ahead with the pre-university programmes available in the colleges. In private schools, students opt for private colleges after their SPM or IGCSE O'Levels (equivalent to SPM). They can choose A-Level's, Australian Matriculation Programme, Canadian Pre-University Program, or International Baccalaureate that follows US syllabus. Every year, the education fair is held in school to create awareness of the students on the availability of the courses in the market, local or overseas. This helps to expose students to the educational pathways they can take after they graduate from the high school.

Despite the Career Interest Inventory, Education Fair or Career Guidance Talks that are being held, there are students who cannot decide on courses they would like to pursue, course suits them the best. This produces anxiety in some of the students when they see their friends are sure of what course or subjects they want to take in college or universities whereas they are not. There is research which shows that career concerns differ between college students who are undecided and those who have decided on future direction. Indecisive college students claimed reduced career decision making self-efficacy, more problematic career thoughts, and higher decision-making problems than their more decisive peers (Bullock-Yowell, McConnell & Schedin, 2014).

As cited by Coon (2009), career decidedness is determined by difficulties that may present challenges to individuals in making wise career decisions. Career decision difficulties include reduced confidence, lack of control, higher amount of barrier in career (Larson et al., 1988), negative career thoughts, ineffective methods in coping (O'Hare & Tamburri, 1986), and unnecessary worrying. Difficulties in making career decision include poor skills in decision making (Holland & Holland, 1977), and external decision-making style (Creed, Patton, & Bartrum, 2004).

However, many students persist in their career choices though they anticipate having career-related problems. They realise that they should reinvent themselves and create new goals as they progress in the career decision making process (Gati, Krausz & Osipow, 1996). In addition, they have firm belief that they can solve any problems by harnessing their own talents and hard work (Lent et al., 2002) They have positive traits of career decision-making, such as practical skills in decision making, (Holland & Holland, 1977), successful problem solving skills (Larson & Heppner, 1985) , self-efficacy beliefs (Betz & Luzzo, 1996), self-worth (Maier & Herman, 1974), lower self-appraised difficulties (Larson et al., 1988), self-judgement of control (Larson, Piersel, Imao, & Allen, 1990), and beneficial ways in dealing with problems (O'Hare & Tamburri, 1986).

An estimated 40% of graduates from Malaysian public university report having no jobs or working in career which are unsuitable for them (Yu Ji, July 2013). Students tend to have the career decision-making difficulties (CDMD) which is also known as career indecisions or career indecisiveness. Career indecision is connected to the problem in deciding in career and education (Gati & Saka, 2001). This is one of the typologies of career decision-making problems that were being discussed the most (Santos, 2001). In the latest context, Burns et al. (2013) defined CDMD as the inability of an individual to select or choose an occupation.

Teenage students have to make decisions regarding secondary school choice and their elective courses. These choices may influence their general education and vocational education. Some may make these decisions easily and some may find it harder to do so. They may attempt avoidance strategies such as transferring the task of deciding to someone else, procrastination or decide against making that choice altogether (Gati & Saka, 2001). Matters pertaining to education and vocational education are important to teenagers. Fredman (1991) as cited by Gati & Saka (2001) studied Israeli students (9^{th} and 11^{th} graders) and their decision making behaviour and found that teenagers are most worried about educational matters (43% of the problems are based on studies and job). The highly pressing issues of concern were centred on choice of secondary school elective courses (46%) and of secondary school (26%).

Extensive research regarding Career Decision- Making Difficulties has been conducted in the Western World however there is very little research in the East, such as Malaysia. Very few studies related to career decision-making self-efficacy, career optimism and career decision-making difficulties among high school students in the local setting have been conducted. The variable of career decision-making self-efficacy was studied in this research because there are a deficit of conclusive studies that illustrate it is a major predictor of career decision making difficulties (e.g. Betz & Voyten, 1997).

Purpose of the Study

The purpose of the study is to explore the relations among career decision- making self-efficacy, career optimism, and career decision-making difficulties among high school students.

Research Objective

1. To examine the relationship between Career Decision-Making Self-Efficacy (CDMSE) and Career Decision-Making Difficulties among students in a private secondary school.
2. To examine the relationship between Career Optimism and Career Decision-Making Difficulties among students in a private secondary school.

Methodology

The research methodology comprises the research design, population and sampling procedure, sampling size, pilot test, reliability of the instruments, measurement and instruments and data analysis.

Research Design

This is quantitative research that is descriptive in design and descriptive and Correlational Research design was to examine the relationship between career decision making self-efficacy, career optimism and career decision making difficulties.

Location of Study

The study was carried out in one of the private schools in Klang Valley. The school gave permission to conduct this study among the year 10 students during school hours. The population of the school is 1260 students and there are about 240 year 10 students.

Population and Sampling Procedure

The target population in this study is the Year 10 (equivalent to Form 4) students of a private Secondary School. They are completing the International General Certificate of Secondary Education (IGCSE). The total number of Year 10 students is 240. Simple random sampling method was used in this study to enables an equal chance of being selected as a respondent.

Sampling Size

The sample size of this study was according to Cohen (1988) and determined by G* Power. This study covers 7 hypotheses measured by Pearson Product Moment Correlation Coefficient and the minimum sample size needed is n= 82.

Instruments

In the present study, quantitative research methodology was carried out and the instruments are obtained from the creator of the questionnaires and also from previous research. The students were notified that the responses from the survey would be private and confidential. A set of questionnaires consisting of four sections were compiled and distributed for data collection. The four sections of the questionnaire are:

a) Section A: Respondent Demography
b) Section B : Career Decision-Making Difficulties Questionnaire (CDDQ)
c) Section C : Career Decision-Making Self-Efficacy (CDMSE)
d) Section D : Career Futures Inventory (CFI)

Career Decision-Making Difficulties Questionnaire (CDDQ)

Career Decision-Making Difficulties Questionnaire (CDDQ) adapted from Gati & Osipow (2010) was used to examine career difficulties. The Cronbach's alpha obtained from previous research was 0.95 (Gati, Krausz, & Osipow, 1996). The CDDQ consists of questions about level of career undecidedness, satisfaction with decision status, and confidence with current career choice. In total, there are 34 items relating to attitudes and beliefs about career decision-making. The CDDQ differentiates three categories of difficulty: Lack of Readiness, Lack of Information and Inconsistent Information. These three categories are further subdivided into a number of subscales. The Lack of Readiness scale includes Lack of Motivation (RM), Indecisiveness (RI), and Dysfunctional Myths (RF). The second category, Lack of Information, is divided into Lack of Knowledge about the Process (LP), Lack of Knowledge about the Self (LS), Lack of Knowledge about Occupations (LO), and Lack of Knowledge about how to

access Additional Sources of Information (LA). The third category, Inconsistent Information, consists of Unreliable Information (IU), Internal Conflicts (II), and External Conflicts (IE).

Career Decision Making Self-Efficacy Scale – Short Form (CDMSE-SF)

Career Decision Making Self-Efficacy Scale - Short Form (CDMSE-SF) was adapted from Career Decision Making Self-Efficacy scale and was developed by Betz, Klein & Taylor (1996) to measure an individual's degree of belief that an individual could successfully complete the tasks necessary to make decision in career. From the original of 50 items of the CDMSE, the instrument was shortened to 25 items. CDMSE was developed based on the theoretical foundation of Crites' (1978) model of career choice competencies. Thus five career choice competencies were being identified and bring to healthy career decision making. Betz, Klein & Taylor (1996) included the five measurements, which were goal selection, planning, self-appraisal, gathering occupational information and lastly, problem solving.

Career Futures Inventory (CFI)

Career Futures Inventory (CFI) developed by Rottinghaus (2008) was used to assess critical factors for people considering career transitions. The respondents were asked to answer a series of questions regarding their current thoughts and feelings about how they plan their career. CFI consists of 25 items, where 11 items for Career Optimism (CO), 11 items for Career Adaptability (CA) and 3 items for Perceived Knowledge (PA).

Reliability of Instruments

The reliability testing results for the pilot test and actual study on the variables are summarised in Table 1 below.

Table 1: Cronbach's Alpha for Pilot Test

Instrument	**Total Items**	**Cronbach's alpha(α) Pre-test n=30**	**Cronbach's alpha(α) Actual Study n=101**
Career Decision-Making Difficulties (CDDQ)	35	.84	.92
Career Decision-Making Self-Efficacy Scale –Short Form	25	.86	.90
Career Futures Inventory	25	.84	.89

In order to determine the reliability of the questionnaire for pilot study, a reliability test was conducted with 30 respondents. For the pilot test, the Cronbach's alpha for Career Decision-Making Difficulties is .84; Career Decision-Making Self-Efficacy Scale-Short Form is .86; Career Futures Inventory is .84. For actual study based on 101 respondents, the Cronbach's alpha of each instruments are slightly higher than the pilot study. The Cronbach's alpha for CDDQ is .92; for CDMSE is .90 and for CFI is .89. According to Best and Kahn (1998), an instrument is considered reliable when the Cronbach's alpha in social science shall not be less than .60. The Cronbach's alphas for pre-test are all above .60. Therefore, it can be concluded that all the instruments are reliable.

Data Analysis

The outcome of the survey was analysed to determine if a relationship exists between career decision- making self-efficacy, career optimism and career decision- making difficulties among private school students. The statistical software called SPSS was chosen for data entry and used for all analysis. Data were analysed for descriptive statistics for age, gender, race and also some career related questions. The frequency, percentage, mean and standard deviation were analysed. Besides that, the reliability of the instruments was tested too. Pearson Product Moment Correlation Coefficient was being used to identify the relationships between the variables.

Results

Respondents' Demographics Data

Descriptive characteristics were collected to describe the participating population.
Gender and Age. Among the respondents, 49.5% were male and 50.5% were female. Their age ranged between 15 to 16 years old. More specifically, there were 7 respondents aged 15 which is 6.9% from the total number. Meanwhile, there were 94 respondents aged 16 and this consists of 93.1% of the total number. The respondent mean age was 15.93 (SD= .26).

Ethnicity. Among the respondents, most of the respondents were Chinese (n=77 or 76.2%). Nine were Malays and nine were Indian respondents which contributed to 8.9% respectively. There were also 6 or 5.9% of the respondents who were of other ethnicity.

Certainty of Major and Career Choice

In the present sample, 68.8% (n=66) indicated that they have already considered the field or occupation they would like to major in, 31.3% (n=30) have not decided yet which field they would like to major in. It was observed that 16.0% (n=15) were very certain of their career

choice, 50.0% (n=47) were somewhat certain, 10.6% not certain at all and 23.4% have not yet chosen an occupation.

Future occupation choices

The types of occupations are: accountant, businessman, actor, athlete, actuarial, aeronautical engineer, analyst, animator/ illustrator, baking chef, biochemist, biologist, car designer, cardiologist, marine biologist, civil engineer, cosmetic dentist, dentist, doctor, architect, electrical engineer, pilot, fashion designer, finance, genetic researcher, advertiser, art director, interior designer, journalist, lawyer, journalist, sport scientist, surgeon, teaching profession, veterinarian.

Level of Career Decision-Making Difficulties

Table 2: Frequency and Percentage Distribution of Respondents According to Level of Career Decision-Making Difficulties

Ratio	Level	Frequency (f)	Percentage (%)
35– 128.33	Low	19	18.8
128.34 – 221.67	Moderate	89	65.4
202.68 - 315	High	16	15.8
Total		101	100
Mean= 162.17			SD = 42.18

Based on Table 2 above, of 101 respondents, most of the respondents show moderate level of career decision-making difficulties with 89 respondents (65.4%); 19(18.8%) of the respondents with low level of career decision-making difficulties and 16 (15.8%) are at the high level of career decision-making difficulties.

Level of Lack of Readiness

Table 3 below indicates the frequency and percentage distribution of respondents according to the level of career decision-making difficulties.

Table 3: Frequency and Percentage Distribution of Respondents According to Level of Lack of Readiness

Ratio	Level	Frequency (f)	Percentage (%)
10.00– 36.66	Low	4	4.0
36.67 – 63.33	Moderate	89	88.1
63.34 – 90.00	High	8	7.9
Total		101	100
Mean=51.43			SD = 9.61

Based on Table 3 above, of 101 respondents, most of the respondents show moderate level of Lack of Readiness with 89 respondents (88.1%). Moreover, 8 of the respondents (7.9%) with high level of Lack of Readiness and 4 respondents (4.0%) of the respondents at the low level of Lack of Readiness.

Level of Inconsistent Information

Table 4 below indicates the frequency and percentage distribution of respondents according to the level of Inconsistent Information.

Table 4: Frequency and Percentage Distribution of Respondents According to Level of Inconsistent Information

Ratio	Level	Frequency (f)	Percentage (%)
10.00– 36.66	Low	24	23.8
36.67 – 63.33	Moderate	64	63.3
63.34 – 90.00	High	13	12.9
Total		101	100
Mean= 46.44			SD=15.95

Based on Table 4 above, of 101 respondents, most of the respondents show moderate level of Inconsistent Information with 64 respondents (63.3 %). 13 of the respondents (12.9%) with high level of and 4 respondents (4.0%) of the respondents at the low level of Inconsistent Information.

Level of Lack of Information

Table 5 below indicates the frequency and percentage distribution of respondents according to the level of Lack of Information.

Table 5: Frequency and Percentage Distribution of Respondents According to Level of Lack of Information

Ratio	Level	Frequency (f)	Percentage (%)
12 - 44	Low	22	21.8
45 -77	Moderate	50	49.5
78-108	High	29	27.7
		101	100
Mean= 64.30			SD=23.79

Based on Table 5 above, of 101 respondents, most of the respondents show moderate level of Lack of Information with 50 respondents (49.5 %). 22 of the respondents (21.8%) scored high level and 29 respondents (49.5%) of the respondents scored low level of Lack of Information.

Level of Career Decision-Making Self-Efficacy

Table 6 below indicates the frequency and percentage distribution of respondents according to the level of CDMSE.

Table 6: Frequency and Percentage Distribution of Respondents According to Level of Career Decision-Making-Self Efficacy (CDMSE)

Ratio	Level	Frequency (f)	Percentage (%)
25-58.33	Low	8	7.9
58.34-91.67	Moderate	68	67.3
91.68 - 125	High	25	24.8
		101	100
Mean = 80.57			SD =14.99

The mean of CDMSE shown in Table 6 above, *M* = 80.57 and standard deviation= 14.99 indicates that in average, the respondents have moderate level of career decision-making self-efficacy. 8 respondents (7.9%) at the low level and most of the respondents achieved a moderate level of CDMSE with 68 respondents (67.3%) and 25 respondents (24.8%) are at high level of CDMSE.

Level of Goal Selection

Table 7: Frequency and Percentage Distribution of Respondents According to Level of Goal Selection

Ratio	Level	Frequency (f)	Percentage (%)
5-11.66	Low	13	12.9
11.67-18.33	Moderate	54	53.4
18.34-25	High	34	33.7
		101	100
Mean = 16.67			SD = 4.28

According to Table 7 above, 54 respondents (53.4%) achieved moderate level; 13 respondents (12.9%) achieved low level and 34 respondents (33.7%) achieved high level.

Level of Planning

Table 8 below indicates the frequency and percentage distribution of respondents according to the level of Planning.

Table 8: Frequency and Percentage Distribution of Respondents According to Level of Planning

Ratio	Level	Frequency (f)	Percentage (%)
5-11.66	Low	18	17.8
11.67-18.33	Moderate	51	50.5
18.34-25	High	42	31.7
		101	100
Mean = 16.07			SD = 4.17

As presented in Table 8 above, 18 of the respondents (17.8%) are at low level, 51 respondents (50.5%) are at moderate level and 42 (31.7%) are at high level.

Level of Self-Appraisal

Table 9 below indicates the frequency and percentage distribution of respondents according to the level of Self-Appraisal.

Table 9: Frequency and Percentage Distribution of Respondents According to Level of Self-Appraisal

Three respondents (3%) are at low level, 59 respondents (58.4%) are at moderate level and 39 (38.6%) are at high level of self-appraisal.

Ratio	Level	Frequency (f)	Percentage (%)
5-11.66	Low	3	3.0
11.67-18.33	Moderate	59	58.4
18.34-25	High	39	38.6
		101	100
Mean=17.23			SD=3.49

Level of Occupational Information

Table 10 below indicates the frequency and percentage distribution of respondents according to the level of Occupational Information.

Table 10: Frequency and Percentage Distribution of Respondents According to Level of Occupational Information

Ratio	Level	Frequency (f)	Percentage (%)
5-11.66	Low	9	8.9
11.67-18.33	Moderate	72	71.3
18.34-25	High	20	19.8
Total		101	100
Mean=15.88			SD=3.28

More specifically, according to Table 10, 72 (71.3%) respondents out of 101 are at the moderate level category; 9 respondents (8.9%) are at low level category, and 20 respondents (19.8%) are at high level category.

Level of Problem Solving

Table 11 below indicates the frequency and percentage distribution of respondents according to the level of Problem Solving.

Table 11: Frequency and Percentage Distribution of Respondents According to Level of Problem Solving

Ratio	Level	Frequency (f)	Percentage (%)
5-11.66	Low	15	14.9
11.67-18.33	Moderate	75	74.2
18.34-25	High	11	10.9
Total		101	100
Mean=14.72			SD=3.07

Level of CFI

Table 12 below indicates the frequency and percentage distribution of respondents according to the level of Career Futures Inventory.

Table 12: Frequency and Percentage Distribution of Respondents According to Level of CFI

Ratio	Level	Frequency (f)	Percentage (%)
25-58.33	Low	6	5.9
58.34-91.67	Moderate	73	72.3
91.68 - 125	High	22	21.8
Total		101	100
Mean=79.73			SD=13.74

In Table 12 above , it is shown that the frequency of respondents who are in the moderate level is 73 respondents (72.3%), 6 respondents (5.9%) are at low level and 22 respondents (21.8%) are at high level.

Level of CFI (Career Optimism)

Table 13 below indicates the frequency and percentage distribution of respondents according to the level of Career Optimism in CFI.

Table 13: Frequency and Percentage Distribution of Respondents According to Level of Career Optimism

Ratio	Level	Frequency (f)	Percentage (%)
11-25.66	Low	6	5.9
25.67- 40.33	Moderate	73	72.3
40.34-55	High	22	21.8
Total		101	100
Mean=34.31			Standard Deviation=8.64

Based on Table 13, there are 73 respondents (72.3%) achieved a moderate level in career optimism; 6 respondents (5.9%) at low level and 22 respondents (21.8%) achieved high level.

Level of CFI (Career Adaptability)

Table 14 below indicates the frequency and percentage distribution of respondents according to the level of Career Adaptability in CFI.

Table 14: Frequency and Percentage Distribution of Respondents According to Level of Career Adaptability

Ratio	Level	Frequency (f)	Percentage (%)
11- 25.66	Low	0	0
25.67- 40.33	Moderate	72	71.3
40.34-55	High	29	28.7
Total		101	100
Mean=37.55			SD=5.27

In Table 14 above, none of the respondents is at low level; 72 respondents (71.3%) are at moderate level and 29 respondents (28.7%) are at high level.

Level of Perceived Knowledge

In Table 15 below, 43 respondents (42.6%) have achieved low level of perceived knowledge; 55 respondents (54.5%) are at moderate level and 3 respondents (2.9%) are at high level.

Table 15: Frequency and Percentage Distribution of Respondents According to Level of Perceived Knowledge

Ratio	Level	Frequency (f)	Percentage (%)
3-7	Low	43	42.6
8-12	Moderate	55	54.5
13-15	High	3	2.9
Total		101	100
Mean 7.88			SD=.41

There is a significant relationship between Career Decision-Making Self-Efficacy and Career Decision-Making Difficulties

Table 16: Pearson's Product Moment Correlations for Career Decision-Making Self-Efficacy and Career Decision-Making Difficulties

Career Decision-Making Difficulties	*r*	*p*
Career Decision-Making Self-Efficacy	-.504**	.000
Goal Selection	-.572**	.000
Planning	-.371**	.000
Self-Appraisal	-.561**	.000
Occupational Information	-.334**	.000
Problem Solving	-.223*	.000

Note: **Correlation is significant at the level 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

Based on Guildford's rule of thumb, a relationship is found between Career Decision-Making Self-Efficacy and Career Decision-Making Difficulties (r= -.504, p= .000). The coefficient indicated negative and moderate relationship between them.

More specifically, the relationships between each category of CDMSE and Career Decision-Making Difficulties are studied. Moderate correlation is found between Goal Selection and Career Decision-Making Difficulties (r= -.572, p= .000). Based on Guildford's rule of thumb, there is substantial relationship found between Goal Selection and Career Decision-Making Difficulties.

Further, there is a relationship between Planning and Career Decision-Making Difficulties (r= -.371, p=.000). By referring to Guilford's rule of thumb, there is low correlation between these

two variables. Thus, H_o being rejected and it can be said that there is a significant relationship between Planning and Career Decision-Making Difficulties.

For Self-Appraisal and Career Decision-Making Difficulties, the relationship is found to be (r= -.561, p= .000). This shows moderate relationship between them, and it can be concluded that there is a significant relationship between Self-Appraisal and Career Decision-Making Difficulties**.**

Occupational Information and Career Decision-Making Difficulties is found to have a low correlation (r= -.334, p=.000). This shows a definite but small relationship between the two variables. It can be concluded that there is a significant relationship between Occupational Information and Career Decision-Making Difficulties.

For Problem Solving and Career Decision-Making Difficulties, the relationship is low (r= -.223, p= .000). The negative correlation indicates a significant relationship between Problem Solving and Career Decision-Making Difficulties

There is a significant relationship between Career Optimism and Career Decision-Making Difficulties

As referred to in Table 17 below, there is a relationship found between CFI and Career Decision-Making Difficulties. The negative relationship is found to be moderate (r= -.641, p= .000). According to Guildford's rule of thumb, it shows a moderate relationship between CFI and Career Decision-Making Difficulties. Thus, it can be concluded that there is a significant relationship between CFI and Career Decision-Making Difficulties.

For the subcategory, there is a moderate relationship found between Career Optimism and Career Decision-Making Difficulties (r= -.661, p= 0.000). There is a significant relationship between Career and Career Decision-Making Difficulties.

Further, Career Adaptability and Career Decision-Making Difficulties has shown a moderate negative relationship (r= -.459, p=.000). According to Guildford's rule of thumb, it is a substantial relationship. Therefore, it is concluded that there is a significant relationship between Career Adaptability and Career Decision-Making Difficulties.

Last but not least, Perceived Knowledge and Career Decision-Making Difficulties also show a low negative correlation (r= -.281, p= .000). This shows that there is significant relationship, between Perceived Knowledge and Career Decision-Making Difficulties.

In summary, Career Decision-Making Self-Efficacy and Career Optimism are negatively correlate with Career Decision-Making Difficulties. However, there is no relationship found between Career Optimism and CDMSE and Lack of Readiness.

Table 17: Relationship between Career Optimism and Career Decision-Making Difficulties

Career Decision-Making Difficulties	*r*	*p*
CFI	-.641**	.000
Career Optimism	-.661**	.000
Career Adaptability	-.459**	.000
Knowledge	-.281**	.000

Note: ** Correlation is significant at the level 0.01 level (2-tailed)

Discussion, Implications and Recommendations

This study aimed to explore the relationship between Career Decision-Making Self-Efficacy, Career Optimism and Career Decision-Making Difficulties. Study results show that there are negative relationships between Career Decision-Making Self-Efficacy, Career Optimism and Career Decision-Making Difficulties.

Level of Career Decision-Making Self-Efficacy

According to Brown, et al. (1999), adolescents from a lower socioeconomic background are more likely to have poorer quality schooling, fewer career role models, and less financial support for postsecondary options than higher socioeconomic background adolescents. The current study subjects are from middle or middle upper-class background as they are in the private school. This could be one of the reasons that the majority of them have scored moderate level of CDMSE. Their parents are working adults and this creates certain ideas about career future. Further, this attitude could also be due to the global change in the world of work and in understandings and constructions of careers and related changes that are happening for the youth labour market and in adolescent educational and career pathways (Bozgeyikili, et al., 2009). Respondents are more aware of the occupations available.

Nawaz and Gilani (2011) revealed that there was a significant positive connection between parental and peer attachment bonds with career decision-making self-efficacy. This proves that parental and peer attachment bonds are important factors in predicting career decision-making self-efficacy. It could be the factors influencing the level of career decision-making self-efficacy among the subjects in the study. They are affected by the parents or peers in making career decision. Parents and friends play important part in their lives in choosing a career.

Even though this variable is not included in the current study, it could be included in the future research.

Level of Career Optimism

The current study shows that the respondents are at moderate level of career optimism. This suggests that the respondents have moderate level of confidence and positive attitude towards their career planning (Patton et al., 2004). Career optimistic students will take part in career activities, set career goals and respond positively towards the career choice difficulties. This indicates that the majority of respondents who are more prone to optimistic will take effort in joining career activities, setting career objectives and be more positive even if they face difficulties in making career decision. FUrther, they view barriers and difficulties as challenging, not threatening (Creed et al., 2004). This shows that most of the respondents are positive towards difficulties. There are 5.9% of respondents who scored low for the level of career optimism. They could be the pessimistic individuals who tend to possess lower levels of career decision-making knowledge whereas another 21.8% could be the optimists that can adapt to new situations easily due to their greater flexibility in processing and acting on information (Aspinwall, Richter, & Hoffman, 2001 as cited by Rottinghaus, 2012).

Level of Career Decision-Making Difficulties

The level of career decision-making difficulties among respondents is at the moderate level. More specifically, the subjects scored moderate for each of the category: Lack of Readiness, Lack of Information and Inconsistent Information. Career decision-making is the important key for students in their lives. Some may find it easy to decide on their career, based on their interests; based on their parents' will or based on their results whereas some may find it difficult in choosing a career. It is essential to determine individuals who struggle in this process. Students who are in the situation may avoid making a career decision, prolong the chance for further education after graduating from high school. This will cause wide-ranging effects such as increased financial strain, increased duration in school, and overall negative impact on the employment rate (Coon, 2009).

In the present study, respondents may have faced the difficulties that arise prior to engaging in the career decision-making process. First of all, lack of readiness is a specific difficulty faced by respondents where they experience lack of motivation, indecisiveness and dysfunctional beliefs. Secondly, there could be lack of information about decision making process that they are not sure how to make a decision wisely; lack of information about themselves such as career preferences of abilities; lack of information about occupations information for example the alternatives or the characteristics of the alternatives which are exist; lack of information about ways of obtaining additional information or assistance that may aid decision making. Thirdly,

inconsistent information, due to unreliable sources could be the issue. Students may have contradictory information about themselves or about the considered occupations. It could also because of internal confusion where the respondents view it as important, but somehow they think that it is incompatible with their thinking. Lastly, external conflicts that indicate a gap between the respondents' preferences and the preferences by others who are significant to them, such as parents or friends.

Therefore, the results of this study play an important role for the counsellor as an investigator of the system of constructs involved in career decision-making such that the level of career decision-making difficulties will be reduced through their guidance and findings.

Career Decision-Making Self-Efficacy and Career Optimism

In the study, it was found that career decision-making self-efficacy and career optimism are highly correlated with one another. Both of the variables are also correlated with career decision-making difficulties. Hackett and Betz (1992) reported, people with high levels of career decision-making self-efficacy may be more inclined to perform tasks related to the career process because they have high confidence to complete a specific task according to their ability. However, there is possibility that people with low career optimism will still have high career decision-making self-efficacy but they may have low expectations for the result of the task and thus do not involve themselves. These people could be more likely to avoid the career decision-making task.

Relationship between Career Decision-Making Self-Efficacy and Career Decision-Making Difficulties

In the present study, the author hypothesized that career decision-making self-efficacy would have a direct, negative effect on career decision-making difficulties. The results of the current study show that career decision-making self-efficacy is negatively correlated with career-decision making difficulties. This findings support previous research (Morgan & Ness, 2003) that a significant relationship is found between career decision-making self-efficacy and career decision-making difficulties. Their findings indicated that those with fewer career decision-making difficulties would have higher career decision-making self-efficacy.

This is also consistent with the study by Bullock-Yowell et al. (2014). They found that undecided college students stated lower career decision-making self-efficacy, higher rates of negative career thoughts, and more career decision-making difficulties than their decided peers. This suggests that the respondents in this study would have higher career decision-making self-efficacy and lower career decision-making difficulties if they were more decisive. This is also

supported by Coon (2009) who reported that students high in career decision-making self-efficacy are less likely to report career decision-making difficulties.

According to Social Cognitive Career Theory (SCCT), humans are mediated by the environment. He suggests that humans are merely influenced by their environment and shape their environment as well, with their personality and behaviour coming into play. This could relate to how the respondents make their career decision in the future. The environment plays an important role in their decision-making process.

Relationship between Career Optimism and Career Decision-Making Difficulties

The author also hypothesized that career optimism would have a direct, negative effect on career decision-making difficulties. The present study's results show that career optimism is negatively correlated with CDDQ Total. These results are corroborated by previous research in 2004 by Creed and colleagues that those who score higher in career optimism tend to consider hardship a challenge to be surmounted rather than a hindrance to their career target and hence they will get involved actively in the decision-making process in their jobs. It is also supported by Patton and colleagues' (2004) research that those who are more optimistic have a higher affinity towards being more active in pursuing their career goals. This is also supported by Coon (2009) who reported that students high in career optimism are less likely to report career decision making difficulties. Besides that, optimistic individuals report higher levels of self-esteem, embrace problem-solving coping strategies such as career planning and exploration, report greater confidence about their career choices, have more career-related goals, and lower levels of psychological distress (Creed et al., 2002; Eshun., et.al 2018).

Implications

Results of the relationship between career decision-making self-efficacy, career optimism and career decision-making difficulties has several important practical implications to be considered. Relationship with the family could be one of the reasons affect students' optimism and career identity (Shin & Kelly, 2012). Thus, counsellors need to take into consideration family and culture background when attempting to improve development in professional identity for college students from different racial and ethnic backgrounds. Respondent career decision-making difficulties are at moderate level. It is important for counsellors to develop career interventions that will address student perceptions of career decision-making difficulties, increase their career decision-making self-efficacy and career optimism. Counsellors can implement programmes to help those who are having career-decision making difficulties and work on ways to cope.

Further, the present study broadened models of career decision-making through positive resources such as career optimism and career decision-making self-efficacy that help people in facing difficulties in the career decision-making process. This research has provided an overview of the relationships among career decision-making self-efficacy, career optimism and career decision-making difficulties. This study has also improved the understanding of the cognitive variables that create and impact on career decision-making. It is vital that future career interventions focus on increasing positive cognition in the career decision-making process to encourage successful career outcomes.

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