



CAREER INDECISION AMONG MALAYSIAN FINAL YEAR STUDENTS: SELF-EFFICACY, DECISION-MAKING STYLES, PLANNED HAPPENSTANCE SKILLS

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Running head: CAREER INDECISION AMONG FINAL YEAR STUDENTS

Career Indecision among Malaysian Final Year Students: Self-Efficacy, Decision-making
Styles, Planned Happenstance Skills

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CAREER INDECISION AMONG FINAL YEAR STUDENTS

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CAREER INDECISION AMONG FINAL YEAR STUDENTS

APPROVAL FORM

This research paper attached hereto, entitled “Career Indecision among Malaysian Final Year Students: Self-Efficacy, Decision-making Styles, Planned Happenstance Skills” prepared and submitted by Chong Hoi Yan and Russell Tan Tzen Qian in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

Supervisor

Mr. Ho Khee Hoong

Date: _____

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Abstract

The circumstances where individuals are incapable of taking a career decision they aspire is known as career indecision. Prior studies indicated several individual characteristics that are connected to career indecision, however, these studies yielded inconsistent results and the information on whether avoidant and spontaneous decision-making styles, and planned happenstance skills (PHS) are associated with individuals' career indecision is sparse. The current study aims to understand the relationships between career indecision and self-efficacy, decision-making styles, and PHS among Malaysian final year students. With the employment of cross-sectional research design together with purposive sampling method, 589 respondents were recruited through both online and paper-and-pencil survey methods. However, only 380 of them have completed the questionnaire and fulfilled the criteria of (1) studying at local universities; (2) currently a final year student. Career Decision-making Difficulties Questionnaire (CDDQ), General Self-efficacy Scale (GSE), General Decision Making Style Test (GDMS), and Planned Happenstance Career Inventory (PHCI) were used to measure desirable variables. The correlation analysis indicated that career indecision is negatively associated with self-efficacy, optimism and persistence, while positively associated with intuitive, dependent, spontaneous and avoidant decision-making styles. Besides, career indecision was found of no relation with rational decision-making style, flexibility, curiosity, and risk-taking. The results of the current study would contribute to the literature of career indecision in the Malaysian context, and provide useful implications to relevant mental health professionals in implementing effective interventions for final year Malaysian students, to make a career related decision.

Keywords: undergraduates, career indecision, self-efficacy, decision-making style, PHS

DECLARATION

Hereby, we declare that this project entitled “Career Indecision among Malaysian Final Year Students: Self-Efficacy, Decision-making Styles, Planned Happenstance Skills” is a record of original work done by us under the guidance of Mr. Ho Khee Hoong, submitted to Universiti Tunku Abdul Rahman in the partial fulfilment of the requirements for Bachelor Degree of Social Science (HONS) Psychology. The due acknowledgement has been given in the bibliography and references to ALL sources, be it printed, electronic or personal.

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List of Abbreviations

PHS	Planned Happenstance Skills
DOSM	Department of Statistics Malaysia
BNM	Bank Negara Malaysia

Chapter I

Introduction

Background of Study

It is a widely held view that occupational choices decided by individuals constantly bring on significant career effects in times to come (Walker & Tracey, 2012). Nevertheless, the procedure of settling on a decision is not wholly at ease for everyone; some people encounter challenges. Career indecision is commonly described as the issues that an individual has to face when making choices and decisions in regards to their career (Gati, Krausz, & Osipow, 1996). Past research that has been carried out in the counselling sphere, stipulated about a value of 50% or more of all students in their tertiary education has had gone through career related ordeals (Herr, Cramer & Niles, 2004). In addition to that, various academicians and professionals such as Di Fabio, Palazzeschi, Asulin-Peretz, and Gati (2012) has assessed career indecision as a prevalent issue and poses as an important subject of high importance to students, teachers, psychologists and career counsellors. This complication of matters in deciding on a definite conclusion during their shift from the academic setting to career setting has also been supported by past researchers such as Gati et al. (1996). Two outcomes towards individuals are conceived due to indecision; avoidance of vocational choices or incorrect selection of said choices (Gianakos, 1999). Primarily it is also noted that, not all university students undergo the same dilemma when it comes to career indecision as there are several students who require a much detailed personal insight of their own life and the working world while some may find these knowledge to be insignificant (Guay, Ratelle, Senécal, Larose, & Deschênes, 2006).

According to the Bureau of Labor Statistics, the unemployed refers to individuals who hold no occupation, have been diligently searching for a job for a period of time, as well as are presently at the ready for work. Obtaining an undergraduate certificate does help in obtaining a job, nonetheless, the unemployment rate of youth remains prominent, ranging between 20-25% and job vacancies are frequently impermanent and not offering much salary (Barret, Ryk, & Volle, 2014). A report by O'Higgins (2017) states that the general youth unemployment rate outnumbered those of adults as well as the general unemployment rate. In other words, over 70 million young individuals across different countries are coming into contact with difficulty finding meaningful employment.

In the span of the past decade, there has been a rise and fall of the unemployment trend in Malaysia from the early 1980's to 2010. Statistics from the Department of Statistics Malaysia (DOSM, 2011) has tabulated the rate of unemployment at an increase from 3.2 % in 2007 to 3.7% in the next two years. Continuing that, the department has reported the unemployment rate in 2012 at 2.7% and later on a small increment to 3.1% in 2015. Nevertheless, based on Department of Statistics, the case of unemployed graduates are still a mystery with a record of 16.7% recorded unemployment out of the total unemployed labor force in the year 2010. Even with the drop in unemployment rate in Malaysia, there is still a continuing rise of the value of unemployed graduates (DOSM, 2011). As such, undergraduates who are unable to seek employment still pose an ongoing significant distress (Mansor, & Tan, 2009). There are certain factors that pivots the effects of unemployment which are social issues and it is supported by Firmansyah et al. (2012). Mansor and Tan's study in 2009 among Malaysian undergraduates has identified that achievement-oriented individuals have high career indecision scores which shows the undecidedness, anxiety in making career decisions and possess a larger need for information

and self-knowledge in the career topic.

Researches have indicated numerous individual characteristics that were revealed connected to career indecision. Taylor and Betz (1983) described self-efficacy as the assurance of a person that one can deliberately engage in tasks related with selecting a path or career education as well as career commitment. The self-efficacy concept that has been introduced in career decision-making writings, have demonstrated significance in developing one's career (Bandura, 1997; Bandura, 2006). A study by Brown and his colleagues (2012) has stipulated that one aspect of career indecision is due to the absence of self-efficacy in the decision-making of one's career. Choi et al. (2012) has reported that a huge relation between career indecision and self-efficacy in career decision-making by utilizing a meta-analytic approach. On the other hand, an inverse relation was purported between career indecision and levels of self-efficacy in career decision-making (Lopez & Ann-Yi, 2006; Gianakos, 2001; Wolfe & Betz, 2004).

One variable that has drawn attention to vocational development, however, prevails concealed in decision-making writings is an individual's style of making a decision. Based on Driver (1979), decision-making style is conceptualized as a constant constellation a person employs during the decision-making process. There are five decision-making styles recognized by Scott and Bruce (1995) and they are the rational style, intuitive style, dependent style, avoidant style and spontaneous style. Findings observed the utilization of a joint of different decision-making styles while deciding one's vital outcomes and that decision makers who rely on others possess a greater proneness to stray from making a decision (Driver, 1990).

Introduced by Mitchell, Levin and Krumboltz (1999), happenstance was conceptualized as an opportunity or unexpected episode in which a person can pick up as a learning acquaintances. Kim, Lee & Ha (2015) found that planned happenstance skills (PHS) contribute

to the upsurge on one's self-efficacy in career decision-making and downturn abnormal beliefs of career. Specifically, PHS are vitally beneficial for undergraduates to cultivate career directions in a befitting manner (Kim et al., 2015). Taken altogether, illustrates a need for people to identify their PHS in order to obtain much greater comprehension regarding their selected career pathway.

Career decision possesses the ability to affects the life, work and accomplishments of a person throughout his/her entire lifetime (Napompech, 2011) which in turn determines our future role in the society in terms of labour force. A final year student's accomplished self-awareness, occupational insight and the growth of planning capability affects career indecision (Trusty & Niles, 2004). Thus there exists the need to examine these variables; self-efficacy, decision-making styles and planned happenstance in relation to career indecision among final year students in Malaysia.

Statement of Problems

In the group of undergraduates, vocational options are highly allied to one's major options by way of this selection epitomizes a considerable asset in vocational-related personnel resources (Wiswall & Zafar, 2011). Studies have consistently reported identified interest as a chief element in deciding one's major (Cobb-Walgren, Pilling, & Barksdale, 2017; Soria & Stebleton, 2013; Wiswall & Zafar, 2011). Findings of Soria and Stebleton (2013) suggest that interest tends to increase the undergraduates' satisfaction of tertiary education involvements. In addition, undergraduates would take other available options into consideration due to the significant variances in lifelong incomes (Boudarbat & Montmarquette, 2009). Meanwhile, other factors also contributed to one's selection of major including the decided major grants time for

extra endeavors, trains them for a gratifying vocation, as well as opens up the window of worldwide possibilities (Soria & Stebleton, 2013). Taken all together, students should be having enough confidence in their major due to the enormous efforts they have invested in together with the vast considerations they have contemplated on upon the selection of a major. Furthermore, the consummation of vocational reconnaissance course at the beginning of study was positively connected to higher level of self-efficacy and a lower level of career indecisiveness (Fouad, Cotter, & Kantamneni, 2009). In addition, research has shown that the competency level in career planning process of students enrolled in higher education should be increased as it highlights on the abilities in decision-making and latent potential that is needed in the career transition stage in life (Niles & Bowsby, 2009). Thus, the final year students who have gone through industrial training courses as well as several years of study in their chosen field should have been able to decide on a career confidently.

Inopportunately, a study pointed out that more than half the Malaysian final year students were found devoid of preparation and approach to develop employability in spite of the specificity of their majors, owing to the absence of essential information on their expectation of as well as possible career options (Yusof & Jamaluddin, 2015). According to a report published by Bank Negara Malaysia (BNM, 2017), Malaysia yielded a youth unemployment rate of 10.5% which was similar to Korea's at 10.5%. However, a huge discrepancy was found with Thailand having only 3.4% of youth unemployment rate (BNM, 2017). The young adults experience high level of stress to sketch a career path as well as deciding on a career that possesses prospective chances (Murphy, Blustein, Bohlig, & Platt, 2010), and settling on a mediocre career path comes with weighty financial and emotional sequels for the individual's life (Gillie & GillieIsenhour, 2003). The necessity in making a vital decision plays a part in the stress experienced by these

young adults (Lipshits-Braziler, Gati, & Tatar, 2015), which leads to greater difficulties confronted throughout the career decision-making process.

Hirschi (2010) revealed that chance episodes played a momentous role in deciding on Swiss adolescents' career after middle school. In a study done by Ahn et al. (2015), planned happenstance skill was highly correlated with Korean high school students' occupational identity statuses whereas an improvement on dysfunctional career thoughts was found with its longitudinal effects (Kim et al., 2015). Moreover, as the undergraduates possess sufficient planned happenstance skills, their career commitment would build up certainty in deciding on a career through an increased vocational decision self-efficacy (Kim et al., 2015). Despite the advantages of PHS that one benefits in making a career-related decision, research on relationship between PHS and career indecision remains sparse. Hence it is vital that a correlational study which will be conducted to identify the connection between PHS and career indecision, and what sort of recommendation could be offered to the individuals who are stressed.

Empirical research has also reported that individuals who are less efficacious are prone to being more undecided on career (Di Fabio et al., 2013; Lam & Santos, 2017; Gati, Ryzhik, & Vertsberger, 2013). Self-efficacy possibly will be depleted when undergraduates possess insufficient certainty in their aptitudes to be victorious or experience great pressure concerning engaging in enduring vocational options, especially when they perceive themselves as adults (Conklin et al., 2013). Nevertheless, these studies employed career-specific self-efficacy measure, rather than a generalized self-efficacy construct. According to Savickas (2005), pivotal personal variances plays a part in a person's psychological preparedness to encounter vocational challenges and transitions with pertinent methods. Therefore, this research will study the

relationship between the generalized self-efficacy and career indecision among final year students who currently or will need to undergo the career decision-making process.

In light of one's decision-making style, research has yielded inconsistent results on how different style correlates with career indecision. For instance, rational decision-making style was not significantly connected to one's state of being undecided on a career (Mau, 1995). On the other hand, it was reported that the employment of rational decision-making style comes with a lower level of career indecision (Curşeu & Schrujjer, 2012). Besides, studies have demonstrated similar results on links between avoidant decision-making style and career indecision (Curşeu & Schrujjer, 2012; Allwood & Salo, 2012; Pecjak & Kosir, 2007). Unfortunately, there is a lack of understandings of how intuitive and spontaneous decision-making style would correlate with career indecision. For this reason, general decision-making style will be assessed in this research to obtain rather comprehensive result.

Research Objectives

1. To examine the relationship between career indecision and self-efficacy.
2. To examine the relationship between career indecision and rational decision-making style.
3. To examine the relationship between career indecision and intuitive decision-making style.
4. To examine the relationship between career indecision and dependent decision-making style.
5. To examine the relationship between career indecision and avoidant decision-making style.

6. To examine the relationship between career indecision and spontaneous decision-making style.
7. To examine the relationship between career indecision and curiosity.
8. To examine the relationship between career indecision and flexibility.
9. To examine the relationship between career indecision and persistence.
10. To examine the relationship between career indecision and optimism.
11. To examine the relationship between career indecision and risk-taking.

Significance of the Study

The broader selection of majors at university and changing labour requirements has led to a rise of demands for career intervention among the students (Fouad et al., 2009). In a study done by Newman, Fuqua, and Minger (1990), even students who have decided on a major yet continue to be uncertain and not committing to their option could surprisingly take advantage from career counselling services, which represent a kind of career intervention. The objective of this research is to assess the level of career indecision in final year students and examine the association between self-efficacy, decision-making style, PHS, and indecision to determine if there is any correlation between the variables in an effort to understand the plausible factors which interact with career indecision in final year students. The demands of students encircling career have to be acknowledged by the professional school counselors to make secure of the current career education module is adequate to aid all students, especially the final year students. On top of that, Reese and Miller (2006) asserted a necessity ensure the contemporary career theories and didactic approaches in career programs address the students' needs along with the ever-changing

employment demands. This research will by all means supplements the writings on theoretically-grounded vocational interventions for the undergraduates.

Furthermore, PHS enables one to accumulate knowledge, search for chances, and sail potential career paths when an adjustment is necessary (Yang, Yaung, Noh, Jang, & Lee, 2017). The expanded learning circumstance via PHS would be beneficial when people attempt to switch their jobs, which commonly happens to the college graduates in the beginning of their career (Groot & Verberne, 1997). Curiosity and flexibility are the enormously valuable skills that are associated with emergent thinking (Pryor, Amundson, & Bright, 2008), which unlock potentials when one is being confronted with alternatives and transitions. Through examining how PHS interacts with career indecision among the final year students, it sheds light on the importance of cultivating necessity skills that are useful in making desirable decision. Also, furnish significant findings to career counselors and guidance experts with regard to how they may assist clients in becoming more open-minded and searching for more opportunities while settling on a career decision.

Last but not least, obtaining results from a Malaysian sample is equally important to expanding our understanding in the topic of career indecision as well as yielding useful information to developing an inclusive and culturally-sensitive career intervention that functions well for students in universities in Malaysia.

Research Questions

1. Is there a relationship between career indecision and self-efficacy?
2. Is there a relationship between career indecision and rational decision-making style?

3. Is there a relationship between career indecision and intuitive decision-making style?
4. Is there a relationship between career indecision and dependent decision-making style?
5. Is there a relationship between career indecision and avoidant decision-making style?
6. Is there a relationship between career indecision and spontaneous decision-making style?
7. Is there a relationship between career indecision and curiosity?
8. Is there a relationship between career indecision and flexibility?
9. Is there a relationship between career indecision and persistence?
10. Is there a relationship between career indecision and optimism?
11. Is there a relationship between career indecision and risk-taking?

Research Hypotheses

1. There is a negative relationship between career indecision and self-efficacy.
2. There is a negative relationship between career indecision and rational decision-making style.
3. There is a positive relationship between career indecision and intuitive decision-making style.
4. There is a positive relationship between career indecision and dependent decision-making style.
5. There is a positive relationship between career indecision and avoidant decision-making style.
6. There is a positive relationship between career indecision and spontaneous decision-making style.
7. There is a positive relationship between career indecision and curiosity.

8. There is a negative relationship between career indecision and flexibility.
9. There is a negative relationship between career indecision and persistence.
10. There is a negative relationship between career indecision and optimism.
11. There is a negative relationship between career indecision and risk-taking.

Definitions of Terms

Conceptual and operational definition.

Career indecision. Crites (1974) defined career indecision as the individual's lack of ability in the selection or commitment in a specific action plan which leads gradually to getting ready to begin a certain job. The Career Decision-Making Difficulties Questionnaire (CDDQ; Gati & Saka, 2001) that comprised of 34 items will be used in this research to assess deliberations of final year students' career decision-making difficulty in the context of multidimensional taxonomy (Gati et al, 1996). The total score will generate the overall CDDQ score with greater value signifying a greater connection with career indecision.

Self-efficacy. Self-efficacy is defined by Taylor and Betz (1983) as the characteristic of individuals who possess the courage to be involved in tasks regarding a selection in a path, vocational education and career commitment. The General Self-Efficacy Scale or GSE (Schwarzer & Jerusalem, 1995) which contains 10 items will be employed in this research measure the robustness of final year students' beliefs that he/she is competent to manage difficult demands despite different situations in life.

Decision-making style. Harren (1979) defined decision-making style as a distinct trait that everyone possesses when it comes to discerning and reacting to decision-making matters and this is known as decision-making style. In this research, the 25-item that constructs the General

Decision Making Style Test, GDMS (Scott & Bruce, 1995) will be used to assess final year students' determined way of coming to a decision across five aspects: rational, intuitive, dependent, avoidant and spontaneous decision-making. A higher score obtained in one subscale indicates a frequent use of that particular decision-making style.

Planned happenstance skills. The set of skills is a method of evaluating one of the determining factors in the growth of one's career which is chance (Mitchell et al, 1999). The Planned Happenstance Career Inventory or PHCI (Kim et al., 2014) will be used to evaluate final year students' skills in seizing the opportunity of chance events to promote its opportunities through the assessment of the five dimensions of career-related happenstance skill, namely curiosity, persistence, flexibility, optimism, and risk-taking. Higher score on a particular subscale represents a better recognition of that competency at converting the unforeseen happenings into vocation-related opportunities.

Chapter II

Literature Review

Career Indecision

The definition of career indecision is the difficulties or issues that arise and that one has to face in the decision-making process which stems from an absence in several elements; readiness, information, and information that are irregular while deciding on a career choice (Gati et al., 1996). Past researchers have hypothesized various reasons that could lead to this matter to occur while making a career-related decision. Gati (1986) has stipulated that the lack of information, clash of information and a deficit of knowledge in processing said information are the factors contributing to a higher frequency of difficulty in making decisions. On the other hand, Crites (1969) identified that the difficulty rate rises when an individual's psychological features impedes with decision-making tasks. Past studies has illustrated that individuals facing career indecision requires a certain duration of time to conclude on a decision (Frost & Shows, 1993), have a higher tendency to delay decision-making (Rassin & Muris, 2005), require additional details before decision-making, possess low levels of self-efficacy in decision-making (Rassin, Muris, Franken, Smit, & Wong, 2007), and a higher tendency of thoughts regarding decisional problems that arise in the future (Germeijs & Verschueren, 2011). Other researchers has stipulated other variables such as personality to be significant to career indecision such as external locus of control (Lease, 2004), trait anxiety (Miller & Rottinghaus, 2013) and poor self-confidence (Germeijs & De Boeck, 2002).

Herr et al. (2004) opposed that suggestion and instead proposed that career indecision has a significant relationship to the scores on one's inner potential/talent, preference, favorite subjects, past experience from temporary jobs and constant engagement in the procedure of

organizing education matters. Akos et al. (2004) suggested that career indecision might have a close relation to scholastic aptitude after a correlation was discovered through a comparison of career indecision itself and the tabulation of the midyear Grade Point Average. However, there is a dispute by Blinne and Johnston (1998) stating the absence of any apparent relationship linking scholastic success and undergraduates' indecisiveness in their career. This statement has also supported that GPA and success in mathematical subjects are not factors of career decision in studies carried out by both Gehlert (1992) and Hampton (2006).

Several researchers: Crisan and Turda (2015), Hampton (2006) and Salami (2008) have come to a consensus that gender differences is not a influencing factor of an individual's indecisiveness in career decision-making. However, Patton's research (2001 & 2002) has shown higher indecision scores in females using the Career Development Inventory while Zhou and Santos (2007), through a cross-cultural study between students studying in international universities from United Kingdom and China, has shown results of males showing lesser difficulty in career decision-making compared to the opposite sex.

A career decision made by indecisive people results in lower levels of confidence and increased uncertainty about their final choices resulting in low commitments to their career selection (Van Matre & Cooper, 1984). Besides that, these individuals also face an obstacle in selecting a college major (Germeijs, Verschueren, & Soenens, 2006). Dysinger (1950) has categorized two characteristics of indecisive people with the first being developmental indecision where an individual's career indecision gradually decreases as their knowledge of themselves and the working world increases, while those who are chronically undecided still remain at a constant state of undecidedness over time. Results from past researches about indecisiveness being positively correlated to a crucial requirement of career related information as well as for

self-knowledge predicts an expectation that there will be negative outcomes of indecisiveness especially in the knowledge level about career options and about one's self (Dickinson & Tokar, 2004).

At the present day, the assessment of decision-making difficulties has become the focal point of career indecision researches especially among students. Gati, Amir, and Landman (2010) proposed that difficulties derived from external elements of a cognitive disposition are commonly more concrete and could have much more significant advantages based on an explicit treatment (e.g., offering related information), meanwhile, difficulties originated from internal elements of a psychological disposition are more strenuous to illustrate and therefore, an appropriate treatment is as of little evidence and may depend upon a distinct stratagem of method.

Self-efficacy

As an essential stimulus, the contribution of self-efficacy on the difficulties in career decision-making has been highlighted by a handful of researches over the last era. Bandura (1997) presented the concept of self-efficacy, which discusses the appraisals on the abilities an individual employs to effectively achieve a goal. Self-efficacy also encompasses the amenities of aim framing, a great amount of endeavor, perseverance despite obstacles, and the ability to bounce back from adversities (Luszczynska, Scholz, & Schwarzer, 2005). The general self-efficacy directs a wide yet constant sense of personal abilities to manage various demanding circumstances (Schwarzer & Scholz, 2000).

According to Sidiropoulou-Dimakakou, Mylonas, Argyropoulou, and Tampouri (2012), having a comparatively great extent of self-efficacy in vocation might reinforce the competence

the cognitive, societal, and behavioral abilities that are sorted into a distinct approach of endeavor for the accomplishment of career goals. Highly efficacious individuals were more likely to obtain educational and career achievements with greater persistence in pursuing while low self-efficacy individuals were prone to terminate prematurely thus fail to accomplish the tasks (Bandura, 1997; Bandura et al., 2001).

As high self-efficacy individuals were found to be positively correlated with motivations and commitments (Bandura, 1997), they also reported to be in the favor of managing difficult tasks capably plus greater goal setting, lower chances in withdrawing from the workplace, as well as having higher levels of overall life satisfaction (Saks, 1995; Lightsey et al., 2013; Luszczynska et al., 2005). On top of that, highly self-efficacious personnel tend to execute job-related responsibilities creatively, however, those with little self-efficacy levels are inclined to carry out job-related obligations regularly along with minimum subjective adornment (Sidiropoulou-Dimakakou, Mylonas, & Argyropoulou, 2015).

Decision-making Style

Decision-making style, is an individuals' habitual manner in understanding together with behaving towards decision-making responsibilities (Driver, 1979; Harren, 1979). The creators, Scott and Bruce (1995) of the General Decision Making Style Test (GDMS), encompasses five distinctive decision-making styles: rational style that attributed to an in-depth exploration for and sound appraisal of choices; intuitive style that attributed to the application of instincts and sentiments in settling on decision; dependent style that attributed to the reliance and trust on others' suggestions; avoidant style that attributed to the efforts in refraining from making

decisions, and spontaneous style that attributed to a feelings of instancy and need to finish decision-making at the earliest opportunity.

Essentially, the five decision styles are not distinctive; precisely, an individual can employ a joint of these styles during decision-making process (Scott & Bruce, 1995). Scholars such as Driver, Brousseau, and Hunsaker (1990) proposed that each person possess a main style and a minor style in making decisions, such as when the foremost style of an individual is used in a task, there are other supplementary style that accompanies the main style (Harren, 1979). A study by Lunneborg (1978) has discovered that sex differences is not evident in decision-making or career decisiveness, however a specific style has a strong connection with vocational decisiveness which is known as Harren's Planning Style.

Harren, Kass, Tinsley, and Moreland (1978) have utilised path analysis, to determine the effect of gender on sex role attitudes, and when merged with cognitive styles will inherently affect decision-making development and finally swaying the option of college majors. The similarity of both career exploratory behaviour and career decision-making style in regards to classifying information further supports a close connection between self-efficacy in decision-making and the different style of decision-making (Mau, 2000). In addition, greater indication score for dependent decision-making style has been obtained from Taiwanese students as compared to American students (Mau, 2000). Similarly, Gati and his colleagues (2010) revealed that American students reported little tendency to rely on others and less intention to satisfy other people, whereas Chinese students' displayed average scores on these characteristics (Tian et al., 2015). In particular, Taiwanese students were more likely to decide on their career that fell in with domestic and societal anticipations (Mau, 2000), as collectivistic individuals place more importance on team objectives including general customs and behaviors (Ng & Dyne, 2001).

Planned Happenstance Skills

Happenstance is introduced as an unforeseeable consequence resulting from an incident born from the complex dealings of both internal and external variables (Krumboltz, Foley, & Cotter, 2013). A researcher, Mitchell and his colleagues (1999) has suggested additionally that planned happenstance skills, which supports applying happenstance as an element of a person's vocational opportunities, represents the prime factors utilized for the comprehension of uncertain career development processes. An emphasis on traversing, acting upon, as well as acquiring insights from unexpected episodes is the belief of Krumboltz (2009) about the effectiveness of the interventions in strengthening an individual's potential in exploiting unplanned events.

PHS that enable the conversion of an unpredicted episode into a chance for career cultivation is slowly garnering greater emphasis due to an environment that is rapidly reformed (Krumboltz, 2009). It consists of a set of five distinct capabilities that magnifies the employment of happenstance events, namely curiosity, persistence, flexibility, optimism, and risk-taking as proposed by Mitchell et al. (1999). The first skill, curiosity promotes a search of new learning opportunities; persistence allows one to continue his/her effort to overcome obstacles; flexibility refers to the ability of adjusting attitudes and situation; optimism promotes the view of new opportunities as something that is within reach; and risk taking as the final skill that permits a person to act regardless of uncertain results.

Results of a study by Kim and his colleagues (2014) has supported that elevated PHS improves the beneficial connections of being proactive in career and being certain of one's career. Kim et al. (2015) has also discovered that it also played a role in elevating the self-efficacy of career decision-making while simultaneously lowering the intensity of abnormal thought about career. Another variable known as career exploration has shown a significant

influence of a positive nature of both career aspiration and PHS which was discovered in a study by (Hwang et al., 2012). Mitchell and his colleagues (1999) believed that assumption of career barriers will result in decreased usage of PHS as Krumboltz (2009) explained that these barriers causes people to be unwilling and to doubt any career-related activities.

These further supports the stipulation of PHS playing a crucial role for university students to progress suitably to their career paths and when combined, illustrates the need for individuals to evaluate their PHS so as to obtain more favorable insight of their career directions. One may presume that PHS could differ in the transition stage from the academic setting to the work setting as the planned happenstance theory is constructed from an approach that centers on processes themselves (Kim et al ., 2014; Ryan, 2001).

Career Indecision and Self-efficacy

Past study illustrates that self-efficacy acts as a prime element, which promotes one in making career-related decision (Choi et al., 2013). Generally, people who possess great career decision self-efficacy are capable to manage challenges more effectively and hardly encounter emotional impediments when the time has come to decide on a career (Di Fabio & Maree, 2013; Jiang, 2014). When individuals are certain in the vocational options they make, they are prone to equip themselves with necessary skills for that job (Duffy, Douglass, & Autin, 2015).

Career decision self-efficacy has been consistently found in a converse association with career indecision across different populations, including Israeli students (Amir & Gati, 2006), Australian high-school students (Creed, Patton, & Bartrum, 2004), Greek students (Sidiropoulou-Dimakakou et al., 2012), Romanian teenagers (Crişan & Turda, 2015), and German undergraduates (Jaensch, Hirschi, & Freund, 2015). Specifically, these people demonstrate

confidence in making career options (Argyropoulou, Sidiropoulou-Dimakakou, & Besevegis, 2007).

Highly self-efficacious individuals are confronted with lesser challenges while coming to the final career decision, which reveals the possibility of them progress further than their counterparts during the time to settle on a career path (Amir & Gati, 2006). In addition, individuals with great self-efficacy are inclined to opt for an active method when challenged with different circumstances under great pressure, and to employ solutions (Jex, Bliese, Buzzell, & Primeau, 2001). In a study done by McWhirter, Crothers, and Rasheed (2000), individuals at early age whom feel competent of efficaciously managing the process of career decision-making acknowledge fewer hindrances. Other than that, Taiwanese children who received reassurance, affection, and care from their guardians would have an increased self-efficacy to decide on their befitted career options (Mao, Hsu, & Fang, 2016).

On the contrary, individuals who possess destructive evaluation of self-worth tends to encounter additional difficulties while deciding which vocational options to pursue (Jaensch et al., 2015). People who perceive themselves with limited self-efficacy in the career decision-making are hindered from being involved in potential vocational options (Betz & Luzzo, 1996). Without being internally inspired and motivated, individuals experienced more frustration about attaining vocational-related information and unravelling such problems (Komarraju, Swanson, & Nadler, 2013). Thus, we hypothesize that generalized self-efficacy will be correlated with final year students' career indecision.

Career Indecision and Decision-making Style

Bimrose and Barnes (2007) reported that options made as one breakthroughs lengthy career goals are multifaceted, intricate, and could be irrational. According to Buck and Daniels (1985), the employment of a certain style may differ contingent on the specific choice involved, as well as its circumstance and possible costs. On the basis of personal preference, research depicts the utilization of decision-making strategies could have improved undergraduate students' career decidedness and reduced their career indecisiveness (Mau, 1995).

Study done by Mau et al. (2016) unraveled the significance of perceived parental support Taiwanese students value, which predicts their state of being undecided on career paths. The result is in line with Mau (2000), in which students from Taiwan are more likely to employ a style focusing on dependency as there exists a need to adhere to general custom and behaviors. In particular, Taiwanese students' decision-making process encompasses the consideration of the anticipations hold by their family members as their culture promote and evaluate a mutually beneficial self-understandings (Mau et al., 2016). Likewise, it was found that students undergo serious stress such as their circumstances or the confronted pressure from friends or family members while they make a career decision (Bubic, 2014), which can intensify one's career indecisiveness (Osipow, 1999).

Individuals who practice intuitive decision-making generally count on their inherent and emotive signals which are in tandem with decision context (Harren, 1979). Study done by Singh and Greenhaus (2004) demonstrated the employment of intuitive decision-making has zero connection to the efficiency of one's final career option. Intuition represents an automated reasoning heuristic in which could prevails distinct awareness of one's rationality, hence resulting in the inappropriate options one oftentimes makes (Kahneman, 2011). On the other

hand, it was found that individuals who utilize rationality as well as intuition in the decision-making process, settle on productive vocational options due to a greater awareness attained towards oneself and the environment (Singh & Greenhaus, 2004). A plausible explanation for this conflict is that the implementation of chronologically organized logical thinking could possibly impede the abilities of individuals who practice other decision-makings to manage challenges that necessitate deeper understanding and comprehensive discernment, whereas intuitive thinkers are free from those restrictions (Dane, Rockmann, & Pratt, 2014).

Nevertheless, decision makers who solely depend on intuition are found at greater risk for being undecided (Shiloh & Shenhav-Sheffer, 2004).

Rational decision-making style was reported in liaison with vocational confidence and phase of decision-making process, however, no correlation was found between rational decision-making style and career indecision among undergraduates (Mau, 1995). Conversely, Shiloh and Shenhav -Sheffer (2004) discovered that one may encounter fewer challenges while settling on an option when the rational style is being practiced. The rational decision-making leads one to possess greater abilities of regulating own emotions, better coping strategies, as well as becoming more productive while dealing with a problem, which eventually result in a lower level of perceived indecision (Shiloh & Shenhav-Sheffer, 2004). In accordance with Shiloh and Shenhav-Sheffer (2004), rational decision-making style was found negatively connected to indecision among Canadian undergraduates (Landine, 2016). Singh and Greenhaus (2004) suggest that productive vocational options are accompanied by the employment of rational decision-making. On top of that, rational individuals tend to devote a longer period to settle on a final outcome because they consider all available options (Gambetti et al., 2008). However,

research indicates some negative outcomes of utilizing rational decision-making including tardiness, under great pressure, being anxious and depressive (Leykin & DeRubeis, 2010).

Research suggests that avoidant individuals who are overwhelmed with hesitation possess inadequate self-confidence, and their avoidance of settling on a decision is associated with a greater risk of generating problems (Spicer & Sadler-Smith, 2005). These individuals would have to settle on an option in a relatively short period of time to cease the indecision, especially when there is no way to escape from being a decision maker or they have no opportunity to seek advice from others (Spicer & Sadler-Smith, 2005; Bensi & Fiorella, 2007). Besides, Moghadam, Tehrani, and Amin (2011) reported that managers with low emotional intelligence faced greater challenges during the decision-making process, and that the upsurge on stress eventually led them to employ avoidant decision-making. Possessing insufficient emotional intelligence may give rise to the incapability of regulating as well as excluding factors contributed to them being career undecided (Farnia, Nafukho, & Petrides, 2018). A research done by Pecjak and Kosir (2007) also indicates that undergraduates with career indecision have lesser beliefs in themselves and possess a tendency to avoid from deciding on an option. Taken all together, these studies argue that individuals who prefer avoidant decision-making are likely to experience career indecision as they encounter more problems while deciding on career paths. Thus, we hypothesize that avoidant decision-making style is positively associated with career indecision.

Individuals with spontaneous decision-making were found undergoing higher levels of career indecision than other decision types (Osipow & Reed, 1985). According to Barkley-Levenson and Fox (2016), people may act impulsively when they are surrounded by all possibilities and free to opt for a choice, therefore hurriedly selecting for the purpose of shunning awful thoughts on cost in terms of foregoing alternatives. Past study has revealed spontaneous

decision-making as a significant predictor towards high-school students' and undergraduates students' perceived competency in settling on a decision (Bavol'ár & Orosová, 2015). With high spontaneity, individuals feel the urgency together with eagerness to finish deciding on an option in the shortest possible time (Scott & Bruce, 1995). As such we hypothesize the existence of a close relationship between student's career indecision and the respective styles in the decision-making process.

Career Indecision and Planned Happenstance Skills

According to Kim et al. (2014), Korean college students who possessed PHS participated in career exploration activities vigorously and went through their career decision-making procedure with confidence, however, did not actually settle on prospect career decisions. Moreover, individuals' career decision certainty was not improved due to the insufficient PHS that they possessed (Kim et al., 2014).

While PHS paved the way for life adjustment (Kim et al., 2018), young adults were found experiencing a declination of persistence as well as optimism skills which may mirrored the difficulties they faced during their transition from academia to workplace (Yang et al., 2017). Evidenced by Coon (2008), individuals with low optimism in career are more likely to employ avoidant coping methods that further accelerate their career indecision.

Vondracek et al. (1995) found that students with achievement status reported a meaningfully lesser career indecision. Additionally, chances are accomplished status happens more likely among persistent individuals, compared to individuals with higher flexibility in preserving their occupational identity (Ahn et al., 2015). Meanwhile, suspended students tend to utilize flexibility together with curiosity to scrutinize their vocation openly (Ahn et al., 2015).

Research done by Pryor et al. (2008) indicates that both curiosity and flexibility are abilities concerned providing support for individuals to achieve internal maturation as well as self-fulfillment.

Study has reported that inflexibility represents a potential barrier to vocational aspirations (Harrison & Gregg, 2009). Competing in a generation that is appertaining to fluctuation and rapid change, being inflexible will be unavailing for individuals when they venture to settle on a vocational option (Albion, 2000). Besides that, study done by Porfeli and Savickas (2012) illustrates the importance of one's curiosity which represents a significant feature of adaptability resources that build up a congruous individuality. Individuals who possess greater vocational adaptability not only tend to score a higher level of subjective well-being, as well as being able to decide on meaningful options (Hirschi, 2009). In the same vein, flexibility and optimism should be negatively correlated with career indecision.

Adams (1974) found that the tendency of one's risk taking was disclosed to be potent in establishing the approaches he employs to attain choices. Namibian students reported allying risk-taking and managing ambiguity to enterprise (Arpiainen & Kurczewska, 2017). Put differently, these students who were doing entrepreneurship course consider risk and ambiguity as domains of any business-minded endeavor that had to be acknowledged and addressed, viewing these as an opportunity to make a move or turn the tide (Arpiainen & Kurczewska, 2017). On the other hand, individuals who refuse taking a decision whilst the consequences are ambiguous, are confronted with certain degree of vocational-related anxiety (Gallagher, Golin, & Kelleher, 1992). Fouad (2007) pointed out that people who are career undecided generally also fall ill with vocational-related anxiety. Therefore, we hypothesize that there is a correlation of a final year students career indecision with the skills found in planned happenstance.

Theoretical Framework

Happenstance Learning Theory. Presented by Krumboltz (2008), happenstance learning theory (HLT) describes that everyone is accouched into dissimilar circumstances while possessing distinctive attributes or preferences, and as time passes by, they encounter various unexpected episodes in which could transform into constructive or destructive insights into career development. The HLT is an endeavor to interpret the methods and reasons people act in according with their respective separate directions along the course of life, at the same time, to demonstrate how the counsellors has the ability to assist that process (Krumboltz, 2009). Simply put, the HLT proposes that individual conducts are the outcomes of a great many learning experiences, which exist from both prepared and unprepared circumstances that they are involved in (Krumboltz, 2009). Abilities, interests, mastery, confidence, preferences, vulnerability, psychological elements and future steps are some of the learning outcomes that are associated with this theory.

The suggestion of traditional career development theories has been broaden by this theory to encompass unplanned event or activities as a crucial element for one to develop a career (Kim, Jung et al., 2014). There are two attributes that HLT focuses on, which are being non-judgmental about exploration and gathering the skill set to adopt spontaneous opportunities (Ahn et al., 2015). HLT highlights the series of steps of stepping in, delve into and acquire knowledge of diverse experiences to grasp the moments on one's career which necessitates certain skills (Kim, Jung et al., 2014). As defined by Krumboltz (2009), there are four rudimental propositions of HLT: firstly, vocational counseling aims at assisting clients in learning to step up to attain a greater satisfactory on both vocational and personal life; secondly, assessments are meant to encourage the learning process and not to fit personal attributes with occupational attributes:

third is a specific focus lays on steps asserting that clients are ought to acquire skills in becoming more open to exploration as to produce unplanned events with its privileges. Lastly, the ultimate proposition of HLT expresses the necessity of appraisals to pay greater attention of client's conducts.

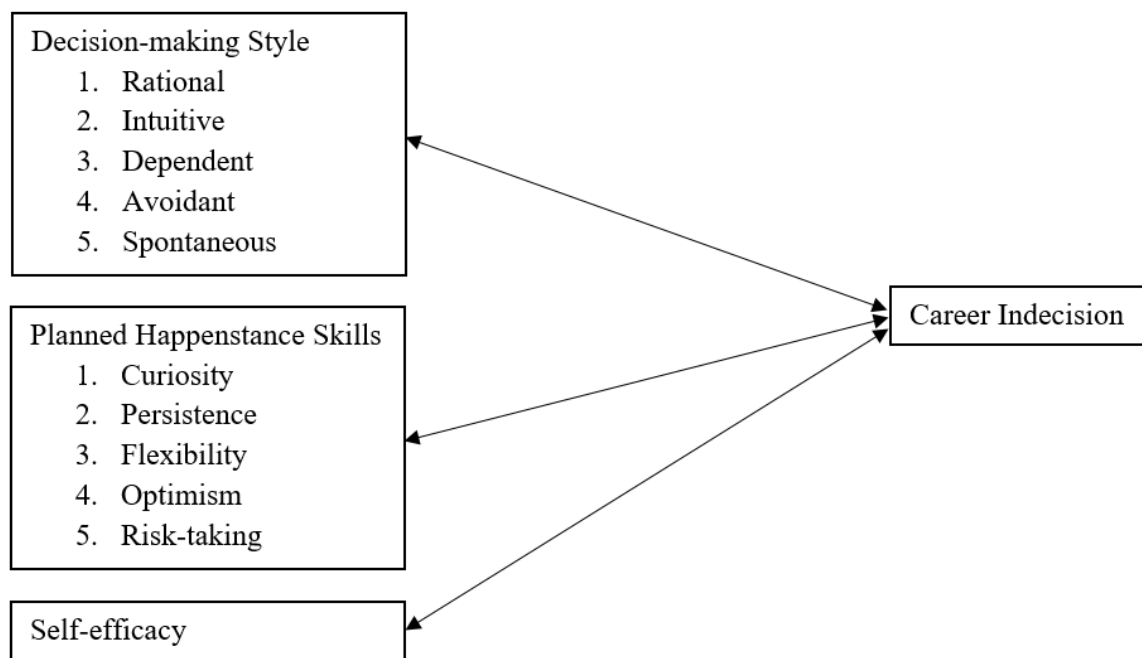
A qualitative research by Magnuson et al. (2003) has shown evidences that both intention and opportunism possess a crucial part in the career pivoting point of counseling leaders through the examination on the employment of HLT to leadership cultivation. Study in Taiwan reported a positive effect of vocational coaching course that encompasses a wide range of planned happenstance elements on various career capabilities, which are enhanced problem solving on career, time management, favorable self-perceptions, as well as becoming more motivated (Chien, Fischer, & Biller, 2006). Furthermore, a value of an approximate 69% of both high-school and undergraduate students gave an account of the significant impact of chance events on how they make a career-related decision (Bright, Pryor, & Harpham, 2005).

In the ever fluctuating shift in environment, PHS has garnered much focus with its abilities to convert an unexpected happening into a great chance for career development (Krumboltz, 2009). To expand the current writings of career development, this research incorporates self-efficacy and decision-making style considering the learning and interaction with external and internal surrounding plays a crucial role of high PHS which further supports a close relationship between PHS and self-efficacy in career decision (Kim et al., 2015). Self-efficacy serves as a resource because individuals with high sense of self-efficacy strive to pursue their goals as they trust their own competences and believe the goals are within close reach through diligence and dedication (Pinquart, Juang, & Silbereisen, 2002). An individual's level of self-efficacy may alter one's perception of task difficulty (Skaalvik & Skaalvik, 2016), such as

settling on a career decision. On the other hand, factors such as time constraint (Maule, Hockey, & Bdzola, 2000) and cognitive information (Drolet & Luce, 2000) which represent the circumstantial elements in an external surrounding, play a great role in how the decision is made. Thus this theory solidifies the crucial process of decision-making by incorporating some capabilities such as self-efficacy, decision-making style, and PHS into consideration as well.

Conceptual Framework

Figure 1. *The conceptual framework of “Career indecision among Malaysian final year students: Self-efficacy, decision-making style, and PHS”.*



The research aims to study how an individual’s self-efficacy, decision-making style, as well as PHS correlate with career indecision. In this research, career indecision represents the dependent variable (DV), whereas self-efficacy, decision-making style, and PHS represent the independent variables (IV). The correlation model between career indecision, self-efficacy,

decision-making style, and PHS will be identified using the quantitative method, namely correlation analysis.

Chapter III

Methodology

Research Design

In order to answer questions on relationships between career indecision, self-efficacy, decision-making styles and PHS among the final year students, the current study utilized a quantitative research design. In addition, this was a correlational study with the employment of survey method, in which samples were selected to respond to a constant group of questions. With the use of identical wording and sequencing of items, it is plausible to encapsulate the perspectives of all respondents concisely (Shaughnessy, Zechmeister, & Zechmeister, 2009).

With an intention to draw multiple samples from certain population at one time, the current study employed a cross-sectional design. Cross-sectional design was selected owing to the purpose of the current study which seeks to examine career indecision of Malaysian final year students at a particular time. Furthermore, the current study was carried out utilizing self-report measure of survey method. Data opulence and practicality were the two motives of self-report measure being chosen in the current study. Individual owns a higher quality of details pertaining to themselves as the person gains access to internal information including thoughts, emotions and sensations (Robins, Norem, & Cheek, 1999). In addition, self-reports can be conducted to a large group of individuals at one time and responses are mostly unforced (Paulhus & Vazire, 2009).

Research Sample

Our desired participants included Malaysian final year undergraduate students who are currently residing and pursuing their study in Malaysia. The reason for final year students being

selected as the target population is that they have already decided on their major which is in accordance with their interests (Cobb-Walgren, Pilling, & Barksdale, 2017). In addition, the consummation of career exploration contributes to an individual's career decisiveness with an enhanced understanding of one's preferences that include values, aptitudes, and motivating responsibilities, which drives one to scrutinize different vocations and majors (Fouad, Cotter, & Kantamneni, 2009). According to Di Fabio et al. (2014), career indecision tends to happen in the academic environments within certain context, particularly individuals who have to select an option for their academic or career path. It is therefore assumed that final year students will have to outline their career paths and decide on one prior to their graduation from university.

According to Krejcie and Morgan's (1970) sample size table, it suggested a sample size of 382 for population at 75000. Report published by the Ministry of Education Malaysia (MOE, 2018) stated that the total public universities enrollment has hit a number of 538555 at year 2017. Although the number of enrolments in private universities as well as the number of final year students remain unidentified, it is possible to assume that the final year undergraduate population makes up of at least 10% of the overall undergraduate population. Therefore, the sample size of this study was decided at 382.

The current study comprised of 380 of final year students whose ages ranged from 18 to 27 year old. There were 54.2% of female respondents ($n = 206$) and 45.8% of them were male ($n = 174$). Preliminarily, the 589 responses were collected through online as well as paper-and-pencil questionnaires. However, 204 responses were being removed from analyses due to incomplete responses and not fitting in the inclusion criteria, and another 5 responses were removed as they were extreme outliers in the current study. Thus, there were only 380 available and valid responses left for further analysis.

Participants were recruited using purposive sampling, a non-probability sampling due to the objective of the current study which aimed to understand about career indecision among the final year students. As such, our inclusion criteria included: (i) one must be Malaysian who is currently pursuing his/her study at any universities in Malaysia, (ii) one must be in his/her final year of study, regardless of the years required to complete a degree programme. On the other hand, final year students who are Malaysians but currently studying overseas were excluded in the current study as we intend to measure and understand about career indecision among those under the Malaysian context only.

Research Location

An online questionnaire was generated using Qualtrics and was shared on several social networking sites, including Facebook and Instagram, and also dispersed through instant messaging applications, for instance, Messenger and Whatsapp, in order to captivate greater number of respondents. With this method, the current study managed to involve respondents who are currently studying at different parts of Malaysia, which includes 11 states and 2 federal states in Malaysia (refer to Appendix C). Besides, paper-and-pencil questionnaire was prepared and distributed to students who are pursuing their bachelor's degrees at a university which is located at Kampar, Perak, and are currently in their final year of study.

Instrumentation

Career indecision. Developed by Gati and Saka (2001), the Career Decision-making Difficulties Questionnaire (CDDQ) was used to discover a person's perceived adversities while making career decisions. Comprising of 34 items, the CDDQ items can be categorized into three

distinctive facets: lack of readiness, lack of information, and inconsistent information. The CDDQ contains of 34 items which required the participants to rate on a 9-point Likert scale, ranging from 1 (*does not describe me*) to 9 (*describes me well*). A sample item from this scale includes “I believe there is only one career that suits me.” The total score of all items which range from 34 to 306, will generate the CDDQ score with greater value signifying a greater connection with career indecision. The scale has demonstrated excellent reliability in studies done by Gati and Amir (2010) and Gati et al. (2013), the Cronbach’s alphas in their studies are reported at .92 and .90 respectively. In current study, CDDQ obtained an excellent reliability with Cronbach’s alpha reported .94.

General self-efficacy. The General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995) which consists of 10 items is designed to measure the robustness of an individual’s beliefs that he/she is competent to manage difficult demands despite different situations in life. Responses were rated on a 4-point Likert scale, ranging from 1 (*not at all true*) to 4 (*exactly true*). A sample item is, “I can usually handle whatever comes my way.” The total score of GSE is calculated by summing up the ratings of all items which ranged from 10 to 40, where individual with greater score possesses a greater general self-efficacy. The cross-cultural validity of GSE is examined using samples across 25 countries, result illustrates that the scale is having only one dimension with Cronbach’s alphas ranging from .75 to .91 (Scholz, Doña, Sud, & Schwarzer, 2002). GSE has also demonstrated high reliability with Cronbach’s alphas reported at .85 and .89 for pre-intervention and post-intervention survey respectively (Loughran, Harpel, Vollmer, & Schumacher, 2018). In current study, GSE is found to have good reliability with Cronbach’s alpha reported at .84.

Decision-making style. The General Decision Making Style Test (GDMS; Scott & Bruce, 1995) is used to assess a person's determined way of coming to a decision across five aspects: rational, intuitive, dependent, avoidant and spontaneous decision-making. Consisting of 25 items, responses will be rated on a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item from the rational subscale is "I make decisions in a logical and systematic way." Each participant will have different scores for each style by summing up the score on each of the five style items, ranging from 5 to 25. A higher score obtained in one subscale indicates a frequent use of that particular decision-making style. The GDMS has demonstrated adequate internal consistency with Cronbach's alphas reported at .60 for rational subscale, .77 for intuitive subscale, .83 for dependent subscale, .84 for avoidant subscale, as well as .83 for spontaneous subscale in a study conducted with army captains (Thunholm, 2009). In current study, GDSM reported an overall good Cronbach's alpha ($\alpha = .84$) and all of the subscales demonstrated a range from adequate to good reliability, such as rational subscale ($\alpha = .72$), intuitive subscale ($\alpha = .76$), dependent subscale ($\alpha = .65$), avoidant subscale ($\alpha = .86$), as well as spontaneous subscale ($\alpha = .72$).

Planned happenstance career skills. Planned Happenstance Career Inventory (PHCI) developed by Kim, Jung, Jang, Lee, Rhee, Cho, and Lee (2014) is designed on the basis of the planned happenstance theory (Mitchell, Levin, & Krumboltz, 1999). The PHCI comprises of five independent dimensions, namely, curiosity (5 items), persistence (5 items), flexibility (5 items), optimism (5 items), and risk-taking (5 items). Participants were requested to rate a total of 25 items on a 5-point Likert scale, ranging from 1 (*totally disagree*) to 5 (*completely agree*). A sample item from flexibility subscale is "I think that careers can change at any time." Each respondent had distinctive scores for each skill through totaling the score on each of the five skill

items respectively, ranging from 5 to 25. Higher score on a particular subscale represents a better recognition of that competency at converting the unforeseen happenings into vocation-related opportunities. The Cronbach's alpha coefficient of the overall PHCI scale was reported at .90 in a Korean sample (Kim, Rhee, Ha, Yang, & Lee, 2016). In current study, the overall PHCI scale obtained an excellent reliability with Cronbach's alpha reported at .91. Besides, all five subscales reported good reliabilities with .82 for optimism subscale, .83 for flexibility subscale, .85 for both persistence and risk-taking subscales, as well as .78 for curiosity subscale.

Research Procedure

An online questionnaire was created on Qualtrics and shared on Social Networking Sites (SNS) such as Facebook and Instagram, as well as instant messaging applications to obtain more responses. Before distributing the questionnaire to public, ethical clearance of conducting this study has been obtained from the university. The first page of the survey encompassed all information including the objectives of the current study, an absence of possible hazards or uneasiness which may be caused due to the questionnaire, the usefulness of this research, confidentiality, voluntary nature of their participation, as well as participants' decision to terminate their participation in the current study. Participants were then being directed to a page to indicate whether he/she went through the consent information and assented to participate. Once the consent was obtained via the button, participants were able to view and answer the questionnaire. On the other hand, participants were discontinued to the questionnaire if they did not give their consent to participate in the current study. Besides, personal details of participants such as name, email address, and student ID were not required which helped to ensure anonymity of their participation that was stated on the first page of the survey. Contact

information of the researchers as well as the supervisor has also been stated on the information sheet in case to provide any clarification or answer doubts from any participants. On top of that, participants who would like to obtain their results and understand further about their responses may approach the provided contact information. Meanwhile, paper-and-pencil questionnaires were also distributed to achieve the targeted sample size. Participants' basic demographic information including gender, age and race, as well as responses toward Career Decision-making Questionnaire (CDDQ), General Self-efficacy Scale (GSE), General Decision Making Style Test (GDMS), and Planned Happenstance Career Inventory (PHCI) were requested.

Pilot study. Prior to the actual study, pilot study was carried out for the purpose of assessing whether the proposed method is practical to be applied in broader projects (Leon, Davis, & Kraemer, 2011). In pilot study, 31 sample data were collected and tested for Cronbach's alpha to secure its reliability before delving into actual study. The results demonstrated that the instruments applied in pilot study have yielded satisfactory to excellent reliability (see Table 3.1).

Actual study. Questionnaire was shared on social networking sites such as Facebook and Instagram, to reach out to a greater amount of potential participants across different states. Besides, paper-and-pencil questionnaires were also circulated to accumulate extra responses. A total of 589 responses were collected and 380 responses were used in the analyses of actual study. Each instrument was then tested for their reliability and yielded excellent Cronbach's alphas (see Table 3.2).

Table 3.1

Reliability of Instruments in Pilot Study (n = 31)

Variable	Number of items	Cronbach's alpha
CDDQ	34	.95
GSE	10	.87
GDMS	25	.72
PHCI	25	.92

Note. CDDQ = Career Decision-making Difficulties Questionnaire, GSE = General Self-efficacy Scale, GDMS = General Decision Making Style Test, and PHCI = Planned Happenstance Career Inventory.

Table 3.2

Reliability of Instruments in Actual Study (n = 380)

Variable	Number of items	Cronbach's alpha
CDDQ	34	.94
GSE	10	.84
GDMS	25	.84
PHCI	25	.91

Note. CDDQ = Career Decision-making Difficulties Questionnaire, GSE = General Self-efficacy Scale, GDMS = General Decision Making Style Test, and PHCI = Planned Happenstance Career Inventory.

Data Analysis

Data of gender, age, race, and state of university were collected and used as descriptive statistics. All of the collected data were then analyzed by Statistical Package for Social Science (SPSS) program 23.0. Normality tests were carried out to check whether the collected data is normally distributed for the current study, as it is deemed essential for empirical study due to the breach of normality assumptions, perchance, yield inappropriate inferential findings in research (Das & Imon, 2016). As for inferential statistics, Pearson Product-Moment Correlation analysis was carried out to examine the relationship between independent variables (general self-efficacy,

decision-making style, and planned happenstance career skills) and dependent variable (career decision-making difficulties).

Chapter IV

Results

Descriptive Statistic

Demographic information of respondents. Table 4.1 portrayed the demographic information of the respondents in the current study. The sample comprised of 380 respondents whose ages range from 18 to 27 ($M = 22.37$, $SD = 1.19$). Female respondents slightly outnumbered male respondents in the current study as there were 206 female (54.2%) and 174 male respondents (45.8%). Moreover, majority of the respondents were reported to be Chinese (87.1%), followed by Indians (8.9%), Malays (2.4%), and other races (1.6%). Besides, most of the respondents are currently pursuing their studies in Perak (76.6%), followed by Selangor (7.9%), Penang (6.1%), Wilayah Persekutuan (3.9%), Sarawak (2.4%), and other states, such as Johor, Kedah, Kelantan, Melaka, Pahang, Perlis, Putrajaya, and Sabah, which is made up of less than 1% respectively (refer to Appendix C).

Frequency distribution of variables. Table 4.2 demonstrated respondents' scores on career indecision, general self-efficacy, five general decision-making styles, as well as five PHS. For career indecision, a mean response beyond 6.34 is considered as "salient" difficulty category, while a mean score between 3.33 and 6.34 is considered as "moderate" difficulty category, and a mean score lower than 3.33 is considered as "negligible" difficulty category (Gati & Saka, 2001). For the rest of the variables, as the scales were rated on a continuous basis, a mean score of each scale was set as the cut-off point to classify respective score into low (below mean) and high (above mean).

Table 4.1

Demographic Information of Participants (N = 380)

	<i>n</i>	%	<i>M</i>	<i>SD</i>	Min	Max
Age			22.37	1.19	18	27
18	3	.8				
20	6	1.6				
21	73	19.0				
22	135	35.1				
23	115	29.9				
24	40	10.4				
25	7	1.8				
26	4	1.0				
27	2	.5				
Sex						
Male	174	45.8				
Female	206	54.2				
Races						
Malay	9	2.4				
Chinese	331	87.1				
Indian	34	8.9				
Others	6	1.6				

Note. *n* = number of cases; % = percentage; *M* = mean; *SD* = standard deviation; Min = minimum value; Max = maximum value. Sample of 380 respondents are from different universities in Malaysia.

Table 4.2

Frequency Distribution of Career Indecision, General Self-efficacy, Five General Decision-making Styles and Five PHS (N = 380)

	<i>n</i>	%	<i>M</i>	<i>SD</i>	Min	Max
Career indecision			4.90	1.44	1.28	8.11
Negligible difficulty (≤ 3.33)	64	16.80				
Moderate difficulty (3.33-6.34)	262	68.90				
Salient difficulty (≥ 6.34)	54	14.20				
General self-efficacy			2.90	.45	1.70	4.00
Low	210	55.30				
High	170	44.70				

Table 4.2 (Continued)

Frequency Distribution of Career Indecision, General Self-efficacy, Five General Decision-making Styles and Five PHS (N = 380)

	<i>n</i>	<i>%</i>	<i>M</i>	<i>SD</i>	Min	Max
Intuitive decision-making style			3.57	.68	1.00	5.00
Low	152	40.00				
High	228	60.00				
Dependent decision-making style			3.69	.63	1.80	5.00
Low	188	49.50				
High	192	50.50				
Rational decision-making style			3.96	.55	2.40	5.00
Low	162	42.60				
High	218	57.40				
Spontaneous decision-making style			3.15	.67	1.40	5.00
Low	185	48.70				
High	195	51.30				
Avoidant decision-making style			3.02	.92	1.00	5.00
Low	205	53.90				
High	175	46.10				
Optimism			3.68	.67	1.40	5.00
Low	178	46.80				
High	202	53.20				
Flexibility			3.94	.66	1.20	5.00
Low	165	43.40				
High	215	56.60				
Persistence			3.77	.63	2.00	5.00
Low	154	40.50				
High	226	59.50				

Table 4.2 (Continued)

Frequency Distribution of Career Indecision, General Self-efficacy, Five General Decision-making Styles and Five PHS (N = 380)

	<i>n</i>	<i>%</i>	<i>M</i>	<i>SD</i>	Min	Max
Curiosity			3.86	.62	1.80	5.00
Low	175	46.10				
High	205	53.90				
Risk-taking			3.71	.67	1.20	5.00
Low	161	42.40				
High	219	57.60				

Note. *n* = number of cases; *%* = percentage; *M* = mean; *SD* = standard deviation; Min = minimum value; Max = maximum value.

Test of Normality

Boxplot. During univariate outlier detection, a total of 5 cases were removed due to being extreme outliers. Data was then analyzed again to make certain there was no extreme outliers in each variable, whereas the mild outliers were retained (refer to Appendix F).

Skewness and kurtosis tests. Skewness signifies the degree of asymmetry of a distribution around its average, positive figure of skewness indicates the obtained scores are located on the left of a graph at the low figures whereas negative figure of skewness suggest the obtained scores are located on the right of a graph at the high figures (Pallant, 2016). Meanwhile, kurtosis signifies the relative flatness or peakness of specific distribution compared with normal distribution (Čisar & Čisar, 2010). Values obtained for skewness and kurtosis between -2 and +2 are viewed satisfactory with the intention of demonstrating normal univariate distribution (George & Mallery, 2010). Current data have obtained a desirable skewness and kurtosis (see Table 4.3).

Table 4.3

Skewness and Kurtosis Table

	Skewness	Kurtosis
Career indecision	-.249	-.420
General self-efficacy	-.002	-.026
Intuitive decision-making style	-.617	.550
Dependent decision-making style	-.330	.237
Rational decision-making style	-.359	-.090
Spontaneous decision-making style	.215	-.178
Avoidant decision-making style	-.083	-.476
Optimism	-.334	.307
Flexibility	-.483	.465
Persistence	-.188	.073
Curiosity	-.529	.440
Risk taking	-.477	.376

Assumptions Report

Firstly, scatterplots have been created to check the linearity between career indecision, self-efficacy, five decision-making styles as well as five PHS (see Appendix E). Secondly, the data is approximately normally distributed according to the result of normality tests that have been conducted, including boxplot, skewness and kurtosis tests. Besides, five detected extreme outliers have been removed during the tests of normality through boxplot (see Appendix F). Hence, it can be concluded that the assumptions of linear relationship and normality have not been violated with the extreme outliers were being removed.

Inferential Statistics

Correlation between career indecision and self-efficacy.

H₁: There is a negative relationship between career indecision and self-efficacy.

Pearson Product-Moment Correlation was conducted to determine the relationship between career indecision and self-efficacy. As depicted in Table 4.4, the results indicated that there was a statistically significant negative relationship between career indecision and self-efficacy among final year students in Malaysia ($r = -.201, n = 380, p < .01$). Decreases in self-efficacy are correlated with increases in career indecision among the final year students.

Therefore, hypothesis 1 is supported.

According to Guilford's (1973) Rule of Thumb, any value obtained for correlation between .2 to .4 is considered having a low relationship. Although a significant result was revealed in the current study, the correlation demonstrated between career indecision and self-efficacy is low.

Correlation between career indecision and decision-making styles.

H₂: There is a negative relationship between career indecision and rational decision-making style.

H₃: There is a positive relationship between career indecision and intuitive decision-making style.

H₄: There is a positive relationship between career indecision and dependent decision-making style.

H₅: There is a positive relationship between career indecision and avoidant decision-making style.

H₆: There is a positive relationship between career indecision and spontaneous decision-making style.

Pearson Product-Moment Correlation was conducted to determine the relationship between career indecision and five general decision-making styles. As depicted in Table 4.4, the results indicated that there was no correlation between career indecision and rational decision-making style among final year students in Malaysia ($r = -.024, n = 380, p = .427$). On the other hand, the results demonstrated statistically positive correlations between career indecision and intuitive decision-making style ($r = .225, n = 380, p < .01$), career indecision and dependent decision-making style ($r = .233, n = 380, p < .01$), career indecision and avoidant decision-making style ($r = .425, n = 380, p < .01$), as well as career indecision and spontaneous decision-making style ($r = .257, n = 380, p < .01$). It was found that the employment of intuitive, dependent, avoidant, avoidant, and spontaneous decision-making styles were positively associated with final year students' career indecision, whereas the employment of rational decision-making style was of no relation with their career indecision.

The association between career indecision and avoidant decision-making style was reported to be the highest of all four decision-making styles which are correlated with career indecision, followed by spontaneous, dependent, and lastly, intuitive decision-making style. According to Guilford's (1973) Rule of Thumb, correlation was moderate between career indecision and avoidant decision-making style, whereas the correlations yielded between career indecision and the other three decision-making styles were considered low. The results have

failed to support the hypothesis 2 yet provided evidence to support hypotheses H₃, H₄, H₅, and H₆.

Correlation between career indecision and PHS.

H₇: There is a positive relationship between career indecision and curiosity.

H₈: There is a negative relationship between career indecision and flexibility.

H₉: There is a negative relationship between career indecision and persistence.

H₁₀: There is a negative relationship between career indecision and optimism.

H₁₁: There is a negative relationship between career indecision and risk-taking.

Pearson Product-Moment Correlation was conducted to determine the relationship between career indecision and five PHS. As demonstrated in Table 4.4, the results showed that there was no correlation between career indecision and flexibility ($r = .056, n = 380, p = .401$), career indecision and curiosity ($r = -.048, n = 380, p = .375$), as well as career indecision and risk taking ($r = -.093, n = 380, p = .022$). On the contrary, the results demonstrated statistically negative correlations between career indecision and optimism ($r = -.300, n = 380, p < .01$), and career indecision and persistence ($r = -.117, n = 380, p = .016$). It was found that the employment of optimism and persistence PHS were negatively associated with final year students' career indecision, whereas the employment of flexibility, curiosity, as well as risk taking were of no relation with career indecision.

Although optimism reported a higher correlation with career indecision than persistence among final year students, the correlations of both variables with career indecision are considered low, particularly with persistence considered as negligible (Guilford, 1973). The

results failed to support hypotheses H₇, H₈, and H₁₁ yet provided evidence to support hypotheses H₉ and H₁₀.

Table 4.4

Correlation among Variables (N = 380)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. CDDQ	1											
2. GSE	-.201**	1										
3. GDMS_I	.225**	.190**	1									
4. GDMS_D	.233**	.024	.239**	1								
5. GDMS_R	-.024	.415**	.128*	.371**	1							
6. GDMS_S	.257**	.186**	.479**	.169**	-.006	1						
7. GDMS_A	.425**	-.145**	.287**	.357**	-.049	.431**	1					
8. PHCI_O	-.300**	.447**	.199**	.105*	.274**	.159**	-.067	1				
9. PHCI_F	.056	.269**	.165**	.146**	.303**	.115*	.024	.313**	1			
10. PHCI_P	-.117*	.450**	.258**	.143**	.329**	.195**	-.084	.450**	.350**	1		
11. PHCI_C	-.048	.418**	.183**	.306**	.389**	.121*	-.018	.422**	.425**	.478**	1	
12. PHCI_R	-.093	.412**	.250**	.150**	.326**	.228**	.006	.423*	.305**	.546**	.520**	1

Note. CDDQ = Career indecision; GSE = General self-efficacy; GDMS_I = Intuitive decision-making style; GDMS_D = Dependent decision-making style; GDMS_R = Rational decision-making style; GDMS_S = Spontaneous decision-making style; GDMS_A = Avoidant decision-making style; PHCI_O = Optimism; PHCI_F = Flexibility; PHCI_P = Persistence; PHCI_C = Curiosity; PHCI_R = Risk-taking. * indicates $p < .05$; ** indicates $p < .01$.

Chapter V

Discussion & Conclusion

Relationship between Career Indecision and Self-efficacy

The first objective of this study aimed to understand the relationship between career indecision and self-efficacy among final year students in Malaysia and the result is consistent with the past findings (Amir & Gati, 2006; Creed et al., 2004). As hypothesized, the current study has demonstrated an inverse relationship between career indecision and self-efficacy which is similar to those reported by Amir and Gati (2006) as well as Di Fabio and Maree (2013), providing evidence to support that a positive evaluation of personal efficacy is linked with fewer chances of experiencing being indecisive on career. With goal-setting yielded the leading effect size, self-efficacy of students were meaningfully enhanced upon the intervention, which resulted in a diminished perceived hindrance while deciding on a career path (Di Fabio & Maree, 2013). Likewise, various studies (Creed et al., 2004; Sidiropoulou-Dimakakou et al., 2012; Crişan & Turda, 2015; Jaensch et al., 2015) have also reported the same pattern of relationship between career indecision and self-efficacy across different populations.

It could be explained by that individuals with greater self-efficacy possess better capability to efficaciously handle challenging events during career decision-making process (Di Fabio & Maree, 2013). When confronted with variant situations that accompanied by tremendous stress, highly efficacious individuals are more likely to employ an active attitude to counter difficulties (Jex et al., 2001). As postulated by Bandura (1994), individuals who perceive themselves with greater self-efficacy will tend to pursue inspiring goals and are driven to be more dedicated throughout the process. By the same token, self-efficacy assists individuals to

confront the challenging requirements of the present employment conditions, with a vivacious engagement during the decision-making process at an early stage (Viola, Musso, Ingoglia, Lo, & Inguglia, 2017). For instance, positive scenarios will be envisaged by highly efficacious individuals to receive optimistic advice and assistance for better outcomes (Bandura, 1994). Meanwhile, they will impute blame on their inadequate endeavour for failing certain tasks (Bandura, 1994). Conversely, individuals who are held back by their uncertainties will envisage disappointing scenarios and linger over the potential negative outcomes, at the same time impute blame on their weak capabilities whenever challenged with failures (Bandura, 1994).

In short, sense of efficacy inspires one in various forms: establish own pursuits; to what degree of endeavor they lay out; how far they persist in adversities; as well as their ability to bounce back from defeats (Bandura, 1994). With different levels of self-efficacy, individuals nurture distinct capabilities, concerns, together with societal bonds that ascertain different stages of life. In light of prior findings as well as the result of the current study, it suggests that final year students who firmly believe in their own competencies are less likely to undergo challenges during a career decision-making process, owing to the great amount of endeavor and perseverance that they possess to work towards the accomplishment of their goals.

Relationship between Career Indecision and Decision-making Styles

The second until sixth objectives of this study intended to investigate the relationship between career indecision and five general decision-making styles, namely rational, intuitive, dependent, avoidant, and spontaneous decision-making styles among final year students in Malaysia. In contrast with the previous research (Shiloh & Shenhav-Sheffer, 2004), the results of the current study did not demonstrate any association between career indecision and rational

decision-making style among final year students. On the other hand, the current study has demonstrated significant and positive associations between career indecision and the other four decision-making styles – intuitive, dependent, avoidance, and spontaneous decision-making style, which had been previously speculated (Mau et al., 2016; Kahneman, 2011; Spicer & Sadler-Smith, 2005; Bavoľár & Orosová, 2015).

As opposed to what we hypothesized, rational decision-makers are of no relation with being more or less indecisive while deciding on a career path. This finding contradicts those reported by Shiloh and Shenhav-Sheffer (2004) and Landine (2016) who purported that rational decision-makers may less likely be challenged with difficulties during career decision-making process and that they tend to make productive vocational options. Nevertheless, our result is supported by Mau (1995) who revealed that rational decision-making style was not in liaison with career indecision among undergraduates.

Individuals' discerning decision experiences reasonable adjustment within few months of timeframe (Galotti, Wiener, & Tandler, 2014), and research done by Gambetti et al. (2008) showed that rational decision-makers possess the tendency to devote a longer period to take a decision as they take into account of all the available options. A plausible explanation for the result is that rational decision-makers who overly scrutinize information may perceive the analysis itself of greater importance than the final outcome (Spicer & Sadler-Smith, 2005). Other than that, with the employment of rational decision-making style, differences on career exploration will lead to endorsement of varied speculative manners and preparation (Germeijs, Luyckx, Notelaers, Goossens, & Verschueren, 2012). By way of illustration, high exploration individuals are more likely to employ resourceful and contemplative approaches while deciding on an identify-relevant choices (Germeijs et al., 2012; Schwartz, Mullis, Waterman, & Dunham,

2000). Expanding this line of thinking, career exploration could be one possible variable that play a role in altering the relationship between career indecision and rational decision-making style. This might be one of the reasons that contributes to the results of the current study, suggesting the effect of rational decision-making style on one's career indecisiveness might be situational. As rational approach represents a methodical way that complies important details with respect to judgements, it has been widely regarded advantageously (Shin & Kelly, 2015). Nevertheless, this approach is restricted to the information available and useful for the decision-makers. Additionally, individuals hardly ever possess complete details which are essential for rational decision-making (Simon, 1955).

Besides, the current study has demonstrated similar findings with previous research which revealed the tendency in intuitive decision-makers to experience greater difficulties while deciding on a career option (Kahneman, 2011; Singh & Greenhaus, 2004; Shiloh & Shenhav-Sheffer, 2004). Epitomizes as an automated reasoning heuristic, intuition can possibly triumphs attentiveness towards one's rationality and lead to inappropriate decisions that one would make (Kahneman, 2011). In a study done by Singh and Greenhaus (2004), it was found that the employment of intuitive decision-making style alone was not correlated with productive career outcomes, instead, simultaneous use of intuitive and rational approach can result in beneficial career outcomes. This could be explained due to the influence of rationality which helps one to attain greater consciousness towards one's own self as well as the surroundings (Singh & Greenhaus, 2004). Thus, it could be logically inferred that final year students who solely depend on intuitive decision-making alone tend to count on their inherent and emotive signals during the career decision-making process, resulting in higher chances of being indecisive on career.

As hypothesized, final year students who employ dependent decision-making style are prone to experience a greater level of career indecision which is similar to prior findings (Perez & Gati, 2017; Mau et al., 2016; Bubic, 2014; Mau, 2000). Dependent decision-makers displayed a tendency to integrate others' attitudes, predilections, as well as advice, which, in turn, resulted in greater difficulties preceding to and throughout the process of career decision-making (Shin & Kelly, 2015). Nevertheless, Willner, Gati, and Guan (2015) argued that individuals who obtained advices from others were more decisive on career as they experienced lesser difficulties. Advice could be beneficial for dependent decision-makers as they receive information pertaining to the expectation from others as well as how to make the appropriate decision, which helps minimize their anxiety and difficulties (Willner et al., 2015). A plausible explanation for these discrepancies is that the disparities of value or attitudes between the decision-makers and whom they depend on might be extra complex to address (Shin & Kelly, 2015), thus, burdening the decision-makers and eventually experiencing greater indecisiveness while deciding on a career path.

Furthermore, the result demonstrated in the current study provides evidence to support the notion that decision-makers who employ avoidant approach are at greater risk of generating problems (Spicer & Sadler-Smith, 2005). As hypothesized, avoidant decision-makers among final year students are associated with a greater level of career indecision. As the fundamental characteristic of avoidant decision-making style describes one's attempt to procrastinate and escape decision-making, it is not surprising that individuals who employ this approach encounter greater difficulties while deciding on a career (Pecjak & Kosir, 2007). Besides, research indicated a strong relationship between procrastination and avoidant style (Geisler & Allwood, 2018), and procrastination was revealed as having the most powerful impact on postponing

engagement in collecting information and other significant decision-making responsibilities, which in turn, increased one's level of career indecision (Shin & Kelly, 2015). Likewise, findings of Baval'ár and Orosová (2015) pointed out that avoidant decision-making style is related with one's decreased capabilities in taking a decision. Avoidant approach is accompanied with undesirable consequences and considered as an inappropriate method in varied circumstances (Bavolar & Bacikova-Sleskova, 2018), which is confirmed in this study.

As hypothesized, spontaneous decision-making style is positively correlated with final year students' career indecision. This finding is in tandem with results from previous study (Shin & Kelly, 2015), which revealed that individuals who had a predilection for quick decisions were more likely to experience a lack of readiness while deciding on a career path. It could be explained by that spontaneous decision-makers possess greater level of impatience while taking a decision, which oftentimes lead them to escape from examining other available options (Sardogan, Karahan, & Kaygusuz, 2006). As a consequence, spontaneous decision-making style could produce unavailing outcomes with an absence of deliberate preparation prior to the decision-making process (Souchon, Hughes, Farrell, Nemkova, & Oliveira, 2016). Furthermore, Phillips, Fletcher, Marks, and Hine's (2016) findings suggested that when time pressure played a role in restraining individuals' resources, their competencies to utilize reflective thinking for an outcome can be undesirably influenced. Thus, it is possible that spontaneous decision-makers among the final year students are more likely to be career undecided, particularly when the time has come to graduating university and to even entering the workforce.

Relationship between Career Indecision and PHS

In this study, the seventh objective until eleventh objective was meant to discover the connection between the two variables: career indecision and PHS with its five independent dimensions (curiosity, persistence, flexibility, optimism and risk taking). Just as hypothesized in this study, an inverse relation was found for persistence and optimism with career indecision. As students are about to step into the workforce, they become less persistent and optimistic which could indicate the experiences of the obstacles that are about to be encountered after progressing from an academic environment (Yang et al., 2017).

The negative relation of optimism and career indecision has been supported by Coon (2008) that individuals who possess lower level of optimism are more likely to face difficulties while settling on a career choice. Creed et al. (2004) has provided further support that the relation is vice versa for optimism with perceived career barriers and career indecision. Higgins et al. (2010) stipulated that a higher frequency of career related behavior would occur in individuals with elevated levels of optimism such as being more assertive in making decision of their career and being more proactive in career exploration. Moreover, optimistic individuals are more concerned and focused on the future prospects of their career, they are more actively learning to achieve their intended career (McIlveen et al., 2013). Thus, it can be logically inferred that these individuals with optimism have a higher confidence in the upcoming journey that will soon be experienced of their selected career. When researching the relationship between optimism and career-related-variables (Creed, Patton, & Bartrum, 2002), there was a stipulation that optimism would produce a different connection with career variables derived from the surrounding and that they would start to carry steps to prepare for their future career and carry out thorough research as well. This would increase their assurance on their chosen career and

they would formulate various aims pertaining to their career. If optimism was elevated, there exists the possibility of inducing the adolescents to be much more focused when making career decisions and to be more interested about their future career (Creed, Patton, & Bartrum, 2002). As such, optimism plays a role in reducing one's career indecision as they are prepared for it. Nonetheless, the correlation was found to be weak in this study which could be due to a lack of specific influencing factor on goal-specific expectancies as suggested by Rand (2009).

According to the study by Ahn et.al (2015) explained that persistence resembles conscientiousness (Big Five Personality) which is deemed to correspond to achievement status (Occupational Identity Status). The several characteristics of conscientiousness such as self-discipline, perseverance as well as the need to successfully accomplish an assignment had been found to be negatively related with the challenges that one faces in achieving tasks that involved decision-making (Germeijs, & Verschueren, 2011). This would indicate that persistence plays a role in an individual's career decision-making. The negative association between persistence and career indecision has seen similar findings by Ahn et al. (2015), in which persistent individuals that possess an accomplished status are less likely to be indecisive while deciding on their career path. The findings of Ahn et al. (2015) has termed individuals who utilized the skill of persistence as "firmly decided". Another supporting evidence has also found a steady drop of persistence during the transition from academia to the workplace (Kim, Kim, Yang, Yaung, & Lee, 2016), suggesting that individuals might encounter greater challenges once stepping out of the academic environment which is reflected in a downfall of persistence.

Experiences of challenges such as failures and rejections happen frequently due to being judged on their achievements while adding on the competition for job openings with experienced employees are some of the causes of these obstacles that youths have to face (Kim et al., 2016).

The reality of it opens up their eyes to the gap between the actual career and the initial perspective of their preferred future career which would suggest the drop in persistence and optimism of students who are moving on to the workforce from the academic setting. In other career related variables, persistent individuals were found to have a negative relationship with career barriers as the perception that one has on these barriers causes them to hesitate and to be less willing to participate in task pertaining to their career (Jung, 2011; Krumboltz, 2009). One's view of challenges related to career barriers makes one unable to come to a decisive choice in career related affairs and it is usually continuous for brief duration of time (Jaensch, Hirschi, & Freund, 2015). Thus, the current study indicated that the higher the persistence, the lower the career indecision of the final year students.

In this current study, no correlations were found for career indecisions with curiosity, flexibility and risk taking. These results were contrasted with discoveries of other researches (Kim et al., 2016; Koen, Klehe, & Vianen, 2012; Yang et al., 2017) that speculated decreased levels of all the dimensions of PHS during the progress from academia to the workplace. However, one study by Kim et al. (2014) showed no pronounced correlation of PHS with an aspect of career decision namely career decision certainty, which is further explained that even if one may possess the planned happenstance skills and carries out the necessary steps to increase knowledge of their desired career, it does not mean that a conclusive and final decision of their future career has been confirmed. This would suggest that youths are keeping an open mind as to allow more career options to be considered, to allow them to grasp a much better career decision related opportunities and that being hasty in making a decision may only bring more harm. The none correlational relationship in flexibility, curiosity and risk taking can be explained by Krumboltz (2009), that unexpected situations or incidents occurs at random and there is no

certainty on who may be caught up in it, however it is known that only a cluster of people would grasp these chances and transform them to their own personal career benefits. Kahneman (2003) suggested that making a decision in one's career is not an outcome that derives from unknown situations that come at random but instead, involves rational processing, which further suggests that happenstance is not deemed to be crucial by youths in deciding their career as it disorients their perception and thinking on the true things that they would like to do instead (Bolles, 2008). Different people have different perspectives and approach to these events and as such there is a difference in how they may react to uncertain happenings in their life, even if it is regarding their future career. In the decision-making process, there are times when a person already knows the exact result for each selection that they would have made, however they have to take a gamble on their decision due to the uncertainty of not having sufficient information of the repercussions to the decision (Hsu et al., 2005). This could be a factor to the findings found in this study for the elements of curiosity, flexibility and risk taking of the PHS with career indecision

Conclusion

In summary, the current study has obtained the objectives which serve to understand the relationships between career indecision, self-efficacy, decision-making styles, and PHS among Malaysian final year students. Firstly, self-efficacy revealed to be beneficial for individuals' decision-making as it was negatively associated with career indecision. Besides, the results of the current study yielded avoidant decision-making style as having the strongest association with career indecision, whereas rational decision-making style did not yield any significant relationship with career indecision. Besides, the use of intuitive, spontaneous, and dependent decision-making styles is associated with higher chances of experiencing career indecisiveness.

On top of that, optimism and persistence represent two PHS which were found having negative association with career indecision, whereas flexibility, curiosity, and risk-taking were of no relation with career indecision. The existing pool of research on career indecision can be expanded with the current study with several factors such as level of self-efficacy, certain elements of both decision-making styles and PHS especially in the Malaysian setting. Hence the beneficial implications in both theory and practicality should be taken notice by the final year undergraduate students and mental health professionals that may make use of these findings of this study.

Implications

Theoretical implication. Perhaps most importantly, the current results add to a growing body of literature that highlights on career indecision among university students in relation with variables such as decision-making style, PHS and self-efficacy. The theory used in the current study was the Happenstance Learning Theory, describing that through the various and vast learning experiences would dictate an individual's action in an uncertain situation that is new to that person (Krumboltz, 2009). Based on the findings, this theory further explains the career indecision as proved by the findings in studies by Kim et al., (2014) and Yang et al., (2017) in some dimensions of PHS. Based on this study's results there is an imperative need to further carry out studies that focus on the other aspects of PHS mainly as risk taking, curiosity and flexibility which were shown to have no correlation with career indecision. There may be other influencing factor in the Malaysian context that may have a significant effect on these three skills in relation to final year undergraduate's career indecision.

Self-efficacy was found to be significant with career indecision as well which were consistent with past findings. This signified a strong implication of the study as it further supported the inverse relation between career indecision and self-efficacy that was found in other population from other countries and this results is similar in the Malaysian populace. Past studies had shown that higher perceived self-efficacy does lead to better career related decision-making as proven by Amir and Gati (2006), Di Fabio and Maree (2013), Creed et al. (2004) and Jaensch et al. (2015). Hence, self-efficacy is a contributing factor when making career related decisions.

Moreover, the study also highlights on the type of decision-making styles that could influence career indecision among the final year undergraduate students. While four out of five of the decision-making styles (intuitive, dependent, avoidance, and spontaneous) were found to be positively associated with career indecision (Mau et al., 2016; Kahneman, 2011; Spicer & Sadler-Smith, 2005; Bovol'ár & Orosová, 2015), rational style has been found to have no correlation at all (Shiloh & Shenhav-Sheffer, 2004). Therefore, the contradicting findings of the current study in regards to the rational decision-making style has provided an insight that career exploration and the situational factors could influence career decision-making which highlights the need for further future research in regards to these factors. The remaining styles has shown strong evidence in supporting the notion of a positive relation with career indecision and this shows a high implication to further understand the theoretical aspect in the Malaysian setting. Past researchers have focused on other variables such as personality with other career related variables. This would mean that there is a theoretical implication to better understand how other variables such as self-efficacy does, decision-making styles and PHS would influence one's career indecision in the Malaysian setting.

It can serve to be one of the predominant literatures regarding studies on career indecision in the Malaysian setting that employs the Happenstance Learning Theory with the aforementioned variables in the current research that has been vastly carried out in other countries. The findings of the present study will be able to contribute some related literature and analyzed data to other researchers for further study.

Practical implications. As an individual progresses from a student to a young profession, there are several decisions that have to be made such as for instance; residing in one's homeland or to decide to relocate to another foreign place as well as being an amateur to the working life and beginning to hold responsibility in financial matters (Moreira & Furegato, 2013). Final year students would undergo stress in regards to these heavy responsibilities and harsh experiences that is unfamiliar to them. The current study provides a framework to ensure that they are prepared by taking into account the gap of knowledge of self-efficacy, decision-making styles and PHS. This would further provide concise information in understanding what may be the underlying factors that are hindering the success in making career decisions. One of the practical implications of the information and results of the study is that it would serve as a guide, specifically for career counsellors to assist their clients who are experiencing difficulties in making decisions of their future careers. An individual's level of self-efficacy is essential to ensure that one is able to accomplish decisions in their future career, as seen in the results of this study. This provides an insight for final undergraduate students to increase their self-efficacy through several methods such as career exploration to further reduce their negative perceptions and thus being able to make sound career decisions. Students who are self-efficacious tend to encounter less friction when deciding on career related affairs (Di Fabio & Maree, 2013) which would further imply that self-efficacy is a factor that counsellors can assess to determine the

suitable steps to take to increase the student's self-efficacy levels. This can be applied practically by counsellors to devise methods to allow final year students to envision a clear image or scenario of their future careers. By doing so, they become much more self-efficacious and they are more willing to receive guidance and helpful advice by the counsellors. As such, when deciding on a career path, the self-efficacy level of an individual is imperative and with the right method, career indecision can be reduced among Malaysian final undergraduate students. Moreover, by taking into account the decision-making style of the student, a proper intervention can be carried out to ensure a smooth process of decision-making in career related topics. Proper early preparations and exploration chances can be given for rational and avoidant decision style individuals, providing guidance and advice to dependent styled individuals, giving more thinking time for spontaneous decision makers to consider the information and resources for career decisions and finally assessing the current emotional state for individuals with intuitive style before making career decisions.

The implication for the PHS is present as well. For instance, PHS are beneficial in overcoming the career barriers that one will face when moving to the workforce and thus counsellors may assist them by improving those skills before transitioning from school to work. By focusing on specific happenstance skills that are lacking in an individual, the level of career indecision can be lowered when these particular skills have been elevated. Furthermore, the results of the current study has proposed a perspective that would contribute to the literature of career indecision in the Malaysian context, and also provide useful implications to relevant mental health professionals in order to implement effective interventions for final year students in Malaysia, with the goal of preparing them to make a definitive decision of their future career.

Limitations of Study

Regardless of the strengths in the current study, limitations were found concerning methodology. Firstly, disproportionate of participants from three major races exists in the current study. Final year students of certain races such as Malay ($n = 9$) and Indians ($n = 34$) were left out on the account of the absence of contact in us, hence resulted in Chinese ($n = 331$) whom were overrepresented in this study. As a consequence, the findings of this study may not be able to generalize the entire population in Malaysia as it is difficult to measure their overall career indecision level and its relation with self-efficacy, decision-making styles as well as PHS with the underrepresentation of Malay and Indian racial groups.

Secondly, the current study employed self-reported measurement. It is possible that a fraction of the assembled responses were falsified in a way befitting the collective custom as a result of positive self-presentation. Misleading or invalid findings in the current study may occur due to respondents' inclination towards pleasing responses as well as favorable appraisals, which represent two potential biased responses in research. Comprised of a total of 94 items, participants may also inclined to correspond with the questionnaire items not having thoughtful contemplation on its content, which is also known as acquiescence response bias, and this appears to be a significant consideration with the employment of survey method (Lelkes & Weiss, 2015). Thereupon, participants may be running out of patience to finish the time-consuming questionnaire and plainly fill in their responses for the sake of completing it, resulting in biased results obtained in the current study.

Besides, in spite of the provisional assumption we have endeavored, it is impossible to evidently deduce a causal relation between the variables due to the employment of cross-sectional research design. Collecting responses from final year students at one single point of

time, the causal path between the variables, for instance, career indecision and general decision-making styles, can hardly be understood. On top of that, undergraduates' level of career indecision may fluctuate across several years of study, hence, employing cross-sectional study design may not be able to understand the development of one's career indecisiveness.

Last but not least, limitation was also found with respect to the range of concepts tested. The current study aimed to understand the relationship among four variables, namely career indecision, self-efficacy, decision-making styles, and PHS. In spite of the fact that significant correlations were achieved, the correlation coefficients were relatively weak, signifying that other variables, not measured in this study, may account for stronger association with career indecision among Malaysian final year students.

Recommendations of Study

To further solidify and extend the literature on career indecision, there are several recommendations for researchers. Firstly, commensurate races proportion. Researchers are advised to collect data in the ratio that is in the same vein of Malaysian population, for instance, 7:2:1 in respect of Malay, Chinese, and Indian population correspondingly. It provides researchers the best chance to create a sample that is truly representative of certain population, which in this case, the Malaysian final year students. Hence, allowing generalization of the results from a sample. Furthermore, this may also significantly produce a more nuanced understanding of career indecision and its association with other variables amid these races considering cultural backgrounds might play a role in one's career decision-making process.

Secondly, as social desirability bias might play a role in self-reported results, it is suggested that future researchers to manage this issue by acquiring measures of desirable

variables through various sources (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

To illustrate, include data which are collected from parents or significant others of targeted participants based on their understandings toward participants on career indecision and other variables. Moreover, interview method can be used to better understand the adversities encountered by final year students when they are settling on a career path. Through this method, interviewees would communicate their viewpoints frankly, instead of answering to a structure endorsed by the researchers (Bolderston, 2012).

Besides, there seem to be a definite need for conducting experimental studies to unravel the causal relation between the desirable variables, for instance, whether the greater career indecision the participants' experience, the more they employ a particular decision-making style; or whether the more the participants employ a particular decision-making style, the greater career indecision the participants experience. In addition, employment of longitudinal research design may also help future studies gain a better picture of the development of final year students' career indecision. For instance, researchers may constantly follow-up with the same participants while they are settling on a career path across high school and college periods.

Last but not least, researchers are strongly advised to extend the scope of this study by including other individual characteristics which may have an impact on final year students' career indecision. In addition, the inclusion of a broader range of variables such as covariates and mediators could help provide a refined comprehension towards career indecision and its relationship with other variables. For instance, findings by Roland (2004) suggested that undergraduates who had employment experiences were more decisive on career as compared to those whom had zero employment experience. Integrating this variable in the future research may contribute to a clearer picture of the development of undergraduates' career indecision.

References

- Adams, J. R. (1974). Risk taking and the decision making process: Control to maximize profits. *Project Management Quarterly*, 5(4), 20-25. Retrieved from <https://www.pmi.org/learning/library/risk-taking-decision-making-process-1971>
- Ahn, J., Jung, S. H., Jang, S. H., Du, X., Lee, B. H., Rhee, E., . . . Lee, S. M. (2015). Planned happenstance skills and occupational identity status in high school students. *The Career Development Quarterly*, 63(1), 31-43. doi:10.1002/j.2161-0045.2015.00093.x
- Amir, T., & Gati, I. (2006). Facets of career decision-making difficulties. *British Journal of Guidance & Counselling*, 34(4), 483-503. doi:10.1080/03069880600942608
- Argyropoulou, E. P., Sidiropoulou-Dimakakou, D., & Besevegis, E. G. (2007). Generalized self-efficacy, coping, career indecision, and vocational choices of senior high school students in Greece. *Journal of Career Development*, 33(4), 316-337. doi:10.1177/0894845307300412
- Arpiainen, R.-L., & Kurczewska, A. (2017). Learning risk-taking and coping with uncertainty through experiential, team-based entrepreneurship education. *Industry and Higher Education*, 31(3), 143-155. doi:10.1177/0950422217700994
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran, *Encyclopedia of human behavior* (pp. 71-81). New York: Academic Press.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Times Books.
- Bank Negara Malaysia. (2016). *Youth unemployment in Malaysia: Developments and policy considerations*. Kuala Lumpur: Bank Negara Malaysia. Retrieved from http://www.bnm.gov.my/files/publication/ar/en/2016/cp04_003_box.pdf

- Barkley-Levenson, E. E., & Fox, C. R. (2016). The surprising relationship between indecisiveness and impulsivity. *Personality and Individual Differences, 90*(1), 1-6. doi:10.1016/j.paid.2015.10.030
- Bavol'ar, J., & Bacikova-Sleskova, M. (2018). Psychological protective factors mediate the relationship between decision-making styles and mental health. *Current Psychology, 1-10*. doi:10.1007/s12144-018-9831-9
- Bavol'ar, J., & Orosova, O. A. G. (2015). Decision-making styles and their associations with decision-making competencies and mental health. *Judgment and Decision Making, 10*(1), 115-122. Retrieved from <http://journal.sjdm.org/14/141103/jdm141103.pdf>
- Bensi, L., & Fiorella, G. (2007). Trait anxiety and reasoning under uncertainty. *Personality and Individual Differences, 43*(4), 827-838. doi:10.1016/j.paid.2007.02.007
- Betz, N., & Luzzo, D. A. (1996). Career assessment and the career decision-making self-efficacy scale. *Journal of Career Assessment, 4*(4), 413-428. doi:10.1177/106907279600400405
- Bimrose, J., & Barnes, S.-A. (2007). Styles of career decision-making. *Australian Journal of Career Development, 16*(2), 20-28. doi:10.1177/103841620701600205
- Bolderston, A. (2012). Conducting a research interview. *Journal of Medical Imaging and Radiation Sciences, 43*(1), 66-76. doi:10.1016/j.jmir.2011.12.002
- Bolles, R. N. (2008). Culture affects career and life planning. *eJournal USA, 13*(12), 6-8.
- Boudarbat, B., & Montmarquette, C. (2009). Choice of fields of study of university Canadian graduates: The role of gender and their parents' education. *Education Economics, 17*(2), 185-213. doi:10.1080/09645290802133032

- Bruine de Bruin, W., Parker, A. M., & Fischhoff, B. (2007). Individual differences in adult decision-making competence. *Journal of Personality and Social Psychology, 92*(5), 938-956. doi:10.1037/0022-3514.92.5.938
- Bubic, A. (2014). Decision making characteristics and decision styles predict adolescents' career choice satisfaction. *Current Psychology, 33*(4), 515-531. doi:10.1007/s12144-014-9226-5
- Buck, J. N., & Daniels, M. H. (1985). *Assessment of career decision making (ACDM): Manual*. Los Angeles: Western Psychological Services.
- Choi, B. Y., Kim, B., Jang, S. H., Jung, S. H., Ahn, S. S., Lee, S. M., & Gysbers, N. (2013). An individual's work values in career development. *Journal of Employment Counseling, 50*(4), 154-165. doi:10.1002/j.2161-1920.2013.00034.x
- Čisar, P., & Čisar, S. M. (2010). Skewness and kurtosis in function of selection of network traffic distribution. *Acta Polytechnica Hungarica, 2*(7), 95-106. Retrieved from https://www.uni-obuda.hu/journal/Cisar_Cisar_23.pdf
- Cobb-Walgren, C. J., Pilling, B. K., & Barksdale, H. C. (2017). Does marketing need better marketing? A creative approach to understanding student perceptions of the marketing major. *Journal of Business Education and Scholarship of Teaching, 11*(1), 97-117. Retrieved from <https://eric.ed.gov/?id=EJ1167336>
- Coon, K. L. (2008). *Predicting career decision-making difficulties among undergraduate students: The role of career decision making self-efficacy, career optimism, and coping*. Carbondale: Southern Illinois University Carbondale.
- Creed, P. A., Patton, W., & Bartrum, D. (2004). Internal and external barriers, cognitive style, and the career development variables of focus and indecision. *Journal of Career Development, 30*(4), 277-294. doi:10.1177/089484530403000404

- Crișan, C., & Turda, S. (2015). The connection between the level of career indecision and the perceived self-efficacy on the career decision-making among teenagers. *Procedia - Social and Behavioral Sciences*, 209(3), 154-160. doi:10.1016/j.sbspro.2015.11.271
- Curșeu, P. L., & Schrujijer, S. G. (2012). Decision styles and rationality. *Educational and Psychological Measurement*, 72(6), 1053-1062. doi:10.1177/0013164412448066
- Dane, E., Rockmann, K. W., & Pratt, M. G. (2014). When should I trust my gut? Linking domain expertise to intuitive decision-making effectiveness. *Organizational Behavior and Human Decision Processes*, 119(2), 187-194. doi:10.1016/j.obhdp.2012.07.009
- Das, K. R., & Imon, A. H. (2016). A brief review of tests for normality. *American Journal of Theoretical and Applied Statistics*, 5(1), 5-12. doi:10.11648/j.ajtas.20160501.12
- Di Fabio, A., & Maree, J. G. (2013). Effectiveness of the career interest profile. *Journal of Employment Counseling*, 50(3), 110-123. doi:10.1002/j.2161-1920.2013.00030.x
- Driver, M. J. (1979). *Individual decision-making and creativity*. Columbus: Grid.
- Duffy, R. D., Douglass, R. P., & Autin, K. L. (2015). Career adaptability and academic satisfaction: Examining work volition and self-efficacy as mediators. *Journal of Vocational Behavior*, 90(1), 46-54. doi:10.1016/j.jvb.2015.07.007
- Fang, W., Zhang, Y., Mei, J., Chai, X., & Fan, X. (2018). Relationships between optimism, educational environment, career adaptability and career motivation in nursing undergraduates: A cross-sectional study. *Nurse Education Today*, 68(1), 33-39. doi:10.1016/j.nedt.2018.05.025
- Farnia, F., Nafukho, F. M., & Petrides, K. V. (2018). Predicting career decision-making difficulties: The role of trait emotional intelligence, positive and negative. *Frontiers in Psychology*, 9(1), 1-6. doi:10.3389/fpsyg.2018.01107

Fouad, N. A. (2007). Work and vocational psychology: Theory, research, and applications.

Annual Review of Psychology, 58(1), 543-564.

doi:10.1146/annurev.psych.58.110405.085713

Fouad, N. A., Grus, C. L., Hatcher, R. L., Kaslow, N. J., Hutchings, P., Smith, M., . . . Crossman,

R. E. (2009). Competency benchmarks: A model for understanding and measuring

competence in professional psychology across training levels. *Training and Education in*

Professional Psychology, 3(4), 5-26. Retrieved from [http://psycnet.apa.org/buy/2009-](http://psycnet.apa.org/buy/2009-21633-004)

21633-004

Fouad, N. A., Cotter, E. W., & Kantamneni, N. (2009). The effectiveness of a career decision-

making course. *Journal of Career Assessment*, 17(3), 338-347.

doi:10.1177/1069072708330678

Gallagher, R. P., Golin, A., & Kelleher, K. (1992). The personal, career, and learning skills

needs of college students. *Journal of College Student Development*, 33(4), 301-309.

Retrieved from <http://psycnet.apa.org/record/1993-03494-001>

Galotti, K. M., Wiener, H. J., & Tandler, J. M. (2014). Real-life decision making in college

students: Consistency across specific decisions. *The American Journal of Psychology*,

127(1), 19-31. doi:10.5406/amerjpsyc.127.1.0019

Gambetti, E., Fabbri, M., Bensi, L., & Tonetti, L. (2008). A contribution to the Italian validation

of the general decision-making style inventory. *Personality and Individual Differences*,

44(4), 842-852. doi:10.1016/j.paid.2007.10.017

Geisler, M., & Allwood, C. M. (2018). Relating decision-making styles to social orientation and

time approach. *Journal of Behavioral Decision Making*, 31(3), 415-429.

doi:10.1002/bdm.2066

- George, D., & Mallery, P. (2010). *SPSS for Windows step by step: A simple guide and reference, 17.0 update* (10th ed.). Boston: Allyn & Bacon.
- Germeijs, V., & Verschueren, K. (2011). Indecisiveness: Specificity and predictive validity. *European Journal of Personality, 25*(5), 295-305. doi:10.1002/per.786
- Germeijs, V., Luyckx, K., Notelaers, G., Goossens, L., & Verschueren, K. (2012). Choosing a major in higher education: Profiles of students' decision-making process. *Contemporary Educational Psychology, 37*(3), 229-239. doi:10.1016/j.cedpsych.2011.12.002
- Germeijs, V., Verschueren, K., & Soenens, B. (2006). Indecisiveness and high school students' career decision-making process: Longitudinal associations and the mediational role of anxiety. *Journal of Counseling Psychology, 53*(4), 397-410. doi:10.1037/0022-0167.53.4.397
- Gillie, S., & Gillie-Isenhour, M. (2003). *The educational, social and economic value of informed*. Alexandria: America's Careers Resource Network.
- Groot, W., & Verberne, M. (1997). Aging, job mobility, and compensation. *Oxford Economic Papers, 49*(3), 380-403. Retrieved from <https://bit.ly/2ymn9V3>
- Guay, F., Ratelle, C. F., Senécal, C., Larose, S., & Deschênes, A. (2006). Distinguishing developmental from chronic career indecision: Self-efficacy, autonomy, and social support. *Journal of Career Assessment, 14*(2), 235-251. doi:10.1177/1069072705283975
- Guilford, J. P., & Fruchter, B. (1973). *Fundamental statistics in psychology and education* (5th ed.). New York: McGraw-Hill.
- Hanapi, Z., & Nordin, M. S. (2014). Unemployment among Malaysia graduates: Graduates' attributes, lecturers' competency and quality of education. *Procedia - Social and Behavioral Sciences, 112*(1), 1056-1063. doi:10.1016/j.sbspro.2014.01.1269

- Harren, V. A. (1979). A model of career decision-making for college students. *Journal of Vocational Behavior, 14*(2), 119-133. doi:10.1016/0001-8791(79)90065-4
- Harrison, R. A., & Gregg, J. L. (2009). A time for change: An exploration of attitudes toward part-time work in academia among women internists and their division chiefs. *Academic Medicine, 84*(1), 80-86. doi:10.1097/acm.0b013e3181900ebd
- Higgins, M., Dobrow, S. R., & Roloff, K. S. (2010). Optimism and the boundaryless career: The role of developmental relationships. *Journal of Organizational Behavior, 31*(5), 749-769. doi:10.1002/job.693
- Hirschi, A. (2010). Positive adolescent career development: The role of intrinsic and extrinsic work values. *The Career Development Quarterly, 58*(3), 276-287. doi:10.1002/j.2161-0045.2010.tb00193.x
- Hsu, M., Bhatt, M., Adolphs, R., Tranel, D., & Camerer, C. F. (2005). Neural systems responding to degrees of uncertainty in human decision-making. *Science, 310*(5754), 1680-1683. doi:10.1126/science.1115327
- Jaensch, V. K., Hirschi, A., & Freund, P. A. (2015). Persistent career indecision over time: Links with personality, barriers, self-efficacy, and life satisfaction. *Journal of Vocational Behavior, 91*(1), 122-133. doi:10.1016/j.jvb.2015.09.010
- Jex, S. M., Bliese, P. D., Buzzell, S., & Primeau, J. (2001). The impact of self-efficacy on stressor-strain relations: Coping style as an explanatory mechanism. *Journal of Applied Psychology, 86*(3), 401-409. doi:10.1037//0021-9010.86.3.401
- Jiang, Z. (2014). Emotional intelligence and career decision-making self-efficacy: National and gender differences. *Journal of Employment Counseling, 51*(3), 112-124. doi:10.1002/j.2161-1920.2014.00046.x

- Jung, M. N. (2011). The effects of career decision making style and occupational engagement on career attitude maturity (Unpublished master's thesis). *Korea University, Seoul, South Korea*.
- Kahneman, D. (2011). *Thinking, fast and slow*. New York, NY: Farrar, Straus and Giroux.
- Kahneman, D., & Frederick, S. (2003). Representativeness revisited: Attribute substitution in intuitive judgment. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 49-81). New York, NY: Cambridge University Press.
- Kim, B., Jang, S. H., Jung, S. H., Lee, B. H., Puig, A., & Lee, S. M. (2014). A moderated mediation model of planned happenstance skills, career engagement, career decision self-efficacy, and career decision certainty. *The Career Development Quarterly*, 62(1), 56-69. doi:10.1002/j.2161-0045.2014.00070.x
- Kim, B., Kim, S. R., Yang, N. Y., Yaung, H., Ha, G. Y., Yang, J. Y., . . . Lee, S. M. (2016). Longitudinal relationships between planned happenstance skills and life adjustment and the moderating role of career barriers. *Journal of Career Development*, 45(3), 215-226. doi:10.1177/0894845316681078
- 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. doi:10.1002/cdq.12047
- Kim, S. R., Kim, B., Yang, N., Yaung, H., & Lee, S. M. (2017). Longitudinal changes of planned happenstance skills by gender, community types, and employment status in a sample of college students in school-to-work transition. *Journal of Employment Counseling*, 54(4), 183-191. doi:10.1002/joec.12066

- Koen, J., Klehe, U.-C., & Van Vianen, A. E. M. (2012). Training career adaptability to facilitate a successful school-to-work transition. *Journal of Vocational Behavior, 81*(3), 395-408. doi:10.1016/j.jvb.2012.10.003
- 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. doi:10.1177/1069072713498484
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Assessment, 30*(3), 607-610. doi:10.1177/001316447003000308
- Krumboltz, J. D. (2009). The Happenstance Learning Theory. *Journal of Career Assessment, 17*(2), 135-154. doi:10.1177/1069072708328861
- Krumboltz, J. D., Foley, P. F., & Cotter, E. W. (2013). Applying the Happenstance Learning Theory to involuntary career transitions. *The Career Development Quarterly, 61*(1), 15-26. doi:10.1002/j.2161-0045.2013.00032.x
- Lam, M., & Santos, A. (2017). The impact of a college career intervention program on career decision self-efficacy, career indecision, and decision-making difficulties. *Journal of Career Assessment, 26*(3), 425-444. doi:10.1177/1069072717714539
- Landine, J. R. (2016). The relationship between vocational self-concept crystallization, ego-identity status, and occupational indecision, as mediated by rational or experiential processing. *Canadian Journal of Counselling and Psychotherapy, 50*(1), 1-17. Retrieved from <https://cjc-rcc.ucalgary.ca/cjc/index.php/rcc/article/view/2507/pdf>

- Lee, J. H., Cho, S., Lee, S., Eum, W. J., Jang, H., Suh, S., & Lee, S. M. (2017). Initial validation of the planned happenstance career inventory-English version. *The Career Development Quarterly*, 65(4), 366-378. doi:10.1002/cdq.12114
- Lelkes, Y., & Weiss, R. (2015). Much ado about acquiescence: The relative validity and reliability of construct-specific and agree–disagree questions. *Research & Politics*, 2(3), 1-8. doi:10.1177/2053168015604173
- Leon, A. C., Davis, L. L., & Kraemer, H. C. (2011). The role and interpretation of pilot studies in clinical research. *Journal of Psychiatric Research*, 45(5), 626-629. doi:10.1016/j.jpsychires.2010.10.008
- Leykin, Y., & DeRubeis, R. J. (2010). Decision-making styles and depressive symptomatology: Development of the decision styles questionnaire. *Judgment and Decision Making*, 5(7), 506-515. Retrieved from <http://psycnet.apa.org/record/2010-26860-005>
- Lightsey, O., McGhee, R., Ervin, A., Gharghani, G., Rarey, E., Daigle, R., . . . Powell, K. (2013). Self-efficacy for affect regulation as a predictor of future life satisfaction and moderator of the negative affect-life satisfaction relationship. *Journal of Happiness Studies*, 14(1), 1-18. doi:10.1007/s10902-011-9312-4
- Lipshits-Braziler, Y., Gati, I., & Tatar, M. (2015). Strategies for coping with career indecision: Convergent, divergent, and incremental validity. *Journal of Career Assessment*, 25(2), 183-202. doi:10.1177/1069072715620608
- Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The General Self-efficacy Scale: Multicultural validation scale. *Journal of Psychology*, 139(5), 439-457. doi:10.3200/JRLP.139.5.439-457

- Luzzo, D. A. (1996). A psychometric evaluation of the Career Decision-making Self-efficacy scale. *Journal of Counseling & Development, 74*(3), 276-279. doi:10.1002/j.1556-6676.1996.tb01865.x
- Mansor, A. T., & Tan, K. A. (2009). Influence of gender on career readiness among Malaysian undergraduates. *Australian Journal of Career Development, 18*(2), 33-44. doi:10.1177/103841620901800206
- Mao, C.-H., Hsu, Y.-C., & Fang, T.-W. (2016). Mediating effect of career decision self-efficacy on the relationship between parental support and indecision in Taiwan. *Journal of Career Development, 44*(6), 471-484. doi:10.1177/0894845316663319
- Marcionetti, J. (2014). Factors affecting teenagers' career indecision in southern Switzerland. *Procedia - Social and Behavioral Sciences, 112*(1), 158-166. doi:10.1016/j.sbspro.2014.01.1151
- Mau, W. C. (1995). Decision-making style as a predictor of career decision-making status and treatment gains. *Journal of Career Assessment, 3*(1), 89-99. doi:10.1177/106907279500300107
- Mau, W.-C. (2000). Cultural differences in career decision-making styles and self-efficacy. *Journal of Vocational Behavior, 57*(3), 365-378. doi:10.1006/jvbe.1999.1745
- Mau, W.-C. (2001). Assessing career decision-making difficulties: A cross-cultural study. *Journal of Career Assessment, 9*(4), 353-364. doi:10.1177/106907270100900403
- McIlveen, P., Beccaria, G., & Burton, L. J. (2013). Beyond conscientiousness: Career optimism and satisfaction with academic major. *Journal of Vocational Behavior, 83*(3), 229-236. doi:10.1016/j.jvb.2013.05.005

- McKay, A., Mussida, C., & Veruete, L. (2018). The challenge of youth employment in Asia: Lessons from four fast-growing economies. *The World Economy*, *41*(4), 1045-1067. doi:10.1111/twec.12622
- McWhirter, E. H., Crothers, M., & Rasheed, S. (2000). The effects of high school career education on social–cognitive variables. *Journal of Counseling Psychology*, *47*(3), 330-341. doi:10.1037/0022-0167.47.3.330
- Ministry of Education Malaysia. (2018). *Quick facts 2018: Malaysia educational statistics*. Putrajaya: Ministry of Education Malaysia.
- Moghadam, A. H., Tehrani, M., & Amin, F. (2011). Study of the relationship between emotional intelligence (EI) and management decision making styles. *World Applied Sciences Journal*, *12*(7), 1017-1025. Retrieved from <https://pdfs.semanticscholar.org/6376/8c56184f9df000a4fb7fb0c728e9051cc5c7.pdf>
- Moreira, D. P., & Furegato, A. R. (2013). Stress and depression among students of the last semester in two nursing courses. *Revista Latino-Americana de Enfermagem*, *21*(1), 155-162. doi:10.1590/s0104-11692013000700020
- Morgado, P., Sousa, N., & Cerqueira, J. J. (2014). The impact of stress in decision making in the context of uncertainty. *Journal of Neuroscience Research*, *93*(6), 839-847. doi:10.1002/jnr.23521
- Murphy, K. A., Blustein, D. L., Bohlig, A. J., & Platt, M. G. (2010). The college-to-career transition: An exploration of emerging adulthood. *Journal of Counseling & Development*, *88*(2), 174-181. Retrieved from <https://eric.ed.gov/?id=EJ878729>

- Nasab, M. F., Abdul Kadir, R., Hassan, S. A., & Mohd. Noah, S. (2015). Psychometric evaluation of the Career Decision Scale with Iranian undergraduate students. *Journal of Counseling & Development, 93*(3), 344-351. doi:10.1002/jcad.12032
- Newman, J. L., Fuqua, D. R., & Minger, C. (1990). Further evidence for the use of career subtypes in defining career status. *The Career Development Quarterly, 39*(2), 178-188. doi:10.1002/j.2161-0045.1990.tb00838.x
- Ng, K. Y., & Dyne, L. V. (2001). Individualism-collectivism as a boundary condition for effectiveness of minority influence in decision making. *Organizational Behavior and Human Decision Processes, 84*(2), 198-225. doi:10.1006/obhd.2000.2927
- Nota, L., Ferrari, L., Solberg, V. S., & Soresi, S. (2007). Career search self-efficacy, family support, and career indecision with Italian youth. *Journal of Career Assessment, 15*(2), 181-193. doi:10.1177/1069072706298019
- Omar, C. M. Z. C., & Rajoo, S. (2016). Unemployment among graduates in Malaysia. *International Journal of Economics, Commerce and Management, 4*(8), 367-374. Retrieved from <http://ijecm.co.uk/wp-content/uploads/2016/08/4824.pdf>
- Osborne, J. W., & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research, and Evaluation, 8*(5), 1-5. Retrieved from <https://pareonline.net/getvn.asp?v=8&n=2>
- Osipow, S. H. (1999). Assessing career indecision. *Journal of Vocational Behavior, 55*(1), 147-154. doi:10.1006/jvbe.1999.1704
- Osipow, S. H., & Gati, I. (1998). Construct and concurrent validity of the Career Decision-making Difficulties Questionnaire. *Journal of Career Assessment, 6*(3), 347-364. doi:10.1177/106907279800600305

- Osipow, S. H., & Reed, R. (1985). Decision making style and career indecision in college students. *Journal of Vocational Behavior*, 27(3), 368-373. doi:10.1016/0001-8791(85)90043-0
- Osman, M. M., Bachok, S., Muslim, S. A., & Bakri, N. I. M. (2015). Unemployment issues and problems in Kinta, Manjung and Kuala Kangsar, Perak, Malaysia. *Procedia - Social and Behavioral Sciences*, 168(1), 389-399. doi:10.1016/j.sbspro.2014.10.245
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using IBM* (6th ed.). England: McGraw-Hill Education.
- Parker, G., Wilcock, P. R., Paola, C., Dietrich, W. E., & Pitlick, J. (2007). Physical basis for quasi-universal relations describing bankfull hydraulic geometry of single-thread gravel bed rivers. *Journal of Geophysical Research*, 112(F4), 1-21. doi:10.1029/2006JF000549
- Patton, W., Creed, P. A., & Muller, J. (2002). Career maturity and well-being as determinants of occupational status of recent school leavers: A brief report of an Australian study. *Journal of Adolescent Research*, 17(4), 425-435. doi:10.1177/07458402017004007
- Pecjak, S., & Kosir, K. (2007). Personality, motivational factors and difficulties in career decision-making in secondary school students. *Psychological Topics*, 16(1), 141-158. Retrieved from <https://hrcak.srce.hr/20539>
- Perez, M., & Gati, I. (2017). Advancing in the career decision-making process: The role of coping strategies and career decision-making profiles. *International Journal for Educational and Vocational Guidance*, 17(3), 285-309. doi:10.1007/s10775-016-9334-x
- Phillips, W. J., Fletcher, J. M., Marks, A. D., & Hine, D. W. (2016). Thinking styles and decision making: A meta-analysis. *Psychological Bulletin*, 142(3), 260-290. doi:10.1037/bul0000027

- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903. doi:10.1037/0021-9010.88.5.879
- Porcelli, A. J., & Delgado, M. R. (2017). Stress and decision making: Effects on valuation, learning, and risk-taking. *Current Opinion in Behavioral Sciences, 14*(1), 33-39. doi:10.1016/j.cobeha.2016.11.015
- Porfeli, E. J., & Savickas, M. L. (2012). Career Adapt-Abilities Scale-USA Form: Psychometric properties and relation to vocational identity. *Journal of Vocational Behavior, 80*(3), 748-753. doi:10.1016/j.jvb.2012.01.009
- Pryor, R. G., Amundson, N. E., & Bright, J. E. (2008). Probabilities and possibilities: The strategic counseling implications of the chaos theory of careers. *The Career Development Quarterly, 56*(4), 309-318. doi:10.1002/j.2161-0045.2008.tb00096.x
- Rand, K. L. (2009). Hope and optimism: Latent structures and influences on grade expectancy and academic performance. *Journal of Personality, 77*(1), 231-260. doi:10.1016/j.jrp.2011.08.004
- Reese, R. J., & Miller, C. D. (2006). Effects of a university career development course on career decision-making self-efficacy. *Journal of Career Assessment, 14*(2), 252-266. doi:10.1177/1069072705274985
- Roland, K. D. (2004). Career decision-making skills of high school students in The Bahamas. *Journal of Career Development, 31*(1), 1-13. doi:10.1177/089484530403100101

- Santos, A., Wang, W., & Lewis, J. (2018). Emotional intelligence and career decision-making difficulties: The mediating role of career decision self-efficacy. *Journal of Vocational Behavior, 107*(1), 295-309. doi:10.1016/j.jvb.2018.05.008
- Sardogan, M. E., Karahan, T. F., & Kaygusuz, C. (2006). An investigation of university students' indecisiveness strategies in level of the problem solving skill, gender, level of class, and kind of the faculty. *Mersin University Journal of the Faculty of Education, 2*(1), 78-97.
- Schwartz, S. J., Mullis, R. L., Waterman, A. S., & Dunham, R. M. (2000). Ego identity status, identity style, and personal expressiveness: An empirical investigation of three convergent constructs. *Journal of Adolescent Research, 15*(4), 504-521.
doi:10.1177/0743558400154005
- Schwarzer, R., & Scholz, U. (2000). *Cross-cultural assessment of coping resources: The General Perceived Self-efficacy Scale*. Paper presented at the First Asian Congress of Health Psychology: Health Psychology and Culture, Tokyo.
- Scott, S. G., & Bruce, R. A. (1995). Decision-making style: The development and assessment of a new measure. *Educational and psychological measurement, 55*(5), 818-831. doi: 10.1177/0013164495055005017
- Shiloh, S., & Shenhav-Sheffer, M. (2004). Structure of difficulties in mate-selection decisions and its relationship to rational and intuitive cognitive styles. *Personality and Individual Differences, 37*(2), 259-273. doi:10.1016/j.paid.2003.08.016
- 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.
doi:10.1002/cdq.12029

- Sidiropoulou-Dimakakou, D., Mylonas, K., & Argyropoulou, K. (2015). Self-efficacy in career planning: A new approach to career exploration. *International Journal of Learning, Teaching and Educational Research*, 11(2), 40-54. Retrieved from http://users.uoa.gr/~kmylonas/PDF_FILES/P_2015b.pdf
- 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. doi:10.5430/wje.v2n1p117
- Simon, H. A. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics*, 69(1), 99-118. doi:10.2307/1884852
- Singh, R., & Greenhaus, J. H. (2004). The relation between career decision-making strategies and person–job fit: A study of job changers. *Journal of Vocational Behavior*, 64(1), 198-221. doi:10.1016/s0001-8791(03)00034-4
- Soria, K. M., & Stebleton, M. (2013). Major decisions: Motivations for selecting a major, satisfaction, and belonging. *NACADA Journal*, 33(2), 29-43. doi:10.12930/NACADA-13-018
- Souchon, A. L., Hughes, P., Farrell, A. M., Nemkova, E., & Oliveira, J. S. (2016). Spontaneity and international marketing performance. *International Marketing Review*, 33(5), 671-690. doi:10.1108/IMR-06-2014-0199
- Spicer, D. P., & Sadler-Smith, E. (2005). An examination of the general decision making style questionnaire in two UK samples. *Journal of Managerial Psychology*, 20(2), 137-149. doi:10.1108/02683940510579777

- Talib, M. A., & Aun, T. K. (2009). Predictors of career indecision among Malaysian undergraduate students. *European Journal of Social Sciences*, 8(2), 215-224. Retrieved from <http://psasir.upm.edu.my/id/eprint/7024/>
- Tian, H., Cao, C., Chen, W., Bao, S., Yang, B., & Myneni, R. B. (2015). Response of vegetation activity dynamic to climatic change and ecological restoration programs in Inner Mongolia from 2000 to 2012. *Ecological Engineering*, 82(1), 276-289. doi:10.1016/j.ecoleng.2015.04.098
- Vahedi, S., Farrokhi, F., Mahdavi, A., & Moradi, S. (2012). Exploratory and confirmatory factor analysis of the Career Decision-making Difficulties Questionnaire. *Iranian journal of psychiatry*, 7(2), 74-81. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3428641/>
- Vignoli, E. (2015). Career indecision and career exploration among older French adolescents: The specific role of general trait anxiety and future school and career anxiety. *Journal of Vocational Behavior*, 89(1), 182-191. doi: 10.1016/j.jvb.2015.06.005
- Viola, M. M., Musso, P., Ingoglia, S., Lo, C. A., & Inguglia, C. (2017). Relationships between career indecision, search for work self-efficacy, and psychological well-being in Italian never-employed young adults. *Europe's Journal of Psychology*, 13(2), 231-250. doi:10.5964/ejop.v13i2.1277
- Vondracek, F. W., Schulenberg, J., Skorikov, V., Gillespie, L. K., & Wahlheim, C. (1995). The relationship of identity status to career indecision during adolescence. *Journal of Adolescence*, 18(1), 17-29. doi:10.1006/jado.1995.1003

- Willner, T., Gati, I., & Guan, Y. (2015). Career decision-making profiles and career decision-making difficulties: A cross-cultural comparison among US, Israeli, and Chinese samples. *Journal of Vocational Behavior*, 88(1), 143-153. doi:10.1016/j.jvb.2015.03.007
- Wiswall, M., & Zafar, B. (2011). *Determinants of college major choice: Identification using an information experiment*. New York, NY: Federal Reserve Bank of New York.
- Xu, H., & Tracey, T. J. G. (2014). Ambiguity tolerance with career indecision. *Journal of Career Assessment*, 23(4), 519-532. doi:10.1177/1069072714553073
- Yang, N., Yaung, H., Noh, H., Jang, S. H., & Lee, B. (2017). The change of planned happenstance skills and its association with career-related variables during school-to-work transition. *International Journal for Educational and Vocational Guidance*, 17(1), 19-38. doi:10.1007/s10775-016-9332-z
- Yusof, N., & Jamaluddin, Z. (2015). Graduate employability and preparedness: A case study of University of Malaysia Perlis (UNIMAP), Malaysia. *Malaysian Journal of Society and Space*, 11(11), 129-143. Retrieved from <http://ejournal.ukm.my/gmjss/article/view/18909>

Appendices

Appendix A

Questionnaire

Information Sheet

Dear Participants,

You have been asked to participate in the study described as follows. Should you have any questions regarding this study, feel free to direct them to us or our research supervisor. Our details are in this consent form. To participate in this study, you must be a final year student who is currently pursuing Bachelor's Degree at any universities in Malaysia.

The study: You have been asked to participate in this study titled "Career Indecision: Self-efficacy, Decision-making Styles, Planned Happenstance Skills, Perceived Social Support and Culture Dimensions. This study aims to understand career indecision among the Malaysian final year students.

What will happen: Should you decide to participate in this study, you will be asked to answer a questionnaire that measures career indecision, self-efficacy, decision-making styles, planned happenstance skills, perceived social support and culture dimensions. The questionnaire will not take more than one hour of your time.

The risks/discomfort: No risks/minimal risks will be anticipated in this study. However, you may decide to pull out anytime as you will not be held responsible for opting out. If you experience any discomfort in participating in this study, you may terminate your participation. If you find

that your participation in this study has caused you psychological harm, you may contact the UTAR Community Counselling Centre (UCCC) at 05-4658451.

Confidentiality: Your participation in this study is confidential. All your responses will only be known by the researchers, as well as our research supervisor. No one else will know your response and any data released for presentation of the findings in this study will be group data which can in no way identify you as an individual. As such, there is no space for you to note information that can identify you as an individual like your name or student ID number on the materials used in this study.

Decision to terminate participation: If at any time for any reason, you wish to terminate your participation in this study, just inform us. As it is your choice to participate in this study, you may choose to terminate your participation as you see fit. No adverse action can or will be taken against you.

Feedback and Complaints: If you find that you are unhappy with how this study has been carried out, you may discuss your dissatisfaction with Mr. Ho Khee Hoong, the supervisor of this study. His detail is in this consent form.

Contact information: Chong Hoi Yan (ceciyn@utar.my)

Tan Yuik Juin (junetan0121@utar.my)

Research supervisor: Mr. Ho Khee Hoong (hokh@utar.edu.my)

3) I believe that I do not have to choose a career now because time will lead me to the "right" career choice.									
4) It is usually difficult for me to make decisions.									
5) I usually feel that I need confirmation and support for my decisions from a professional person or somebody else I trust.									
6) I am usually afraid of failure.									
7) I like to do things my own way.									
8) I expect that entering the career I choose will also solve my personal problems.									
9) I believe there is only one career that suits me.									
10) I expect that through the career I choose I will fulfill all my aspirations.									
11) I believe that a career choice is a one-time choice and a life-long commitment.									
12) I always do what I am told to do, even if it goes against my own will.									
13) I find it difficult to make a career decision because I do not know what steps I have to take.									
14) I find it difficult to make a career decision because I do not know what factors to take into consideration.									
15) I find it difficult to make a career decision because I don't know how to combine the information I have about myself with the information I have about the different careers.									
16) I find it difficult to make a career decision because I still do not know which occupations interest me.									
17) I find it difficult to make a career decision because I am not sure about my career preferences yet (for example, what kind of a relationship I want with people, which working environment I prefer).									
18) I find it difficult to make a career decision because I do not have enough information about my competencies (for example, numerical ability, verbal skills) and/or about my personality traits (for example, persistence, initiative, patience).									
19) I find it difficult to make a career decision because I do not know what my abilities and/or personality traits will be like in the future.									
20) I find it difficult to make a career decision because I do not have enough information about the variety of occupations or training programs that exist.									

32) I find it difficult to make a career decision because my skills and abilities do not match those required by the occupation I am interested in.								
33) I find it difficult to make a career decision because people who are important to me (such as parents or friends) do not agree with the career options I am considering and/or the career characteristics I desire.								
34) I find it difficult to make a career decision because there are contradictions between the recommendations made by different people who are important to me about the career that suits me or about what career characteristics should guide my decisions.								

Section C: General Self-efficacy

Select the option that best describes your opinion in the statements below.

	1 Not At All True	2 Hardly True	3 Moderately True	4 Exactly True
(1) I can always manage to solve difficult problems if I try hard enough.				
(2) If someone opposes me, I can find the means and ways to get what I want.				
(3) It is easy for me to stick to my aims and accomplish my goals.				
(4) I am confident that I could deal efficiently with unexpected events.				
(5) Thanks to my resourcefulness, I know how to handle unforeseen situations.				
(6) I can solve most problems if I invest the necessary effort.				
(7) I can remain calm when facing difficulties because I can rely on my coping abilities.				
(8) When I am confronted with a problem, I can usually find several solutions.				
(9) If I am in trouble, I can usually think of a solution.				

(10) I can usually handle whatever comes my way.				
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Section D: General Decision-making Styles

There is no right or wrong answers. Your response will reflect your own perception of how you feel or act at work. Do not spend too much time on statement; generally, your first reaction is the most accurate:

	1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree or Disagree	4 Somewhat Agree	5 Strongly Agree
(1) When I make decisions, I tend to rely on my intuition.					
(2) I rarely make important decisions without consulting other people.					
(3) When I make a decision, it is more important for me to feel the decision is right than to have a rational reason for it.					
(4) I double-check my information sources to be sure I have the right facts before making decisions.					
(5) I use the advice of other people in making my important decisions.					
(6) I put off making decisions because thinking about them makes me uneasy.					
(7) I make decisions in a logical and systematic way.					
(8) When making decisions I do what seems natural at the moment.					
(9) I generally make snap decisions.					
(10) I like to have someone steer me in the right direction when I am faced with important decisions.					
(11) My decision-making requires careful thought.					

(12) When making a decision, I trust my inner feelings and reactions.					
(13) When making a decision, I consider various options in terms of a specified goal.					
(14) I avoid making important decisions until the pressure is on.					
(15) I often make impulsive decisions.					
(16) When making decisions, I rely upon my instincts.					
(17) I generally make decisions that feel right to me.					
(18) I often need the assistance of other people when making important decisions.					
(19) I postpone decision making whenever possible.					
(20) I often make decisions on the spur of the moment.					
(21) I often put off making important decisions.					
(22) If I have the support of others, it is easier for me to make important decisions.					
(23) I generally make important decisions at the last minute.					
(24) I make quick decisions.					
(25) I usually have a rational basis for making decisions.					

Section E: Planned Happenstance Career Skills

Please indicate how much you agree or disagree with each of the following statements:

	1 Totally Disagree	2 Somewhat Disagree	3 Neither Agree or Disagree	4 Somewhat Agree	5 Totally Agree
(1) My future career is bright.					

(2) I have a positive view of my future career.					
(3) I think my future is full of possibilities.					
(4) There will be many career opportunities in my future.					
(5) Even if my career does not go as planned, it will be successful.					
(6) I think that my career could change at any point in my life.					
(7) I think that careers can change at any time.					
(8) I am flexible about considering multiple options rather than pursuing only one career path.					
(9) I am willing to consider changing my career path based on what happens to me.					
(10) I tend to be flexible in how I make career decisions.					
(11) I will go my way with persistence even if I encounter unexpected difficulties in exploring careers.					
(12) While exploring careers, I would persist in my activities even if I experienced difficulties.					
(13) I would persist in my efforts despite any unexpected barriers.					
(14) I would persistently carry out my career plans despite unexpected difficulties.					
(15) I try to pursue my career with patience even if I face unexpected difficulties.					
(16) I am interested in what happens around me.					
(17) I am intrigued by the idea of an occasional opportunity leading to a whole new experience.					
(18) I tend to be curious about unexpected events.					
(19) I am interested in new activities that might be helpful in making career decisions.					

(20) When I come across new job information, I research this with curiosity.					
(21) I will pursue the career path I have chosen even if the outcomes are not guaranteed.					
(22) I am ready to take risks to a certain extent in pursuing my career.					
(23) Even though there may be no guarantee of job success, I would still take on challenges.					
(24) I am willing to take risks despite the consequences being uncertain.					
(25) I am willing to meet the challenge of trying new things that could lead to better career choices, despite any potential risks.					

Appendix B

Krejcie and Morgan's Sample Size Table

Table 3.1									
<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

Appendix C

Demographic Information of Participants

Demographic Information of Participants (N = 380)

	<i>n</i>	<i>%</i>	<i>M</i>	<i>SD</i>	Min	Max
State of University						
Johor	1	.3				
Kedah	1	.3				
Kelantan	2	.5				
Melaka	2	.5				
Pahang	1	.3				
Penang	23	6.1				
Perak	291	76.6				
Perlis	1	.3				
Putrajaya	1	.3				
Sabah	3	.8				
Sarawak	9	2.4				
Selangor	30	7.9				
Wilayah Persekutuan	15	3.9				

Note. *n* = number of cases; *%* = percentage; *M* = mean; *SD* = standard deviation; Min = minimum value; Max = maximum value. Sample of 380 respondents are from different universities in Malaysia.

Appendix D

Shapiro-Wilk Normality Test Table

Shapiro-Wilk Normality Test Table

	Statistic	<i>df</i>	<i>p</i>
Career indecision	.988	380	.004
General self-efficacy	.990	380	.010
Intuitive decision making style	.966	380	.000
Dependent decision making style	.980	380	.000
Rational decision making style	.973	380	.000
Spontaneous decision making style	.986	380	.001
Avoidant decision making style	.986	380	.001
Optimism planned happenstance skills	.974	380	.000
Flexibility planned happenstance skills	.964	380	.000
Persistence planned happenstance skills	.966	380	.000
Curiosity planned happenstance skills	.966	380	.000
Risk taking planned happenstance skills	.966	380	.000

Note. *df* = degrees of freedom; *p* = significant value.

Appendix E

Scatterplots

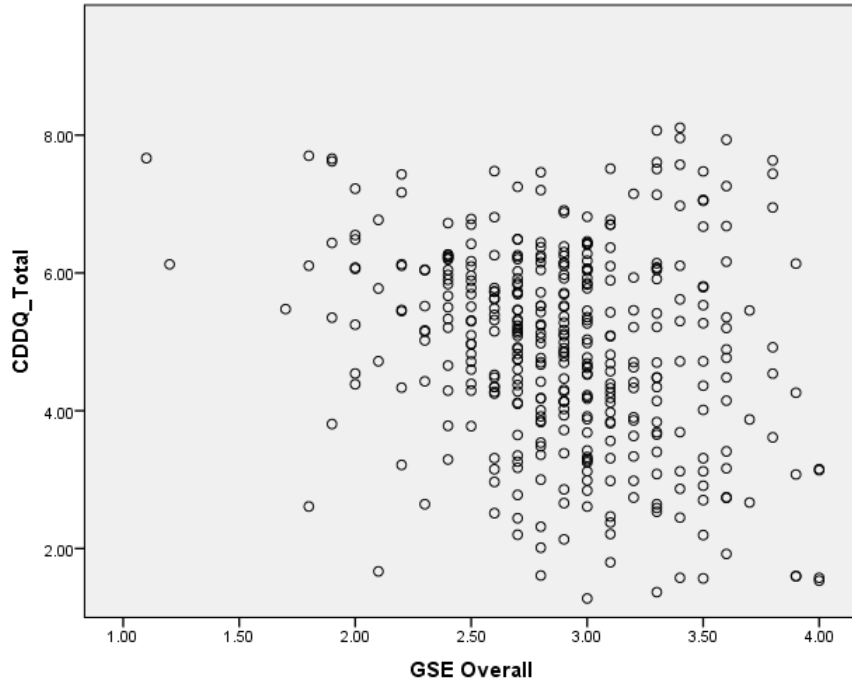


Figure 1. Scatterplot for career indecision and general self-efficacy.

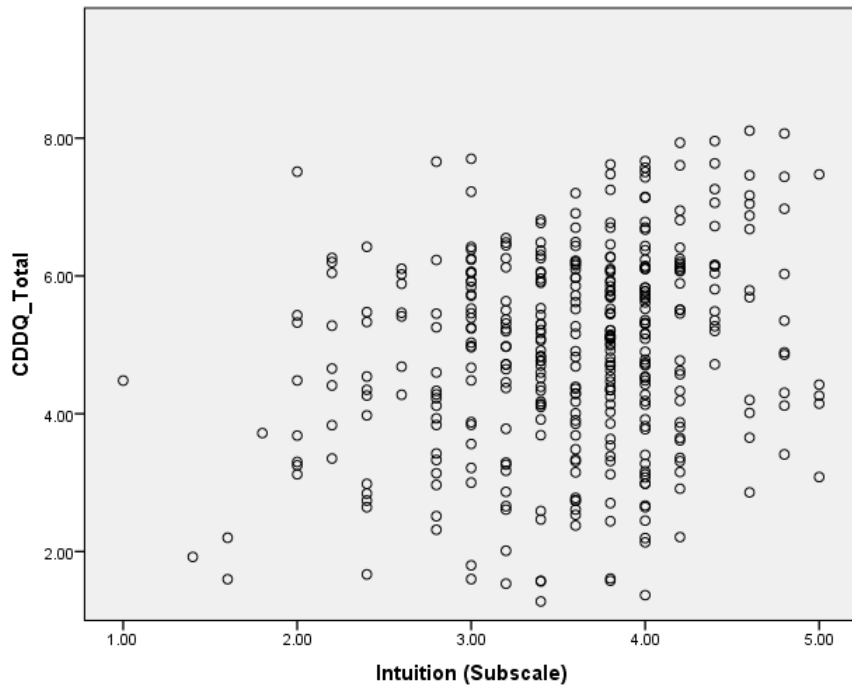


Figure 2. Scatterplot for career indecision and intuition decision making style.

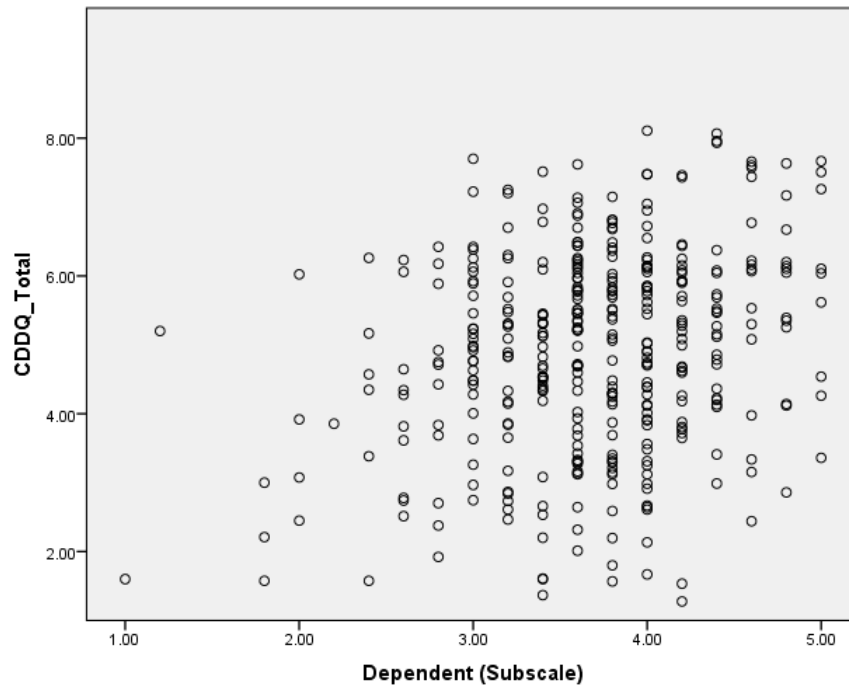


Figure 3. Scatterplot for career indecision and dependent decision making style.

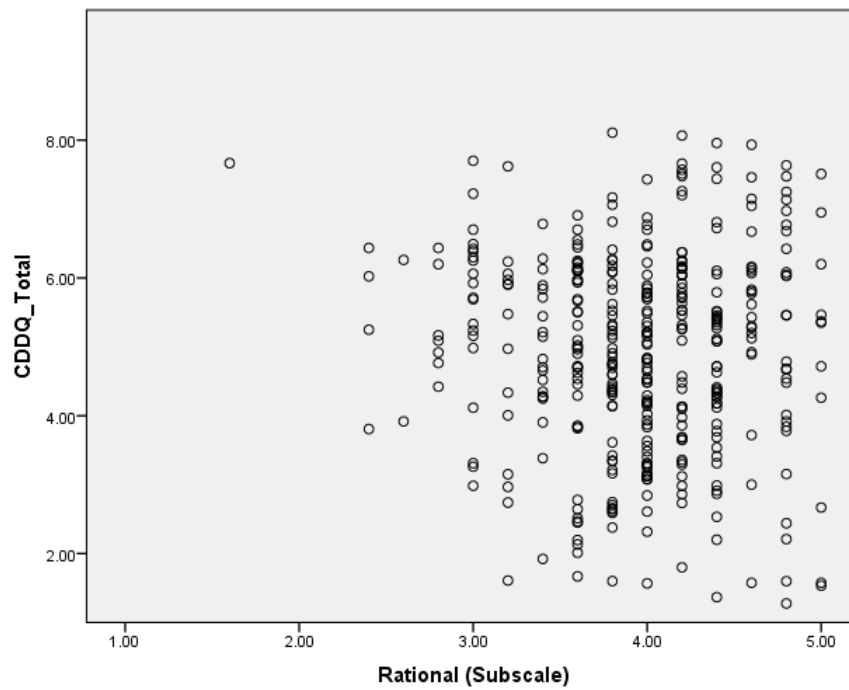


Figure 4. Scatterplot for career indecision and rational decision making style.

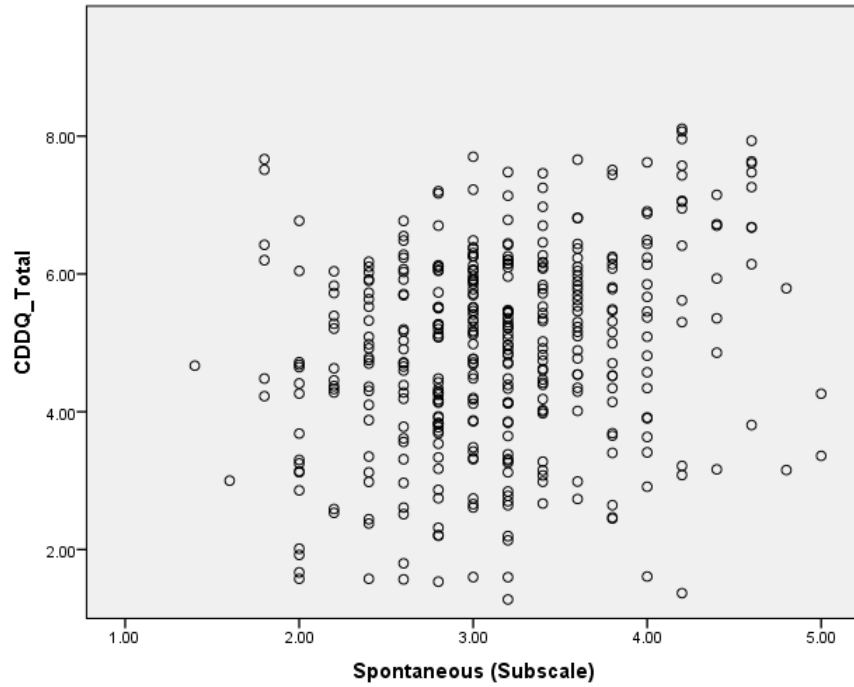


Figure 5. Scatterplot for career indecision and spontaneous decision making style.

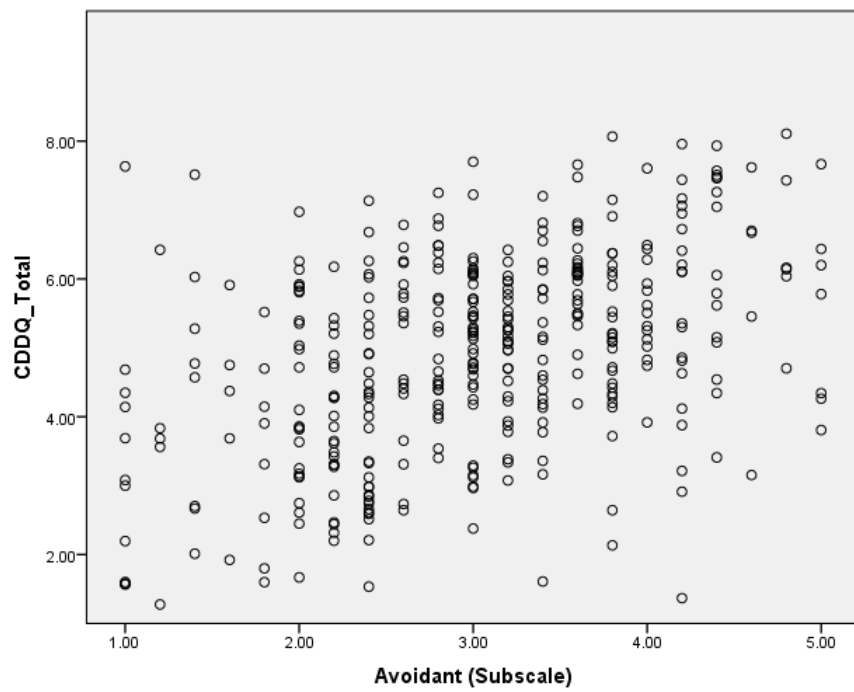


Figure 6. Scatterplot for career indecision and avoidant decision making style.

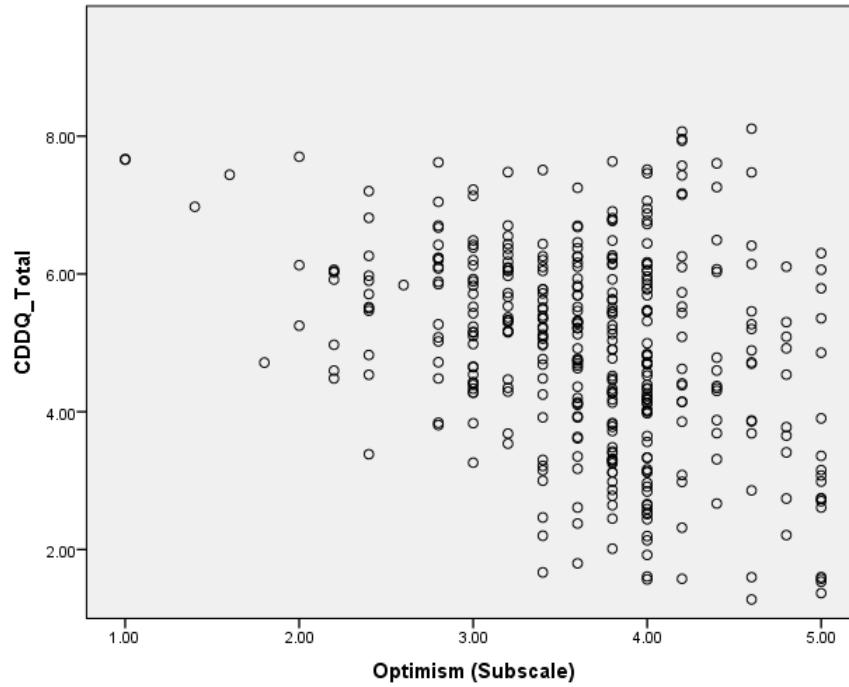


Figure 7. Scatterplot for career indecision and optimism planned happenstance.

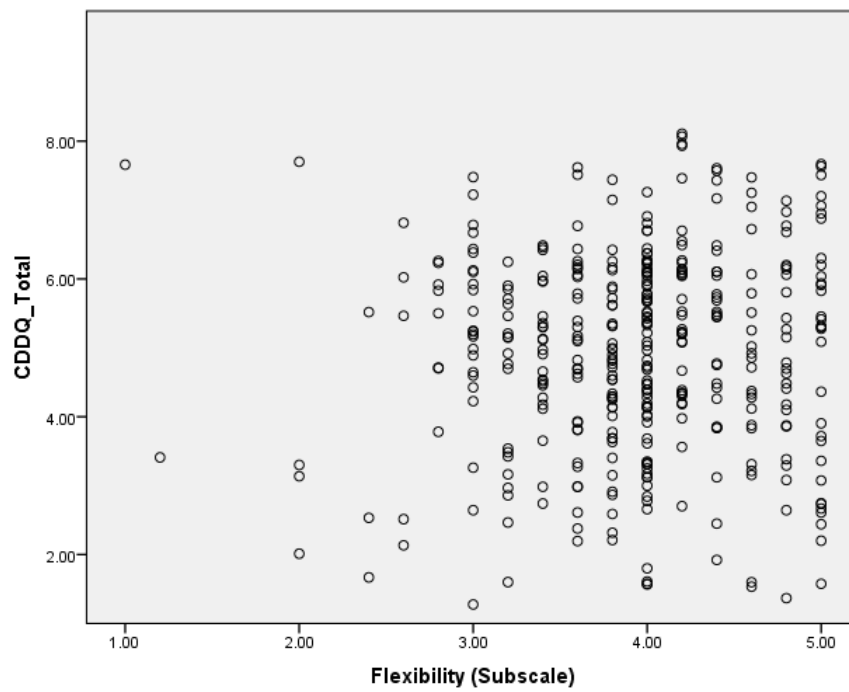


Figure 8. Scatterplot for career indecision and flexibility planned happenstance.

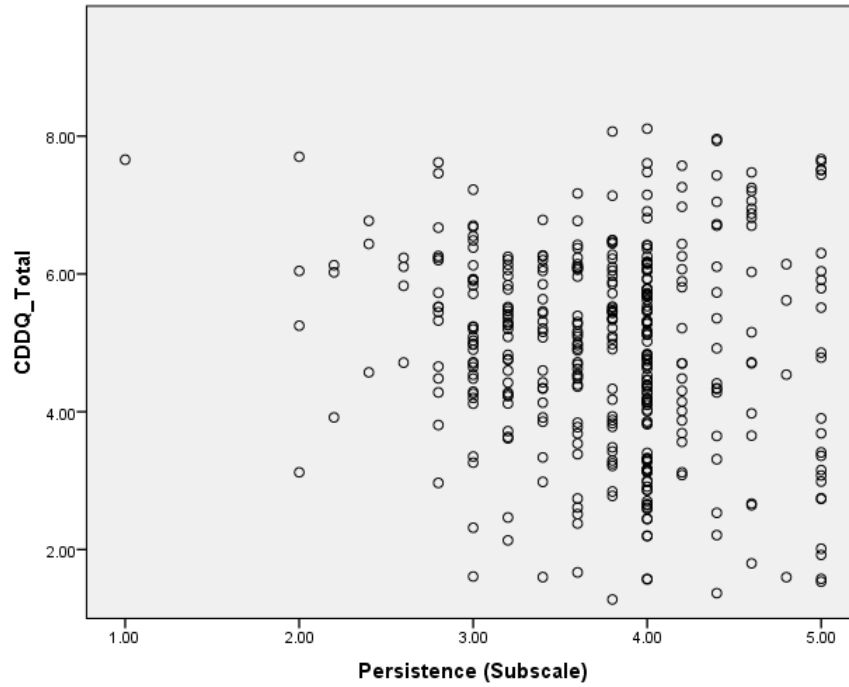


Figure 9. Scatterplot for career indecision and persistence planned happenstance.

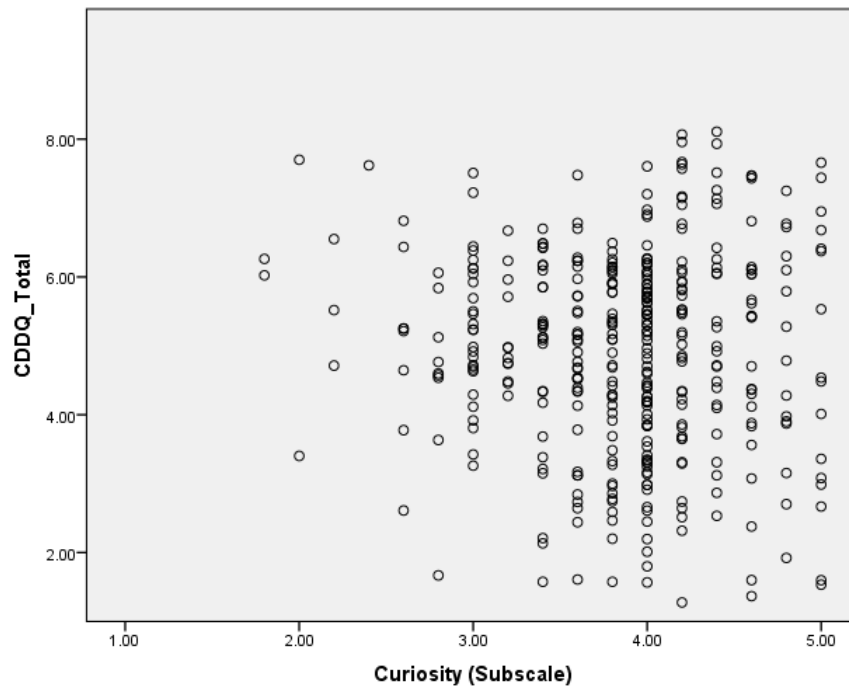


Figure 10. Scatterplot for career indecision and curiosity planned happenstance.

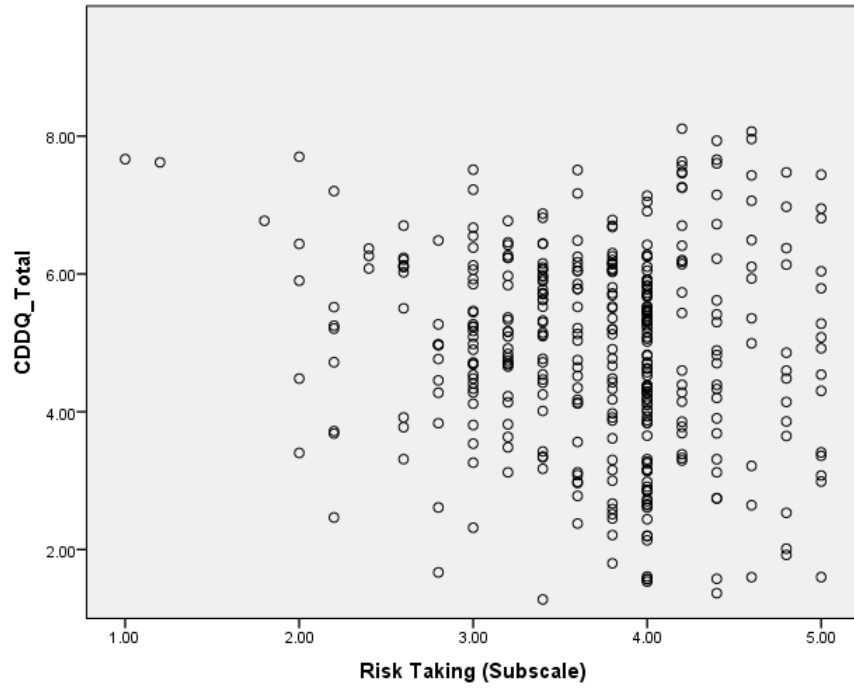


Figure 11. Scatterplot for career indecision and risk-taking planned happenstance.

Appendix F

Boxplots

Extreme outliers detected through Boxplot for actual study

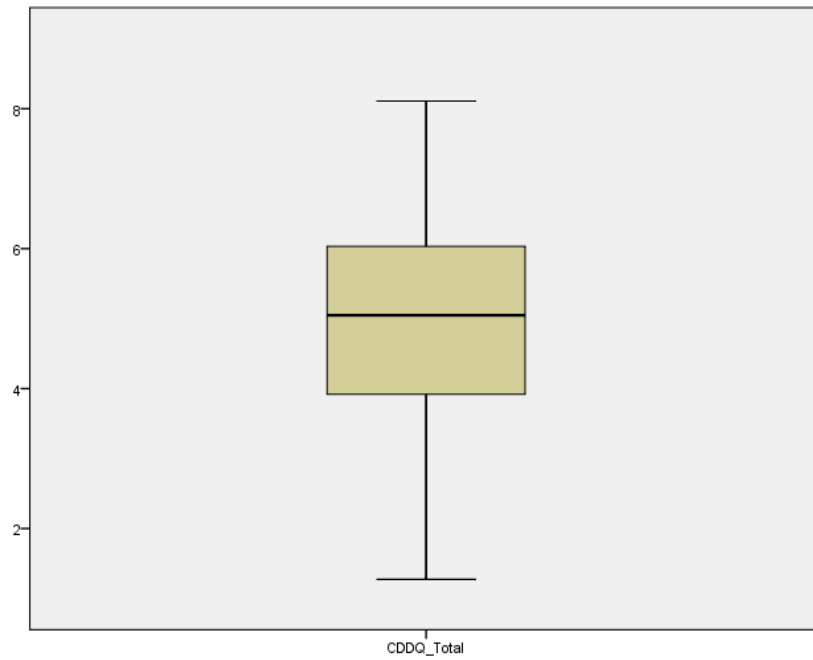


Figure 1. First round of outliers detected for Career Indecision (CDDQ) during actual study.

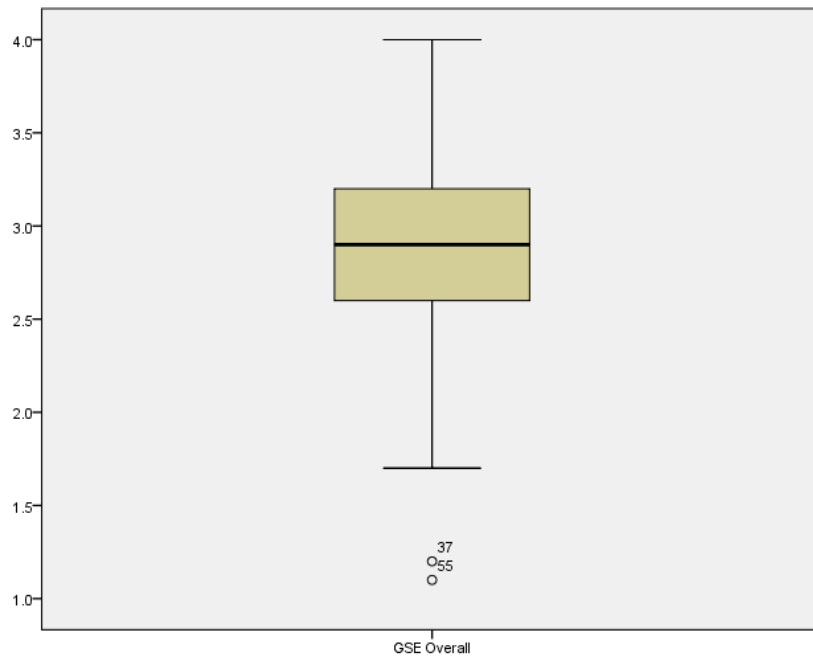


Figure 2. First round of outliers detected for General Self-Efficacy (GSE) during actual study.

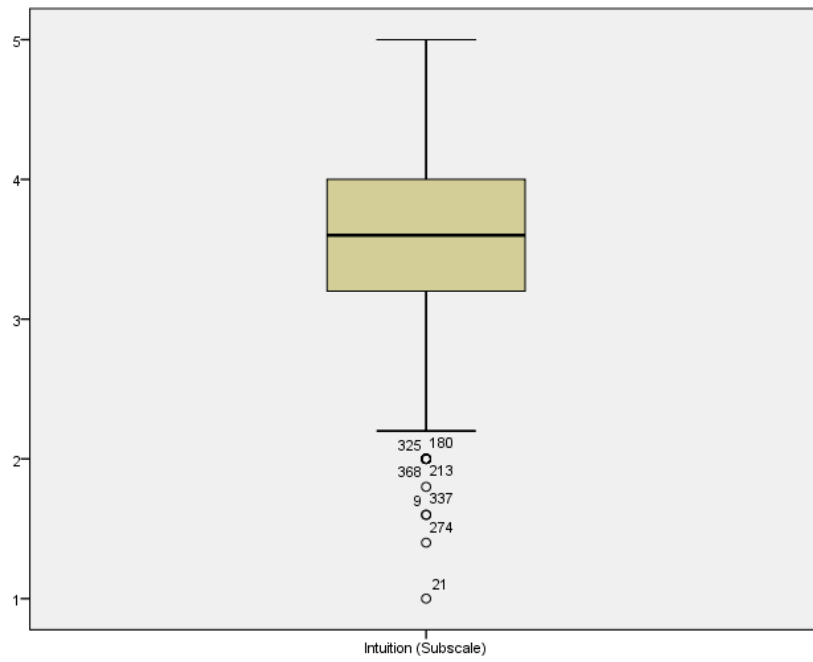


Figure 3. First round of outliers detected for Intuitive Decision Making Style during actual study.

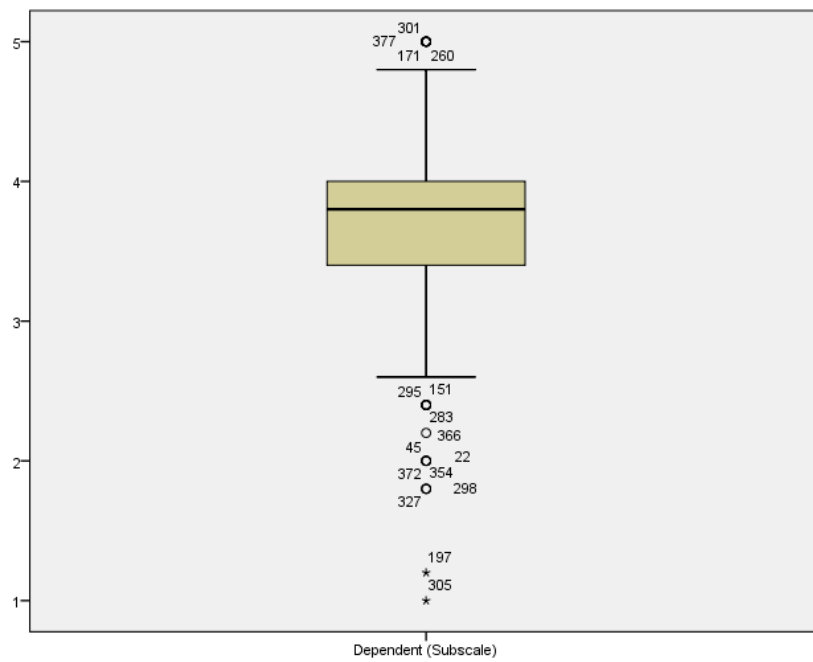


Figure 4. First round of outliers detected for Dependent Decision Making Style during actual study.

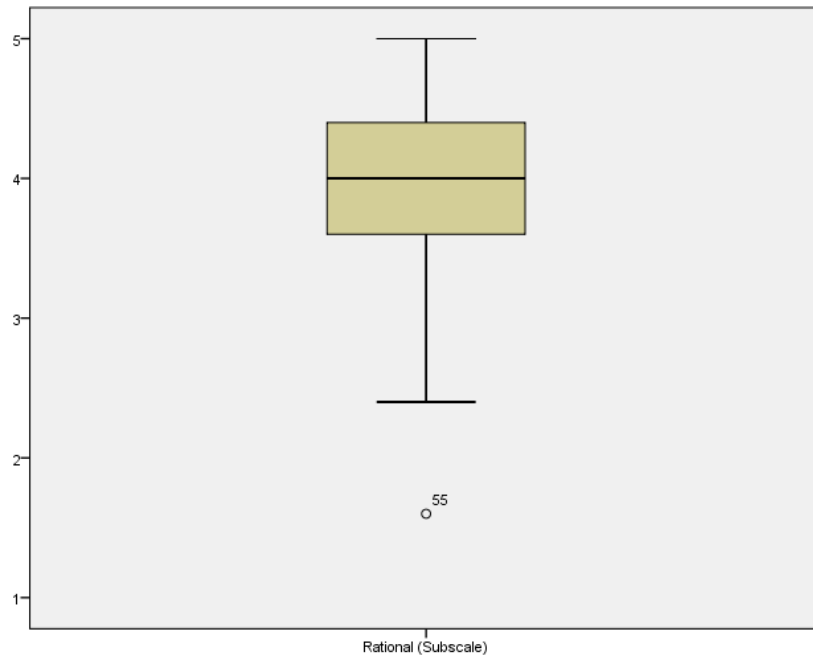


Figure 5. First round of outliers detected for Rational Decision Making Style during actual study.

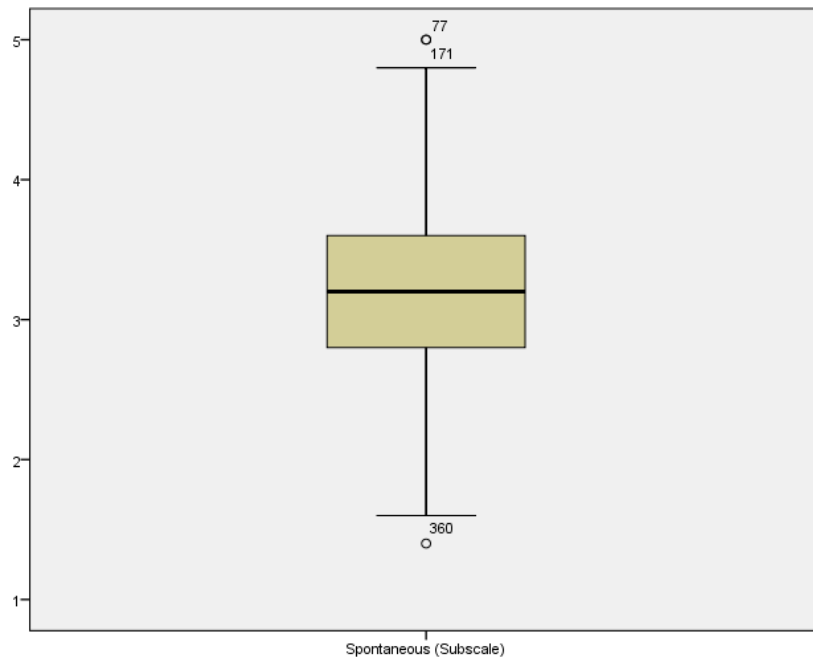


Figure 6. First round of outliers detected for Spontaneous Decision Making Style during actual study.

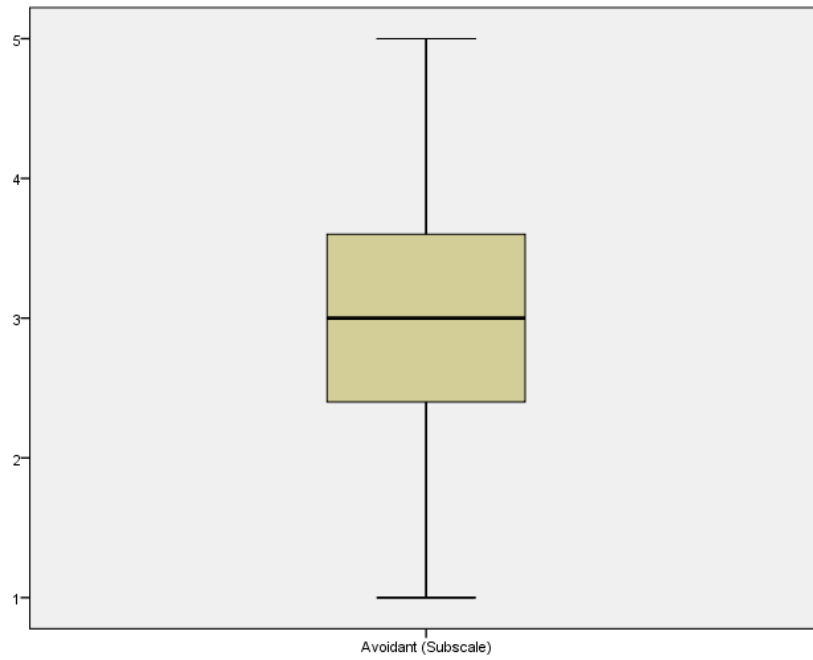


Figure 7. First round of outliers detected for Avoidant Decision Making Style during actual study.

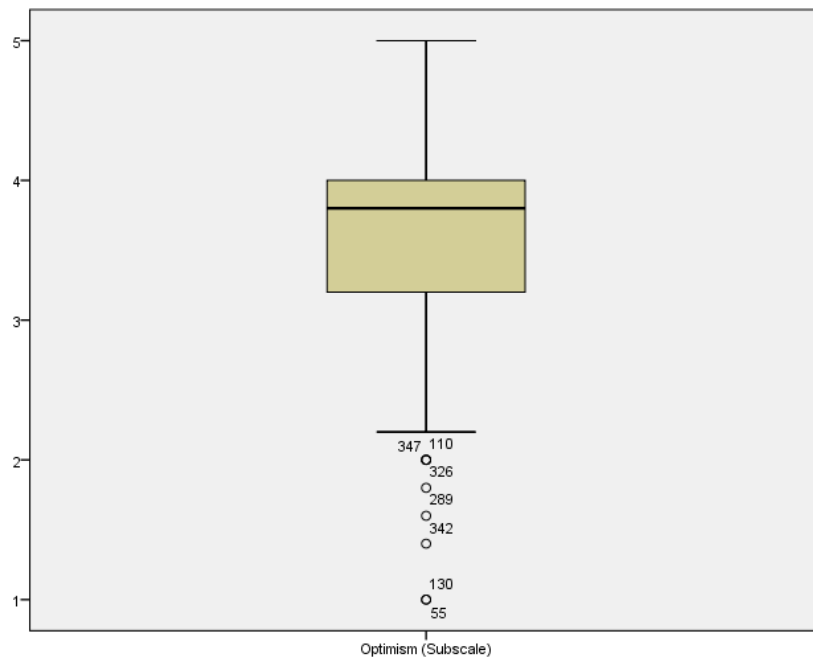


Figure 8. First round of outliers detected for Optimism Planned Happenstance Skills during actual study.

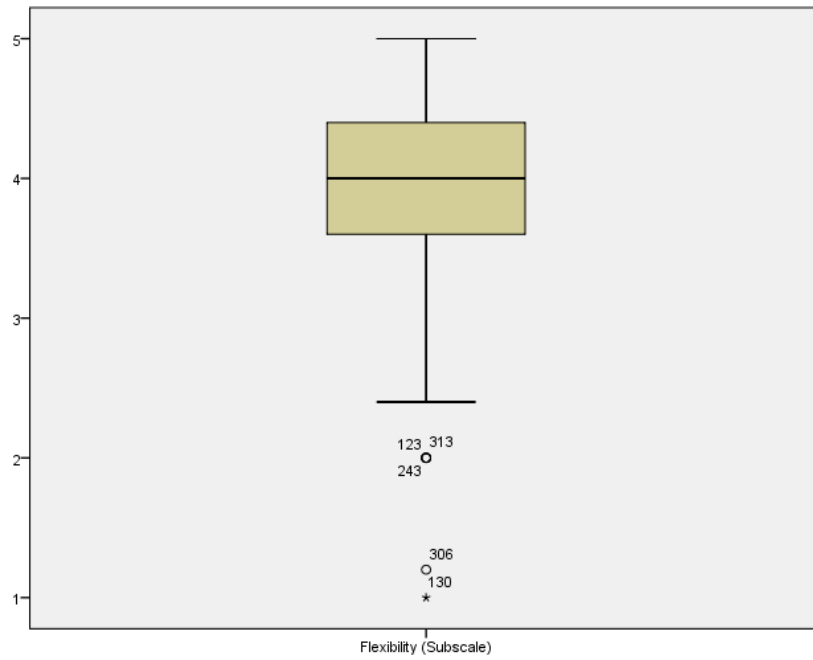


Figure 9. First round of outliers detected for Flexibility Planned Happenstance Skills during actual study.

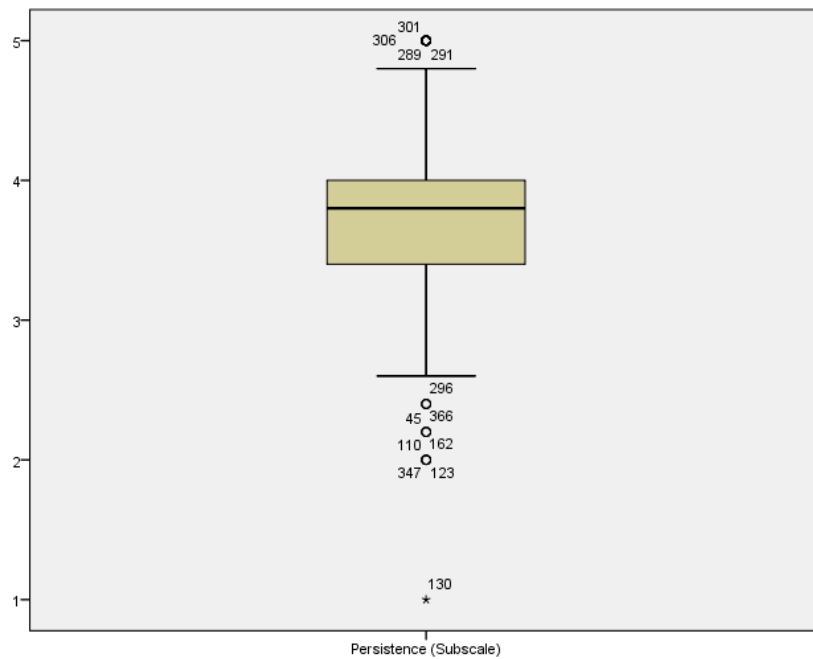


Figure 10. First round of outliers detected for Persistence Planned Happenstance Skills during actual study.

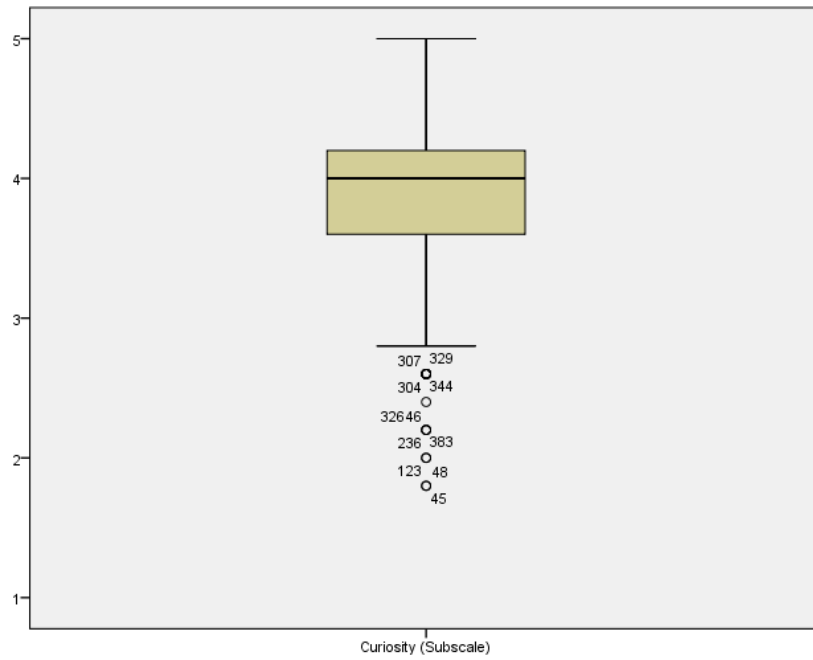


Figure 11. First round of outliers detected for Curiosity Planned Happenstance Skills during actual study.

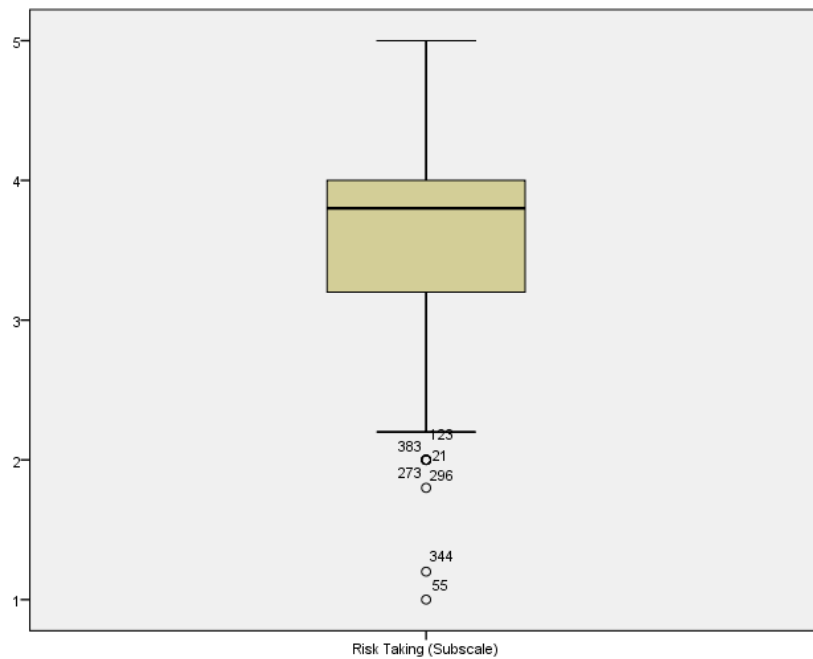


Figure 12. First round of outliers detected for Risk Taking Planned Happenstance Skills during actual study.

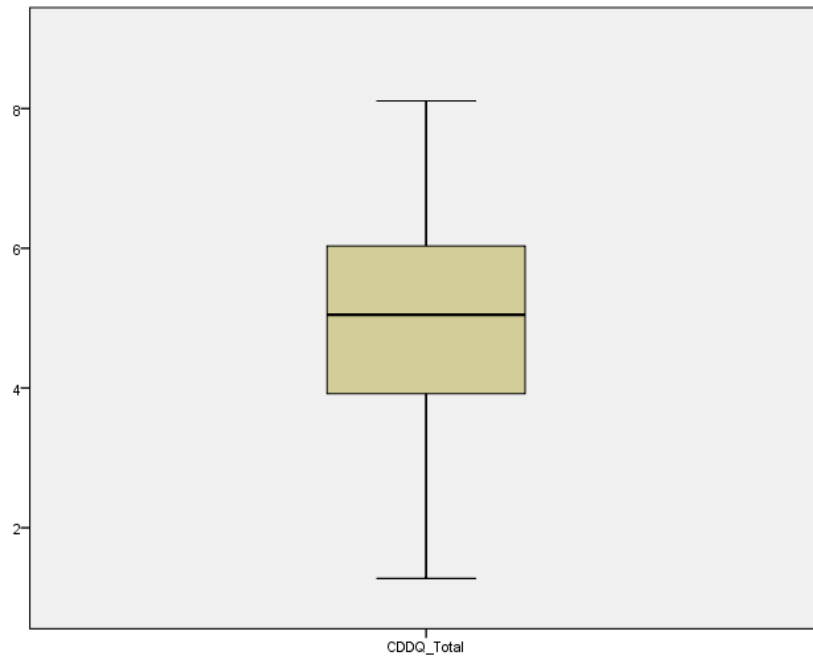


Figure 13. Second round of outliers detected for Career Indecision (CDDQ) during actual study.

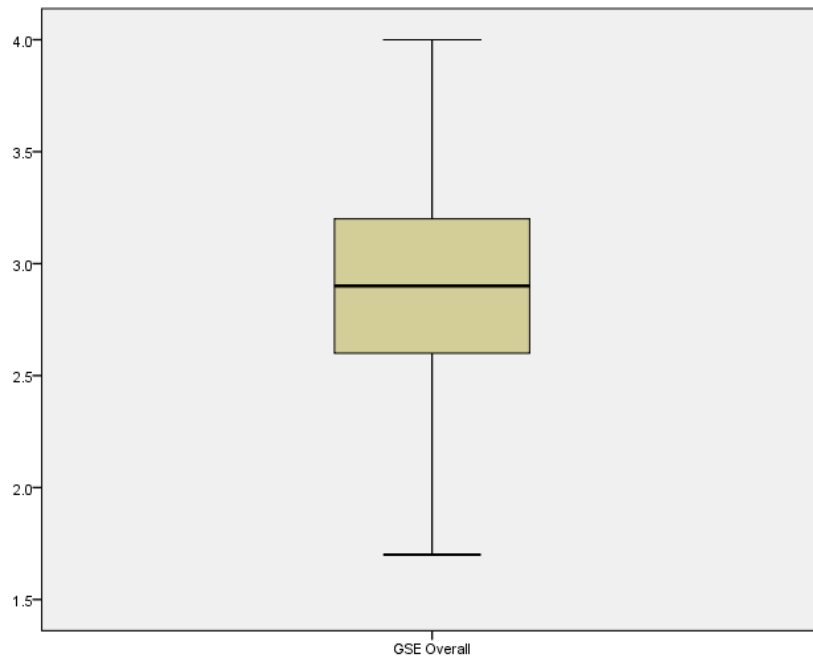


Figure 14. Second round of outliers detected for General Self-Efficacy (GSE) during actual study.

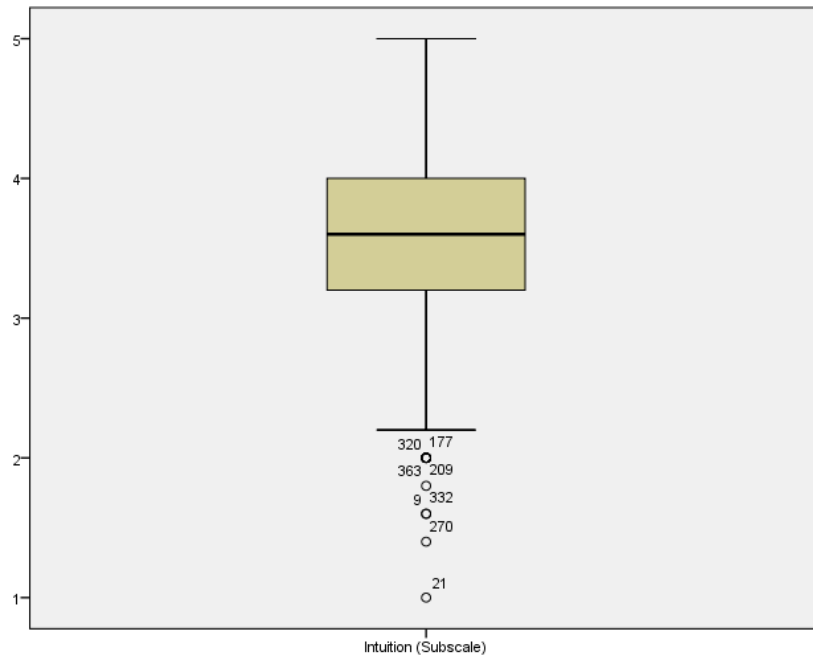


Figure 15. Second round of outliers detected for Intuitive General Decision Making Style during actual study.

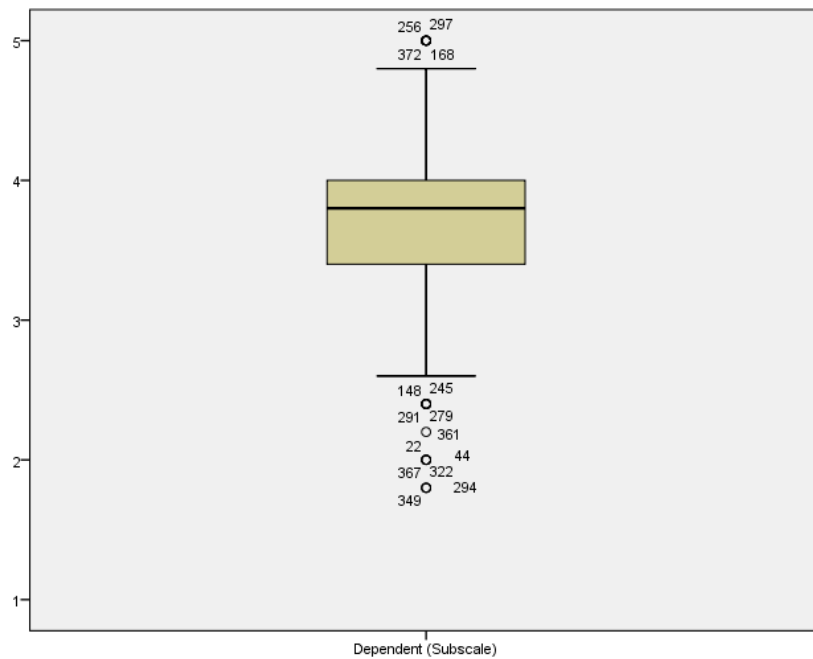


Figure 16. Second round of outliers detected for Dependent Decision Making Style during actual study.

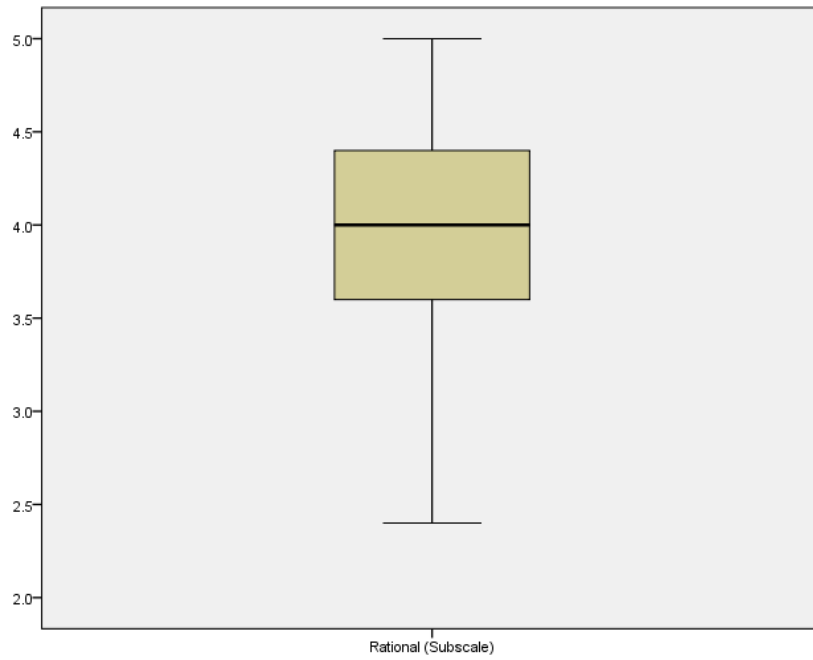


Figure 16. Second round of outliers detected for Rational Decision Making Style during actual study.

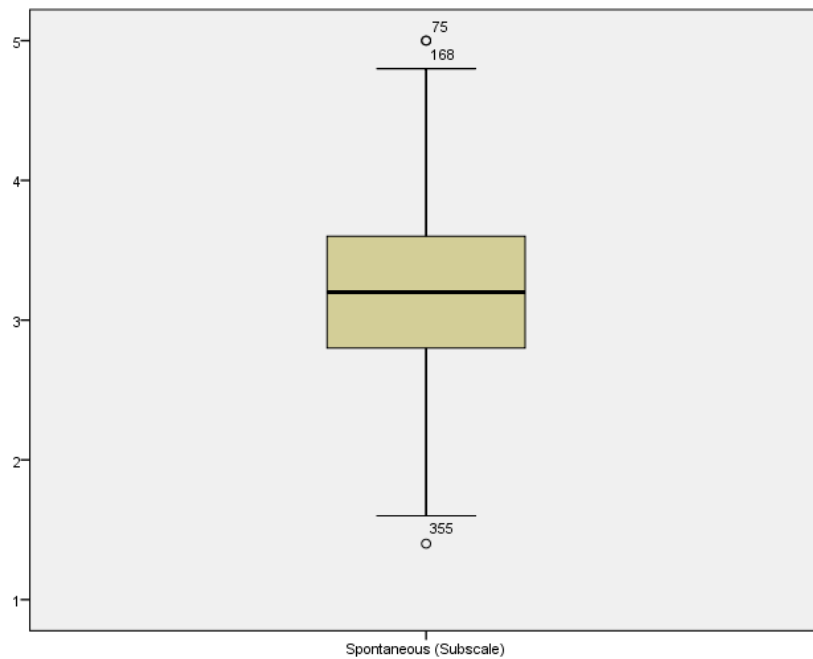


Figure 17. Second round of outliers detected for Spontaneous Decision Making Style during actual study.

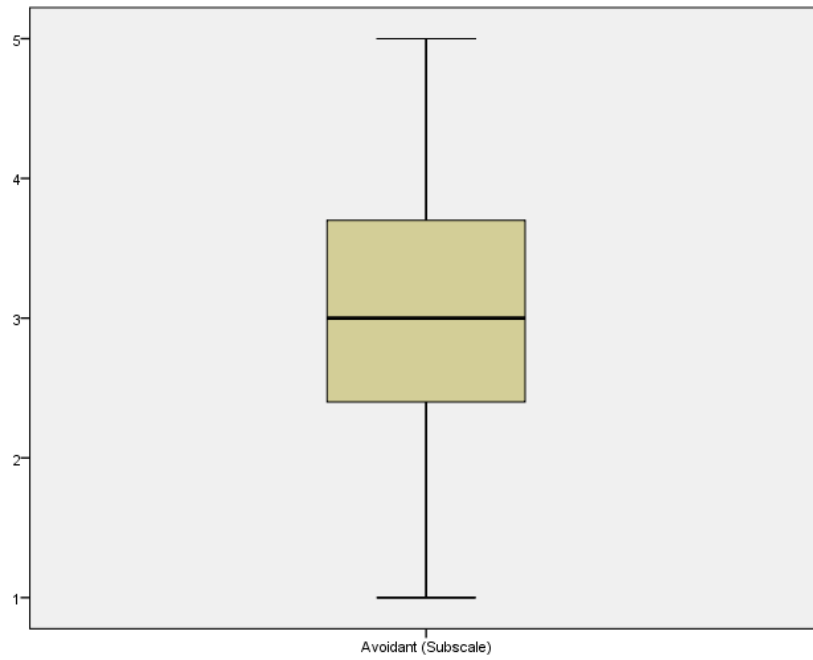


Figure 18. Second round of outliers detected for Avoidant Decision Making Style during actual study.

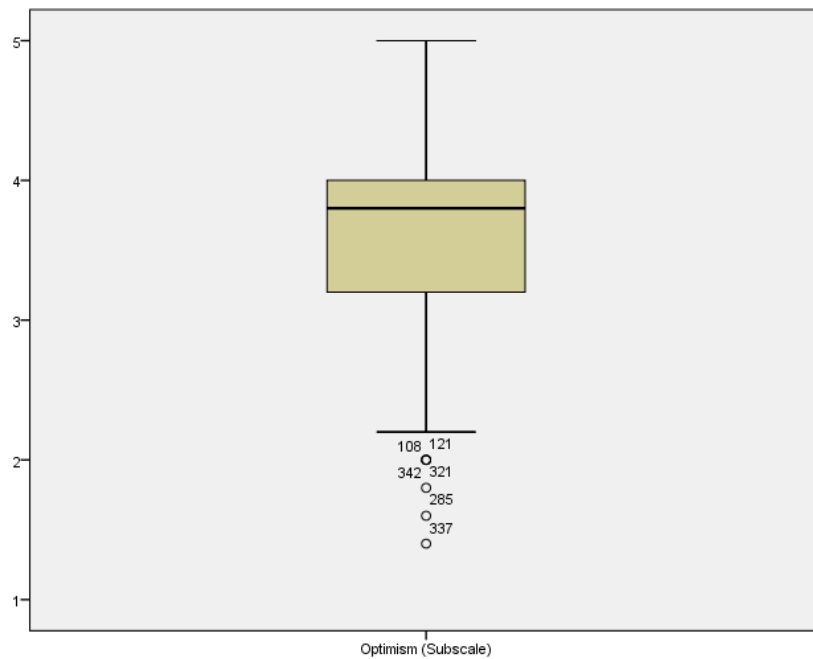


Figure 19. Second round of outliers detected for Optimism Planned Happenstance Skills during actual study.

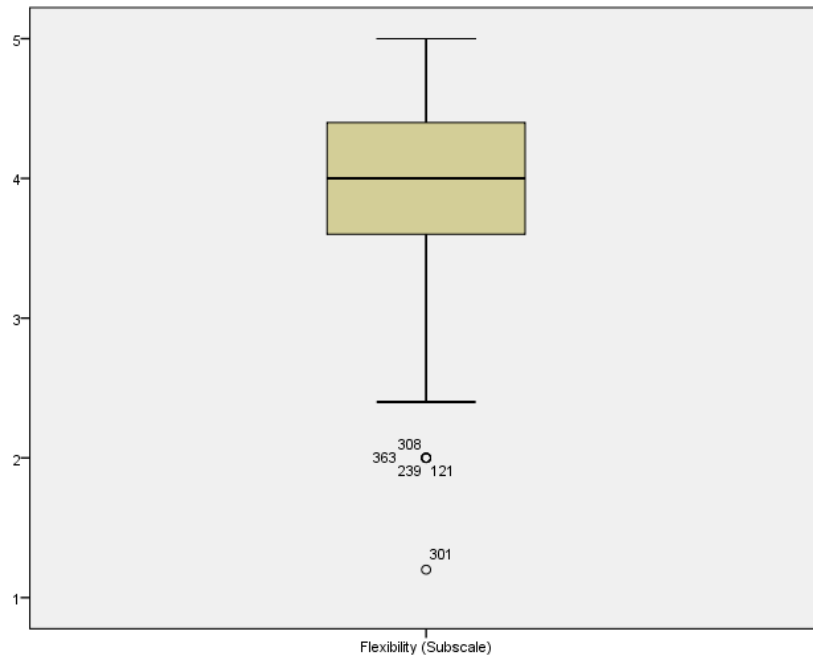


Figure 19. Second round of outliers detected for Flexibility Planned Happenstance Skills during actual study.

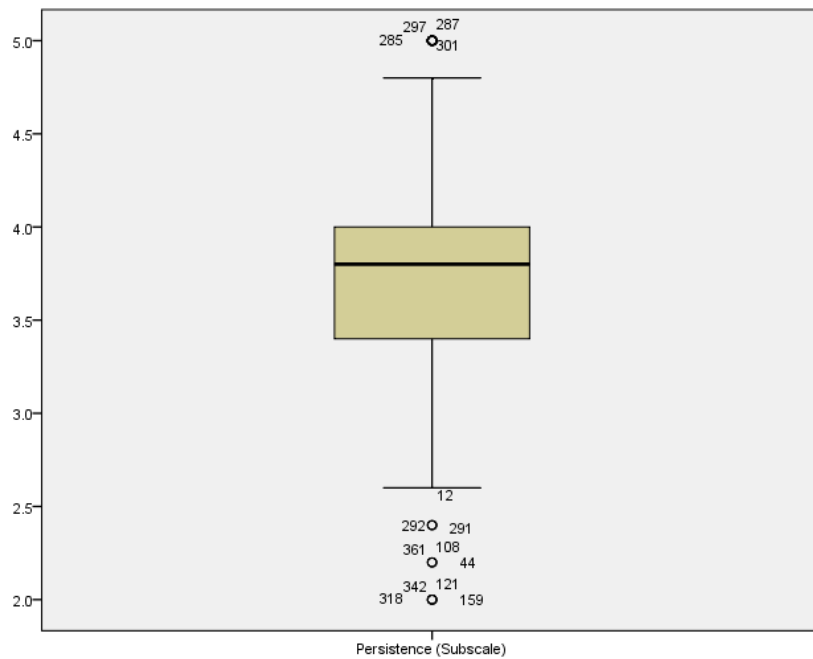


Figure 20. Second round of outliers detected for Persistence Planned Happenstance Skills during actual study.

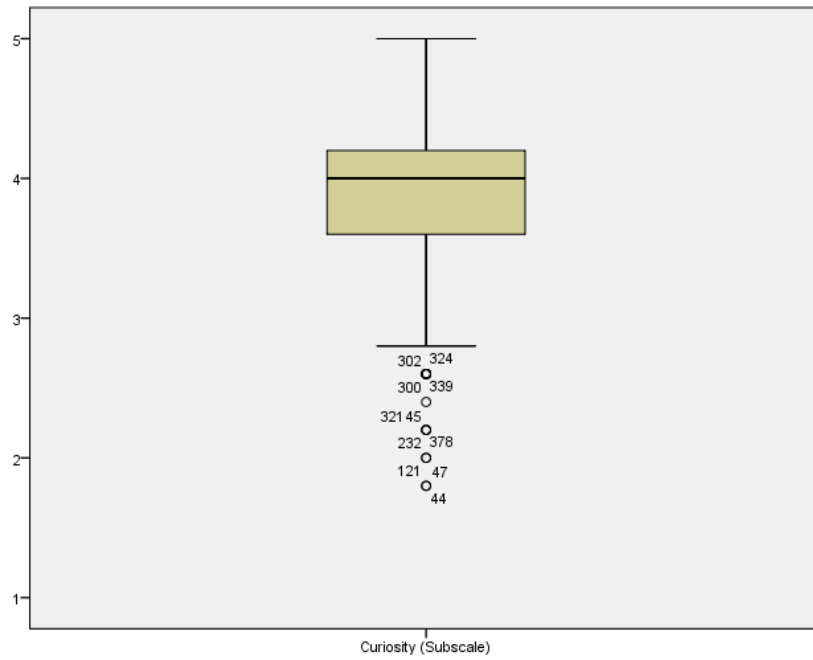


Figure 21. Second round of outliers detected for Curiosity Planned Happenstance Skills during actual study.

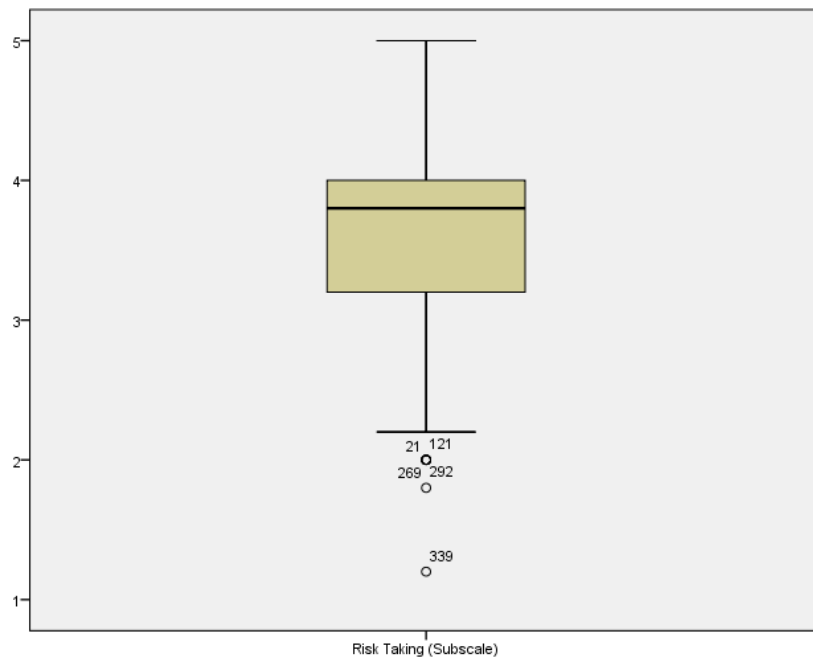


Figure 22. Second round of outliers detected for Risk Taking Planned Happenstance Skills during actual study.

Appendix G



UNIVERSITI TUNKU ABDUL RAHMAN

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Re: U/SERC/112/2019

22 July 2019

Dr Chie Qiu Ting
 Head, Department of Psychology and Counselling
 Faculty of Arts and Social Science
 Universiti Tunku Abdul
 Rahman Jalan Universiti,
 Bandar Baru Barat 31900
 Kampar, Perak.

Dear Dr Chie,

Ethical Approval For Research Project/Protocol

We refer to the application for ethical approval for your students' research projects from Bachelor of Social Science (Hons) Psychology programme enrolled in course UAPZ3023. We are pleased to inform you that the application has been approved under expedited review.

The details of the research projects are as follows:

	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Career Indecision Among Malaysian Final Year Undergraduate Students: Self-Efficacy, Decision Making Styles, Planned Happenstance	1. Chong Hoi Yan 2. Russell Tan Tzen Qian	Mr Ho Khee Hoong	22 July 2019 – 21 July 2020

The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research;
- (2) Confidentiality of participants' personal data must be maintained; and
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

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Should the students collect personal data of participants in their studies, please have the participants sign the attached Personal Data Protection Statement for records.

Thank you.

Yours sincerely,

Professor Ts Dr Faidz bin Abd Rahman

Chairman

UTAR Scientific and Ethical Review Committee

c.c Dean, Faculty of Arts and Social Science
 Director, Institute of Postgraduate Studies and Research

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