

SELF-EFFICACY AND ACADEMIC SUCCESS
AMONG IIUM CFS STUDENTS IN GOMBAK CAMPUS

BY

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Abstract

This article reports on a study undertaken to explore the state of IIUM CFS students' self-efficacy and academic success. A hundred Centre for Foundation Studies (CFS) students were chosen from the International Islamic University Malaysia (IIUM) in Gombak. Participants were asked to answer an online survey that consisted of 10 questions of self-efficacy and 38 questions of academic success. Data were collected by distributing the online questionnaire. Descriptive statistics, independent-samples t-tests and bivariate correlation were employed to analyze the data. Results show a moderate level of self-efficacy among IIUM CFS students. The gender differences indicate that there is no significant difference between gender and the level of self-efficacy, although there is a significant relationship between gender and academic success with the male students having a slightly higher level than the female students. A significant positive correlation was discovered between self-efficacy and academic success. It can thus be concluded that self-efficacy plays a role in predicting the academic success of students.

Keywords: relationship, self-efficacy, academic success, IIUM, Gombak

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CHAPTER ONE

INTRODUCTION

BACKGROUND

Across the nation, there tend to be more incoming first-year college students than ever in history (National Center for Education Statistics, 2012). The result is an increase in classroom size and a tendency to favor large lecture hall classes. While lectures have the advantage of teaching many students at once, little of the material becomes encoded in memory or is recorded in the students' notes (Weaver & Qi, 2005). In the traditional classroom setting, this creates a dual-edged problem. Instructors are forced to teach and manage larger classes while trying to keep students engaged as well. In larger lecture halls students seem more likely to hide in class and are less likely to participate (Weaver & Qi, 2005). Still there will be the handful of students that make the effort to engage in discussions (Weaver & Qi, 2005). This problem is not unique to traditional classrooms. Even in blended learning courses (combination of online and traditional instruction) students can become less motivated to engage in a course because of reduced in-person interaction with the instructor and peers (Welker & Berardino, 2006), technical difficulty (Sitzmann, Ely, Bell, & Bauer, 2010), and lack of skills needed to be successful for learning online (Stine, 2004; Welker & Berardino, 2006).

Why do some students participate and some do not? Previous studies show that students have personal feelings of inadequacy in front of others and thus choose not to participate (Weaver & Qi, 2005). These feelings of inadequacy were labeled as a lack of confidence in previous studies (Weaver & Qi, 2005) and may be due to the external influences of fear of peer disapproval and instructors' criticisms of their abilities (Weaver & Qi, 2005). However, what is

less clear is if students' confidence is internally affected by how students' perceive their own abilities. Using Bandura's (1986) social-cognitive theory as a base, student's academic self-efficacy was measured in this study.

The construct of self-efficacy is fluid. Over the course of the semester, academic self-efficacy can change and these shifts predict exam performance and class participation at the end of class (Galyon, Blondin, Yaw, Nalls, & Williams, 2012). This change may be what accounts for better participation and exam scores. Thus, change in academic self-efficacy was measured to see if changes predicted student engagement and academic outcomes in a different sample.

Albert Bandura defines self-efficacy as the beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments (1997, p.3) (as cited in Lampert, 2007). More generally, self-efficacy is how confident people believe they are, or how much control they believe they have in their ability to reach a goal or accomplish a task (Bandura, 2004). This sense of control is of fundamental importance in everyday life because theoretically, people who lack of control in their lives to produce a desired effect are individuals who will have little incentive to put forth any effort towards achievement (Bandura, 2004). In the academic context, children's beliefs in their personal efficacy to control their own educational processes and outcomes, and to become proficient in challenging subject matter, likely has a great impact on their scholastic impetus, interest, and achievement (Lampert, 2007).

Such a theory would predict that children with high levels of efficacy are generally higher achievers than those who have lower levels of efficacy (Bandura, 2004). Indeed, high efficacy levels are robust predictors of academic achievement, positive social relationships and prosocial behaviors (Bandura, 2004). Children's efficacy beliefs begin to influence future objectives at an early age (Bandura, 2004). Essentially, the higher a child's efficacy level, the more career

options he or she will consider later in life, and the better he or she will prepare scholastically for overall success (Bandura, 2004). This may be generalized to other populations such as college students and adults to mean that the higher one's level of efficacy, the more overall success and opportunity he or she is likely to experience in life (Bandura, 2004).

Researchers revealed that positive academic outcomes are related to student engagement as well as academic self-efficacy (Bresó, Schaufeli, & Salanova, 2011; Choi, 2005; Galyon, et al., 2012). However, there is not a clear indication of it if these three variables are interrelated and if so, how? By using the model of self-efficacy by Bandura (1997) provided by social cognitive theory, researchers can empirically examine (MacKinnon, 2008) if students' engagement mediates or moderates the relationship between self-efficacy and academic outcomes. Based on this idea, it invites the researcher to investigate students' self-efficacy and their academic success among pre-university students. Since there is a lack of study regarding to self-efficacy among pre-university students at International Islamic University Malaysia, therefore the researcher intends to examine their self-efficacy and academic success as the focus area.

STATEMENT OF THE PROBLEM

Adolescents' lack of belief in ability to succeed in specific situations or accomplish a task is a growing concern for both educators and parents. They believe they are responsible for learning outcomes as it is an important consideration and component in student success (Peterson, Rubie-Davies, Elley-Brown, Widdowson, Dixon, Robyn., Irving, 2011). It is likely to affect young people's behavior and motivation, and ultimately their development of academic skills, expertise and competence (Peterson, et al., 2011). However, some parents point finger of blaming on educators when their children do not perform well in academic result as educators

who know what happen in children at school life (Moswela, 2014). Sometimes, teachers blame parents because of their less involvement in students' learning (Moswela, 2014). Besides, parents put high expectation on help and assistance to their children rather on teaching competence and fairness (Tatar, & Horenczyk, 2000). They assume educational setting play a big role in mediating self-efficacy development towards academic success (Tatar, & Horenczyk, 2000). Lack of self-efficacy development perceived by students is responsible may indeed be a conflicting and complicating factor in students' academic learning and success (Peterson, et al., 2011).

Studies on self-efficacy and academic success mostly have been done in primary and secondary schools. A study conducted by Wang (2015) to examine the influences of parental expectations, parental involvements, and self-efficacy on the English academic achievement of Chinese eighth graders. The results showed that parental educational expectations, parental involvement, and self-efficacy were significant predictors of English academic achievement of Chinese eighth graders. In other words, the more strongly the students believe that they are capable of achieving good English outcomes, the higher their English academic achievement will be. Similarly, Dogan (2015) conducted the study among high school students revealed that student engagement (students' involvement in school activities and commitment to the school's mission and rules), academic self-efficacy (the students' sense of their own capabilities), and academic motivation (the students' desire to increase their academic performance) affected academic performance. Additionally, in 2011, Motlagh, Amrai, Yazdani, Abderahim, and Sourie did a study to investigate the relation between self-efficacy and academic achievement in high school. The findings have shown that from among the self-efficacy sub-factors, self- evaluation

and self-regulation are of the best prediction factors of academic achievement. Thus, self-efficacy plays a role in academic success in school setting.

Some studies conducted research on self-efficacy and academic success among universities students. For examples, in 2015, Köseoğlu has conducted among first year university students, and found that students possess high self-efficacy and confidence their academic performance when they believe intelligence is changeable and may be modified by effort. Another instance, Kirmizi (2015) found that self-concept, self-efficacy, self-regulation, and self-evaluation highly correlated with academic success among higher education students. Also, Turgut (2013) has conducted among undergraduate mathematic education students discovered that students' academic self-efficacy beliefs were moderate level and there was a significant effect of factors academic performance and grade level on Academic Self-Efficacy Scale scores. Moreover, Jahanian and Mahjoubi (2013) studied among university students revealed that there is a positive and meaningful relationship between students' self-efficacy and their academic achievements. It was then suggested that students' academic achievements can be enhanced by increasing their self-efficacy through applying appropriate training methods and enriching educational environments. Hence, self-efficacy is one of important predictors of academic success in universities setting.

However, only few studies conducted on self-efficacy and academic success among pre-university students. A study done by Shams, Mooghali, Tabebordbara, and Soleimanpourb (2011) was conducted among pre-university in Shiraz at Iran found that there is a significant relationship between academic self-efficacy and mathematics performance. Hence, self-efficacy predicts academic achievement of students. Despite the availability of research conducted to measure the relationship between self-efficacy and academic success, there are limited research

in Malaysia that covers this particular matter in pre-university level of International Islamic University Malaysia (IIUM) in Gombak campus. Therefore, the purpose of this study is done to attempt the gap in the literature by looking into the relationship between self-efficacy and academic success among IIUM Centre for Foundation Studies (CFS) students in Gombak campus.

OBJECTIVE OF THE STUDY

This proposed study will be conducted with four objectives;

- 1) To investigate the level of self-efficacy of IIUM CFS students
- 2) To identify any gender differences in the level self-efficacy among IIUM CFS students
- 3) To explore any gender differences in the level of academic success among IIUM CFS students
- 4) To examine a significant relationship between self-efficacy and academic success among IIUM CFS students

RESEARCH QUESTIONS

- 1) What is the level of self-efficacy of IIUM CFS students?
- 2) Are there any gender differences in the level of self-efficacy among IIUM CFS students?
- 3) Are there any gender differences in the level of academic success among IIUM CFS students?
- 4) Is there a significant relationship between self-efficacy and academic success among IIUM CFS students?

SIGNIFICANCE OF THE STUDY

This study is significant as the finding will help to provide an empirical data on self-efficacy and its influence on academic success to students, lecturers, and academic counselors. Second, this study also might contribute as evidence in raising awareness to students about their

level of self-efficacy. Therefore, that particular evidence also might help them to find strategies in building their self-efficacy through programs and this might indirectly influence their academic achievement. Besides, by knowing their level of self-efficacy, lecturers can also suggest ways and strategies on how to boost their students' self-efficacy such as giving advises in the class. This might help academic counselors to plan effective programs in order to enhance self-efficacy of the students that might lead them perform better in their academic success.

DELIMITATION OF THE STUDY

1. This study is designed to investigate the level of self-efficacy and academic success only among IIUM CFS students in Gombak. Participants were purposively selected among pre-university students of IIUM in Gombak campus. Thus, it is not applicable to relate it with other levels of education and other university.
2. The study focuses only on the self-efficacy. Thus, it is not relevant to the other types of self-efficacy

DEFINITION OF TERMS

Self-Efficacy

Self- efficacy can be defined as individuals' belief in one's capabilities to successfully achieve given attainments in certain subjects (Bandura, 1997; Klassen, Krawchuk & Rajani, 2008; Wigfield, Byrnes, & Eccles, 2006). It refers as trusting one's abilities and powers for learning and performance, is a key trait for the academic success of university students (Hill, 2002)

Operational Definitions of Self- efficacy

One of the scales that measure self-efficacy is General Self-Efficacy (GSE) was developed by Schwarzer and Jerusalem (1995) which used in this study. The scale has 10-items which is a self-report measure of self-efficacy. All items are answered using a 4-point Likert scale format ranging from 1 (not all true) to 4 (exactly true).

Academic Success

It refers to academic achievement which denote to the accomplishment of an important developmental task. Several authors have stated that cognitive competence in school and other social settings are markers of, and a prerequisite for, resiliency (Bernard, 2004; Shonk & Cicchetti, 2001).

Operational Definitions of Academic Success

Academic success would be measured by The Academic Success Inventory for College Students (ASICS) which was developed by Prevatt, Huijun Li, Welles, Drehar, Yelland, and Lee (2011). ASICS is a newly-developed, self-report instrument designed to evaluate academic success in college students. The inventory has 50 items that measure areas related to academic success, and divided into 10 subscales. The 10 subscales consist of General Academic Skills (12 items), Internal Motivation/Confidence (eight items), Perceived Instructor Efficacy (five items), Concentration (four items), External Motivation/Future (four items), Socializing (four items), Career Decidedness (four items), Lack of Anxiety (three items), Personal Adjustment (three items), and External Motivation/Current (three items). All items are rated from 5 (never) to 1 (always).

CHAPTER TWO

LITERATURE REVIEW

INTRODUCTION

This chapter displays a review of the literature that related to the study. The literature review has six subtopics; (1) Self-efficacy (2) Albert Bandura Self-Efficacy (3) Students' Self-Efficacy (4) Academic Success, and (5) Self-Efficacy and Academic Success.

SELF-EFFICACY

Self-efficacy is a combination of two words which is self and efficacy. The word of efficacy historically appeared in 1520. It is derived from the Latin word which is "*efficācia*," equivalent to "*efficacy*-" which means capacity for producing a desired result or effect; effectiveness, (Coetzer, Hanson, & Trimble, 2009). Self-efficacy, part of social cognitive theory, is a belief in one's ability to perform a task that will lead to a goal (Coetzer, et al., 2009). Self-efficacy can help with conquering fear as well as adjustment during transition, both of which are important for postsecondary students enrolled in college or university (Turner, Chandler, & Heffer, 2009). It is not solely acquiring the right skills to succeed, but also on focusing on the belief in the capability to succeed (Hsieh, Sullivan, & Guerra, 2007). Individuals who perceive themselves as competent are more likely to attempt and persist even after a failure, whereas individuals with self-doubt are less likely to attempt and persevere (Burney, 2008; Palmer & Roessler, 2000). Individuals with high self-efficacy are also likely to view situations as challenges, rather than stressors because of their belief in competency (Coffman & Gilligan, 2002).

Individuals who possess a high degree of self-efficacy are more likely to attempt challenging tasks, to persist longer at them, and to exert more effort in the process. If highly efficacious individuals fail, they attribute the outcome to a lack of effort or an adverse environment. When they succeed, they credit their achievement to their abilities. It is the perception that their abilities caused the achievement that affects the outcome rather than their actual abilities (Bandura, 1986).

ALBERT BANDURA SELF-EFFICACY

The theory of self-efficacy was pioneered by one of the prominent psychologists which is Albert Bandura. The term of self-efficacy was firstly introduced by him in 1977, through the article “Self-Efficacy: Toward a Unifying Theory of Behavioral Change (Bandura, 2004). He defined self-efficacy as people’ belief about their capabilities to produce designated level of performance that exercise influences over events that affect their lives. Furthermore, self-efficacy, also called perceived ability, refers to the confidence people have in their abilities for success in a given task (Bandura, 1997). If they possess the ability to successfully perform, then that task will be attempted. The task will be avoided if it is perceived to be too difficult (Bandura, 1986, 1997). Although inefficacious individuals usually avoid challenging tasks, when they do attempt them they give up more easily than individuals with high efficacy. When inefficacious individuals fail, they attribute the unsuccessful result to a lack of ability and tend to lose faith in their capabilities. When they succeed, they are more likely to attribute their success to external factors (Bandura, 1986, 1997). If students master a challenging task with limited assistance, their levels of self-efficacy will rise (Bandura, 1986).

In this social cognitive theory, Bandura (2004) states that along with self-efficacy, behavior is affected by knowledge, outcome expectation, goals, facilitators, and impediments to

the behavior. These factors also affect self-efficacy and the role it plays in dictating behavior of the individual (Bandura, 2004). For example, an individual must have the understanding and knowledge regarding the reason they need to act in a certain way. The individual is more likely to behave in a certain way when they expect the action will lead to a certain outcome. Also, individuals are more likely to behave positively when goals are attainable and in close proximity than when more challenging feats lead to desired goals in the distant future (Bandura, 2004). Finally, the more barriers an individual face as they attempt a behavior, the quicker they will stop performing a behavior (Bandura, 2004). On the other hand, if a behavior is easily accomplished and facilitated by the environment, such as with proper strategies and supports, the individual is more likely to complete the behavior (Bandura, 2004).

Furthermore, there are four factors determine self-efficacy which is also affected by enactive mastery experience, vicarious learning, verbal persuasion, and physiological and emotional states (DeWitz, Woolsey, & Walsh, 2009). The most influential of these factors is enactive mastery experience, which refers to individuals' experiences with success or failure in past situations. Information gathered from these experiences is then internalized. Past successes raise self-efficacy and repeated failures lower it, which indicates to individuals their levels of capability (Bandura, 1986, 1997). Mastery experience suggests self-efficacy can be improved through performance accomplishment of task while failure can lower self-efficacy (Coetzer et al., 2009; Noble, 2011).

In a vicarious experience, individuals compare themselves to peers whom they perceive are similar in ability and intelligence to themselves. Watching peers succeed raises observer self-efficacy and seeing them fail lowers it. Exposure to multiple successful role models helps increase self-efficacy in observers (Bandura, 1986, 1997). In other words, vicarious learning is

described as when an individual observes someone of similarity to themselves succeeding in a task, and the individual then believes that they can be successful too.

Verbal persuasion tries to convince individuals, who may doubt their capabilities, that they possess the skills needed for success at a given task. In education, verbal persuasion delivered by teachers often takes the form of verbal feedback, evaluation, and encouragement. Persuasion must be realistic, sincere, and from a credible source; otherwise it can negatively affect student self-efficacy beliefs (Bandura, 1986, 1997). In other words, verbal persuasion impacts self-efficacy in that belief in ability is increased with encouragement from others (DeWitz et al., 2009).

Finally, physiological state suggests that failure, or some degree of performance impairment, can result if a person fearing failure is in a hyperactive state (Bandura, 1986, 1997). A physiologically hyperactive state comprises symptoms experienced during “fight and flight” responses of the autonomic nervous system, such as increases in heart rate, breathing rate, and sweating. Emotional state or arousal refers to the mood one is in when performing, such as feeling anxious. Depending on the mood, emotional state can either positively or negatively affect interpretation of an event’s outcome (Bandura, 1986, 1997). Emotional arousal equates to stress and anxiety which can decrease confidence and self-efficacy (Lundberg, McIntire, & Creasman, 2008). High levels of self-efficacy can also prevent feelings of stress from failure (Lundberg et al., 2008). In addition to the four factors that determine general self-efficacy, aptitude, attitudes, and attributions are found to predict science self-efficacy (Lundberg et al., 2008).

Efficacy beliefs vary between individuals and will actually fluctuate within an individual for different tasks (Bandura, 1997). In many activities, self-efficacy contributes to self-esteem

(Bandura, 1986). Self-efficacy beliefs affect how people approach new challenges and will contribute to performance since these beliefs influence thought processes, motivation, and behavior (Bandura, 1997). Self-efficacy is not static and can change over time resulting from periodic reassessments of how adequate one's performance has been (Bandura, 1986). For example, in a college population, chemistry lab self-efficacy increased over the course of a school year whereas biology self-efficacy decreased over the same duration (Lundberg et al., 2008)

To summarize, self-efficacy refers to the confidence people have in their abilities that they will be successful at a given task. It is determined by enactive mastery experience, vicarious experience, verbal persuasion, and physiological and emotional states. Of these factors, enactive mastery experience has the most influence. Self-efficacy beliefs vary between individuals, fluctuate under different circumstances, and can change over time. Self-efficacy also contributes to performance. Connections between self-efficacy and academic performance are especially of interest to educators. In this chapter, numerous studies will show that females possess lower math and science self-efficacy than males and as a result, often earn lower grades in these academic subjects. Consequently, females may be less likely to pursue technical and scientific careers.

STUDENTS SELF-EFFICACY

Self-efficacy of students is linked with “the desire to achieve a goal, the willingness to engage and persist in specific subjects or activities,” (p. 223), (Margolish, 2005), their desire towards achievement, will give effect the learning process and progress. It can be explained that, the function of self-efficacy is to enhance the desire of learning through mediations of motivation and confidence. Thus, students with strong self-efficacy will be motivated to study in order to

reach their aims and objectives. These basic idea is similar according to Kirk (2013) defined that it is students' belief about their capabilities to reach outcomes. Students who have high level of self-efficacy will be easily motivated to face any challenges during their studies.

Moreover, Zimmerman and Cleary (2006) has defined students' self-efficacy which it is related to their belief that they capable to complete the tasks. It has no connections with the persona attributes and psychical. As students, academic success is the main goal thus, with high level of self-efficacy they can accomplish the tasks which indirectly perceive academic self-efficacy.

ACADEMIC SUCCESS

According to Kuh, Kinzie, Buckley, Bridges, and Hayek (2006) student success is defined as “academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational outcomes, and post-college performance” (p.5). To be literal, this definition is specifically for student success, however, based upon the literature reviewed the researchers have found the terms student success and academic success used interchangeably (York, Gibson, & Rankin, 2015). For an instance, Yen and Liu (2009) stated about students' success yet measure this term solely using final course grade as clearly an academic outcome variable in a study on community college distance. Kuh et al. (2006) give definition of academic success includes seven distinct while somewhat overlapping parts: academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of learning outcomes, and post-college performance. Besides, York, Gibson and Rankin (2015) suggest a theoretically grounded definition of academic success that is made up of six components: academic achievement, satisfaction,

acquisition of skills and competencies, persistence, attainment of learning objectives, and career success. Additionally, in the South African context, academic success, to a large extent, can be seen as a measure of resiliency, even though in other societies it might be considered an ordinary developmental task (Wells, 2011). Understanding the process and the cultural context within which it occurs can be informative for families striving to break the cycle of poverty. It also informs policy in higher education institutions as well as measures to be put in place to enhance career pathing and throughput (Wells, 2011).

Choi (2005) describes successful completion of course activities by students as ultimately improving students' academic achievement. While it is true in this instance Choi (2005) uses the term 'success' to refer to completion of course assignments and the term 'academic achievement' to describe GPA, both terms refer to traditional measures of academic student success (i.e. grades and GPA). Parker, Summerfeldt, Hogan & Majeski (2004) use the terms 'academic achievement' and 'academic success' interchangeably. At one point, the goal of their study is described as "examining the relationship between emotional intelligence and academic achievement" (p. 163). At another point, the goal of the study is described as attempting to predict "academic success from emotional intelligence variables" (p. 163). Like Choi (2005), Parker et al. (2004) defined success as academic achievement (GPA). Indeed, numerous of the literature reviewed focused on academic achievement when defining or measuring academic success (Choi, 2005; DeFreitas, 2012; Dennis, Phinney, & Chuateco, 2005; Gore, 2006; Harackiewicz, Barron, Tauer, & Elliot, 2002; Tracey, Allen & Robbins, 2012; Zajacova, Lynch, & Espenshadet, 2005).

SELF-EFFICACY AND ACADEMIC SUCCESS

Numerous studies showed that self-efficacy holds significant power for consistently predicting and explaining academic performance in various domains (Bong & Skaalvik, 2003; Schunk & Zimmerman, 2007). Pastorelli, Caprara, Barbaranelli, Rola, Rozsa, and Bandura (2001) found that Western measurement scales were reliable and valid across different cultural groups. Besides, some studies found that the Chinese had comparatively lower academic self-efficacy than Western cultural learning groups (e.g., America, Canada, or Russia); however, students' perception of academic self-efficacy still played a significant role in predicting Chinese students' outcomes or performance (Salili, Chiu, & Lai, 2001).

The relationship between self-efficacy and academic success can be displayed by a case study conducted by Tilfarlioglu and Ciftci (2011) among preparatory level students aimed to explore the effect of self-efficacy on academic success, the effect of learner autonomy on academic success and the effect of self-efficacy and learner autonomy on academic success. The finding showed that there was a positive relationship between self-efficacy and learner autonomy, self- efficacy and academic success, and learner autonomy and academic success. Thus, it can be concluded that self-efficacy has a relationship with academic success of students.

Another study conducted by Khan (2013) to examine to find a relationship in the college academic setting between academic self-efficacy, stress coping skills, and academic performance. The result revealed that there was a clear relationship between academic self-efficacy and GPA. Academic self-efficacy was positively correlated with GPA. Hence, it can be understood self- efficacy has relationship with academic success.

Besides, there is longitudinal analysis conducted among school students by Caprara, Fida, Vecchione, Del Bove, Vecchio, Barbaranelli, & Bandura, (2008). The study intended to examine the developmental course of perceived efficacy for self-regulated learning and its contribution to academic achievement and likelihood of remaining in school. The result revealed that high perceived efficacy for self-regulated learning in junior high school contributed to junior high school grades and self-regulatory efficacy in high school, which partially mediated likelihood of remaining in school. Therefore, self-efficacy plays important role in contributing academic success.

CHAPTER THREE

METHODOLOGY

INTRODUCTION

In this chapter the researcher elucidated about method of the study. The explanations of the method involved selection suitable research design, populations setting, sampling procedure, and instrument that was using to examine each variable in collecting data. Moreover, this chapter also discussed about procedures in administering instrument and analyzing data.

RESEARCH DESIGN

Research design can be defined as a plan for collecting and analyzing evidence that help the investigator to answer whatever questions he or she posed (Lor, 2011). There are three types of research design provided for modes of study; qualitative, quantitative or mixed mode between qualitative and quantitative. In this research, quantitative design was selected as the design. The research aimed to explore the relationship between self-efficacy and academic success among pre-university in Gombak campus.

The researcher intended to investigate the relationship between self-efficacy and academic success among pre-university level as referring on the purposed of the study. Cross tabulation and comparative techniques were used for this as to measure the degree of differences each variable in their natural atmosphere without include treatment imposed study (Lor, 2011). The researcher used descriptive and inferential statistic to present the significant between two variables in a concise, detailed and straightforward. The researcher administered one instrument of self-efficacy; The General Self-Efficacy Scale (GSE), and The Academic Success Inventory for College Students (ASICS).

POPULATION

A population, according to Mugo (2002) is a group of individual persons, objects or items from which samples are taken for measurement, for example a population of presidents or professors, books or students. The population in this study are pre-university students which is Centre for Foundation Studies (CFS) of International Islamic University Malaysia (IIUM). The target population for this study only selected from students who age of 18 to 19 years old. The proportions are comprised of 50 males and females respectively. Table 3.1 below describes the proportion proposition:

Table 3.1: Population Propositions

Gender	Frequencies	Percent (%)
Male	50	50.00
Female	50	50.00
Total	100	100.00

POPULATION SETTINGS

In this study, the researcher obtained the population information about the list of number students of CFS Gombak from the CFS office at IIUM Gombak. The researcher decided the criterion of participants such as only CFS students, who lived in IIUM Gombak campus, and who aged of 18 to 19 years old. Only one level of study was selected which is Centre for Foundation Studies of International Islamic University Malaysia (CFS). CFS is a pre-university level. Usually, it prerequisites before students further in undergraduate level. Some CFS students are living in

Gombak Campus, while some of them are living at Petaling Jaya. The researcher focused on CFS students who are living in Gombak Campus only.

SAMPLE

As Mugo stated in (2002) that sample size can be defined as a set of respondents (people) selected from a larger population for the purpose of a survey. In order to examine comparative study, minimum sample size is 30 respondents are sufficient (Barbiero, Macedo, Mais & Zahmon, 2011; Onwuegbuzie & Leech, 2005). In educational research, however, that sample size is still not sufficient to secure research from any sampling error. Thus, the researcher has to increase sampling size to reduce the measurement of error (Bartlett, Kotrlik, & Higgins, 2001).

In this study, the researcher used purposive sampling or in other name is judgement sampling to get the participants (Latham, 2007). Purposive sampling is a non-probability sampling technique where the assembled sample as the same proportions of individuals as the entire population with respect to known characteristics (Latham, 2007). It occurs when elements selected for the sample are chosen by the judgement of the researcher (Latham, 2007). On the other words, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience (Etikan, Musa, & Alkassim, 2016). It was purposive sampling as the researcher selected for these criteria; CFS students who aged of 18 to 19 years old. And they must live in IIUM Gombak campus. As the researcher only took samples of students aged 18 to 19 years old. The justification of this selection is because students who are aged about 18 to 19 years are characterized as late adolescents.

For this research, sample size has been calculated by using Raosoft calculator through online based of the population information that is accessible from the IIUM website. Raosoft estimation margin of error was 9%, with confidence interval of 95%, and the response of distribution is 50%. As there are 700 CFS students in IIUM. The minimum recommended sample size for this study is 102 by using online Raosoft calculator.

Table 3.2: Population statistics

Ideal population (Total number of CFS students in IIUM Gombak)	Sample population (Total number of CFS students in the study)
700	102

INSTRUMENTS

The questionnaire consists of three parts (Refer to appendix). The first part is demographic background data. The second part is General Self-Efficacy (GSE) and the third part is the Academic Success Inventory for College Students (ASICS).

GENERAL SELF-EFFICACY SCALE (GSE)

The General Self-Efficacy (GSE) scale was developed by Schwarzer and Jerusalem (1995), to examine the general sense perceived of self-efficacy. The main goal of this scale is to foresee daily hassle cope and experiences of all kinds of stressful adoption. It measures individual range age of 12 years old to adult, therefore this scale is suited for pre-university as they still in adolescence. The scale consists of ten items which required the respondents to select four-point scale; not at all true, hardly true, moderately true and exactly true.

Validity

The validity of this instrument proved by Yildirim and Ilhan, (2010) in their study entitle of “The validity and reliability of the general self-efficacy scale Turkish form.” Furthermore, Schwarzer and Jerusalem (1995) reported about the documented criterion-related validity of this instrument from numbers of studies. There were positive coefficients found with favorable emotions, dispositional optimism, and work satisfaction.

Reliability

This instrument has been translated into 23 languages worldwide. Based on one dimension, the reliability shows Cronbach’ alpha ranged from General Self-Efficacy Scale (GSE) is average from .76 to .90 with the majority in the high .80. The Cronbach alpha registered in this study was .93.

THE ACADEMIC SUCCESS INVENTORY FOR COLLEGE STUDENTS (ASICS)

The Academic Success Inventory for College Students (ASICS) which was developed by Prevatt, Huijun Li, Welles, Drehar, Yelland, and Lee (2011). ASICS is a comprehensive measure that could be widely and easily used as a screener to identify college students who might be at risk for poor academic progress, and determine appropriate interventions geared towards their specific patterns of strengths and weaknesses. The theoretical basis of the ASICS relied on the work of Astin (1998) regarding student and environment characteristics and Tinto’s (1998) work on persistence and departure (as cited in Prevatt & Colleagues, 2011). Additionally, numerous aspects of motivation theory were considered with respect to self-determination (Deci & Ryan, 1985), attribution theory (Weiner 1985) (as cited in Prevatt & Colleagues, 2011) and achievement goal theory (Harackiewicz, et al. 2002). The ASICS has 50 items that measure areas

related to academic success, divided into 10 subscales. All items are rated from 5 (Never) to 1 (Always). The following subscales (with descriptions and sample items) comprise the ASICS.

1. **General Academic Skills (12 items)** - a combination of effort expended, study skill and self-organizational strategies. (I made good use of tools, such as planners, calendars or organizers).
2. **Internal Motivation/Confidence (eight items)** -belief in one's abilities to perform well academically, as well as satisfaction and challenge associated with performance. (I enjoyed the challenge of learning just for learning's sake).
3. **Perceived Instructor Efficacy (five items)** -perception of the ability of the instructor to hold the attention of the student, organize, teach, and assess the progress of the student. (The instructor motivated me to do well).
4. **Concentration (four items)** -ability to concentrate and pay close mental attention. (It was easy to keep my mind from wandering).
5. **External Motivation/Future (four items)** -an awareness of the future relevance or importance of the class, with an emphasis on external job-related issues. (I needed to do well in this class to get a good job later).
6. **Socializing (four items)** - appropriate levels of socializing or drinking such that one's academic performance is not hindered. (Sometimes my drinking behavior interfered with my studying).
7. **Career Decidedness (four items)**- progress towards and certainty of one's decision about a career goal. (I am certain about what occupation I want after I graduate).
8. **Lack of Anxiety (three items)**- lack of anxiety or nervousness with regard to studying or test taking. (I was nervous for tests even when I was well prepared).

9. **Personal Adjustment (three items)**- lack of personal issues that detract from one's ability to perform academically. (I had some personal difficulties that affected my performance).
10. **External Motivation/Current (three items)**- motivation to perform, with an emphasis on current external factors such as grades, parents or approval of others (I needed good grades to keep up my GPA).

Validity

The ASICS' development was based on a pilot study of 315 university students, followed up by a sample of 930 students, both from a large public university in the southeastern United States. Characteristics of the sample were as follows: mean GPA = 2.66 (SD = .99) on a four-point scale; mean age = 19.44(SD = 2.17); females = 58 percent. Ethnicity was Anglo (68 percent), African American (13 percent), Hispanic (11 percent), Asian (three percent) and Other (six percent). The majority of students were in their first year of college. Discriminant validity was evident in the comparison between a group of students participating in the University Honors Program (n = 265) and a group that was on academic probation (n = 346). All subscales except External Motivation/Current were significantly different across groups, with students in the Honors Program obtaining scores indicating more positive functioning than the students on academic probation. Results indicated that the 10 scale scores predicted 4 percent of the variation in grades which demonstrating the 10 subscales' predictive validity. Subscales most highly predictive of GPA were Personal Adjustment, General Academic Skills, Internal Motivation/Confidence and Socializing and Concentration. In this study, the researcher revised the items with some expertise to make content validation. Only 48 items out of 50 items were used in this study.

Reliability

In order to examine the instrument reliability and consistency, exploratory factor analysis determined the subscales of the ASICS. The 10 factors (later converted to subscales) explained 64 percent of the variance, and displayed good item characteristics (Brown 2006; Tabachnick & Fidell, 2007). Internal consistency of the 10 factors was measured utilizing Cronbach alphas. These scores tell the degree to which items on a subscale are consistently measuring the same construct, and should be at least .70. The Cronbach alphas for the ASICS were as follows: General Academic Skills = .93, Internal Motivation/Confidence = .86, Perception of Instructor Efficacy = .92, Concentration = .87, External Motivation/Future = .88, Socializing = .84, Career Decidedness = .87, Lack of Anxiety = .77, Personal Adjustment = .86, and External Motivation/Current = .62. Correlations among subscales were quite variable, with large correlations found between the following subscales: Socializing and Personal Adjustment ($r = .82$), General Academic Skills and Personal Adjustment ($r = .65$) and Internal Motivation/Confidence and Concentration ($r = .50$). In this study, the Cronbach alpha registered for 48 items were .88. The Cronbach alpha for each subscale were as follows: General Academic Skills = .92 (12 items), Internal Motivation/Confidence = .76 (8 items), Perception of Instructor Efficacy = .67 (5 items), Concentration = .74 (4 items), External Motivation/Future = .93 (3 items), Socializing = .82 (3 items), Career Decidedness = .72 (4 items), Lack of Anxiety = .89 (3 items), Personal Adjustment = .81 (3 items), and External Motivation/Current = .58 (3 items).

PILOT STUDY

A pilot test was conducted to ensure that the items are accessible and comprehensible to the respondents. It was done in November 2016/2017 involving 50 pre-university students in

IIUM Gombak. By distributing the questionnaire through online survey, the researcher collected the data. The purpose of pilot study is to test adequacy of research instruments and to assess the feasibility of a (full-scale) study or survey (Teijlingen & Hundley, 2001). Other purposes of pilot study are to find out face validity in term of the difficulty level of the language and time taken completed by participants.

DATA COLLECTION PROCEDURES

To collect the data, the researcher conducted within 3 or 4 weeks. There are two ways of collecting data which are distributing through social media and conduct personally the questionnaire. Firstly, the researcher distributed the survey through social media such as WhatsApp's and Facebook. The respondents filled up the survey and submitted on that time. While, the second one is the research conducted personally, one by one which by giving them the hardcopy of questionnaire. The respondents were given a short briefing. The respondents answered within several minutes. After they returned their questionnaire, they were debriefed by the researcher.

DATA ANALYSIS

The statistical package for social sciences (SPSS-24nd Edition) software used in order to conduct the analysis of the collected data for the present study. For statistical analysis of result, descriptive and inferential statistics were used. In the first part, descriptive analysis was presented as percentage, and frequency distribution in table form for demographic background of participants (age, gender, kuliyyah). As to answer the first question which is; (1) What is the level of self-efficacy of Centre for Foundation students of IIUM?

For inference result in the second part, Independent T-Test was used by the researcher for measuring the distinguish score on gender between two types of variables. It is for answering the research question number two and three which are; (2) Are there any gender differences in the level of self-efficacy among IIUM CFS students? And (3) Are there any gender differences in the level of academic success in IIUM CFS students? For answering these research questions, the researcher used inferential statistics.

Besides, Pearson product-moment correlation coefficient was employed in this present study to examine the relationship between two variables which are; (4) Is there a significant relationship between self-efficacy and academic success among IIUM CFS students?

CHAPTER FOUR

RESULT

DESCRIPTIVE STATISTIC

Demographics

Approximately 100 students out of 150 enrolled in this online survey. Out of 150 students, 100 students completed the survey, which were resulted in a response rate of 66.67% (Hamilton, 2003). Subjects included 50% males and females respectively.

Table 4.1: Frequency and percentage of demographic background

Variable	Frequency (N=100)	Percentage %
Age		
18	41	41.0
19	59	59.0
Gender		
Male	50	50.0
Female	50	50.0
Kuliyah		
Economic	77	77.0
Human Sciences	23	23.0

A descriptive statistic was run to explore the frequency and percentage of demographic background (e.g.: age, gender, and kuliyah). Based on Table 4.1 above shows the frequency

and percentage for participants who are age of 18 was 41%, while for participants who are age of 19 was 59%. As for gender, the frequency and percentage for male and female are 50% respectively. Besides, for the CFS kulliyah in IIUM Gombak are consist of kulliyah Economic and kulliyah Human Sciences with the frequency and percentage of 77% and 23% respectively.

Self-Efficacy

- 1) What is the level of self-efficacy of IIUM CFS students?

Table 4.2: The distribution of Self-Efficacy Scores

	Mean	SD	df
Self-Efficacy	2.53	.67	99

A descriptive statistic was applied to examine the level of self-efficacy of IIUM CFS students. Table 4.2 shows that the mean for the total number of self-efficacy level of IIUM CFS students ($M= 2.53$, $SD= .67$) is moderate.

INFERENTIAL STATISTICS

- 2) Are there any gender differences in the level of self-efficacy among IIUM CFS students?

Table 4.3: Mean of self-efficacy between male and female

Gender	N	Mean of self-efficacy (M)	Standard Deviation (SD)	df	t	p-value
Male	50	2.58	.64	98	.649	.194
Female	50	2.49	.71			

$p > 0.05$

An independent sample t-test was run to compare if there is any significant difference in the total number of gender in the level of self-efficacy among IIUM CFS students. According to Table 4.3, shows that the mean for the total number of male participants in the level of self-efficacy ($M= 2.58, SD= .64$) is higher than the mean for the total number of female participants in the level of self-efficacy ($M= 2.49, SD= .71$). The analysis using an independent samples t-test showed that there is no significant difference between male participants and female participants in the level of self-efficacy with $t(98) = .649, p=.194$. Therefore, the null hypothesis is accepted and the alternative hypothesis is rejected. Thus, it could be said that, gender does play a role on self-efficacy level.

- 3) Are there any gender differences in the level of academic success among IIUM CFS students?

An independent sample t-test was used to analyze if there a significant difference in the total number of academic success level between both gender male and female participants.

Table 4.4: Mean of academic success between male and female

Gender	N	Mean of academic success (M)	Standard Deviation (SD)	df	t	p-value
Male	50	3.37	.27	98	-1.14	.000
Female	50	3.47	.49			

$\bar{p} \leq 0.05$

Table 4.4 shows the mean for the total number of academic success between both gender male and female participants. The mean of academic success for male participants is slightly low

from female participants with ($M= 3.37$, $SD= .27$), whereas the total number of academic success for female participants is ($M=3.47$, $SD= .49$) which slightly higher than male participants. The statistical analysis derived from independent sample t-test indicates that there is a significant difference in the total number of academic success between male and female participants with $t(98)= -1.14$, $p= .000$. Hence, it can be explained that female participants more perform in academic compared to the male participants. Thus, the null hypothesis is rejected and the alternative hypothesis is accepted. Therefore, it could be said that, female participants do play a role on academic success.

- 4) Is there a significant relationship between self-efficacy and academic success among IIUM CFS students?

Table 4.5: Pearson Correlation of Self-Efficacy and Academic Success

Variable	Academic Success
Self-Efficacy	$r = .26$ $n= 100$

A Pearson correlation was used to explore if there is a significant relationship between self-efficacy and academic success among IIUM CFS students. The data analysis from Table 4 reveals that there is a significant positive relationship between self-efficacy and academic success with $r(98)= .26$, $p=.009$. Therefore, it can be said that participants who have high level self-efficacy reported have higher level in academic success. Thus, the null hypothesis is rejected and the alternative hypothesis is accepted. Hence, it can be clarified that high level of self-efficacy predicts high level of academic success of students.

CHAPTER FIVE

DISCUSSION

The first purpose of this study was to investigate the level of self-efficacy of IIUM CFS students. From the result, it shows that the level of self-efficacy of IIUM CFS students is moderate. On the other words, students do not have too high and low level of self-efficacy. The result was supported by Bandura, Barbaranelli, Caprara, and Pastorelli, (2001) who discovered that direct and mediated paths of influence of children's self-efficacy beliefs to academic achievement were analyzed with a range of factors including socioeconomic (status), familial (parental self-efficacy, parental academic aspirations), peer (peer preference) and self (academic aspirations, problem behaviour, depression, prosocial behaviour, moral disengagement) variables hypothesized to affect academic achievement. Thus, mediating factors influence the level of self-efficacy of students. Another study conducted by Koseoglu (2015) assumed that intelligence is an entity that offers no possibility of improvement, who fell they would not be able to succeed in university, thus less likely to target any kind of goal, mastery of performance.

The second research question is to identify any gender difference in the level self-efficacy among IIUM CFS students. It was predicted that gender plays a role in level of self-efficacy of students. In this present study, the alternative hypothesis made is rejected as the result indicates that there is no significant difference between gender in the level of self-efficacy among IIUM CFS students at Gombak. Hence, it could be explained that gender does not play a role in self-efficacy level of students. The result of this present study is consistent with the previous study which have found no significant difference among self-efficacy scorers either

male or female participants (Choi, 2005; Jonson-Reid, Davis, Saunders, Williams, & Williams, 2005).

The third research question is to explore any gender difference in the level of academic success among IIUM CFS students. It was expected that gender plays a role in the level of academic success of students. The alternative hypothesis made is accepted in this study as the results displayed that there is a significant difference between gender and the level of academic success. The result shows that male students have low level in academic success compared to female students. The result of this study in line with the study conducted as reported by Bandura, Caprara, Barbaranelli, Gerbino, and Pastorelli, (2003), and Caprara, Barbaranelli, Pastorelli, and Cervone (2004) in their study, girls displayed higher levels of agreeableness, conscientiousness, and academic achievement, and lesser externalization and delinquent behaviours than boy.

The fourth question is to examine if there is a significant relationship between self-efficacy and academic success among IIUM CFS students. The expectation was there is a correlation between self-efficacy and academic success among IIUM CFS students. As the present study elucidates that the alternatives hypothesis made is accepted and the null hypothesis is rejected, there is a positive significant relationship between self-efficacy and academic success among IIUM CFS students. The result was consistent with the previous studies which found that self-efficacy and academic performance positively and moderately correlated among undergraduate and postgraduate students (Galyon et al., 2011; Klomegah, 2007; Lane & Lane, 2001; Richardson, Bond, & Abraham, 2012). Besides, other studies conducted by Chemars, Hu and Garcia (2001) found that self-efficacy was directly and strongly related to academic performance among first year college students, and Caprara, G., Fida, Vecchione, Del Bove, Vecchio, Barbaranelli, and Bandura, (2008) found that high self-efficacy level among junior high

school students contributed to their academic performance. Then, previous study also stated that academic self-efficacy had a strong relationship with academic achievement among secondary school student (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Greene, Miller, Crowson, Duke, & Akey, 2004; Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004) that has demonstrated that young people who believe in their capabilities to exercise control over their educational performance, achieve higher results academically than counterparts who have less efficacious beliefs in their academic pursuits.

Among the limitation of this study is that this study cannot be generalized to all CFS students in IIUM. As the sample used is homogenous sampling, which it involves selecting candidates across a broad spectrum relating to the topic of study such as a particular range age, or level of education (Etikan, et al., 2016). This leads to inability to generalize research finding (Etikan, et al., 2016). It is recommended for future research to select alternative sampling methods with higher levels of reliability and low bias such as quota, cluster, and systematic sampling methods (Etikan, et al., 2016). Another limitation is it cannot be generalized to adolescence phase only. The future researcher may conduct to other phase of human development such as early, middle and late childhood, or early adulthood phases. This is in line with a research conducted to primary and secondary students, as well as undergraduate students (Galyon et al., 2011; (Motlagh, Amrai, Yazdani, Abderahim, & Souri, 2011; Webb-William, 2014). Besides, this study also has limitation in term of variable used. It is suggested to use other psychological constructs such as personality, well-being, stress appraisals, and social relations as to explore others relationship associated (Luszczynska, Gutierrez-Dona, & Schwarzer, 2005).

Besides, from this study, there are several suggestions. Firstly, in institution, it is encouraged to enhance more motivational programme. For examples are programme on how to

increase self-efficacy, on how to have high level of confidence. Secondly, teachers in any institutions should plan variety effective ways to boost self-efficacy of students. This is due to teachers have great power and influence over the creation and development of their student's self-efficacy beliefs (Joet, Usher, & Bressoux, 2011). For instance, self-efficacy beliefs are developed through the four main sources of mastery experience, vicarious experience, verbal persuasion and physiological states may increase the assessment of the subject (Joet, et al., 2011). Lastly, as for parents, they may foster more attachment and engagement with children. Parents' sense of academic efficacy and aspirations for their children were linked to their children's scholastic achievement through their perceived academic capabilities and aspirations (Rutchick, Smyth, Lopoo, & Dusek, 2009; Trusty, Plata, & Salazar, 2003). Students should have some engagement with family activities as well as getting some intrinsic and extrinsic motivation (Kaplan, 2010). Some previous studies discovered that parental expectations have been found to play a critical role in children's academic success (Davis-Kean, 2005; Pearce, 2006; Vartanian, Karen, Buck & Cadge, 2007). Students whose parents hold high expectations receive higher grades, achieve higher scores on standardized tests, and persist longer in school than to those whose parents hold relatively low expectations (Davis-Kean, 2005; Pearce, 2006; Vartanian, et al., 2007).

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