SELF-CONTROL AND RESILIENCE ON ACADEMIC PERFORMANCE AMONGUNDERGRADUATE STUDENTS IN MALAYSIA

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Self-Control and Resilience on Academic Performance among Undergraduate Students in Malaysia

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APPROVAL FORM

This research paper attached hereto, entitled “Self-control and resilience on academic performance among undergraduate students in Malaysia” prepared and submitted by Chan Weng Hoe, Neo Eyone and Thayanhithy A/L Veeraramany in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

_____ Date: 29/11/2022

Supervisor

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Abstract

The present study investigated the relationship between self-control, resilience, and academic performance among undergraduate students in Malaysia, researching how self-control and resilience influence students' academic results and how self-control affect resilience. Only a few studies the impact of self-control on academic performance, and previous studies on resilience used adolescents as their target sample rather than university undergraduates and were less in Malaysia context. In this study, researchers hypothesised that there is meaningful relationship between self-control, resilience, and academic performance among undergraduate students. Participants (N=94) who are students studying in Malaysia's university and are between 20 to 24 years old were recruited by using cross-sectional study design and snowball sampling method for them to provide response for a survey through Qualtrics. Brief Self-Control Scale (BSCS) and Academic Resilience Scale-30 (ARS-30) are two instruments that used to measure the students' trait self-control and degree of resilience respectively, while academic performance is detected through CGPA. Results showed that self-control and academic performance were related (r = .232, $p < .05$), self-control and resilience have a significant relationship (r = .429, $p < .01$), while resilience has no significant relationship with academic performance (r = .064, $p > .05$). This study can be used as a starting point to research and produce findings regarding the influences of self-control and resilience on academic performance in Malaysia context. Academics and psychological experts can use this research as a resource and a chance to get motivated to investigate other causal factors that could improve academic performance.

Keyword: self-control, resilience, academic performance, undergraduate students

DECLARATION

We declare that the material contained in this paper is the end result of our own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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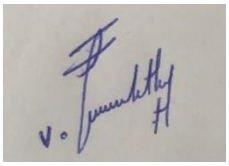
Signed : 

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Lists of Abbreviations

ARS-30	Academic Resilience Scale 30
BSCS	Brief Self-Control Scale
CGPA	Cumulative Grade Point Average
GPA	Grade Point Average
PPMC	Pearson Product-Moment Correlation
STPM	Sijil Tinggi Persekolahan Malaysia (Malaysia High School Certificate)

Chapter I

Introduction

Background of Study

The Malaysian government and other educational parties have been paying attention to the topics related to students' academic performance and achievement problems (Suyansah & Gabda, 2020). According to Ali et al. (2009), the measurement for students' academic performance used by most researchers in Malaysia is Cumulative Grade Point Average (CGPA). Basyir (2021) reported that even though students who scored 3.09 CGPA in Sijil Tinggi Persekolahan Malaysia (STPM) had raised from 33.45% in 2019 to 33.69% in 2020, the percentage of the four flat scorers and those with CGPA between 2.00 to 3.00 had decreased. Besides those students' academic achievement before university enrollment, the academic performance of students in universities should be concerned as well, especially by the education professionals (Abu Bakar et al., 2010), administrators and the companies in the employment market (Ali et al., 2009). Academic achievement of university students is one of the critical elements to produce graduates with high quality and leading ability (Mohd Fauzi et al., 2020; Ali et al., 2009).

The government pays attention to the academic achievement of university's students for they are the hope for Malaysia's future development. The institutions are concerned about the students' academic performance as the better the academic performance of the students, the higher the reputation of the institutions. Gradually, figuring out factors that cause impacts to university students' academic performance have become a topic that successfully grabs the attention of the researchers and raises their interest (Shahzadi & Ahmad, 2011; Hassan et al., 2020). More and more research has been conducted to investigate factors influencing academic performance of students pursuing university. Factors examined in previous studies are based on different perspectives such as personal demographic characteristics (Alfan &

Othman, 2005; Ahmad et al., 2015; Ali & Hayat, 2019; Azmi & Mustapha, 2017), students' attitudes (Liddell & Davidson, 2009; Abu Bakar et al., 2010), level of family income (Farooq et al., 2011; Adzido et al., 2016; Kamal & Ahuja, 2018), educational background of students' parents (Kamal & Ahuja, 2018; Olufemioladebinu et al., 2018) and many more.

Better grades and academic successes are associated with self-control (Tangney et al., 2004; Duckworth and Seligman, 2005), as are higher-caliber interpersonal connections (Vohs et al., 2011), and, in general, a happier existence (Cheung et al., 2014; Hofmann et al., 2014). Low self-control, on the other hand, is linked to harmful behaviours and consequences such as impulsive purchasing (Baumeister, 2002) and financial debt (Gathergood, 2012), irrational eating habits (Elfhag and Morey, 2008), and delay (Tice and Baumeister, 1997). There are two important aspects that are intimately linked to self-control, which include effort and inhibition. In terms of inhibition, many long-term objectives do call for the suppression of behaviours that correspond to short-term objectives. But during the last decade, several academics have claimed and demonstrated that an individual requires more than just the ability to purposefully restrain urges and unpleasant reactions in some situations if they wish to successfully utilise self-control in everyday living. In actuality, the onset of long-term consistent conduct may be just as important or even more crucial, and one must put forth a lot of effort to stay persistent (Gillebaart, 2018).

Self-control consists of two salient characteristics on which people's practice or implementation often depends. Firstly, one of those is people's self-control is usually triggered or controlled by their own self-consciousness. Self-control is focusing on one's will, not driven by external temptations and punishments. However, subjective consciousness is not an indispensable condition for self-control, the engagement of self-controlled behaviour can even occur without concrete awareness. Behaviour under self-control will gradually take shape and become a specific habit, pattern or regulation, thus self-control naturally arises in

response to different situations (Duckworth et al., 2019). Secondly, another characteristic is that self-control involves making decision among two options, in which one of the options takes longer but is more meaningful and worthwhile, and the other option has immediate benefit but contains little practical significance. Among the two choices, the more meaningful process is the more time-consuming, patient-wearing, and more challenging, while the other one is attractive and relaxing but not worth the action. When faced with two choices, being able to resist the temptation of the present and moving forward firmly toward the long-term goal means self-control (Duckworth et al., 2019).

There are many unsatisfactory and unpleasant situations in life, and resilience is a skill that can be applied to find balance and to make adjustments to ease the circumstances so that things do not turn out for the worse. Resilience is able to build a strong mind as it allows individuals to accept, adapt and face a variety of annoying problems, without backing down or avoiding them. This ability ensures that one is not easily defeated or destroyed by adverse conditions. On the contrary, an individual can escape from the predicament and be reborn from the ashes (Trigueros et al., 2019). One of the most important psychological elements associated with an individual's adaptability to adversity is resilience. The resilience meta-theory acknowledged that the process of resilience is divided into three stages (Richardson, 2002). Firstly, there is a circumstance that the person in bodily and mental equilibrium is unable to handle due to a lack of resources or abilities. Then, the person makes an effort to readjust in order to restore their equilibrium. In the final stage, the individual regains equilibrium via the acquisition of new abilities and the process of learning (Trigueros et al., 2020).

In a few different ways, resilience is conceived. First, resilience is a fixed, stable characteristic (Block & Block, 1980). Nevertheless, according to this perspective, resilience, a crucial component of a person's capacity to adapt to change (Roberts & Masten, 2004), is

not impacted by the environment. As a result, defining resilience as a constant and unchanging feature is not entirely accurate. According to the second point of view, resilience is described as a more dynamic process (Luthar, Cicchetti, & Becker, 2000). This is the view that interactions with others in the immediate surroundings, such as friends and the social system, have an influence on resilience (Dyer & McGuinness, 1996). Resilience may be strengthened as an adaptive process, which promotes personal development. Students can protect themselves from mental health concerns by engaging in the resilience process (Hart, 2019).

Problem Statement

Education brings changes to society and even the world. Malaysia, as a developing country, emphasizes on education for further development. It is the reason why the Ministry of Education and the education sector have been concentrating on the academic performance of students. Many people and even education experts remind that "Academic scores are not everything," (Atieno, 2018) as students are stressed due to heavy homework load, heavy study schedule and competition among their peers as well as their parents. The main reason that causes students facing these academic stressors is demanding them to achieve better academic performance.

Academic performance should not be used to make comparisons between individuals but to show the strengths and weaknesses of each student. Meanwhile, it also helps to find out the talents to improve the development of a country. Even though grades are not everything, academic performance is frequently used by the employers to evaluate the job applications from the graduates (Zubairi & Jani, 2008). Some companies require a certain level of education as well as academic performance as the basic qualification of hiring. For the fresh graduates or the interns who are with poor academic performance, they may face difficulties

while looking for a job.

A recent news report shows that 72% of Sijil Pelajaran Malaysia (SPM) graduates do not have interest in continuing their studies to higher education (Azizan, 2022). They prefer to work instead of pursuing further studies after SPM. E-hailing drivers, food delivery riders and influencers on social media become the top three job preferences of the high school graduates. Based on this report, the main reasons that cause the youths to lose interest in further study are effects of social media, working chances promoted through online and the concept that it is not guaranteed to get an ideal career even though one is with good academic performance. This issue may negatively influence the productivity and development of Malaysia as the youths refuse to accept higher education (Ang, 2022).

Other than that, many studies have been conducted to investigate the factors influencing academic performance, especially the individual factors. However, there are few studies examining if students' self-control could be one of the factors. For example, the issue of discontinuing studies mentioned above could be reduced if students have higher self-control to avoid temptation and put all their attention to reach the goal. A study by Duckworth and Seligman (2005) showed that students with greater self-control have better academic performance. This study also claimed that to gain academic achievement, self-control should be given priority compared to intelligence quotient (IQ) scores. Previous research regarding resilience adopted adolescents as their target sample instead of undergraduate students in university. Furthermore, most research studying resilience on academic performance that could be found are in the context of other countries.

Thus, we are interested in investigating if there is a relationship between self-control, resilience and academic performance among undergraduate students in Malaysia.

Research Objectives

1. To investigate the relationship between self-control and academic performance among undergraduate students in Malaysia.
2. To investigate the relationship between resilience and academic performance among undergraduate students in Malaysia.
3. To examine the relationship between self-control and resilience among undergraduate students in Malaysia.

Research Questions

1. Is there a relationship between self-control and academic performance among undergraduate students in Malaysia?
2. Is there a relationship between resilience and academic performance among undergraduate students in Malaysia?
3. Is there a relationship between self-control and resilience among undergraduate students in Malaysia?

Research Hypothesis

H_1: There is a relationship between self-control and academic performance among undergraduate students in Malaysia.

H_2: There is a relationship between resilience and academic performance among undergraduate students in Malaysia.

H_3: There is a relationship between self-control and resilience among undergraduate students in Malaysia.

Significance of Study

The findings of this study allow the undergraduate students to have insights into their self-control and academic resilience so that they can figure out how to improve their academic performance. Since the existence of COVID-19, students have been given online classes. Even though the students are allowed to go to school now, some universities or colleges in Malaysia are still providing lectures online due to the number of students in each lecture class. Having online lectures could be a challenging time for undergraduate students for it is also testing if the students have high self-control to avoid temptation such as browsing social media or multitasking while attending online classes. Besides, it also lets the undergraduate students understand the importance of resilience when it comes to academia.

On top of that, this study may help to find out the potential factors that can contribute to better academic performance, in which the key elements are self-control and academic resilience. It helps the students raise awareness to focus on cultivating and developing characteristics of self-control and academic resilience so they can excel academically and reach satisfied academic achievement. Since there are currently only sparse studies addressing the impact of self-control and resilience on academic performance, this study can serve as a vanguard to investigate and bring results about the effects of self-control and resilience on academic performance. This research can explore more about the link between self-control, resilience, and academic performance and how self-control and academic resilience affect academic performance. Not only that, this study examines the skills of self-control and level of resilience of Malaysian university students and how these affects their academic performance. Therefore, this study can serve as a research example in Malaysia and enrich Malaysia's study that linked to these variables. This research can be used by academics or psychological professionals as a reference and provide some direction on factors that can improve academic performance, as well as an opportunity for them to generate some

commitment to research other causal factors that may raise academic performance.

Conceptual Definitions

Self-control

Self-control can be interpreted as the ability to restrain one's thoughts, feelings, and actions which can influence the next step, when valuable goals and short-lived desires coexist as choices (Duckworth et al., 2019). Self-control can also be defined as resolving the contradiction between short-term and long-term motivation, highlighting that effort restriction is simply one of many viable solutions to such quandaries. According to Gillebaart and De Ridder (2015), self-control cannot be based solely on effortful inhibition, since this would leave people very vulnerable to self-control failure all of the time owing to burnout, exhaustion, or deficiency in sustained attention or motivation. Individuals with a high level of self-control often do not utilise effortful inhibition to address self-control difficulties, but rather use their self-control to implement comparatively simple and effortless techniques for long-term consistent actions (Gillebaart, 2018).

Resilience

Resilience is an ability to resist tribulation and anxiety, accept the reality, respond to trouble, face the problem bravely, and recover from excruciation. Resilience makes people actively try to take the first step out of the pain, rather than being immersed in misery. When going through a sad or tragic event, resilience can help recover from grief and come out of it, and be able to grow in affliction and suffering. Resilience is built up through distress, pain and sorrow, people gradually learn and master how to face and deal with various problems (Trigueros et al., 2019).

Academic Performance

Academic performance is generally known as the achievement measurement of students for academy. Hassan et al. (2020) defined academic performance as a person’s

achievements while receiving formal education such as elementary, secondary as well as tertiary education. When it comes to the term “academic performance”, people always link it to the scores and grades. However, Williams (2018) reported that success that is gained outside the classroom should be included as part of academic performance as well.

Operational Definitions

Self-control

In current study, self-control of undergraduate students can be measured by Brief Self-Control Scale (BSCS). It is a method with the objective to determine an individual's capacity for pursuing abstract, difficult, and far-off goals while avoiding clear, reachable, or close targets. It is a self-report 5-point Likert scale with 13 items in total. The rate of points is from 1 “not at all like me” to 5 “very much like me”. Some of the items require reversed scoring. The higher the scores, the higher the level of trait self-control.

Resilience

In current study, resilience of undergraduate students can be measured by Academic Resilience Scale-30 (ARS-30). It is a method to evaluate a student's capacity for overcoming academic challenges and stress using a multidimensional construct. ARS-30 is a 5-point Likert scale with 30 items and rates ranging from 1 “likely” to 5 “unlikely”. Reversed scoring is needed for the items that are positively phrased. The higher the scores, the greater the academic resilience of the student.

Academic performance

In present study, academic performance can be measured by Cumulative Grade Point Average (CGPA). It is calculated by using the total number of credits gained by the candidate to divide the total grade point that they have earned. The minimum mark required is 2.0 and the maximum mark is 4.0. The mark closer to 4.0 indicates better academic performance.

Chapter II

Literature Review

Self-control and academic performance

The capacity to maintain one's own self-control is absolutely necessary for academic achievement. Some research has found that a student's level of self-control is an even better indicator of academic success than the student's IQ when it comes to predicting how well the student will perform in his or her academic endeavours (Duckworth & Seligman, 2005). Therefore, interventions that are geared toward enhancing the students' capacity for self-control could be a powerful tool in both improving academic performance and the students' ability to learn (Job et al., 2015).

Research has shown that relatively minor social and psychological interventions can improve academic performance over time spans as long as two years, despite the fact that there are a number of factors that contribute to academic achievement (for a review see Yeager & Walton, 2011). The current study investigated the hypothesis that a self-control training intervention may have similar long-term effects on academic self-regulation and performance (Brez et al., 2020). Specifically, the researchers wanted to know whether or not these effects would hold true over time. An experiment with random assignment and controlled conditions was used to look into these effects.

Previous research has found that improving one's ability to exercise self-control can be accomplished by regularly participating in activities that demand self-control from the participant. According to this body of research, the capacity to exercise self-control is defined as the ability to suppress or inhibit a dominant response (i.e., thoughts, feelings, or behaviour), thereby enabling an individual to act in a different manner. This means that an individual is able to act in a different manner when they have the ability to exercise self-

control (Baumeister, Vohs, & Tice, 2007; Muraven, Baumeister, & Tice, 1999; Inzlicht, Schmeichel, & Macrae, 2014). Participants in the relevant studies were instructed to regularly engage in small acts of self-control by either completing simple everyday tasks in a controlled way (for example, using the non-dominant hand; controlling language, posture, or food intake); or by participating in some sort of self-control practice programme. In the relevant studies, participants were instructed to regularly engage in small acts of self-control such as squeezing a handgrip for a total of two minutes per day (Grass et al., 2019).

In the majority of cases, the studies that were reported demonstrated that these self-control practice interventions led to improvements in self-control. These improvements in self- control were indicated by measures of inhibitory control or everyday self-regulation (e.g., healthier eating behavior, decreased impulse spending, and reduced inclination for intimate partner violence) (Friese et al., 2017).

A recent meta-analysis that looked at a selection of some of the effects reported in ten studies on self-control training found a small training effect size in one analysis and a medium training effect size in another analysis. This was found on a number of different dependent variables. On the other hand, the effect size of training was found to be medium in another analysis. These two sets of findings were recently presented in an article that was published in the journal PLOS ONE (Inzlicht & Berkman, 2015). This suggests that training in self-control may in fact be effective; however, in order to obtain a credible mean effect size estimate, additional evidence is required.

To this day, the majority of the evidence that supports the effects of self-control training on real-life behaviour is based on self-reports or behavioural measures that were evaluated either during the practice intervention or shortly after it was completed. This evaluation took place either while the practice intervention was being carried out or shortly after it was finished. (Inzlicht et al., 2015).

The current study looked at objectively measured grade point average (GPA) as the primary outcome of a self-control practice intervention that was delivered from exams that took place six months after the self-control training. The exams were given by the university where the self-control training was delivered. In addition to self-reports on academic self-regulation, which were the primary focus of the earlier study, this was also taken into consideration. (Bernecker et al., 2018).

In addition to the primary focus that this research is concentrating on, the researchers hope that their work will also contribute to other areas. Self-control training interventions have been shown to have a beneficial impact on everyday self-regulation; however, very little is currently known about the psychological processes that are responsible for producing this effect. In the current study, we investigated four possible mechanisms that could potentially account for an effect of practising self-control on academic self-regulation and performance. Specifically, we looked at the effects that self-control training had on academic self-regulation and performance. Changes in inhibitory control, resistance to fatigue, motivation to avoid effort, and beliefs about willpower are the names given to these different mechanisms. In the following paragraphs, we will offer explanation of the mechanisms that are at play here. (Bernecker et al., 2018).

Resilience and academic performance

When faced with different academic challenges and obstacles, students with high resilience can calmly handle the problems in a proper way without feeling restless and panicking. This ensures the students to not overwhelmed by academic pressure and helps them better accomplish the academic tasks. With the development of resilience, resourcefulness follows as another trait. The students with resourcefulness will have the ability to make them believe they can achieve all their possible goals, take control of

everything in their lives, and take responsibility for the results they get. Not only that, resilience also predisposes students to optimism and a positive attitude. An optimistic attitude motivates students to view academic difficulties in a positive way and to think in a positive direction and come up with solutions. Students are able to handle any educational difficulties with ease and confidence, and find a way out as well as rebound whenever there is a chance (Ayala & Manzano, 2018).

There has been extensive and numerous amounts of previous researches of resilience and academic performance have been carried out, in which the studies have shown a high degree of consistency and validated the relationship between the two. According to Allan et al. (2014), the level of resilience of university freshmen was found positively related to their average educational performance after completing the first academic year. A study by Beauvais et al. (2014) disclosed that resilience is an ability that can help students gain greater academic result. Moreover, resilience was a skill that can be applied by first-year university students to deal with difficulties, based on the study by Li et al. (2015). Research of Reyes et al. (2015) also indicated that resilience can improve university students' academic performance by helping them cope with a variety of academic stress and adversity. Resilience was a factor that positively influence academic achievement of university students, discovered by Johnson, Taasoobshirazi, Kestler, and Cordova (2015). A report by Allan et al. (2014) also stated that a positive correlation was found between the resilience and the academic attainment of the university students (Ayala & Manzano, 2018).

Other than that, several experiments were done in diverse regions and across distinct time periods, with disparate findings. A study by Sreehari and Nair (2015) investigated the age and gender variables in resilience among adolescents in high school and discovered no sexuality or age-related differences in resilience score. Yet, the impact of age, sex, and ethnic group on academic success and resilience was revealed by a study of American high school

students in metropolitan areas, according to Wasonga, Christman, and Kilmer (2003). Also, independent investigations on Mexican-origin high school students found that male and female students had different environmental protection variables (Plunkett et al., 2008; Gonzalez & Padilla, 1997; Rao & Krishnamurthy, 2018).

Given the pressures that are allegedly associated with the university experience, numerous academics are interested in finding out how resilience enables students to achieve academic achievement in challenging situations. Academic resilience, or the capacity to achieve academically despite challenges including those relating to faith, enthusiasm, anxiety, and connections, is what Anagha and Navyashree (2020) explained as positive adaptation applicable to scholastic experiences. According to Hwang & Shin (2018) and Droppert et al. (2019), previous research has shown that students with higher GPAs are more resilient academically. Hwang and Shin (2018) suggested that resilience was linked to students' contentment with their present major and interpersonal interactions, and Fullerton et al. (2021) stated that ideal well-being and university adaptability has also been related to resilience, these aspects all affect student performance. Not only that, students with stronger academic resilience are likely to obtain better academic performance, especially those who take less time to recover from frustration and view blunders as learning opportunities (Droppert et al., 2019; Jalmasco, 2022).

Academic resilience is a skill that students may develop over time and weave in with their everyday experiences (Edward & Warelow, 2005). It is acquired through a collection of skills that result from the observation and study as well as adjustment of dysfunctional patterns linked to difficult circumstances. Students can acquire skills in advance of any unforeseen academic obstacle, which aids in the development of resistance to prospective stresses. Simultaneously, students can behave intuitively by acting quickly and appropriately to defend themselves from problems as they arise. Resilient students will be able to handle

academic expectations effectively because resilience is a dynamic characteristic through which students develop the knowledge and skills to assist them confront an unpredictable future with a positive attitude and optimism (Silva & Astorga, 2015). The research provides strong evidence for the connection between resilience and its numerous positive effects on welfare and performance, including resilience's protective buffer effect against burnout or dropout (García -Izquierdo et al., 2018; Hartley, 2010) and resilience's ability to increase academic engagement (Romano et al., 2007; Vidal-Meliáet al., 2022).

Self-control and Resilience

Resilience has been identified as one of the factors that contributes the most significantly to one's overall mental health. However, there have only been a handful of studies that look into how students in higher education can develop and improve their resilience. (Yang et al., 2019). It has been discovered that the capacity to exercise self-control is one of the most important psychological factors associated with the development of resilience (Vötter, 2019).

According to the postulates of the Strength Model of Self-Control, engaging in routine self- control training has the potential to increase willpower strength in a manner that is analogous to the way in which physical exercise can increase muscle strength. This current study aimed to evaluate the efficacy and feasibility of willpower strengthening exercises in terms of cultivating resilience and self-control while simultaneously reducing psychological distress among university students. The participants in this study were asked to fill out a survey about their experiences with willpower strengthening exercises. People who are resilient are characterised by having a "personality characteristic that moderates the negative effects of stress and promotes adaptation," which is also referred to simply as "resilience." Using ground theory, Wagnild and Young were able to determine five

fundamental qualities that resilient people share in common. These traits include living a life with a purpose, having perseverance, being equanimous, being self-reliant, and being able to exist alone. Because perseverance and self-reliance are the two most important factors that contribute to overall levels of self-control, those were the only two characteristics that were evaluated for the purposes of this study (Sagar,2021).

Self-control is an important factor that contributes to the formation, maintenance, and improvement of resilience, as well as the reduction of psychological distress. It also plays a role in the relief of emotional anguish. For instance, Ayduk, Mendoza-Denton, Mischel, and Downey pointed out that effective strategies for self-control in childhood have a connection to resiliency later on in life (Kokkinos & Vlavianou, 2021). Downey also mentioned that resilience is related to the ability to adapt to changing circumstances. People who have a high level of self-control may be more resilient to adversity because they are more adept at employing cognitive reappraisal strategies. This may be the case because people who have a high level of self-control have a higher level of self-control. These strategies involve shifting an individual's interpretation of a potentially hazardous situation in order to make the circumstance appear to be less hazardous than it actually is. Students in higher education who report having lower levels of resilience, poorer relationships with peers, greater difficulties adjusting to new environments, and higher dropout rates are more likely to be experiencing psychological distress. In addition, research on the resilient factors that are related to an individual's responses to stress was carried out by DeRosier, Frank, and Schwartz, along with Leary. According to the findings, students who rated their levels of resilience as higher also rated their levels of self-esteem and their capacity to engage in adaptive behaviours that require self-control as higher. These abilities are all dependent on having self-control. All of these are essential components of a healthy mental state and overall sense of well-being.

Self-control can be defined as the capacity to override or modify one's own cognitive, emotional, and behavioural responses. This ability is at the heart of what the term "self-control" refers to. According to Baumeister and his colleagues, there are five distinct subtypes of self- control that can be distinguished from one another: thought control, emotional control, impulse control, performance regulation, and habit breaking. The first domain of thought control, which refers to this ability, is one's capacity to effectively regulate their own cognitive processes. This capability is referred to as "thought control." Because of the diminished ability to effectively regulate cognition that occurs during a state of stress, it is not uncommon for individuals to experience increased cognitive errors and biases when they are under this state. The second domain is known as emotional control, and it refers to the process of controlling one's feelings, emotions, and overall mood. This domain is closely related to the first domain, which is known as behavioural control. It comprises a wide variety of complex processes that involve monitoring, evaluating, and modifying the emotional processes that occur on the inside of a person. These processes are called emotional regulation (Westerman et al., 1997). There is a significant and positive correlation between an individual's capacity to effectively regulate their emotions and increased levels of both psychological well-being and psychological resilience in that individual.

Theoretical Framework

The Strength Model of Self-Control

The strength model of self-control by Baumeister et al. (2007) explains how people can exert control over their actions, inclinations, and drives in order to accomplish long-term objectives and adhere to socially imposed norms and codes of conduct. Based on this model, each behaviour of self-control (such as controlling one's emotions or remaining persistent) is

supported by a single, metaphorical strength with a finite capacity. Having had an initial act of self-control, this power may become momentarily depleted, which may affect performance in following acts of self-control (Englert, 2016). This model has successfully aroused a lot of interest in psychology literature due to the belief that lack of self-control can result in both individual and societal issues such as working or academic underachievement (Strength model of self-control, n.d.). For example, some students face difficulties in controlling themselves not to play with their smartphones. It may lead to the delay of revision and preparation for the examination. Thus, self-control could be potential to influence academic performance.

Conceptual Framework

The figure below shows the respective conceptual framework of the present study. It can be seen that the independent variables are self-control and resilience while the dependent variable is the academic performance. This study does not only concentrate on examining the relationship between the independent variables and the dependent variable respectively (association between self-control and academic performance and association between resilience and academic performance) but also the correlation between the two independent variables.

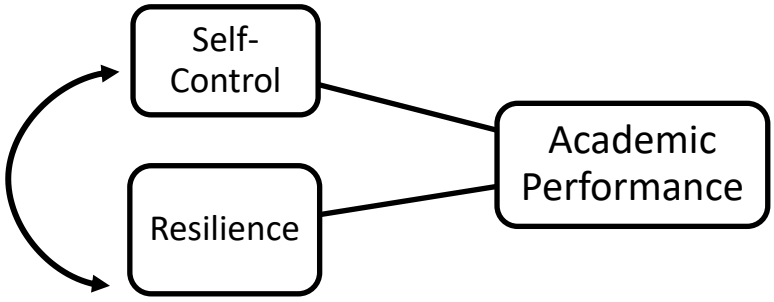

Figure 2.1 Conceptual Framework of current study

Chapter III

Methodology

Research Design

The research design adopted in this study was cross-sectional study design. This study design requires the researchers to set both inclusion and exclusion criteria to choose the participants (Setia, 2016). It is typically used to examine the disease prevalence and depict attitudes of a population (Simkus, 2021). The reason of implementing this kind of study design is that it does not require much time and cost to conduct the study (Setia, 2016). Quantitative correlational research approach was used to investigate the relationship between self-control, resilience and academic performance. This approach is a design investigating the relationship between the variables under the condition where the researchers do not make manipulation or intervention to any of the variables (Bhandari, 2021). Thus, it is suitable to be applied in the current study. The data collection was done by sharing online questionnaire created via Qualtrics. The questionnaire consists of three sections where Section A is for demographic information, Section B for self-control and Section C for resilience.

Sampling Procedure

Sampling Method

The sampling method used for the present study was snowball sampling, a non-probability sampling method. Snowball sampling is divided into three types which are linear snowball sampling, exponential nondiscrimination and discrimination snowball sampling. Linear snowball sampling is where the sample collection begins with gathering the data from a person, who then share the information with another, creating a chain that lasts until there are enough people for analysis (Bhardwaj, 2019). This was the type of snowball sampling used in the present study. The researchers shared and distributed the online questionnaire to

students studying in universities in Malaysia by an anonymous link generated using Qualtrics to collect data. Those who received the message with the link were asked to share the information to their friends who are undergraduates as well to form the chain. The reasons of picking this method are cost-effective (Snowball Sampling, 2009) and time-saving. Sharing the questionnaire only requires a click of the fingers, which is less time-consuming compared to physically distributing the printed survey forms to the students in a university. It can be filled up by the participants anytime and anywhere as long as they have network to access. In addition, snowball sampling method enables the researchers to have higher exposure to the participants and gain more respondents easily, especially those who meet the criteria or share the similar characteristics. With the connection, there is a higher chance for the researchers to gain data from the undergraduate students studying in other universities. The more participants the better, so that the researchers can proceed to the next step of the research instead of being troubled by the failure of reaching the estimated sample size.

The inclusion criteria of the data collection included: (a) participants must undergraduates pursuing bachelor's degree; (b) studying in a university in Malaysia; (c) participants must be Year 2 and above. The data collected was filtered out after completing the collection. The participants who failed to fulfill any of the inclusion criteria were excluded from the data. Other exclusion criteria included: (a) participants who disagreed to provide information; (b) incomplete questionnaire. Year 1 students were excluded as the researchers aimed to collect the CGPA of students who had undergone at least 3 trimester or earned 40 credit hours and above in total.

Sample Size

Calculation of sample size is done by using G*Power 3.1.9.4 software, which can run various statistic tests and provide all types of power analysis (Faul et al., 2007). The formula used to calculate the effect size of each variable is $f^2 = \frac{R^2}{1-R^2}$. With the reference of a

previous study by Gorde (2021) and by Duckworth and Seligman (2005) respectively, the calculated effect size of self-control is .593 and academic resilience .051. The total effect size is .32 (refer to Appendix A), where it is categorized as a medium effect size, based on Cohen's criteria.

Confidence interval of .95 and error probability of .05 are set to calculate the minimum sample size as the .05 is where the Type I error that is typically set (Bujang, 2021). With these criteria and the medium effect size of .32, the result of the sample size calculation is 52 (refer to Appendix B). The total sample size for the actual study will be targeted as 100 to avoid the potential barriers that may occur while collecting data and performing analysis.

Participants

Since this study targeted undergraduate students in Malaysia, only students who are pursuing a bachelor's degree were involved in the recruitment of participants. The participants were recruited from both private and government universities. There were 94 participants recruited, with the age between 20 to 24 years old (M = 21.54; SD = 0.88). Among these participants, there were 26.6% of males (n = 25) and 73.4% of females (n = 69). Majority of the participants were Chinese (n = 83), following by Malay (n = 6) and Indian (n = 5). The percentage of participants' religion was 72.3% Buddhism (n = 68), 16.0% Christianity (n = 15), 6.4% Hinduism (n = 6) and 5.3% Muslim (n = 5) respectively. 75.5% of participants were undergraduates studying in Universiti Tunku Abdul Rahman (n = 71), 5.3% undergraduates studying in Universiti Malaya (n = 5), 3.2% undergraduates studying in Universiti Kebangsaan Malaysia (n = 3) and the rest were pursuing in other universities in Malaysia.

Research location

The study was conducted online in Malaysia. The link of the questionnaire was shared via social media platforms such as Facebook and Instagram as well as applications such as

WeChat, Messenger, WhatsApp and Microsoft Team.

Instruments

Brief Self-Control Scale (BSCS)

Brief Self-Control Scale (BSCS) is a unidimensional method of evaluating one's trait self-control through self-report. Brief Self-Control Scale (BSCS) is an instrument that was founded and created by Tangney, Baumeister, and Boone in 2004. It can be used to assess students' ability to resist obvious, accessible or close target, and pursue abstract, challenging and distant goals. BSCS is an instrument that contains 13 items with 5-point Likert-scale. The point is ranging from 1 "not at all like me" to 5 "very much like me". The higher the scores, the higher the level of trait self- control. Both a one-factor model and a two-factor model are partially supported by the validation evidence. The overall predictive power of the BSCS scores for the one-factor model was significant. The two factors in the two-factor BSCS were differently correlated with the results. Using all 13 items for the one-factor solution, measures of internal consistency for the BSCS were calculated. To calculate internal consistency for the two-factor solution, the items were divided. Factor 1 was made up of items 1, 2, 5, 6, 7, 8, while Factor 2 was made up of items 3, 4, 9, 10, 11, and 13. The coefficients alpha (Cronbach, 1951) and omega (McDonald, 1970) for the one-factor model were found to be .914 and .915, respectively. The two-factor model's Factor 1 had coefficients alpha and omega of .892 and .894, respectively. In the two-factor model, alpha was .819 and omega was .826 for Factor 2 (Manapat et al., 2021).

Academic Resilience Scale-30 (ARS-30)

Academic Resilience Scale-30 (ARS-30) is a multidimensional method to evaluate a student's resilience for overcoming academic challenges and stress. The Academic Resilience Scale (ARS-30) was developed by Cassidy in the year of 2016. ARS-30 is an instrument with

5-point Likert scale and consists of 30 items. Each item is ranging from 1 “likely” to 5 “unlikely”. Reversed scoring is needed for the items that are positively phrased. The higher the scores, the greater the academic resilience of the student. Significant differences in mean global ARS-30 scores emerged with a large effect size (Cohen, 1988) ($t = 11.27$, $df = 525$, p 0.001, $d = 0.98$), supporting the Academic Resilience Scale's discriminant validity. Cronbach's alpha was used to assess the reliability of the Academic Resilience Scale. The Alpha coefficient value was 0.90, indicating that the scale has satisfied reliability and score stability (Cassidy, 2016).

Cumulative Grade point average (CGPA)

Grade point average (GPA), high school graduation rate, annual standardised examinations, and college admission exams are used to gauge student performance. On a scale of zero to four, a student's GPA is commonly calculated, with higher GPAs corresponding to higher grades in the classroom. In present study, academic performance was measured using Cumulative Grade Point Average (CGPA), where the results of the participants recruited have to be accumulated at least 3 trimesters and above. It is calculated by using the total number of credits gained by the candidate to divide the total grade point that they have earned. The minimum mark required is 2.0 and the maximum mark is 4.0. The mark closer to 4.0 indicates higher grades. In this study the CGPA of the students were collected through self-reporting.

Research Procedure

Ethical Approval

A research proposal was submitted to and approved by the supervisor of the researchers, Ms Teoh Xi Yao. The researchers gained ethical clearance approval from the

Scientific and Ethical Review Committee (SERC) of Universiti Tunku Abdul Rahman by submitting the demographic information form together with measurement of each variable for review. The online questionnaire was only distributed after obtaining the ethical clearance approval. It was to ensure that the current study was conducted in an ethical and legal way.

Pilot Study

The researchers conducted a pilot study before carrying out the actual study. 30 participants were recruited as suggested by Hill (1998). An online questionnaire was created using Qualtrics. The questionnaire provided to the participants consisted of the study objectives, consent form, questions for demographic information and scale items. The time spent for data collection was five days. Data collection was done by sharing the anonymous link of the online questionnaire to the students through social media platforms such as Facebook, Instagram as well as mobile phone applications such as WeChat, WhatsApp and Microsoft Team. Data analysis was done using IBM SPSS Statistic 26 software. The Cronbach's alpha found for the BSCS was .899, considering high reliability as it was between the range of 0.786 and 0.911 (Da Silva, 2019). The Cronbach's alpha for the ARS-30 was found to be .972, indicating high reliability as well.

Actual Study

The actual study was carried out after the pilot study. The procedure was similar to the pilot study conducted but much time was spent to collect data from more participants. The total amount of participants recruited for the actual study was 146. The time spent for the data collection was three weeks. Among the 146 responses, 46 of the responses were filtered out and eliminated due to not fulfilling inclusion criteria, not agreeing to provide information, incomplete data and 6 responses were outliers. Data cleaning was carried out before data analysis. Similar to the pilot study, data analysis was done by using IBM SPSS Statistic software version 26. The reliability of both BSCS and ARS-30 was slightly lower than the

pilot study owing to the number of participants. The Cronbach's alpha for BSCS for actual study became .761 while the Cronbach's alpha for ARS-30 was .936.

Data Analysis

Those incomplete responses were filtered out by using the filter function in Qualtrics. The data was then exported into SPSS data file. IBM SPSS Statistic version 26 was the software used to conduct the data analysis of this study. Boxplot was implemented to exclude the outliers within the data collected. The demographic information provided by the participants which are categorical variables (e.g., gender, ethnicity, religion, institution, current year and trimester of study etc.) were analysed using descriptive statistics to compute the frequency and the percentage distribution. Descriptive statistics were also used to analyse continuous variables to compute the mean, standard deviation, maximum and minimum value of the variable.

Normality test was conducted to examine whether all the variables achieve the assumption of normality. It includes five indicators which are histogram, quantile-quantile plot (Q-Q plot), skewness and kurtosis as well as Kolmogorov-Smirnov test and Shapiro-Wilk test. Pearson Product-Moment Correlation (PPMC) was applied to analyse the association between self-control and academic performance, the association between resilience and academic performance as well as the relationship between self-control and resilience. It is used to determine the relationship between two continuous variables and the strength of which as well (Turney, 2022). Scatterplot was adopted to show the visualised Pearson Correlation coefficient.

Chapter IV

Results

Descriptive Statistics

Participants' Demographic Information

The total amount of the usable and valid data was 94. All of them were pursuing bachelor's degree. The age range of the participants was from 20 to 24 years old (M = 21.54; SD = 0.88). Out of these 94 participants, 73.4% were female students and only 26.6% were males. For ethnicity, Chinese occupied majority with 88.3% (n = 83), following by Malay 6.4% (n = 6) and Indian 5.3% (n = 5). No doubt, Buddha was with the highest percentage (72.3%, n = 68), following by 16% of Christian (n = 15), 6.4% of Hindu (n = 6) and 5.3% of Muslim (n = 5). Most respondents were studying in Universiti Tunku Abdul Rahman (75.5%, n = 71) while the rest were studying in either government or private universities located in Malaysia. Year 3 students were the most, where the percentage of students undergoing first, second and third trimester was 30.9%, 35.1% and 10.6%. In terms of faculty and programme studied, Faculty of Arts and Social Science (FAS) and psychology course had the highest percentage which was 59.6% (n = 56) and 46.8% (n = 44) respectively. The statistics were shown in Table 4.1.

Table 4.1

Descriptive Statistics of Participants' Demographic Information (N=94)

	n	%	*M*	*SD*
Age			21.54	0.88
Gender				
Male	25	26.6		
Female	69	73.4		
Ethnicity				
Chinese	83	88.3		
Malay	6	6.4		
Indian	5	5.3		

Religion		
Buddha	68	72.3
Christian	15	16.0
Hindu	6	6.4
Muslim	5	5.3
Name of Institution		
AIMST University	1	1.1
HELP University	1	1.1
Institut Pendidikan Guru Kampus Tengku Ampuan Afzan	1	1.1
SEGi College Subang Jaya	1	1.1
Sunway University	1	1.1
Tunku Abdul Rahman University College	1	1.1
Tunku Abdul Rahman University of Management and Technology (TARUMT)	1	1.1
UCSI University	1	1.1
Universiti Kebangsaan Malaysia	3	3.2
Universiti Malaya	5	5.3
Universiti Malaysia Pahang	1	1.1
Universiti Malaysia Terengganu	2	2.1
Universiti Putra Malaysia	1	1.1
Universiti Sains Malaysia	1	1.1
Universiti Tun Hussein Onn Malaysia	1	1.1
Universiti Tunku Abdul Rahman	71	75.5
Universiti Utara Malaysia	1	1.1
Faculty		
-	2	2.1
College of Arts and Science	1	1.1
Faculty of Applied Science	1	1.1
Faculty of Arts and Social Science	56	59.6
Faculty of Behavioural Science	1	1.1
Faculty of Business and Economics	2	2.1
Faculty of Business and Finance	12	12.8
Faculty of Communication and Creative Industries	2	2.1
Faculty of Computing	1	1.1
Faculty of Educational Studies	1	1.1
Faculty of Engineering	1	1.1
Faculty of Health Sciences	3	3.2
Faculty of Medicine and Health Science	1	1.1
Faculty of Pharmacy	1	1.1
Faculty of Science	3	3.2
Faculty of Science and Marine Environment	2	2.1
Faculty of Technology Management and Business	1	1.1

Lee Kong Chian Faculty of Engineering and Science	1	1.1
School of Health Science	1	1.1
School of Medical and Life Science	1	1.1
Programme/Course of Study		
Accounting	2	2.1
Advertising and Digital Marketing Communications	1	1.1
Banking and Finance	1	1.1
Biomedical Science	1	1.1
Business Administration	3	3.2
Business and Technology management	1	1.1
Chinese Studies	3	3.2
Counselling	1	1.1
Dietetics	1	1.1
Economics	2	2.1
Electrical Engineering	1	1.1
English Language	1	1.1
Human Resource Development	1	1.1
Logistic and International Shipping	2	2.1
Marine Science	2	2.1
Marketing	3	3.2
Media Studies	2	2.1
Multimedia	1	1.1
Nutrition	3	3.2
Nutrition with Wellness	1	1.1
Pharmacy	1	1.1
Physiotherapy	1	1.1
Psychology	44	46.8
Public Relations	10	10.6
Quantity Surveying	1	1.1
Retail Management	3	3.2
Software Engineering	1	1.1
Year/Trimester		
Year 2 Trimester 1	1	1.1
Year 2 Trimester 2	4	4.3
Year 2 Trimester 3	9	9.6
Year 3 Trimester 1	29	30.9
Year 3 Trimester 2	33	35.1
Year 3 Trimester 3	10	10.6
Year 4 Trimester 1	5	5.3
Year 4 Trimester 2	2	2.1
Year 5 Trimester 1	1	1.1

Note. The first column of faculty indicates participants studying in university or college without specific faculty.

Descriptive Statistics of Variables

Table 4.2 revealed the statistic of each variable such as number of participants (n), minimum and maximum of the total score gained by the participants, median (M) and standard deviation (SD).

Table 4.2

Descriptive Statistics of Brief Self-Control, Academic Resilience and Cumulative Grade Point Average (CGPA)

Variables	*n*	Minimum	Maximum	*M*	*SD*
Brief Self-Control	94	23	55	40.61	7.13
Academic Resilience	94	51	148	103.80	19.38
Cumulative Grade Point Average	94	2.40	3.98	3.22	0.41

Normality Test

Histogram

Both histogram of BCSC and histogram of ARS-30 showed a bell-shaped distribution curve respectively which fulfilled normality. However, the histogram of CGPA was slightly right-skewed which indicated that it was not normally distributed (refer to Appendix C). The fact that CGPA cannot be over 4.0 could help explain this. Also, the number of credit hours taken was not similar as the data collection was done among Year 2 and Year 3 students undergoing different trimesters. Despite, the mean and median showed were still very closed, where mean = 3.22 and median = 3.20.

Q-Q plot

The Q-Q plot of each variable showed that the points lied closely to the reference line (see Appendix D). This revealed that the data were normally distributed in this indicator.

Skewness and Kurtosis

Table 4.3 exhibited the value of skewness and kurtosis of each variable. According to George and Mallery (2010), the acceptable range of both skewness and kurtosis values is ±2. Hence, all the variables met the normality assumption of this indicator.

Table 4.3

Skewness and Kurtosis Value of All Variables

Variables	Skewness	Kurtosis
Brief Self-Control	-.119	-.119
Academic Resilience	-.257	-.252
Cumulative Grade Point Average	.196	-.929

Kolmogorov-Smirnov Test and Shapiro-Wilk Test

Table 4.4 revealed the results of Kolmogorov-Smirnov Test and Shapiro-Wilk Test for each variable. If the results are not significant ($p > .05$), it means that the data are distributed normally. The results showed that BSCS was normally distributed in both tests as $p > .05$. ARS-30 had a significant result in Kolmogorov-Smirnov Test ($p < .05$) but a not significant result in Shapiro-Wilk Test ($p > .05$). The results of CGPA were both significant, where $D(94) = .143$, $p < .001$ in Kolmogorov-Smirnov Test and $W(94) = .952$, $p < .05$ in Shapiro-Wilk Test, indicating the data of this variable were not normally distributed.

Table 4.4

Results of Kolmogorov-Smirnov Test and Shapiro-Wilk Test of Each Variable

	Kolmogorov-Smirnov Test			Shapiro-Wilk Test		
	Statistic	d.f.	Sig.	Statistic	d.f.	Sig.
Brief Self-Control	.067	94	.200*	.985	94	.382
Academic Resilience	.096	94	.031	.989	94	.660
Cumulative Grade Point Average	.143	94	.000	.952	94	.002

Note. *. This is a lower bound of the true significance. d.f. = degree of freedom. Sig. = significance value.

Summary

In general, the results of normality assumptions of all the variables were considered as good using the five indicators (histogram, Q-Q plot, skewness and kurtosis values and Kolmogorov-Smirnov test and Shapiro-Wilk test values). Self-control was the variable that achieved the normality assumptions best as all the indicators showed no violation at all. For resilience, the only normality assumption that showed violation was the Kolmogorov-Smirnov Test. CGPA was the variable that failed to meet all normality assumptions except Q-Q plot.

Pearson Product-Moment Correlation (PPMC)

Research Question 1: Is there a relationship between self-control and academic performance among undergraduate students in Malaysia?

Table 4.5

Pearson Product-Moment Correlation Coefficient of Self-Control and Cumulative Grade Point Average (CGPA)

	Cumulative Grade Point Average (CGPA)		
	r	*p*	d.f.
Self-Control	.232**	.024	92

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

H_1: There is a relationship between self-control and academic performance among undergraduate students in Malaysia.

The Pearson Correlation coefficient shows a weak but significant relationship between self-control and CGPA ($r = .232$, $p < .05$), where CGPA is used to measure the academic performance of the participants in the current study. The direction is positive, indicating the greater the self-control of the student, the higher the CGPA obtained (the better the academic performance). Thus, the hypothesis is supported.

Research Question 2: Is there a relationship between resilience and academic performance amongundergraduate students in Malaysia?

Table 4.6

Pearson Product-Moment Correlation Coefficient of Resilience and Cumulative Grade Point Average (CGPA)

	Cumulative Grade Point Average (CGPA)		
	r	*p*	d.f.
Resilience	.064	.538	92

H_2: There is a relationship between resilience and academic performance among undergraduate students in Malaysia.

The Pearson Correlation coefficient reveals that the relationship between resilience and CGPA is not significant ($r = .064$, $p > .05$), indicating that there is no relationship between resilience and academic performance. The hypothesis is rejected.

Research Question 3: Is there a relationship between self-control and resilience among undergraduate students in Malaysia?

Table 4.7

Pearson Product-Moment Correlation Coefficient of Self-Control and Resilience

	Resilience		
	r	*p*	d.f.
Self-Control	.429**	.000	92

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

H_3: There is a relationship between resilience and academic performance among

undergraduate students in Malaysia.

The Pearson Correlation coefficient shows that the relationship between self-control and resilience is significant ($r = .429$, $p < .01$). The relationship is positive, where the greater the self-control, the greater the resilience. Hence, the hypothesis is supported.

Chapter V

Discussion and Conclusion

Discussion

H_1: There is a relationship between self-control and academic performance among undergraduate students in Malaysia.

Based on the Table 4.5, a significant relationship between self-control and academic performance among undergraduate students in Malaysia is shown. This means that the self-control of the students has an impact on their academic results. The higher the self-control of students, the greater the academic performance throughout the school years. Students' self-control will encourage them to schedule tasks and arrange things in a reasonable way because they are aware of what needs to be done first and what matters most. When students have strong self-control, they will focus their energy and attention on their studies in order to achieve high grades and learn new things as a reward for their efforts rather than just enjoying themselves. Students who possess self-control are better able to resist temptations and factors that will interfere with their studies because they can rationally reason that academics are more important than entertainment and that learning can provide them with more benefits, such as improving their ability to see things clearly and apply what they have learned in real-world situations, affecting who they are and determining their future.

According to some findings, developing self-control may improve inhibitory control (Muraven, 2010; Job et al., 2015). Inhibitory control has been associated with the ability to successfully control behaviour in daily life (Hofmann et al., 2012; Job et al., 2015). The ability to focus attention and block out distractions is made possible by increased inhibitory control, which can help students get better grades (Cranwell et al., 2014; Oaten & Chen, 2006a, 2006b, 2007; Finkel et al., 2009; Job et al., 2015). Self-control makes people more resistant to fatigue, which may help students concentrate on their studies for longer periods of

time and achieve higher grades.

H_2: There is a relationship between resilience and academic performance among undergraduate students in Malaysia.

On top of that, according to the Table 4.6, resilience is not significantly related to academic performance among undergraduate students in Malaysia in this study. In this case, the degree of resilience of students does not influence their academic performance. Resilience gives students the ability to cope with adversity and the ability not to let themselves be controlled by emotions. Therefore, students feel at ease dealing with and addressing academic challenges, which frees them from pressure to improve their performance. On the other hand, a stressful environment may spur students to advance and give them the drive to work hard for their academy.

However, according to Lee (2009), GPA and resilience are positively correlated (Novotný, & Kremenkova, 2016). In this case, issues about student background and living environment such as lack of caregiver support, retention issues, and tensions between child welfare and the educational system are some of the complex processes that may be at play but were not investigated with undergraduate students in this study.

H_3: There is a relationship between self-control and resilience among undergraduate students in Malaysia.

Furthermore, in view of the Table 4.7, self-control has a significant relationship with the resilience among undergraduate students in Malaysia. Hence, one's self-control affects one's ability to bounce back in the face of adversity. In order to develop and strengthen resilience and lessen psychological distress, self-control is a crucial factor (Ayduk et al., 2000; Morrison, & Pidgeon, 2017). When faced with difficulties, students with self-control can better organise their own affairs and resources, hence they can better resist the challenges and recover from the adversity.

According to the Strength Model of Self-Control, practising self-control on a regular basis can increase the strength of one's will, much like working out can increase one's strength of the muscle (Baumeister et al., 2007; Baumeister et al., 2006; Morrison, 2017). Effective self-control techniques used as children are linked to resilience as adults, according to studies by Ayduk, Mendoza-Denton, Mischel, and Downey (Mischel, Ebbesen, & Raskoff, 1972; Wong et al., 2006; Morrison, & Pidgeon, 2017). Self-control can help students better control their emotions, moods or feelings. When encountering difficulties, students will not give up or cower in a corner as a result of their inability to find a solution. On the contrary, they will approach the issue calmly and logically and come up with a solution. Due to their improved ability to employ cognitive reappraisal techniques, people with high self-control may be more resilient to adversity, making a potentially dangerous situation less dangerous by changing its subjective meaning (Mischel et al., 2010; Morrison, & Pidgeon, 2017).

Implications of Study

Theoretical Implications

The present research allows the general public, academics, and psychology professionals to gain a deeper understanding of self-control, resilience, and academic performance, and to understand the relationship among them. Students will know the importance of self-control in their studies and will think about how to develop this characteristic and improve their academic performance. This study can act as a trailblazer to investigate the effects of self-control and resilience on academic performance and can find connections or relationships among variables because there are currently only a limited number of studies addressing this topic. Not only that, this study provides data and findings on the Malaysia context and enrich Malaysian learning on this topic, exploring the level of self-control and resilience among Malaysian students, and the impact of these characteristics

on their academic performance.

Practical Implications

Through the study, students can be aware of and comprehend one of the elements that boosts academic performance and determines grade success. In this way, students who know the effect of self-control on academic performance will subsequently cultivate a character of self-control and use this quality in daily life to exert control over their behaviour, which then bring about positive impact on their academic achievement. In addition to improving academic performance, the practice of self-control can make all the difference in a person's life, including providing a positive attitude and resisting temptation to do things that are more important to them. Moreover, this research can serve as a reference for researchers, psychology professionals, and psychologists to gain a deeper understanding of study about self-control, resilience, and academic performance. They may become interested in this topic and conduct more in-depth research from different perspectives to consolidate data, or explore other potential factors that may affect academic achievement to bring more discoveries and possibilities to this study.

Limitations of Study

A few limitations were found in the current study. Firstly, the study's first flaw was its exclusive emphasis on second year and third year students and emerging adults with ages ranging from 20 to 24. As a result, the number of respondents were restricted. Since the majority of the participants in our studies were third-year students, there were few participants overall from other years. Additionally, even though the Year 2 and Year 3 students had met the criteria of gaining 40 credit hours and above but the exact total number of credit hours earned by the students were different. It may result in non-normal distribution of CGPA in the normality test.

Secondly, the ratio of gender and races was not balanced. Female respondents made up the majority of the sample (73.4%) and Chinese occupied 88.3% among 94 participants. The unequal representation of races as well as the ratio of gender in the current study may cause biased results. Females are more likely to have outperformance in academy compared to males (Parajuli & Thapa, 2017; Orabi, 2007; Dayioğlu & Türüt-Aşik, 2007; Khwaileh & Zaza, 2010) The explanation for this disparity is that the current study did not set out to investigate ethnic and gender differences or other factors; as a result, this problem had no bearing on the current study. Future research on racial and gender differences must ensure that the sample sizes are proportionate across both gender and races.

Finally, owing to the potential that may result in social desirability bias, using self-reported online questionnaires could also be one of limitations. Social desirablility bias refers to the propensity to overreport more positive traits and underreport unfavourable behaviours that are socially expected (Salters-Pedneault, 2022). This bias could result in false self-reporting and affect the study's overall conclusion.

Recommendations of Study

Participants in the current study ranged in age from 20 to 24. Future research should focus on other age groups (Newton & McKenna, 2007), such as those between 18 and 25, since these individuals are also undergraduate students in Malaysia. The current study concentrated on Year 2 and Year 3 undergraduates with the inclusion criteria of having earned 40 credit hours and above. It is recommended that future study should set a specific amount of the credit hours earned to recruit participants in a homogenous group to increase the normality of CGPA and the accuracy of the outcomes.

Next, in order to obtain more evenly distributed data, the stratified random sampling method was recommended said Amalraj et al., 2006). It is recommended to employ stratified

random sampling since, with this approach, the population will be divided into subgroups in accordance with the demographic factor. As a result, the researchers can divide the target population into strata such as Malay, Chinese, Indian, and other and select participants from each stratum in accordance with the research's focus on racial and gender differences in Malaysia.

Lastly, more studies should be conducted regarding academic performance of students in Malaysia context, especially for tertiary education. Many studies using Grade Point Average (GPA) or Cumulative Grade Point Average (CGPA) as instruments to measure the academic performance were either in high school context or in other country. There are studies in Malaysia context that make academic performance as their dependent variable but mostly measuring the academic performance of students studying STPM, matriculations or high school. Some of the studies only focus certain faculty within a university or a college instead of all the universities or colleges in Malaysia. Hence, conducting a study that targeting all or different universities students in Malaysia is recommended.

Conclusion

In conclusion, present study has achieved the objectives to determine the self-control and resilience on academic performance among undergraduate students in Malaysia. The result shows that self-control and academic performance is weak but significantly correlated. Next, resilience and academic performance are not significantly correlated while self-control and resilience are correlated significantly. Thus, self-control can be used as a predictor to predict undergraduate students' academic performance.

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Appendices

Appendix A

Calculation of Effect Size

Self-Control

$$\frac{0.55 + 0.67}{2} = 0.61$$

$$f_1^{\,2} = \frac{(0.61)^2}{1-(0.61)^2} = 0.5926$$

Duckworth, A. L., & Seligman, M. E. P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science, 16*(12), 939-944. https://doi.org/10.1111%2Fj.1467-9280.2005.01641.x

Resilience

$$f^{\,2}_{\,2} = \frac{(0.22)^2}{1-(0.22)^2} = 0.0508$$

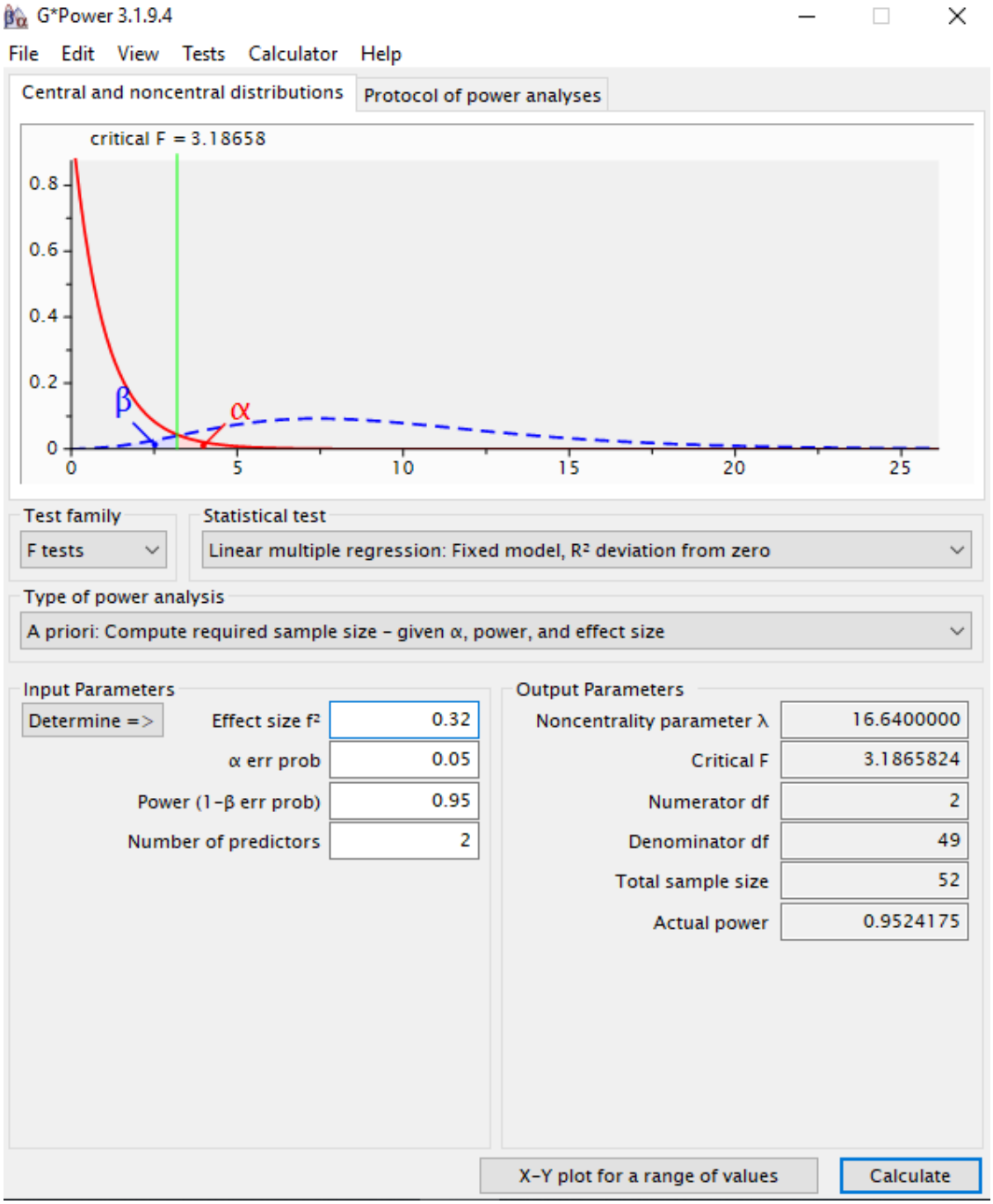
Gorde, M. (2021). *Metacognitive awareness, academic resilience and academic achievement in emerging adults* [Unpublished paper]. Department of Psychology, St. Francis College for Women.

Total Effect Size

$$f^2 = \frac{0.5926+0.0508}{} = 0.3217$$ (medium effect size)

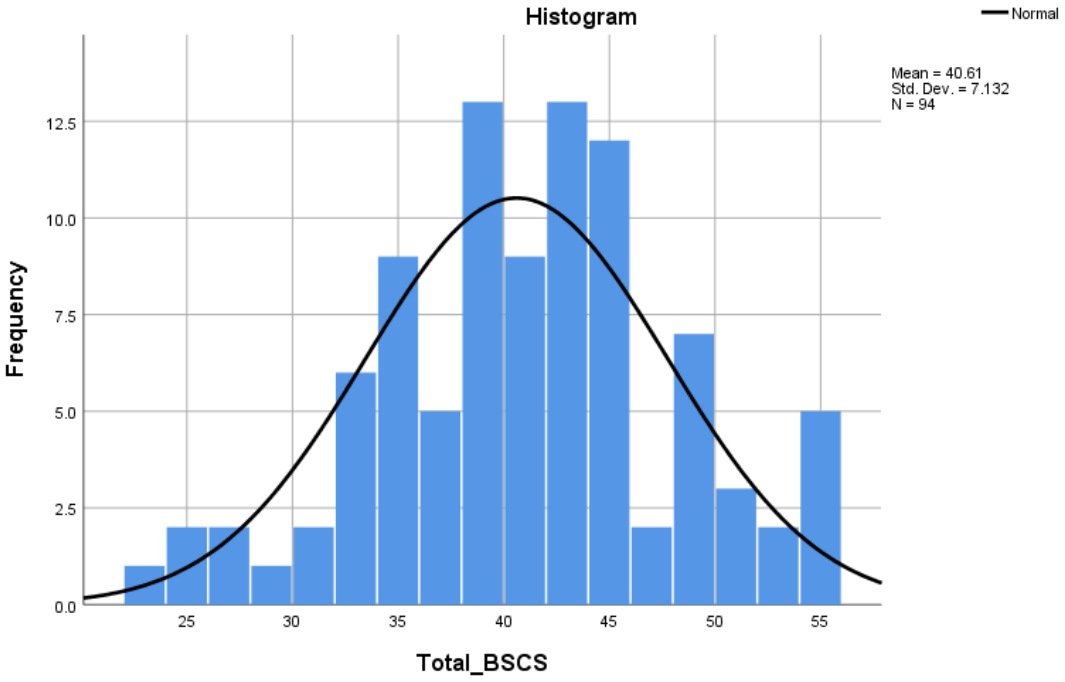
Appendix B

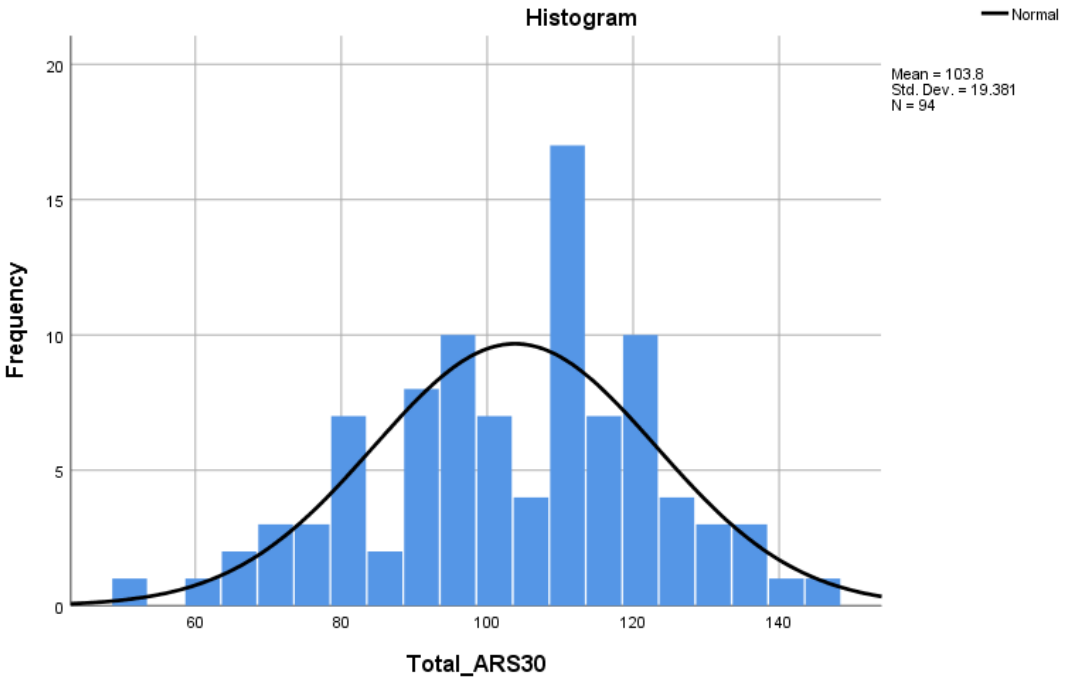
G*Power Programme Analysis

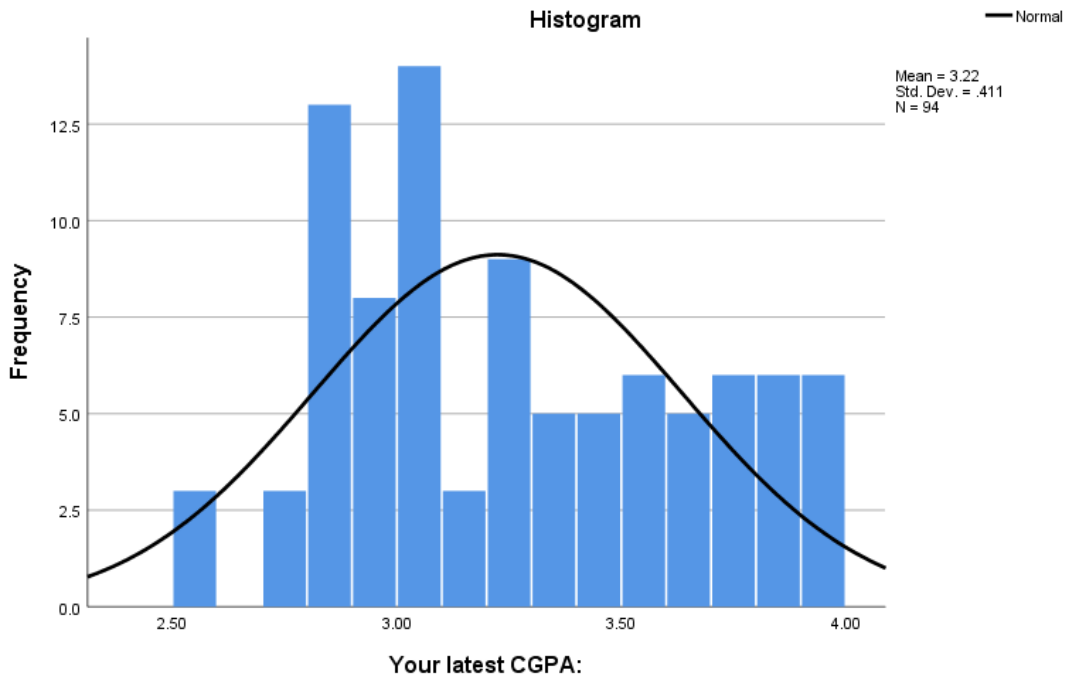


Appendix C

Histograms of Variables

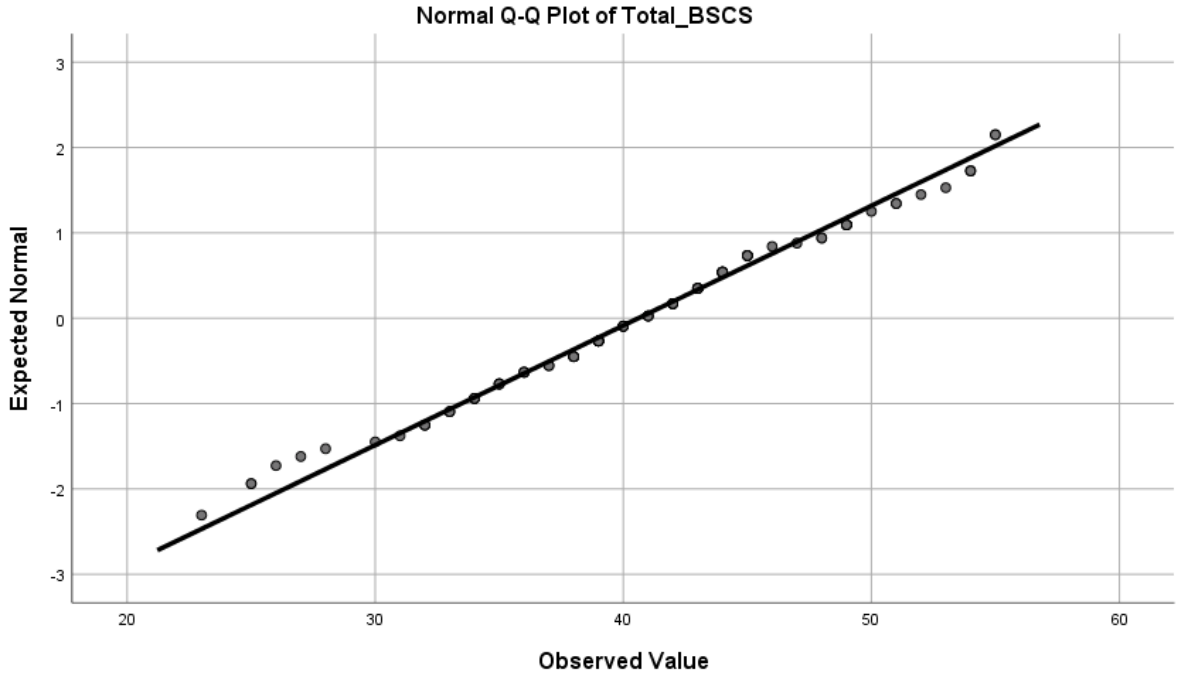


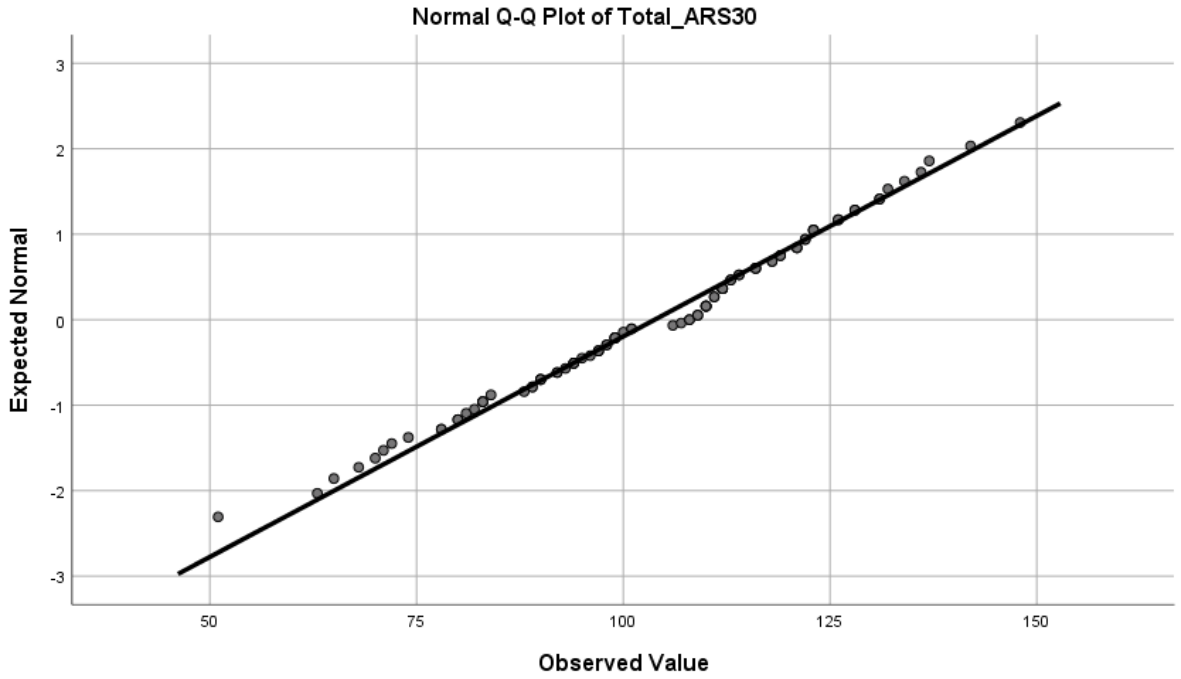


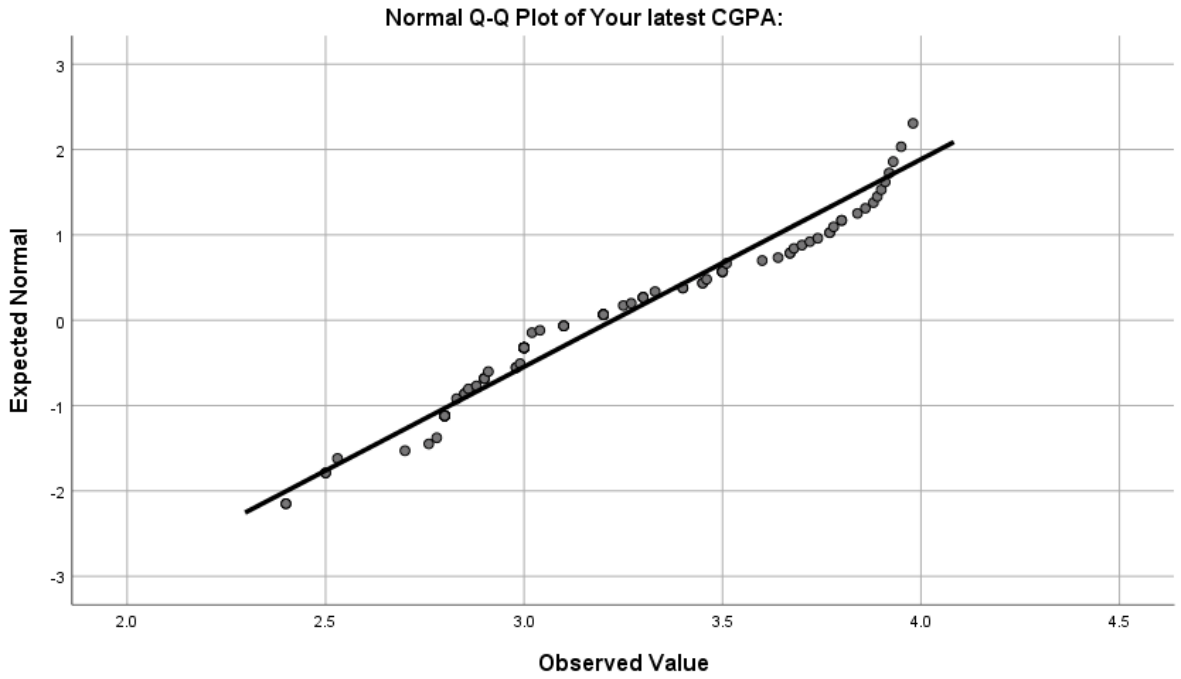

Histogram
Normal
Mean = 3.22
Std. Dev. = .411
N = 94
Frequency
12.5
10.0
7.5
5.0
2.5
0.0
2.50
3.00
3.50
4.00
Your latest CGPA:

Appendix D

Q-Q Plots of Variables






Normal Q-Q Plot of Your latest CGPA:
Expected Normal
3
2
1
0
-1
-2
-3
2.0
2.5
3.0
3.5
4.0
4.5
Observed Value

Appendix E

Questionnaire

Block 1

Wholly owned by UTAR Education Foundation
(Co. No. 578227-M)
DU012(A)

Personal Data Protection Statement
Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:
a) Name
b) Identity card
c) Place of Birth
d) Address
e) Education History
f) Employment History
g) Medical History
h) Blood type

i) Race

j) Religion

k) Photo

l) Personal Information and Associated Research Data

2. The purposes for which your personal data may be used are inclusive but not limited to:-

- For assessment of any application to UTAR
- For processing any benefits and services
- For communication purposes
- For advertorial and news
- For general administration and record purposes
- For enhancing the value of education
- For educational and related purposes consequential to UTAR
- For the purpose of our corporate governance
- For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

5. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Block 2

Wholly owned by UTAR Education Foundation

(Co. No. 578227-M)

DU012(A)

Consent Form for Research Participation and Personal Data Protection

Title of Project: Self-Control and Resilience on Academic Performance among Undergraduate Students in Malaysia

NOTE: This consent form will remain with the UTAR researchers for their records.

I understand I have been asked to take part in the research project specified above by UTAR students for the purpose of their Final Year Project. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that:

	Yes	No
I will be asked to complete a questionnaire about self-control, resilience and academic performance	○	○

	Yes	No
My participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way	○	○
I may ask at any time for my data to be withdrawn from the project	○	○
No information I have provided that could lead to the identification of any other individual will be disclosed in any reports on the project, or to any other party	○	○
I will remain anonymous at all times in any reports or publications from the project	○	○
It is my sole responsibility to look after my own safety for the above project. In the event of any misfortune or accidental injury involving me, whether or not due solely to personal negligence or otherwise, I hereby declare that UTAR shall not be held responsible.	○	○

By submitting this form, I hereby authorise and consent to UTAR processing (including disclosing) my personal data and any updates of my information, for the purposes and/or for any other purposes related to the purpose.

I acknowledge that if I do not consent or subsequently withdraw my consent to the processing and disclosure of my personal data, UTAR will not be able to fulfil their

obligations or to contact me or to assist me in respect of the purposes and/or for any other purposes related to the purpose.

If you have any inquires, please feel free to contact the researchers via email at
i) henry1881@1utar.my (Chan Weng Hoe)
ii) meimei2406@1utar.my (Neo Eyone)
iii) thayanhithy@1utar.my (Thayanhithy A/L Veeraramany)

Acknowledgment of Personal Data Protection Notice

- ◯ I have been notified by you and that I hereby understood, consented and agreed per UTAR above notice.
- ◯ I disagree, my personal data will not be processed.

Block 2

PART A: Demographic Information
Please provide your information.

Age:

Gender:

- ◯ Male
- ◯ Female

Ethnicity:

- ◯ Chinese
- ◯ Malay
- ◯ Indian
- ◯ [ ] Others, please specify:

Religion:

- ◯ Buddha

- ◯ Christian
- ◯ Hindu
- ◯ Muslim
- ◯ [ ] Others, please specify:

Educational level:

- ◯ Foundation
- ◯ Diploma
- ◯ Bachelor's Degree
- ◯ Master's Degree
- ◯ [ ] Others, please specify

Name of Institution (e.g: Universiti Tunku Abdul Rahman)

[ ]

Faculty (e.g: FAS / FICT / FBF)

[ ]

Programme / Course of Study (e.g: Psychology)

[ ]

Year/Trimester (e.g: Y3T1)

[ ]

Your latest CGPA:

[ ]

Block 2

PART B: Brief Self-Control Scale (BSCS)

Instructions: Using the scale provided, please indicate how much each of the following statements reflects how you typically are.

Not at all → Very much
1 5

	1	2	3	4	5
I am good at resisting temptation.	○	○	○	○	○
I have a hard time breaking bad habits.	○	○	○	○	○
I am lazy.	○	○	○	○	○
I say inappropriate things.	○	○	○	○	○
I do certain things that are bad for me, if they are fun.	○	○	○	○	○
I refuse things that are bad for me.	○	○	○	○	○
I wish I had more self-discipline.	○	○	○	○	○
People would say that I have iron self-discipline.	○	○	○	○	○
Pleasure and fun sometimes keep me from getting work done.	○	○	○	○	○
I have trouble concentrating.	○	○	○	○	○
I am able to work effectively toward long-term goals.	○	○	○	○	○
Sometimes I can't stop myself from doing something, even if I know it is wrong.	○	○	○	○	○
I often act without thinking through all the alternatives.	○	○	○	○	○

Block 3

PART C: Academic Resilience Scale (ARS-30)

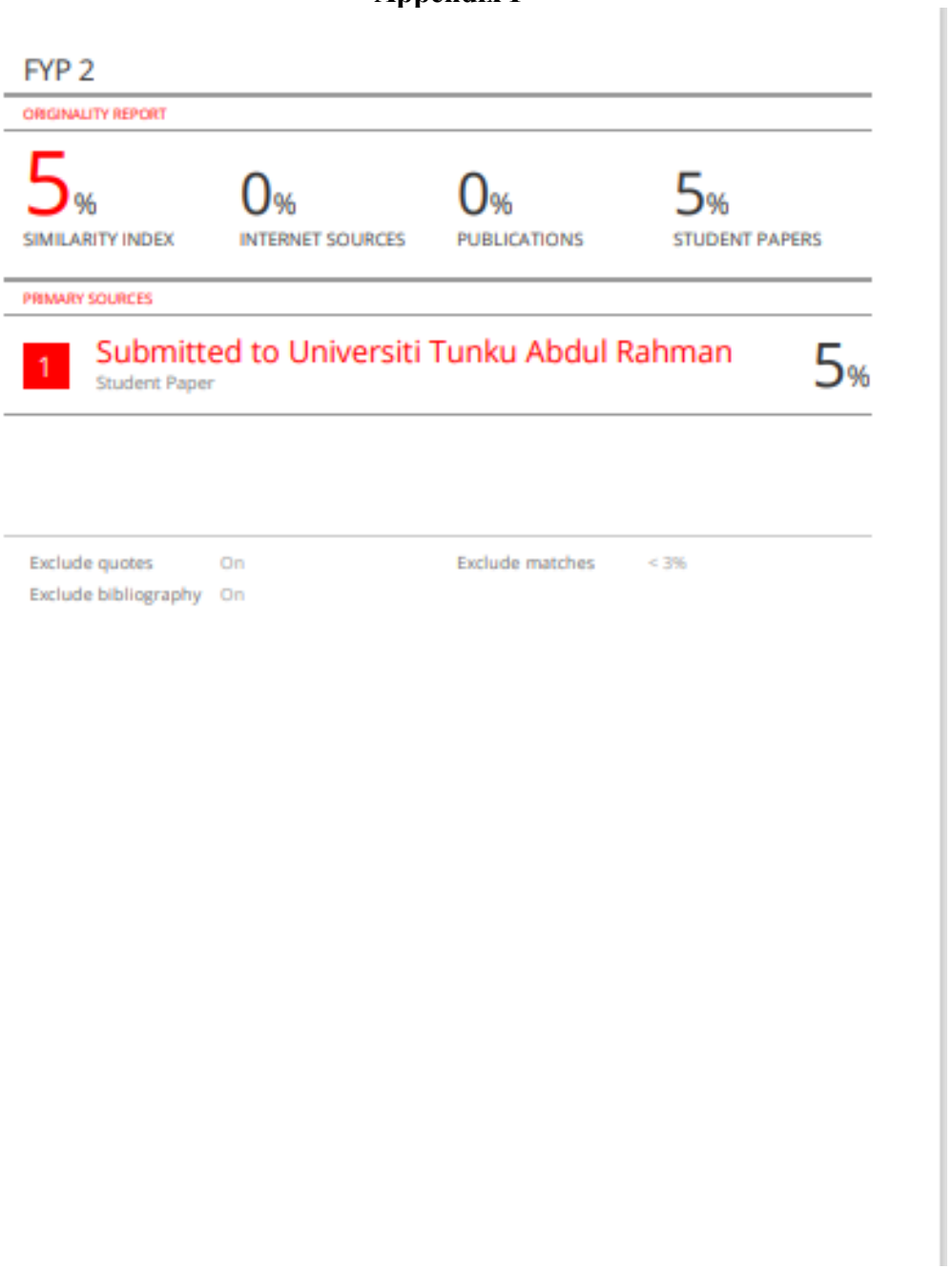
Instructions: Please select the answer that best describes you.

Likely → Unlikely
1 5

	1	2	3	4	5
I would not accept the tutors' feedback.	○	○	○	○	○
I would use the feedback to improve my work.	○	○	○	○	○
I would just give up.	○	○	○	○	○
I would use the situation to motivate myself.	○	○	○	○	○
I would change my career plans.	○	○	○	○	○
I would probably get annoyed.	○	○	○	○	○
I would begin to think my chances of success at university were poor.	○	○	○	○	○
I would see the situation as a challenge.	○	○	○	○	○
I would do my best to stop thinking negative thoughts.	○	○	○	○	○
I would see the situation as temporary.	○	○	○	○	○
I would work harder.	○	○	○	○	○
I would probably get depressed.	○	○	○	○	○
I would try to think of new solutions.	○	○	○	○	○
I would be very disappointed.	○	○	○	○	○
I would blame the tutor.	○	○	○	○	○
I would keep trying.	○	○	○	○	○
I would not change my long-term goals and ambitions.	○	○	○	○	○
I would use my past successes to help motivate myself.	○	○	○	○	○

	1	2	3	4	5
I would begin to think my chances of getting the job I want were poor.	○	○	○	○	○
I would start to monitor and evaluate my achievements and effort.	○	○	○	○	○
I would seek help from my tutors.	○	○	○	○	○
I would give myself encouragement.	○	○	○	○	○
I would stop myself from panicking.	○	○	○	○	○
I would try different ways to study.	○	○	○	○	○
I would set my own goals for achievement.	○	○	○	○	○
I would seek encouragement from my family and friends.	○	○	○	○	○
I would try to think more about my strengths and weaknesses to help me work better.	○	○	○	○	○
I would feel like everything was ruined and was going wrong.	○	○	○	○	○
I would start to self-impose rewards and punishments depending on my performance.	○	○	○	○	○
I would look forward to showing that I can improve my grades.	○	○	○	○	○

Appendix F



FYP 2

ORIGINALITY REPORT

5%	0%	0%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Universiti Tunku Abdul Rahman Student Paper	5%

Exclude quotes	On	Exclude matches	< 3%
Exclude bibliography	On		

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF ARTS AND SOCIAL SCIENCE
DEPARTMENT OF PSYCHOLOGY AND COUNSELLING

UAPZ 3023 Final Year Project II

Quantitative Research Project Evaluation Form

TURNITIN: ***'In assessing this work you are agreeing that it has been submitted to the University-recognised originality checking service which is Turnitin. The report generated by Turnitin is used as evidence to show that the students' final report contains the similarity level below 20%.'***

Project Title: Self-Control and Resilience on Academic Performance among Undergraduate Students in Malaysia	
Supervisor: Ms Teoh Xi Yao	
Student's Name: 1. Chan Weng Hoe 2. Neo Eyone 3. Thayanhithy A/L Veeraramany	Student's ID 1. 18AAB04503 2. 18AAB05204 3. 17AAB04910

INSTRUCTIONS:
Please score each descriptor based on the scale provided below:

1. Please award 0 mark for no attempt.

2. For criteria **7**:
   Please retrieve the marks from "**Oral Presentation Evaluation Form**".

1. ABSTRACT (5%)	**Max Score**	**Score**
a. State the main hypotheses/research objectives.	5%	
b. Describe the methodology: • Research design • Sampling method • Sample size • Location of study • Instruments/apparatus/outcome measures • Data gathering procedures	5%	
c. Describe the characteristics of participants.	5%	
d. Highlight the outcomes of the study.	5%	
e. Conclusions, implications, and applications.	5%	
Sum	25%	/25%
Subtotal (Sum/5)	5%	/5%
Remark:		

2. METHODOLOGY (25%)	**Max Score**	**Score**
a. Research design/framework: • For experiment, report experimental manipulation, participant flow, treatment fidelity, baseline data, adverse events and side effects, assignment method and implementation, masking. (*if applicable with the study design) • For non-experiment, describe the design of the study and data used.	5%	
b. Sampling procedures: • Justification of sampling method/technique used. • Description of location of study. • Procedures of ethical clearance approval. (Provide reference number of approval letter)	5%	
c. Sample size, power, and precision: • Justification of sample size. • Achieved actual sample size and response rate. • Power analysis or other methods (if applicable).	5%	
d. Clear explanation of data collection procedures: • Inclusion and exclusion criteria • Procedures of obtaining consent • Description of data collection procedures • Provide dates/duration of recruitment repeated measures or follow-up. • Agreement and payment (if any)	5%	
e. Explanation of instruments/questionnaire used: • Description of instruments • Scoring system • Meaning of scores • Reliability and validity	5%	
Subtotal	25%	/25%
Remark:		

3. RESULTS (20%)	**Max Score**	**Score**

a. Descriptive statistics: • Demographic characteristics • Topic-specific characteristics	5%	
b. Data diagnostic and missing data: • Frequency and percentages of missing data. (if applicable) • Methods employed for addressing missing data. (if applicable) • Criteria for post data-collection exclusion of participants. • Criteria for imputation of missing data. • Defining and processing of statistical outliers. • Analyses of data distributions. • Data transformation (if applicable).	5%	
c. Appropriate data analysis for each hypothesis or research objective.	5%	
d. Accurate interpretation of statistical analyses: • Accurate report and interpretation of confidence intervals or statistical significance. • Report of *p* values and minimally sufficient sets of statistics (e.g., *dfs*, *MS*, *MS error*). • Accurate report and interpretation of effect sizes. • Report any problems with statistical assumptions.	5%	
Subtotal	20%	/20%
Remark:		
4. DISCUSSION AND CONCLUSION (20%)	**Max Score**	**Score**
a. Constructive discussion of findings: • Provide statement of support or nonsupport for all hypotheses. • Analyze similar and/or dissimilar results. • Rational justifications for statistical results.	8%	
b. Implication of the study: • Theoretical implication for future research. • Practical implication for programs and policies.	4%	
c. Relevant limitations of the study.	4%	
d. Recommendations for future research.	4%	
Subtotal	20%	/20%
Remark:		
5. LANGUAGE AND ORGANIZATION (5%)	**Max Score**	**Score**
a. Language proficiency	3%	
b. Content organization	1%	
c. Complete documentation (e.g., action plan, originality report)	1%	
Subtotal	5%	/5%
Remark:		
6. APA STYLE AND REFERENCING (5%)	**Max Score**	**Score**

a. 7th Edition APA Style	5%		/5%
Remark:			
***ORAL PRESENTATION (20%)**	**Score**		
	Student 1	Student 2	Student 3
Subtotal	/20%	/20%	/20%
Remark:			
PENALTY	**Max Score**	**Score**	
Maximum of 10 marks for LATE SUBMISSION (within 24hours), or POOR CONSULTATION ATTENDANCE with supervisor. *Late submission after 24hours will not be graded	10%		
	Student 1	Student 2	Student 3
****FINAL MARK/TOTAL**	/100%	/100%	/100%

*****Overall Comments:**

Signature: _____ Date: _____

Notes:

1. **Subtotal**: The sum of scores for each assessment criterion
2. **FINAL MARK/TOTAL**: The summation of all subtotal score
3. Plagiarism is **NOT ACCEPTABLE**. Parameters of originality required and limits approved by UTAR are as follows:
   (i) **Overall similarity index is 20% or below**, and
   (ii) **Matching of individual sources listed must be less than 3%** each, and
   (iii) Matching texts in continuous block must **not exceed 8 words**

   Note: Parameters (i) – (ii) shall exclude quotes, references and text matches which are less than 8 words.

   Any works violate the above originality requirements will NOT be accepted. Students have to redo the report and meet the requirements in **SEVEN (7)** days.

*The marks of "Oral Presentation" are to be retrieved from **"Oral Presentation Evaluation Form".**
**It is compulsory for the supervisor/examiner to give the overall comments for the research projects with A- and above or F grading.

Universiti Tunku Abdul Rahman			
Form Title : Supervisor's Comments on Originality Report Generated by Turnitin for Submission of Final Year Project Report (for Undergraduate Programmes)			
Form Number: FM-IAD-005	Rev No.: 0	Effective Date: 01/10/2013	Page No.: 1of 1

FACULTY OF ART AND SOCIAL SCIENCE

Full Name(s) of Candidate(s)	1. Chan Weng Hoe 2. Neo Eyone 3. Thayanhithy A/L Veeraramany
ID Number(s)	1. 18AAB04503 2. 18AAB05204 3. 17AAB04910
Programme / Course	Bachelor of Social Science (Honours) Psychology
Title of Final Year Project	Self-Control and Resilience on Academic Performance Among Undergraduate Students in Malaysia

Similarity	**Supervisor's Comments (Compulsory if parameters of originality exceeds the limits approved by UTAR)**
Overall similarity index: 5 **%** **Similarity by source** Internet Sources:_____% Publications:_____% Student Papers: 5 %	
Number of individual sources listed of more than 3% similarity: _____	

Parameters of originality required and limits approved by UTAR are as follows:

(i) Overall similarity index is 20% and below, and

(ii) Matching of individual sources listed must be less than 3% each, and

(iii) Matching texts in continuous block must not exceed 8 words

Note: Parameters (i) – (ii) shall exclude quotes, bibliography and text matches which are less than 8 words.

Note Supervisor/Candidate(s) is/are required to provide softcopy of full set of the originality report toFaculty/Institute

Based on the above results, I hereby declare that I am satisfied with the originality of the FinalYear Project Report submitted by my student(s) as named above.

Signature of Supervisor

Signature of Co-Supervisor

Name: TEOH XI YAO

Date: 29.11.2022

Name: _____

Date: _____

Action Plan of UAPZ 3023 (group-based)Final Year Project II for Oct trimester

Supervisee's Name: Chan Weng Hoe, Neo
Eyone,Thayanhity A/L Veeraramany

Supervisor's Name: Ms Teoh Xi Yao

Task Description	Duration	Date/Time	Supervisee's Signature	Supervisor's Signature	Supervisor's Remarks	Next Appointment Date/Time
Methodology, Data Collection & Data Analysis	W1-W3	31/10/2022		xiyao	1. Students make corrections, add content and started to proceed with data collection	8/11/2022
Finding & Analysis Discuss Findings & Analysis with Supervisor Amending Findings & Analysis	W3-W4	8/11/2022		xiyao	1. Students start to work on data analysis	22/11/2022
Discussion & Conclusion Discuss Discussion & Conclusion with Supervisor Amending Discussion & Conclusion	W4-W5	22/11/2022		xiyao	1. Students make corrections based on comments and proceed to discussion and conclusion	25/11/2022
Submission of first draft*	W5	submit the first draft to Turnitin.com to check similarity rate				
Amendment	W5					
Submission of final FYP (FYP I + FYP II)*	W6	final submission to supervisor				
Oral Presentation		Oral Presentation Schedule will be released and your supervisor will inform you				

Notes:
1. The listed duration is for reference only, supervisors can adjust the period according to the topics and content of the projects.
2. *Deadline for submission can not be changed, one mark will be deducted per day for late submission.
3. Supervisees are to take the active role to make appointments with their supervisors.
4. Both supervisors and supervisees should keep a copy of this record.
5. This record is to be submitted together with the submission of the FYP II.