FACTORS AFFECTING ACADEMIC ACHIEVEMENT OF UNDERGRADUATE STUDENTS DURING COVID-19 PANDEMIC

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Abstrak

Kejayaan pelajar dilihat sebagai penunjuk penting prestasi akademik yang unggul. Kejayaan akademik adalah hasil usaha dan kegigihan seseorang individu terhadap penguasaan ilmu atau kemahiran yang dipelajarinya berdasarkan mata yang dicapainya. Kejayaan akademik adalah sesuatu yang dicapai pada tahap kemajuan. Pencapaian akademik yang tidak memberangsangkan menjadi buah mulut pemimpin, tokoh akademik dan masyarakat kerana gejala ini menyumbang kepada kadar pengangguran di Malaysia. Penyelidikan ini bertujuan untuk menyiasat unsur-unsur yang mempengaruhi prestasi akademik pelajar sarjana muda semasa pandemik Covid-19. Ia memberi tumpuan kepada pelajar Universiti Malaysia Kelantan (UMK) kampus Kota, Pengkalan Chepa. Kajian ini akan ditumpukan kepada pelajar dalam program Fakulti Keusahawanan dan Perniagaan (FKP) dimana ia selaras dengan objektif kajian ini. Beberapa teknik statistik telah digunakan dalam kajian ini bagi menganalisis data dan data dikumpul dengan mengedarkan borang soal selidik secara random kepada 401 orang pelajar prasiswazah di UMK kampus Kota melalui tinjauan dalam talian. Dalam soal selidik, pelajar telah ditanya tentang pendapat mereka tentang kaedah pengajaran, motivasi, sikap pelajar, sokongan sosial yang dirasakan dan kestabilan kewangan berkaitan pencapaian akademik pelajar prasiswazah semasa pandemik Covid-19. Soalan dalam bahagian A ialah umur, bangsa, etnik, jantina, program, tahun pengajian, status perkahwinan, gred dan status ibu bapa. Soalan dalam Bahagian B hingga bahagian E ini berkaitan dengan pembolehubah tidak bersandar yang mempengaruhi pencapaian akademik pelajar prasiswazah semasa pandemik. Keputusan kajian ini menunjukkan bahawa semua hipotesis telah disokong. Kaedah pegajaran dan motivasi didapati mempunyai kaitan positif dengan pencapaian akademik pelajar prasiswazah semasa wabak. kajian ini juga mendedahkan bahawa kestabilan kewangan cenderung lebih kurang menarik kepada pencapaian akademik pelajar prasiswazah semasa pandemik.

Kata kunci: pencapaian akademik; kaedah pengajaran; motivasi; sikap pelajar; sokongan sosial yang dirasakan; kestabilan kewangan.

Abstract

Student success is seen as a crucial indicator of superior academic performance. Academic success is a result of an individual's efforts and perseverance toward the mastery of the knowledge or skills he learns based on the points he achieves. Academic success is something that is reached at the level of progress. Academic achievements that are not encouraging become the fruit of the mouth of leaders, academic figures and the community because this symptom contributes to the unemployment rate in Malaysia. This research aims to investigate the elements influencing undergraduate students' academic performance during the Covid-19 pandemic. It focuses on students of University Malaysia Kelantan (UMK) Kota campus, Pengkalan Chepa. This study will be focused on students in the Faculty of Entrepreneurship and Business (FKP) program where it is in line with the objectives of this study. Several statistical techniques were used in this study to analyze the data and data collected by randomly distributing questionnaires to 401 undergraduate students at UMK Kota campus through an online survey. In the questionnaire, students were asked about their opinions on teaching methods, motivation, student attitudes, perceived social support and financial stability in relation to the academic achievement of undergraduate students during the Covid-19 pandemic. The questions in part A are age, race, ethnicity, gender, program, year of study, marital status, grades and parental status. The questions in Section B to Section E are related to independent variables that affect the academic achievement of undergraduate students during the pandemic. The results of this study show that all hypotheses have been supported. Teaching methods and motivation were found to have a positive relationship with the academic achievement of undergraduate students during the pandemic. This study also revealed that financial stability tends to be more or less attractive to the academic achievement of undergraduate students during the pandemic.

Keywords: academic achievements; teaching methods; motivation; student attitudes; perceived social support; financial stability.

CHAPTER 1

INTRODUCTION

1.1 Background of The Study

Academic achievement among undergraduate students is the primary priority because they are the future leaders who will define the path of our nation. Students' intelligence and passion are reflected in their academic performance. A good academic performance is a sign that students, teachers, and institutions have met their educational objectives. Students go to university to learn new things and improve their abilities (Mekonnen, 2016). The academic achievement of students in schools, public universities, and private institutions of higher learning is now consistently given substantial consideration by the government. This is so that this group may set the direction for leadership in the present. Therefore, it is not unexpected that the question of student academic achievement has always been up for debate and frequently grabs the media's and the general public's attention. The academic success of a student is frequently assessed in light of the abilities they possess (Razali & Raop, 2018).

Junaidi et al. (2020) Covid-19 pandemic being a very large risk and has an impact on socioeconomics. The field of education is either at the preschool level, primary level, secondary level or tertiary level. The emergence of the Covid-19 pandemic has brought new changes in various aspects especially in the learning process in Malaysia (Mahalingam & jamaludin, 2021). Online learning during a pandemic is a new method in teaching that allows an educator -focused approach to be transformed into student -centered learning. This concept of learning also known as e-learning is an influence in the process of transformation of traditional education into a form of virtual world, both content and methods (Mohd Fairuz Jafar, 2021). Students need to adapt to

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the new norm that the learning process is done online. In the study of Bolatov et al. (2021) also noted the shift to online learning has affected students 'academic achievement and mental health. Academic achievement has been shown to exist among university students while pursuing online learning (Benjamin et al., 2021; Oducado & Eztoque, 2021; Bolatocv et al., 2021).

A study by Mahathir and Wardatul (2021), found that online learning presents challenges to students, among them students face an environment that is not conducive to learning and low levels of learning effectiveness. According to Kamarudin (2017), Academic achievement of students is tied to the learning process itself and not only to the teaching strategies used in the lecture hall. Experts in the field of research have examined a number of variables to determine the reasons for decline and issues with achieving the best academic performance for university students, including the students itself, the lecturers' methods of teaching and learning, and the institution's support structure, among several others. Accordingly, this study aims to identify factors affecting academic achievement of undergraduate students during pandemic.

1.2 Problem Statement

Firstly, the implementation of online learning was also found to receive negative feedback when there are students who are stressed due to a lack of preparation to use other learning strategies. According to Fairuz (2020), students are not able to adapt to the current situation and even give priority to face-to-face learning. Online learning for a day without active physical activity has brought a sense of boredom to students focusing on online learning. To prevent this situation, the Ministry of Education Malaysia (MOE) has already requested educators to replace the appropriate teaching methods that can attract attention and encourage students to do their

learning. Balqis and Muniroh (2020) stated that teaching and learning that does not attract attention can cause students to have a bad perception of online learning.

Secondly, this different situation has caused concern and anxiety among students and educators, who are also faced with their own anxiety, according to a study conducted by Shazarina (2020). This is because, although educators are enthusiastic about providing interesting teaching and learning materials (PdP), if there is no active involvement and willingness from students, then the objectives of the planned PdP session cannot be obtained perfectly, according to Muniroh (2020). This statement coincides with Balqis and Muniroh (2020), who describe the involvement of students who do not cooperate with educators and are still not ready for online PdP.

Thirdly, according to Zamri & Anita (2020), the lack of motivation from parents causes the motivation of students to decrease to continue learning online. This is because, parents do not pay attention to their children's education, the more they give priority to their jobs and income during the period of PKP. Thus, the lack of support and encouragement from parents is the cause of the lack of motivation of students to continue online learning. Therefore, parents need to understand their duties and responsibilities towards children's learning by providing basic needs used during online learning and always encouraging their children to follow their learning because now children are under parental surveillance throughout the Movement Control Order (PKP). Muniroh (2020) gave an opinion on the willingness of students to engage in different PdP situations during the previous COVID-19 pandemic because almost all PdP methods and strategies were implemented online. He also stated that the pupils need strong stimuli and support from their family and environment because, at this point, the pupils are in the full consideration of the parents. According to Fairuz (2020), a statement, students can be dominated by psychological factors in terms of emotions, stress, and attitudes. This is because of the limitations faced by the students

when they are self-motivated by having a strong spirit and even when the situation is the cause of the obstacle.

Fourthly, the study conducted by Fairuz (2020) on the readiness of online learning during the COVID-19 pandemic found that socioeconomic factors became a barrier to the readiness of students through online learning. The background of a student from a low-income family is different from the background of a student, whose parents are higher-income. This statement has in common with the opinion of Buja (2020), who stated that affected parental income causes parents to give more priority to the basic necessities of their lives rather than providing their children with learning equipment. Therefore, socioeconomic factors also affect online learning during this pandemic.

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1.3 Research Questions

As a result, an empirical study of the interaction between teaching methods, student attitude, perceived social support, financial stability, and academic accomplishment of undergraduate students during a pandemic could be a valuable contribution to the existing literature as well as practice. In keeping with the aforementioned unaddressed issues, the research topics for this project are as follows:

1. Is there any relationship between teaching methods and the academic achievement of undergraduate students during a pandemic?

2. Is there any relationship between motivation and the academic achievement of undergraduate students during a pandemic?

3. Is there any relationship between perceived social support and the academic achievement of undergraduate students during a pandemic?

4. Is there any relationship between financial stability and the academic achievement of undergraduate students during a pandemic?

1.4 Research Objective

The general objective of this research is to determine the association between the factors affecting and academic achievement of undergraduate students during a pandemic.

1. To examine the relationship between the teaching methods and academic achievement of undergraduate students during a pandemic.

2. To examine the relationship between the motivation and academic achievement of undergraduate students during a pandemic.

3. To examine the relationship between the perceived social support and academic achievement of undergraduate students during a pandemic.

4. To examine the relationship between the financial stability and academic achievement of undergraduate students during a pandemic.

1.5 Scope of The Study

This project aims to investigate the factors impacting undergraduate students' academic progress during the pandemic COVID-19. Furthermore, the goal of this research is to identify the relationship between the factors influencing the academic success of undergraduate students during the pandemic. The questionnaire will be administered to determine the association between these elements, which include teaching methods, student academic performance, perceived social support, and financial stability. Consequently, the findings of the research would be gathered from 341 undergraduate students at Universiti Malaysia Kelantan (UMK). This research does not reflect the majority of all UMK students, nor does it reflect the viewpoints of clients (the owners) on the projects questioned.

1.6 Significant of Study

The variables that affect college students' success are the subject of several real-world studies. There are two categories of variables that affect academic success. Both of these classroom influences—internal and external—have a big effect on how well students achieve. The Covid-19 epidemic has drastically changed the environment, and a new element has evolved that might have an effect on students' academic achievement. This study aims to identify the elements which affect students' performance in online classrooms during the pandemic and the relationship between those variables. The results of this study will be helpful for higher education institutions in many different ways.

Firstly, for universities, they were able to identify problems experienced by students during a pandemic. In addition, to be able to innovate the ways of learning and teaching so as not to burden the students. For students, they can learn how to adapt to changes in the way of learning while being able to add skills in e-learning such as the use of Google Meet and Google Classroom platforms. In addition, lecturers can improve the quality of learning by developing their creativity in the class or online class to make the situation more active and interesting. Last but not least, this research also can give many benefits to the researcher, for example, it can increase her knowledge, get some experience. This research would also be beneficial to the other researchers who want to have further study.

1.7 Definition of Term

1.7.1 Academic achievement

Chzin and Surat (2021) mentioned that a student's academic achievement is something that is achieved at the level of progress through individual effort and perseverance towards mastering the knowledge or skills he has learned based on the point value he has accumulated. Also, tudent achievement is seen as an essential indicator of excellent academic achievement.

1.7.2 Pandemic

Online learning is an educational platform to replace face-to-face encounters between educators and students, especially during the COVID-19 pandemic (Rios, 2019). To curb the spread of Covid-19 epidemic, the implementation of online learning is also very beneficial to all parties, especially students in improving skills in using the latest technology and forming critical and creative thinking in students (Munirah et al., 2021).

1.7.3 Teaching method

Ambad, Mawardi and Mohamad (2017) mentioned that the teaching method of lecturers is defined as the general principles, pedagogy, and management strategies employed in the classroom. Students expect lecturers to be well prepared for class, to integrate technology into the teaching process, and to involve students in the learning process. The classroom teaching approaches of lecturers have an impact on student acceptance of knowledge transfers.

1.7.4 Motivation

Achievement motivation encompasses a wide range of characteristics for example self-concepts, abilities, objectives, task values and achievement reasons. Since it energizes and drives behavior toward performance, achievement motivation is thought to be a crucial element in student achievement (Steinmayr, Wiedinger, Schwinger, & Spinath, 2019).

1.7.5 Perceived social support

Social support among students is important as it plays a role in producing academically and emotionally balanced students. Students need social support from parents, teachers, peers and individuals around them to increase confidence to build self-skills and achieve academic success (Sidik, Awang & Ahmad, 2018).

1.7.6 Financial stability

Salbiah Nur Shahrul Azmi et al. (2018) stated that the practice of financial management is interdependent with the knowledge and skills practiced by an individual to ensure a stable financial position. Students' socioeconomic status becomes an important factor as it involves financial management, which will motivate students either enthusiastically or not enthusiastically to acquire knowledge (Mohd Zainal & M.I. 2017).

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Academic achievement was initially considered the most important outcome of the formal educational encounter, and while it undoubtedly plays an important role in students' lives, they are no longer the most important outcome. Academic achievement is a performance indicator for any education system. Academic achievement refers to the ability to demonstrate academic success in achieving intended outcomes. Many academics emphasize the importance of mental and cognitive abilities in academic success. However, intelligence alone does not guarantee academic success, and students must be aware of their learning methods. Students' learning styles refer to the ways they use to achieve, analyze, and internalize their newly learned knowledge.

Referring to previous studies, online teaching and learning is constantly evolving and plays an important role in education in Malaysia (Gunawan et al. 2020). In this epidemic era, the field of education has begun to shift toward online teaching and learning using a range of existing technologies. Online learning, teaching, and facilitating is a type of academic activity that uses digital technology and the internet to channel academic activities, and is now referred to as home teaching and learning in Malaysia. This channeling process necessitates the use of literature, visual graphics, language, animation, video, and audio. The resources and technologies used in online learning are based on computer technology. Shirley Anne (2019) defines online teaching and learning as in-person learning through computer equipment, where students are able to see and hear with each other from a distance. Educators and students, on the other hand, have obstacles while conducting online learning (Losius Goliong et al., 2020).

2.2 Underpinning Theory

Dependent variables are influenced by the independent variables. Teaching method, motivation, perceived social support, and financial stability are considered influential variables in this process. Walberg's (1981) idea of educational productivity is one of the few theories of academic accomplishment that has undergone scientific testing. The psychological characteristics of certain students and their immediate psychological situations have an impact on their educational outcomes (cognitive, behavioral, and attitudinal), according to Walberg's theory of academic performance (Reynolds & Walberg, 1992).

Walberg's study further examined nine major factors that affect academic performance, including peer group, classroom atmosphere, family environment, motivation, age or developmental stage, prior success or ability of the student, as well as outside media attention (Walberg, Fraser, & Welch, 1986). The first three variables—ability, motivation, and age—reflect the qualities of the learner in the current situation. The final four factors (classroom climate, peer group, home environment, and exposure to media) describe elements of the psychological environment. Next, the fourth and fifth variables reflect instruction (amount and effectiveness) (DiPerna et al., 2002).

Students' acceptance of information transference is influenced by the lecturers' teaching strategies in the classroom (Norazalan, Yusuf & Al-Majdhoub, 2020). In order to attain certain goals, teaching entails changing students in ways that are desired (Ayeni, 2017). The first component on which Walberg's theory is aptitude. The ability of the person to advance and perform well. One element of aptitude is motivation. Every student wants to take an active role in learning,

participate in class activities and find solutions to issues. Most students today question why they even need to study because there is a glaring lack of drive (Bakar et al., 2022).

Fundamental components of Walberg's thesis include the perception of social support from classmates and family (Yieng, Katenga & Kijai, 2019). Family support includes not just financial assistance but also moral support, compassion, inspiration, and direction (Ambad, Mawardi & Mohamad, 2017). A student's academic performance is also impacted by financial difficulties caused by a lack of financial means. According to Daud et al. (2018), some students lack alternative financial resources because they don't want to burden themselves with debt and other obligations. Several students have to reduce their study time to opt for alternate sources of finance, such as working part-time for long shifts or holding multiple jobs, which can ultimately have an adverse impact on their academic achievements. (Norazalan, Yusuf & Al-Majdhoub, 2020).

2.3 Previous studies

2.3.1 Students' academic achievement

Academic achievement is one of the major factors considered by employers in hiring workers especially for the fresh graduates. Thus, students have to put the greatest effort in their study to obtain good grades and to prepare themselves for future opportunities in their career at the same time to fulfill the employer's demand, Oladebinu at el.,(2018). Academic accomplishment is a key metric for evaluating students' performance and educational attainment. Working memory (simultaneous information storage and manipulation; Peng et al., 2018), reasoning (the ability to solve novel and complex problems; Sternberg, Kaufman, & Grigorenko, 2008), and executive function are all important for academic performance (cognitive and social-emotional processes that underlie goal-directed behavior such as flexible thinking, self-control, and self-regulation; Best & Miller, 2010). According to Abdelrahman et al. (2020), achieving greatness in academic performance is based on the student's academic intrinsic motivation, which is essential in the learning process and human life activities. From the perspective of psychologists, learners are more than just information consumers; they must be active and deeply involved students. Modern statistical studies have shown that when students have intrinsic motivation and a genuine interest in the topic they are studying, they attain the best learning results (Cerasoli et al., 2014; DePasque and Tricomi, 2015; Ryan and Deci, 2000).

According to Naveed (2017), student academic results have increased over the last decade as a result of the enrichment of university e-learning settings. Pre-pandemic e-learning initiatives in universities throughout the globe, according to Alberto et al.,(2022), addressed and supported the shift from an instructor-focused approach to student-centered experiences. This Attainment

Tribute to a lack of effective strategic planning, which was unable to occur owing to the rapid pandemic switch from in-person learning to e-learning. This enables for increased student involvement and digital preparedness, which has a favorable impact on academic attainment. Technological developments in hardware, network capacity, software, and audio and video communication applications and protocols promote e-learning experiences, student academic engagement, and the adoption of innovative e-learning methodologies. Citdral at el., (2018). Furthermore, the expanded e-learning environment, which includes e-learning platforms, online chats, virtual environments that simulate class scenarios, tools for sharing student screens, and the recently added capacity to create private rooms within e-learning classes, allows for the implementation of in-person teaching strategies such as group cases, student presentations, and a more immersive learning experience. All of these new technologies should improve students' academic engagement and accomplishment. Despite inconsistent findings in the research on the influence of e-learning on student engagement and academic accomplishment, students report a greater degree of satisfaction while engaged in e-learning.

A recent study reveals a decrease in dropout rates and an improvement in students' grade point average (GDP), while research findings from another study addressing a similar phenomena show an increase in critical-thinking abilities for students who participate in e-learning. While these findings are promising, a more extensive literature study reveals a null or even negative relationship between GPA and e-learning instruction, as well as the usage of technology in the classroom and GPA.

2.3.2 Teaching method

Universities have been obliged to do online learning due to the COVID-19 pandemic, which has required lecturers to develop creative e-learning techniques and students to be flexible and have a strong desire to study (Prasetyo, Nurtjahjanti & Ardhiani, 2021). The lecture contents, psychological competencies, and technological competencies all influence students' willingness for changing. Because face-to-face engagement in the classroom is being substituted by virtually face-to-face interaction via technology, online learning is necessary (Keskin et al., 2018). The capacity to use and manage technology, information, and communication networks is known as a "digital talent" (Keskin et al., 2018). One external aspect that affects the learning process is the development of information and communication technologies in education (Alqahtani & Mohammad, 2017; Babiker, 2017; Mohammad et al., 2017). Furthermore, in order to grow as individuals, pupils need to be proactive, inventive, and creative.

Similar to in-person learning, a variety of factors, including how the material is presented (e.g., through engaging animations), the quantity of activities, and the chance for students to discuss and collaborate with teachers and classmates, can have a positive or negative impact on attitudes and experiences with online learning. According to Holt et al. (2018), people who are open to change have a favorable attitude toward organizational change and a desire to put organizational change into practice. In contrast, if people are not prepared for change, they will find it difficult to keep up and feel overwhelmed by the rate at which change is occurring in their business.

According to Ambad, Mawardi, and Mohamad (2017), the broad concepts, pedagogy, and management techniques utilized for classroom instruction are referred to as the lecturer's teaching

method. Students anticipate that lecturers will be prepared for class, use technology in the teaching process, and include them in the learning process (Ambad, Mawardi & Mohamad, 2017). The outcome of student acceptance of information transference is influenced by the lecturers' teaching strategies in the classroom. Research from the past supports this, stating that teaching is a continual process that entails bringing about the desired changes in students to reach particular results (Ayeni, 2017).

There are various studies that state that the factors that contribute to students' academic achievement are due to learning methods, teachers' teaching approaches and students' own attitudes (Muhamad Shafiq & Noraini, 2018). From the aspect of student factors, academic achievement is significantly influenced by student traits such as student interest, motivation, and attitude (Aydeniz & Kaya, 2019).

Online teaching and learning continues to grow and play an important role in education in Malaysia (Gunawan et al. 2020). The world of education in this pandemic era has begun to move towards online teaching and learning using a variety of existing applications. Online learning, teaching and facilitation is a means of academic activities that are channeled through the application of digital technology and the internet and which is now diversified as home teaching and learning in Malaysia. This channeling thing requires a channel that has writing, visual graphics, words, animation, video as well as audio. Online learning is based on computer technology resources and tools. Shirley Anne (2019) who defines online teaching and learning is face-to-face instruction that takes place by use of electronics so that students will see and listen to fellow classmates from a distance. At the same time, educators and students also have to face challenges in conducting online learning (Losius Goliong et. Al, 2020).

Researcher Muhammad et al. (2019) mention that online learning is defined as the use of various web-based technology tools for education. Hence, online learning has grown rapidly due to its many advantages such as its flexibility, accessibility of the internet and its cost-effectiveness (Naveed et al. 2018). These advantages can potentially transform education into a lifelong process of learning that encourages students to be more creatively engaged in accessing different sources of knowledge which in turn helps to improve academic achievement.

2.3.3 Motivation

Azar and Tanggaraju (2020) describe motivation as the eagerness and willingness to achieve something without being directed or coerced to provide it. According to him, motivation is concerned with processing and analyzing information to develop a concept or understanding of the universe. Since online learning demands students to take responsibility for their own learning, individuals will be unlikely to just attend class with some other students. It demonstrates that the online learning research conducted during the COVID-19 Pandemic resulted in certain benefits and some drawbacks. Students' motivation was impacted, whether by its advantages or downsides. Some students were unmotivated to study because of online learning, but others were tremendously driven.

Cahyani et al (2020), Rachmat et al (2020), and Simamora et al (2020) show how external elements such as surroundings, timing, and procedural supports influence how students attain their goals in their research study. Physical and psychological concerns are exacerbated when students lack drive. As a result, positive thinking, creative and innovative approaches can assist students or lecturers in overcoming these varied challenges in terms of making the way away experience more enjoyable, resulting in higher learning quality (Jaelani et al, 2020). Presently, the development of

online learning is intended to lessen the strain suffered during a pandemic where students must study at home (Hadi et al, 2021). Students had instructional university facilities rather than staying at home during the pandemic COVID-19, which they couldn't supply university facilities for.

Academic student performance, on the other hand, will be problematic if students are not inspired to study, and, in comprehending the lessons during this epidemic, learning motivation also serves as an effort to urge students to remain excited about the learning process. Purnama et al., (2019) agree on the assertion, namely that without motivation, accomplishing the purpose would be difficult since students' efforts and wants impact overall educational objectives. The presence of student motivation can boost their interest in studying, help them finish online tasks more quickly, and help them succeed in the future (Zheng et al., 2018). In addition, when studying English, the function of motivation seems particularly significant in defining educational objectives in a class (Tiara et al., 2017).

According to Damayanti and Rachma (2020), motivation in offline learning will be more effective than motivation in online learning, Students identify offline learning motivation for a variety of reasons, including the ability to converse effectively with professors and peers, becoming much more motivated about education, and feeling more at ease in class. It is obvious from this that there is indeed a barrier across offline and online learning. The atmosphere of the online class is greatly influenced by academic motivation for the student perspective of teachers (Baber, 2020). Students will become more motivated in their English studies if their learning skills and motivation are improved (Mazumder, 2014). Additionally, if students are enthusiastic about learning, combining offline and online teaching would produce unique and clever learning outcomes (Baber, 2020). According to Hadi and Athallah (2021), online information could be dynamic, enabling learning students to access the website as either a learning platform.

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2.3.4 Perceived social support

Two distinct categories of assistance have been studied in relation to students' perceptions of their teachers' help: emotional and intellectual support (Liu et al., 2018). Perceived availability of assistance from peers, including psychological and non-psychological help, is referred to as "peer support" (Ruzek et al., 2016). Next, psychological support focuses on the concept that the peers can aid in term of self-efficacy, self-esteem, and positive feelings, while non-psychological support covers the belief that peers may provide instrumental support via physical and informational assistance. Moreover, it can be stated that family finances are motivation and encouragement to students to achieve good academic performance. Asri et al. (2017) add that when highly motivated students face financial problems, students will use those problems as motivation for them to achieve success. Parents should also often motivate their children to continue to strive to study hard.

Due to the fact that practically all learning approaches and strategies were used online during on the previous Covid-19 pandemic, Muniroh et al. (2021) made a comment on how open students were to participating in various learning situations. Additionally, he mentioned that since parents are currently giving their children their entire attention, students require strong reinforcement from family and the surrounding environment. In terms of emotions, stress, and attitudes, students may be influenced psychologically, claim Mohd Fairuz et al. (2020). This is due to the restrictions that students must deal with whether they are self-motivated and have a strong spirit, or even when the circumstance itself is the hurdle.

One of the elements affecting pupils' academic achievement is family structure. There were seven studies that concentrated on how family dynamics, parental participation, and family history

affected adolescents' academic success. According to two studies, the home environment, two studies found that parental participation affects students' academic performance, and four studies found that family background affects students' academic performance.

According to two studies (Lastri, Sri Kartikowati, Sumarno, 2020; Riska & Totoh, 2019), family environment elements have a significant impact on students' academic success. According to Sri Kartikowati and Sumarno in Lastri's study (2020), the home environment significantly affects pupils' academic progress.

In terms of parental participation, two studies demonstrate that it has a significant impact on adolescents' academic progress (Yung-hsun Cheng & Chia-wen Weng, 2017; Mohd. Erfy Ismail et al., 2019). According to a 2019 study by Mohd. Erfy et al., parental participation in terms of encouraging and assisting students with their homework has been demonstrated to have a favorable effect on student accomplishment. The study also discovered that parental involvement in students' school-related assignments will boost students' academic performance. Parental oversight of pupils' progress on their schoolwork can also aid in their understanding and academic success. Parents can alter their children's behavior to help them succeed by getting involved in their education and paying close attention to them both at home and at school. Additionally, according to the study's findings, parents should collaborate with instructors in order for both parties to comprehend and be successful in their attempts to raise students' academic achievement. According to a Taiwanese study, the majority of parenting styles linked to excellent student accomplishment place a strong emphasis on parents keeping an eye on their kids' educational progress. Families that set high academic standards for their kids, maintain open lines of communication with them about school matters, and encourage their kids to read regularly have the most fruitful interactions.

According to a study done in Indonesia by Tohol, Edi, and Nila (2020), a student's ability to learn is significantly influenced by the parental education level. In order to give their children a positive learning environment, resources, and support, parents who are well educated will recognise that their children's academic achievement is influenced by more than just their instructors and schools. When compared to parents who have a high level of education, parents with minimal educational backgrounds are less knowledgeable on how to educate their children. A person's awareness of the numerous way parents' guide, instruct, and motivate their children increases with their degree of education. This can indirectly affect students' academic achievement.

2.3.5 Financial stability

Everyone needs money to live in this age of globalization. Particularly families that depend on financial security to satisfy their needs and desires. Financial stability is the condition in which the process of financial intermediation is efficient and there is confidence in the vital markets and financial institutions of the economy. Everyone has financial troubles sometimes, but those from underprivileged or low-income homes are more likely to have these issues. The pandemic has severely affected the economy, and through these, the financial well-being of households. The pandemic shock is clearly least damaging to people with high levels of liquid savings or jobs that can be transferred to the virtual environment (Fox and Bartholomae 2020).

Other than that, according to the World Economic Outlook published by the International Monetary Fund in October 2020, the pandemic will have long-lasting effects on the employment and income of citizens, particularly those in precarious financial situations, informally employed women, and young people (whose future income will not be aided by distance learning). According to the IMF, the first quarter of 2020 will see a loss of 160 million jobs, the second quarter will see

a loss of 495 million full-time jobs, the third quarter is expected to see a decline of 345 million full-time jobs (19.8 percent of which will be in North and South America and 12.4 percent in Arab countries), and the fourth quarter will see a loss of 345 million full-time jobs (Ventura 2020).

Students' academic success is significantly influenced by their financial situation. As they may cause a variety of issues, including poor academic performance, financial difficulties are a major concern that must be handled. Inadequate financial assistance would make it difficult for students to improve their academic performance since education is a costly social service. According to Asri..,et al (2017), although students do not have to pay monthly debt installments like other households do, they are still required by their status as students to pay for their education costs, rent, and other necessities. To do this, they receive financial aid from loans, scholarships, or their families. Furthermore, children from underprivileged or low-income households could do poorly in school. Numerous studies have already examined the relationship between financial concerns and students' academic success. Olufemioladebinu, Adediran, and Oyediran (2018) assert that a student's academic performance on a test has been positively influenced by the economic or social standing of their parents.

According to Widener (2017), financial issues may have an impact on students' academic performance. To address these issues, the majority of students decide to work part-time or even for a long duration, which takes away from their ability to concentrate on their studies. Therefore, working a part-time job causes people to study less, enroll in fewer credits, and attend class less often, all of which have a negative impact on their academic achievement, Widener (2017) University research may help to support this. It was shown that financially distressed students had poorer marks and took fewer credits. The majority of students work in part-time employment offered by their colleges or by nearby businesses. Asri et al. (2017) claim that students from low

socioeconomic status households are often hampered by issues including having to work to support their families and being unable to afford learning materials, which would eventually affect their academic performance.

2.4 Hypotheses Statement

H1: There is a relationship between the teaching methods and the academic achievement of undergraduate students during a pandemic.

H2: There is a relationship between the motivation and academic achievement of undergraduate students during a pandemic.

H3: There is a relationship between the perceived social support and academic achievement of undergraduate students during a pandemic.

H4: There is a relationship between the financial stability and academic achievement of undergraduate students during a pandemic.

2.5 Conceptual Framework

The purpose of this study is to examine the factors affecting the academic achievement of undergraduate students during the pandemic. This section describes the purpose of the theoretical framework. A conceptual framework is operationalization of the theory showing the relationship of the different constructs in a research study (Adom, 2018).

Therefore, based on the previous study, the dependent variables and dependent variables for the research conducted has been determined. The dependent variable for this research is student academic achievement. Meanwhile, the independent variables are teaching method, motivation, perceived social support, and financial stability. This framework was adopted from two different articles. which are factors affecting undergraduate students' academic performance (Ambad, Mawardi & Mohamad, 2017) and the financial problems and academic performance among public university students in Malaysia (Norazlan, Yusuf & Al-Majdhoub, 2020)

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Figure 2.1: Conceptual framework

INDEPENDANT VARIABLES

DEPENDANT VARIABLES

Teaching Methods

Motivation

Perceived Social Support

Financial Stability

Students' Academic Achievement

Sources:

http://creativecommons.org/licenses/by/4.0/legalcode (Ambad, Mawardi & Mohamad, 2017)
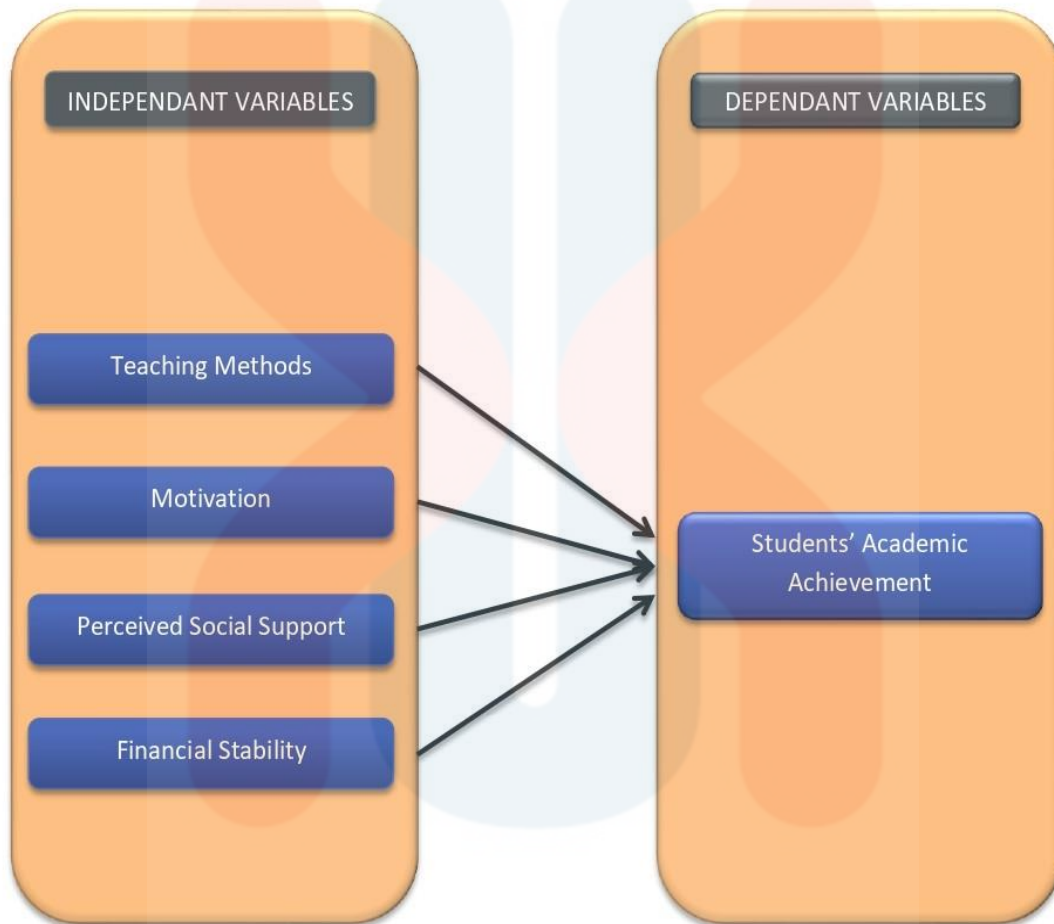
http://journale-academiauitmt.edu.my/ (Norazlan, Yusuf & Al-Majdhoub, 2020)

2.6 Summary/Conclusion

The research acknowledges that online learning provides a learning environment separate from face-to-face or classroom learning contexts. The "broadly acknowledged issues with e-learning are accessibility, cost, flexibility, learning methodology, life-long learning, and educational policy." (p. 4). There seems to be evidence that studying online could be more successful in a variety of ways for users connected to the appropriate technology. According to several studies, pupils remember 25–60% more content when studying online rather than just 8–10% in a classroom (Bazelais, Doleck, & Lemay, 2018).

CHAPTER 3

RESEARCH METHOD

3.1 Introduction

According to Ahmad Mazhab Ayob (2021), the research method includes an approach for questioning how each aim or research is to be accomplished. The research technique would be a collection of knowledge and the most recent data that researchers may utilize for the survey. The research technique defines how well the scholar indicates the overall work method employed by engaging the selected data, as well as the process of acquiring data across the study's production. The methodology's objective is to assist the researcher comprehend the method's application more widely by detailing the research procedure performed. Quantitative research would be a survey-based research strategy that engages students who participate in online learning during the COVID pandemic. This data will be collected using the research as a questionnaire. Also, this research directly uses UMK students as the sample.

3.2 Research Design

Research design is an essential part of research. Research design plays an important role since it acts as the structure of research. In other words, research design holds all the elements in every piece of research to ensure the research is valid and accurate (Creswell, J. W., & Creswell, 2017).

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3.2.1. Research Instrument

This survey will be divided into five sections, A, B, C, D, and E, using a questionnaire as the research instrument. Section A would be about the respondent's demographics. Aside from other parts regarding concerns relating to the research's goal of preservation. In terms of alternatives, the Likert scale would be provided to enable respondents to identify the strength of their positive-to-negative sentiments about the question or statement.

3.2.2 Measurement Scale

The questionnaire is often used for large-scale surveys as it requires less time and is less expensive (Gay, 1987). In a research questionnaire, when only variable labels are significant, a nominal scale is frequently used. As a result, the interval scale would be applied in the questionnaire.

3.3. Data collection

In this study, the researcher has decided to use a quantitative approach to achieve the outlined research objectives. This quantitative survey research obtains data through the distribution and completion of questionnaires by respondents. A Google Form could be used to build the questionnaire to make it easier for respondents to answer the question. We distribute questionnaires through social media such as WhatsApp, Instagram, Facebook, and others. This questionnaire could perhaps also be administered online to reflect current pandemic challenges. We used this method to our targeted respondents who are UMK students.

3.4 Study population

"Population" means the whole group of people, events, or things of interests that a researcher wants to investigate. Every member of the population is known as an element. The total number of elements in the population is known as the population size (Kumar et al., 2017).

University Malaysia Kelantan (UMK) students were chosen as potential respondents to participate in the survey related to factors affecting the academic achievement of undergraduate students during the pandemic. The data will be collected in Kelantan, specifically at the Pengkalan Chepa. The researchers discovered that the total number of students enrolled at UMK at Pengkalan Chepa under the Faculty of Entrepreneurship and Business for session 2021/2022 data is 3489. In appendix section, Table 3.4: Total number of students enrolled at UMK under the Faculty of Entrepreneurship and Business for session 2021/2022

3.5 Sample size

One of the goals of sampling in epidemiological research is to obtain a statistically representative sample of the population of interest so that the conclusions and study findings from the sample reflect true correlations in the population (Majid, 2018). A research study's sample size should be sufficient in terms of strength and significance, enabling the researchers to be sure that the latest results cannot be attributable to random variations in the targeted population (Vernons et al., 2017). As a result, calculating the sample size becomes a crucial step in quantitative studies (Majid, 2018). Therefore, the sample size of the population for this research was determined by using a published table. Researchers have decided to use the published table by (Krejcie & Morgan, 1970). According to the Faculty of Entrepreneurship and Business data, the latest total student enrolment in UMK is 3438. The researcher needed to distribute 341 sets of

questionnaires because the total population is more than 3000. Table below was the published table by Krejcie and Morgan (1970) that was used for this research.

Table 3.2: Sample Size by Krejcie and Morgan (1970)

Table for Determining Sample Size of a Known Population									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
Note: N is Population Size; S is Sample Size						Source: Krejcie & Morgan, 1970			

3.6 Sampling Techniques

We employed convenience sampling to acquire data in this study. Convenience sampling involves picking people who are often and conveniently accessible. According to Ackoff (1953), convenience sampling is a popular sampling approach among students since it is a low-cost and simple alternative to other sampling strategies. Convenience sampling often aids in overcoming numerous study difficulties. For our study, we are presently gathering perspectives on the factors impacting students' academic achievement during pandemic COVID-19 at Malaysia's Kelantan

University (UMK). We will urge University Malaysia Kelantan (UMK) students, particularly those at Kampus Kota, to take a survey on the issue. This is a simple approach to gathering data since we mainly survey students at the University Malaysia Kelantan (UMK) and do not include students from other universities.

3.7 Research Instruments Development

Questionnaires are just one of a variety of ways of getting information from people (or answers to our research questions), according to Bill Gillham (2017), who stated that questionnaires are just one of a variety of ways of getting information from people (or answers to our research questions), usually by posing direct or indirect questions. In fact, one of the flaws of questionnaires is that they attempt to elicit responses only through the use of questions. This is a form or document that has been methodically created with a collection of questions specifically intended to elicit answers from respondents or research informants for the goal of gathering data or information. It is a kind of inquiry paper that comprises a well-organized and carefully constructed set of questions designed to elicit information about the nature of the topic under investigation. Aside from that, it is a form that comprises a collection of questions about a subject or a group of topics that the responder must answer. We choose to gather data from respondents since they can provide more precise responses and can fill out the questionnaire at their leisure.

3.7.1 Questionnaire Design

In the study, the researchers used questionnaires to collect data. The questionnaire consists of a network of questions and other indicators for the purpose of gathering information from the community of students from Universiti Malaysia Kelantan (City Campus). This study area consists of a demographic profile of respondents, an independent variable that focuses on the factors that affect the academic achievement of undergraduate students during a pandemic. This study area consists of sections A, section B, section C, section D, section E, and section F. The question consists of a demographic profile of the respondents, an independent variable that focuses on the factors that affect academic achievement during COVID-19, and a dependent variable that is the student's academic achievement. The questions in section A are age, race, ethnicity, gender, programmes, year of study, marital status, grade, and parents' status. The choices answered for Section A are multiple choice. The following is an example of our questionnaire for this research:

Table 3.3: Example of Section A, Demographic Profile.

No.	Content	Options	/
1.	Gender (Jantina)	Male / Lelaki	☐
		Female / Perempuan	☐
2.	Race (Bangsa)	Malay	☐
		Chinese	☐
		Indian	☐
		Others / Lain-lain	☐
3.	Age (Umur)	< 20	☐
		21 - 22	☐
		23 - 24	☐
		> 25	☐
			☐
			☐

4.   Programmes (Program) SAE
                               SAK
                               SAR
                               SAB
                               SAL

The questions that researcher provides in this Section B until section E relate to independent variables which affect academic achievement undergraduate students during pandemic. Next, this section uses 5 points of like skills to measure respondents and how much they agree or disagree with the statement. Section F also requires respondents to answer questions about dependent variables which are the student's academic achievement. The 5-point skills method of likert will also be used in this section. Section B,C,D, and E will be subjected to five points Likert Scale method which is the respondents need to rate the extent of agree or disagree from 1 – 5 which is '5 = strongly agree', '4 = 'agree', '3 = 'neutural', '2 = 'disagree', and '1 = 'strongly disagree'. The following is an example of our questionnaire for this research:

Table 3.4: Example of Section B, The Factor of Teaching
Method.

No.	Content	1	2	3	4	5
1.	I am satisfied with the easily accessible learning materials provided by the lecturers. / Saya berpuas hati dengan bahan pembelajaran mudah diakses oleh pensyarah.					

2.   I am satisfied with the amount of time I spend talking to lecturers during online. / Saya berpuas hati dengan jumlah masa yang saya luangkan untuk bercakap dengan pensyarah semasa kelas dalam talian

3.   Lecturers gives me scientific information that helps me learn more about the subject and understand it better. /Pensyarah memberi saya maklumat saintifik yang membantu saya mengetahui lebih baik.

4.   I am satisfied with the online learning experience from home digitally. / Saya berpuas hati dengan pengalaman pembelajaran dalam talian dari rumah secara digital

3.7.2 Pilot Test

According to Junyong (2017), a pilot study is the initial phase of the complete research process and is often a smaller study that aids in the design and modification of the major study. Specifically, in large-scale clinical trials, the pilot or small-scale study is often conducted prior to the main trial in order to assess its validity. Next, the purpose of the pilot study was to increase the likelihood that the main study would be successful by evaluating the variability of the participant recruitment and retention procedures, testing the face and content validity of the questions, and assessing the usability of the technology used to administer the questionnaire. The primary objective of the pilot project was to evaluate the feasibility of recruiting study participants, as well as the technical and navigational elements of the online survey procedure and the instrument itself. As a forerunner to the main inquiry, the pilot study afforded us the chance to refine our research procedures.

Due to this, the pilot test will aid in the reduction of questionnaire errors and the collection of accurate data during the primary data collection process. The 10 percent of our pilot test will be calculated by multiplying the total number of survey respondents (341) by 10%. Then, we will select 34 individuals from our total sample size to participate in our pilot test.

3.8 Measurements of the Variables

A measurement variable is an unknown attribute that can accept one or more values and measures a specific thing. It is frequently employed in scientific study (Inoue and Ueji, 2020). In statistics, unlike in mathematics, measuring variables can assume not only quantitative but also qualitative values. Measurement devices, algorithms, and even human judgment can be used to measure statistical variables. The scale of measurements refers to how researchers measure variables, and it has an impact on the types of analytical procedures that may be performed on the data and the conclusions that can be taken from it (Inoue and Ueji, 2020). There are four categories of measurement variables which are nominal, ordinal, interval, and ratio variables.

The research instrument to be used in this research is a questionnaire. The types of measurement scales used in this survey questionnaire were nominal, interval and ratio while ordinal scale measurements were not used. The questions constructed are based on the objectives in the study conducted to obtain correct and accurate information. Each respondent will answer the same question as the others. The questionnaires are divided into five sections which are in Section A, B, C, D and E. Section A will cover the questions about demographics profile examples include: age, race, ethnicity, gender, programmes, year of study, marital status, grade, parents' status. So, researchers can easily and effectively collect these types of information with survey

questions. Next, Section B, C, D and E covered the questions regarding the factors affecting academic achievement, and used an interval variable for dependent and independent variables based on the framework used in previous studies.

3.8.1 Nominal Scale

A nominal scale is a measurement system that is used to categorize occurrences or things into discrete groups (Sunyoto, 2019). This scale does not require the use of numeric values or categories ranked by class; instead, each different category is labeled with a unique identity. Nominal scales are used to categorize and analyze data in numerous areas, and are often regarded as the most basic type of measurement. It will help researchers to assign subjects to certain categories or groups. In our questionnaires, the nominal variable such as age (19 years old until above 25 years old), gender (male or female), race (Malay, Chinese, Indian or others), programmes (SAB, SAL, SAK, SAR, SAE), year of study (year 1, year 2, year 3, year 4), marital status (unmarried, married), grade (2.0-2.49, 2.5-2.99, 3.0-3.49, 3.5-4.0), parental marital status (together, divorce). All these questions will be categorized to determine and recognize the demographic profile for every targeted respondents.

3.8.2 Interval Scale

An interval scale refers to a level of measurement in which the attributes that make up the variable are measured at a certain numerical score or value and there is equal distance among the attributes. (Ferrante, Ferro & Pontarollo, 2017). The distance of two adjacent attributes is called an interval, and intervals are usually equal. Unlike ordinal scales that take values without a standardized scale, each point in an interval scale is equally spaced. Arithmetic operations can also be performed on interval scale numerical values. The interval scale has no "true zero" point, so

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statements about the ratio of attributes in the interval scale cannot be made. Examples of interval scales include temperature scales and standardized tests. A 5-point Likert scale used in the research ranging from strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5) is designed to examine how strongly the statements agree or disagree. In questionnaires, this Likert scale is used in sections B, C, D, and E.

3.8.3 Ratio Scale

The ratio scale is one of two types of continuous scales available, the other being the interval scale. It is both an extension of the interval scale and the height of measurement scale types (Kusaeri & Suprananto, 2018). The ratio scale differs from the interval scale solely in that the ratio scale already has a zero value. This means an even number of zero also will give a meaning. In addition, unlike interval variables, the values of a ratio variable can be subjected to multiplication and division operations. Researchers used ratio scale in Section A of questionnaires for age and years of study.

3.9 Procedure for Data Analysis

3.9.1 Data Processes and Data Analysis

Data in its raw form cannot be useful to any company. Data processing is the process of collecting unprocessed data and converting it into usable information. It is frequently carried out step-by-step by a team of data scientists and data engineers within a business. Before being made readable, the raw data is collected, sorted, processed, reviewed, and stored.

Despite the numerous groups, companies, and specialists who use distinct approaches to data analysis, the majority of them may be summed up in a single, all-encompassing definition. In order to gain relevant, valuable information that helps business decision-making, data analysis is the act of changing, processing, and cleaning raw data.

The process provides valuable information and insights that reduce the risks involved in making decisions. These insights and statistics are usually displayed in charts, pictures, tables, and graphs. When discussing data analysis, the term "big data" is widely used. For massive amounts of data to be transformed into useful information, data analysis is necessary. At Universiti Malaysia Kelantan (UMK), a total of 341 sets of questionnaires will be distributed to selected students, with all data being gathered for study. Its primary purpose is to provide information on the relative frequency of survey replies.

3.9.2 Descriptive Analysis

Descriptive analysis is a sort of data analysis that helps to explain, show, or summarize data points in a constructive way so that patterns might develop that satisfy all of the data's conditions. It is one of the most crucial steps in the statistical data analysis process. It provides a

conclusion on the distribution of data, assists in the detection of typos and outliers, and allows for the identification of similarities between variables, allowing the researcher to prepare for additional statistical analysis. After that, the data will be converted. Chapter 4 will provide a full explanation of the findings.

3.9.3 Reliability Test

A test's reliability refers to how regularly it assesses a characteristic (Rosaroso, 2015). Will a person's test score be the same or drastically different if he or she takes the test again? A test is said to assess a characteristic reliably if it provides similar results when repeated by the same person. How can we account for a person who does not receive the same test score each time he or she takes it? The test taker's transitory psychological or physical state could be one of the factors. A person's psychological or physical state at the time of testing can affect test performance. Different levels of worry, weariness, or motivation, for example, may have an impact on the applicant's test outcomes. Then there are environmental aspects to consider. Individual test performance can be influenced by differences in the testing environment, such as room temperature, lighting, noise, or even the test administrator. Furthermore, test form and multiple raters are both possible causes for a person who does not receive the same test score every time he or she takes the test.

In the evaluation process, these elements are factors of chance or random measurement inaccuracy. If there were no random measurement errors, the individual would receive the same test score each time, the individual's "actual" score. The degree to which measurement errors have no effect on test scores is an indication of the test's dependability. This reliability test ensures that

consistent results are obtained without bias and serves as an indicator of the measurement's reliability as well as the capacity to obtain consistent measurements over time.

3.9.4   Pearson Correlation Coefficient

The measure about which two sets of data are related is measured by correlation. The Pearson Correlation is the most frequent statistician's metric of correlation. The Pearson Product Moment Correlation is its full name (PPMC) (Jan Hauke, 2019). It depicts the relationship between two sets of data in a linear fashion. In simple terms, it answers the question, "Can I represent the data using a line graph?" The Pearson correlation is represented by two letters which are the Greek letter rho (ρ) for a population and the letter "r" for a sample.

The correlation coefficient is a statistic for assessing how closely two variables are related. The most popular correlation coefficient is Pearson's, though there are other types as well. A correlation coefficient for linear regression, Pearson's correlation is also referred to as Pearson's R. If statistics is new to you, you'll probably start with learning Pearson's R. In actuality, Pearson's is typically meant when people discuss correlation coefficients.

The correlation coefficient formulas are used to determine the strength of a relationship between two sets of data. The formulas return a value between -1 and 1, with 1 meaning a strong positive relationship, -1 meaning a strong negative association, and zero representing no relationship. A correlation coefficient of 1 means that for every positive increase in one variable, a set proportion of the other increases as well. Shoe sizes, for example, increase in (nearly) perfect proportion to foot length. A correlation coefficient of -1 means that for every positive rise in one measure, a fixed proportion of the other decreases. The amount of gas in a tank, for example,

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diminishes in (nearly) perfect proportion to speed. There is no positive or negative rise for every increase of zero. There's no connection between the two.

3.9.5   Multiple Linear Regression Analysis

A collection of statistical techniques known as regression analysis is used to estimate the associations between a dependent variable and one or more independent variables (Gulden Kaya Uyanik, 2013). It is a useful tool for simulating the long-term relationship between variables and determining how strongly they are related. Regression analysis comes in a variety of forms, including multiple linear, nonlinear, and linear. The most common types are simple linear and multiple linear models. Nonlinear regression analysis is typically employed for more complicated data sets when the relationship between the dependent and independent variables is nonlinear.

3.10 Summary/ Conclusion

This method includes the study design that will be used in this investigation. Researchers have decided to use the published table by (Krejcie & Morgan, 1970) for the population and sample of the study. Researchers employed primary data by distributing questionnaires to set respondents to acquire more accurate information on the relationship between learning methods and the academic achievement of undergraduate students during the pandemic. Following that, obtain the required outcomes of the study on the relationship between financial stability and undergraduate student academic achievement during a pandemic. Besides, there is other information that researchers want to know that has been stated in the research questions. The information will be gathered, analyzed, and discussed. The data in this study was analyzed using descriptive analysis, reliability testing, Pearson correlation coefficient, and multiple linear regression. All of these techniques will be used to analyze the data collected, and Chapter 4 will go over them in further detail.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.1 INTRODUCTION

Chapter 4 presents a summary overview regarding the data analysis and the results of the data collected. This section also addresses demographic information and data that were analyzed through descriptive statistics in Statistical Package for Social Science (SPSS) version 26 software. 401 questionnaires were distributed through Google Forms as part of the online survey. In addition, this section also discusses the analysis in relation to the questions asked in the questionnaire. It is also important to remember that the hypotheses described in Chapter 2 are formulated either as a rejection or an assumption. For this purpose, various tests are performed, such as a reliability test, Pearson correlation analysis, ANOVA test and so on. The results are then interpreted in table form for better understanding.

4.2 PRELIMINARY ANALYSIS

4.2.1 Pilot Test

The reliability testing is based on internal consistency using the Cronbach's Alpha procedure. According to Mohamad Jais et al. (2020), a Cronbach's Alpha coefficient is considered moderate and acceptable if the alpha value is between 0.6 and 0.8. The measurement of Cronbach's alpha is very sensitive towards the number of related items, indicating that a lower Cronbach's alpha is acceptable if the variable indicators only have two or three items. In this research, the

researchers conducted a pilot test with 34 respondents, and the reliability test of this pilot test is used to obtain the validity of the variables. Table 4.1 shows the Cronbach's Alpha scales for each variable to determine whether the instrument meets the reliability requirements or fails to meet.

Table 4.1: Scale of Cronbach's Alpha

	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable Poor
$0.6 > \alpha \geq 0.5$	Unacceptable
$0.5 > \alpha$	

Source: Adapted from Chua et al. (2020)

4.2.2 Reliability Test for Pilot Test

Table 4.2: Summary of Reliability Analysis for Pilot Test

Variables	Cronbach's Alpha	No of Items	Level of Reliability
Academic Achievement	0.930	5	Excellent
Teaching Method	0.853	5	Good
Motivation	0.830	5	Good
Perceived Social Support	0.899	5	Good
Financial Stability	0.879	5	Good

To evaluate the data reliability, Cronbach's Alpha was used in the pilot test. The calculated value of Cronbach's Alpha of the variables is higher than 0.6 which is ranged from 0.612 to 0.897. Therefore, this indicated that the measurements for all variables for the pilot test are reliable in this study. Therefore, after Cronbach's Alpha value was received then the researcher conducted the actual study to administer the questionnaire in the field.

4.3 DEMOGRAPHIC PROFILE OF RESPONDENTS

A total of 401 responses were successfully obtained from the questionnaire that the researcher shared through social media platforms such as google form to students University Malaysia Kelantan (UMK). The discussion of the respondent's profile is as follows:

Table 4.3: Gender

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	203	50.6	50.6	50.6
	Male	198	49.4	49.4	100.0
	Total	401	100.0	100.0	

Respondents consisted mainly of females with a total of 203 respondents (50.6%) and 198 males (49.4%).
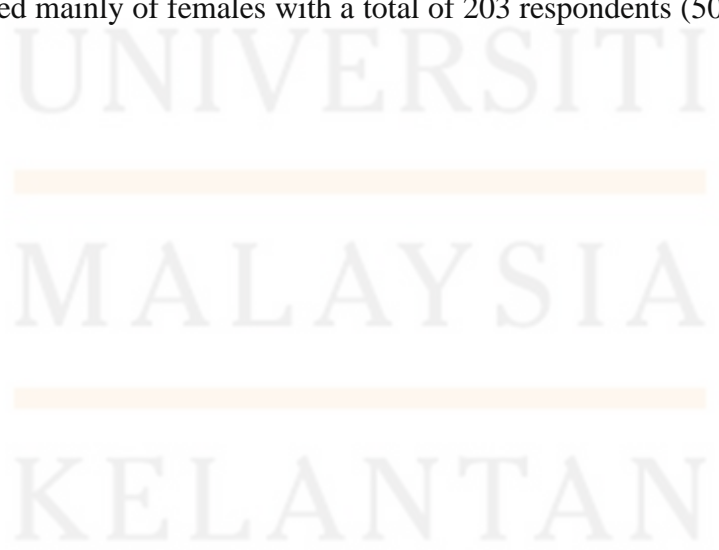
Table 4.4: Race

RACE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese	26	6.5	6.5	6.5
	Indian	22	5.5	5.5	12.0
	Malay	340	84.8	84.8	96.8
	Other	13	3.2	3.2	100.0
	Total	401	100.0	100.0	

In terms of race, 84.8% (340) are Malays which is the majority and 6.5% (26) are Chinese, 5.5% (22) of the 401 respondents are from the Indian race while other races comprise 3.2% (13) respondents.

Table 4.5: Age

AGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<20	9	2.2	2.2	2.2
	>25	28	7.0	7.0	9.2
	21-22	66	16.5	16.5	25.7
	23-24	298	74.3	74.3	100.0
	Total	401	100.0	100.0	

The age of the respondents showed that the majority were from the age group of 23-24 which is 298 (74.3%). The age group of 21-22 with 75 (16.5%) respondents. >25 years 28 (7%) respondents and <20 with 9 (2.2%).

Table 4.6: Programmes

PROGRAMMES

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SAA	32	8.0	8.0	8.0
	SAB	198	49.4	49.4	57.4
	SAE	26	6.5	6.5	63.8
	SAK	36	9.0	9.0	72.8
	SAL	62	15.5	15.5	88.3
	SAR	47	11.7	11.7	100.0
	Total	401	100.0	100.0	

The programmes of the respondents showed that the majority were from SAB programme which is 198 (49.4%). SAL programme with 62 (15.5%) respondents. SAR programmes 47 (11.7%) respondents. SAK with 36 (9%) respondents, SAA 32 (8%) respondents and 26 (6.5%) of SAE respondents.

Table 4.7: Year of Study

YEAR OF STUDY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Year 1	8	2.0	2.0	2.0
	Year 2	36	9.0	9.0	11.0
	Year 3	52	13.0	13.0	23.9
	Year 4	305	76.1	76.1	100.0
	Total	401	100.0	100.0	

According to the respondents' years, the majority were from year 4 which is 305 (76.1) respondents. Students' year 3 with 52 (13%) respondents. Students' year 2, 36 (9%) respondents and 8 (2%) respondents from student year 1.

Table 4.8: Marital Status

MARITAL STATUS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	10	2.5	2.5	2.5
	Single	391	97.5	97.5	100.0
	Total	401	100.0	100.0	

Respondents consisted mainly of singles with a total of 391 respondents (97.5%) and 10 married (2.5%).

Table 4.9: Grade PNGK

GRADE PNGK

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00-2.99	13	3.2	3.2	3.2
	3.00-3.49	133	33.2	33.2	36.4
	3.50-4.00	255	63.6	63.6	100.0
	Total	401	100.0	100.0	

Grade PNGK showed that the majority from 3.50-4.00 which is 255 (63.6%) respondents. 3.00-3.49 with 133 (33.2%) respondents and 13 (3.2%) respondents of 2.00-2.99.

Pie Chart
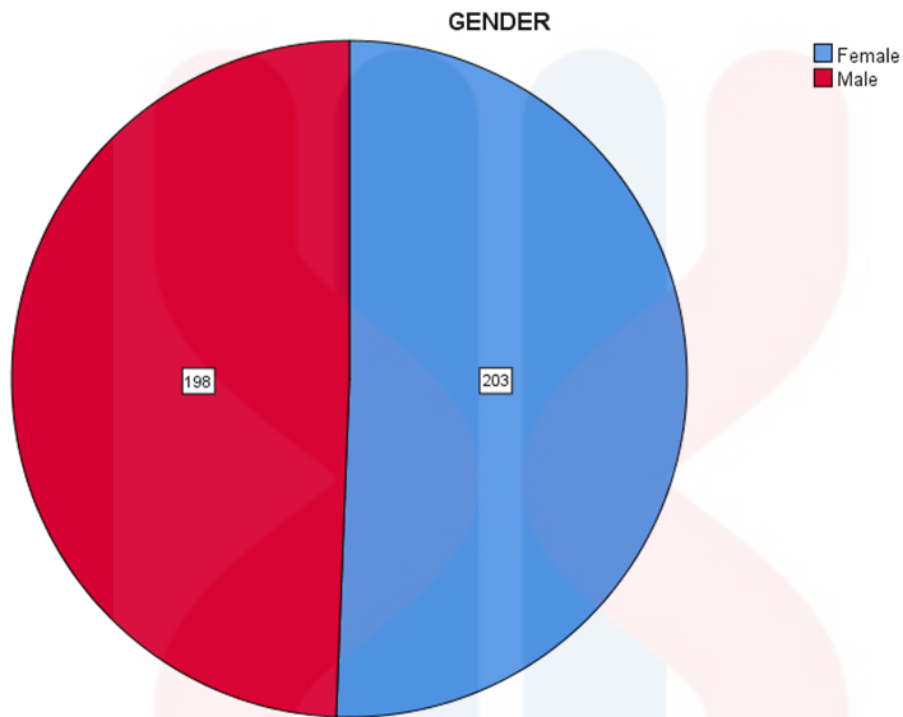
Figure 4.1: Gender
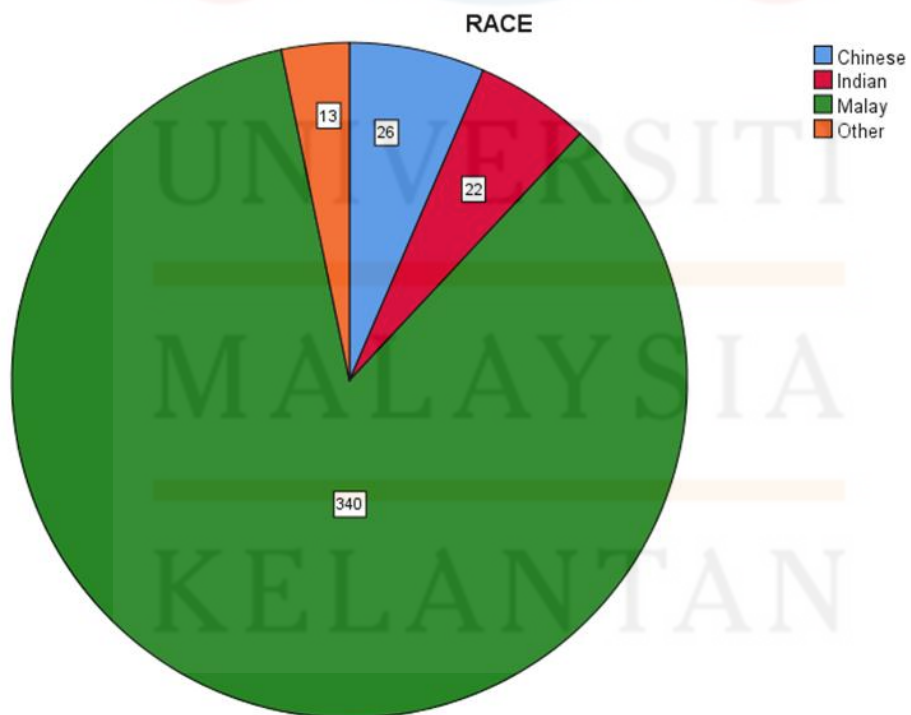
Figure 4.2: Race
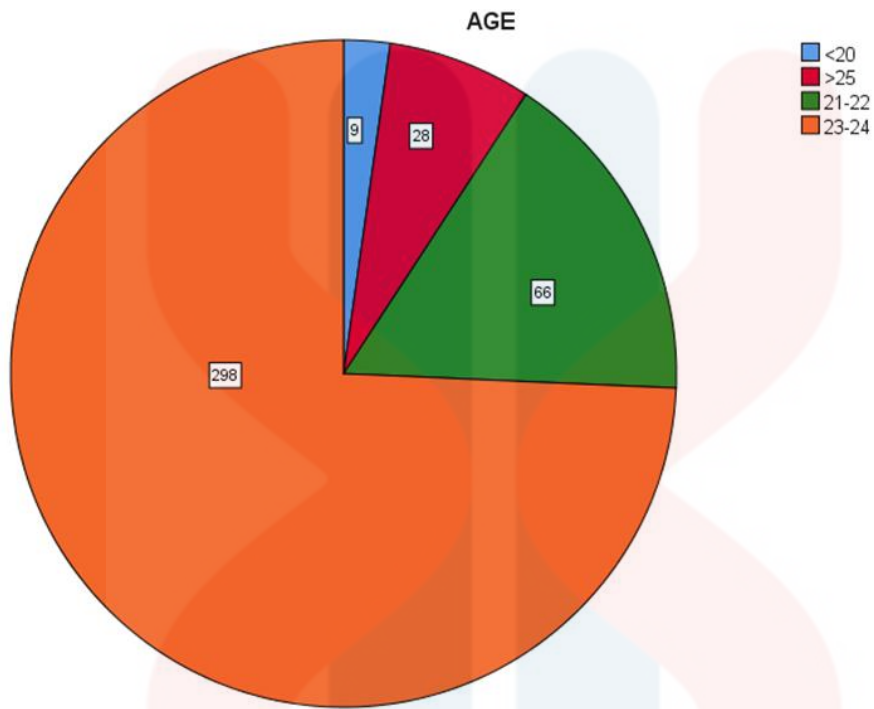
Figure 4.3: Age

Figure 4.4: Programmes

YEAR OF STUDY

Legend:
- Year 1
- Year 2
- Year 3
- Year 4

Year 1: 8
Year 2: 36
Year 3: 52
Year 4: 305

Figure 4.5: Year of Study

MARITAL STATUS

Legend:
- Married
- Single

Married: 10
Single: 391
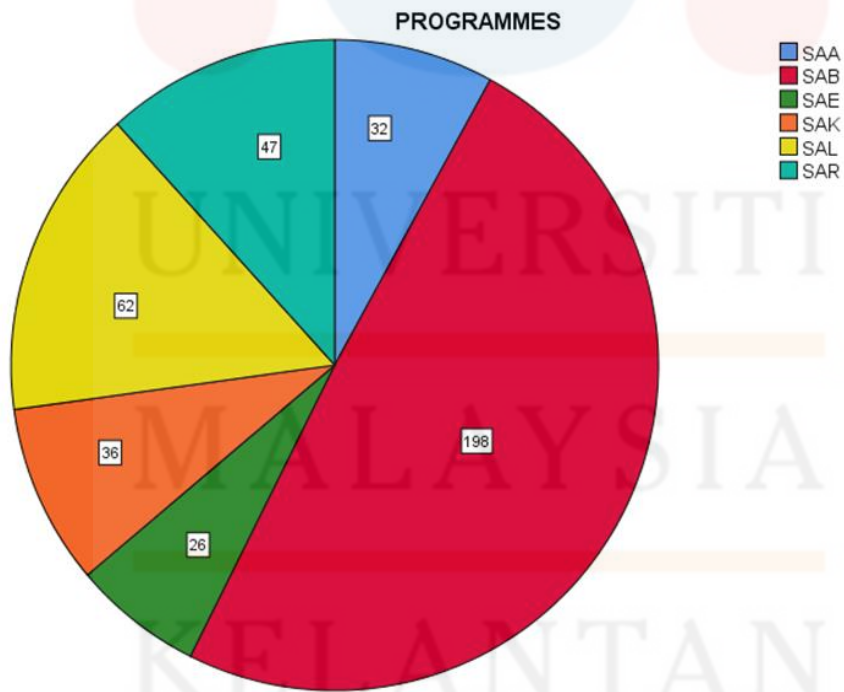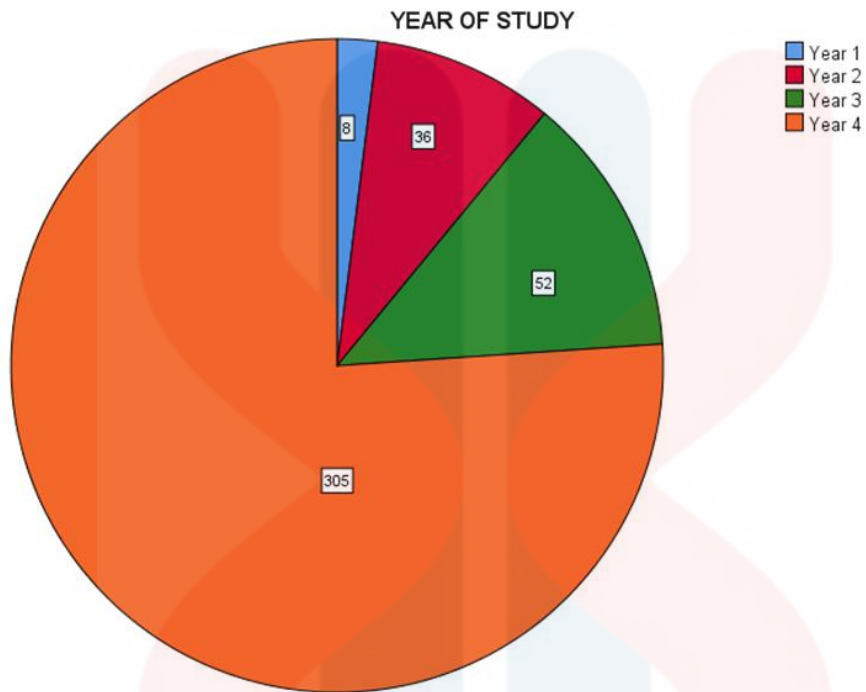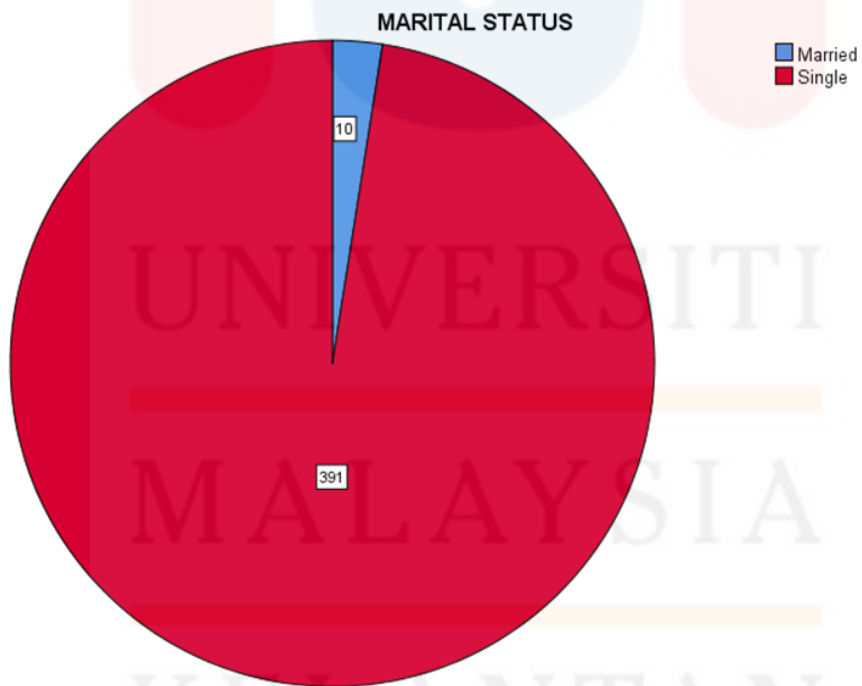
Figure 4.6: Marital Status
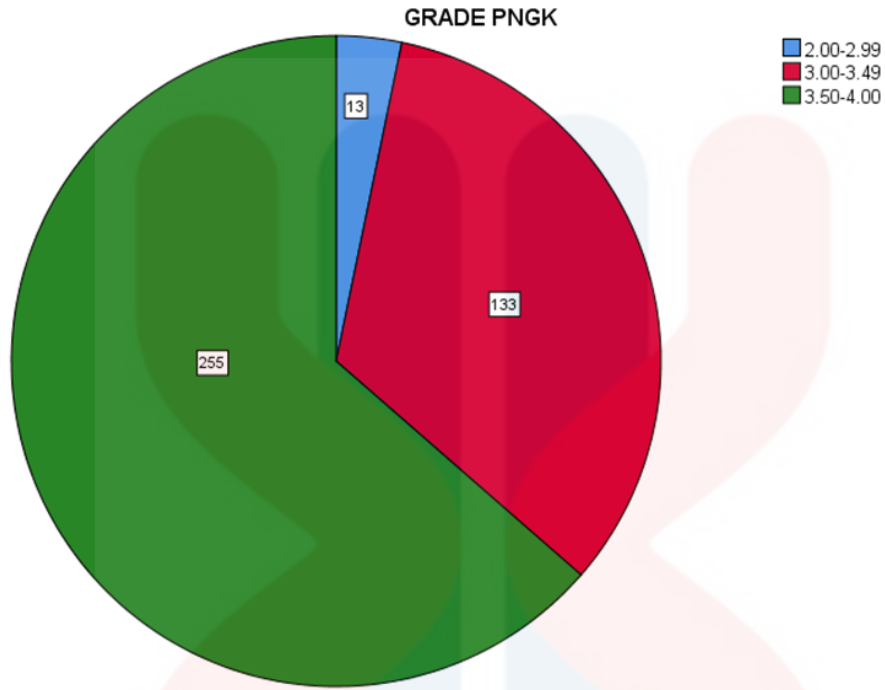
Figure 4.7: Grade PNGK

4.4 DESCRIPTIVE ANALYSIS

Table 4.10: Descriptive statistical analysis of teaching methods

Indicator	Mean	Std. Deviation
I can easily access learning materials provided during Covid-19 pandemic.	4.31	0.809
I am satisfied with the online learning experience from home digitally during Covid-19 pandemic.	4.17	0.977
I feel comfortable doing assignments online during the Covid-19 pandemic.	4.22	0.947
The lecturers provide a safe and non-judgmental environment for students to discuss their view in online class during Covid-19 pandemic.	4.32	0.771
Lecturers ensure that students participate in every session in online class during Covid-19 pandemic.	4.37	0.764

Table 4.10 indicates that the descriptive analysis of dependent which is teaching methods. The mean value provided from the respondents' answers which was from 4.17 to 4.37. As a result, this reveals that government academic students participating in this research accepted whether they

were satisfied or dissatisfied with their online learning experience from houses during the Covid-19 pandemic. Survey participants designed to use this new method of teaching, which is online, but were able to mostly quickly access learning materials provided during the Covid-19 pandemic, indicating that students own a strong network to reach the class online. The teaching methods something which influence undergraduate students' academic performance could be rated as excellent.

Table 4.11: Descriptive statistical analysis of motivation

Indicator	Mean	Std. Deviation
I have the motivation to continue online learning during Covid-19 pandemic.	4.09	1.090
I able to focus on online learning during Covid-19 pandemic.	3.17	0.893
I was interested in online learning during the Covid-19 pandemic.	4.07	1.069
I could easily communicate with friends in online learning during the Covid-19 pandemic.	4.03	1.091

Indicator	Mean	Std. Deviation
I could enhance my learning performance during the Covid-19 pandemic.	4.20	0.912

Table 4.11 indicates that the descriptive analysis of dependent which is motivation. The mean value provided from the respondents' answers which was from 3.17 to 4.20. As a result, it suggests that students were unable to concentrate on online learning during the Covid-19 pandemic, and their motivation was lower than before. Furthermore, the respondents stated that they were able to improve their learning performance in a variety of ways. Ultimately, motivation was something that had a positive impact on undergraduate students' academic performance.

Table 4.12: Descriptive statistical analysis of perceived social support

Indicator	Mean	Std. Deviation
My parents have supported me when learning online during Covid-19 pandemic.	4.47	0.696
My siblings helped me when online learning during the Covid-19 Pandemic.	4.38	0.771
My siblings respected me by not making noise when online learning during the Covid-19 Pandemic.	4.37	0.796

My friends encouraged me during online learning during the Covid-19 Pandemic.	4.41	0.730
My friends always gave me advice during online learning during the Covid-19 Pandemic.	4.39	0.734

Table 4.12 indicates that the descriptive analysis of dependent which is perceived social support. The mean value provided from the respondents' answers which was from 4.37 to 4.47. It reveals that students' families supported them while they were on online learning during the Covid-19 Pandemic, which will aid them in maintaining motivation when the stress phase arrives. People surveyed directed for their friendship to help each other while participating in online learning. Sum up, undergraduate students' academic performance was influenced by perceived social support, which could be rated as outstanding.

Table 4.13: Descriptive statistical analysis of financial stability

Indicator	Mean	Std. Deviation
My purchasing power was not affected during the Covid-19 pandemic.	4.01	1.127
My life was financially stable during Covid-19 pandemic.	4.07	1.050

My spending was stable during Covid-19 pandemic.	4.09	1.029
My saving was sufficient during pandemic Covid-19.	4.11	1.004
My parents provided enough money during the Covid-19 pandemic.	4.24	0.891

Table 4.13 indicates that the descriptive analysis of dependent which is financial stability. The mean value provided from the respondents' answers which was from 4.01 to 4.24. Consequently, it reveals that during the Covid-19 pandemic, students may be able to save money because approximately 78 percent of respondents agreed. Students are indeed intrigued by online learning because their spending power was unaffected by the Covid-19 pandemic. Overall, financial stability, which has an impact on undergraduate students' academic performance, could be rated as extremely good.

Table 4.14: Descriptive statistical analysis of academic achievement

Indicator	Mean	Std. Deviation
I achieved good academic performance during the Covid-19 pandemic.	4.34	0.771

I am proud of my academic achievements during the Covid-19 pandemic.	4.27	0.870
My Cumulative Grade Point Average (CGPA) was increasing during the Covid-19 pandemic.	4.30	0.848
The Covid-19 pandemic has not affected my academic achievements.	4.27	0.910
I managed to maintain good academic achievement during Covid-19 pandemic.	4.31	0.852

Table 4.14 indicates that the descriptive analysis of dependent which is academic achievement. The mean value provided from the respondents' answers which was from 4.27 to 4.34. As a result, it appears that most students were able to complete their assignments all through the Covid-19 pandemic. Also, respondents expected their Cumulative Grade Point Average (CGPA) to rise because of online learning, which encouraged students to manage their time effectively, providing motivation to maintain good academic achievement. Ultimately, academic achievement influenced teaching methods, motivation, perceived social support, and financial stability, allowing undergraduate students' academic performance to be rated as extremely good.

4.5 VALIDITY AND RELIABILITY TEST

Table 4.15: Reliability Test

Variables	Cronbach's Alpha	No of Items	Level of Reliability
Teaching methods	0.932	4	Good
Motivation	0.872	4	Good
Perceived Social Support	0.935	4	Good
Financial Stability	0.949	4	Good
Academic Achievement	0.930	4	Good

Cronbach's alpha values for the variables are more than 0.7, with values ranging from 0.930 to 0.934. As a result, the measurements for all variables in the pilot test were found to be trustworthy in this investigation.

4.6 NORMALITY TEST

The researcher conducted a normality test analysis using SPSS software. Considering that the total sample is 401 respondents (N=401), the researcher used the Kolmogorov-Smirnova data normality test because N> 30. The results of the analysis show that the normality table test for all dependent and independent variables has significance value 0.000. Therefore, the researcher used a non-parametric version of the test, namely the skewness and normality test of kurtosis. This normality test was performed on all dependent and independent variables. Therefore, the researcher conducts this test to ensure that the data is normally distributed by using the values of skewness and kurtosis for each item.

Table 4.16: Normality Analysis

Variable	Skewness	Kurtosis	Result
Teaching Method	-0.696	-0.718	Normal Distributed
Motivation	-0.696	-0.475	Normal Distributed
Perceived Social Support	-1.026	0.955	Normal Distributed
Financial Stability	-0.803	-0.159	Normal Distributed
Academic Achievement	-0.922	0.334	Normal Distributed

According to Brown (2006), acceptable values of skewness fall between - 3 and + 3, and kurtosis is appropriate from the range of - 10 to + 10 when using SEM. While, skewness and kurtosis values for all variables within the range of a variable is normally distributed when the

skewness and kurtosis values are between ±2 and ±7 respectively (Byme, 2010). Table above shows the results of the analysis using the skewness and kurtosis normality test for all variables involved. Skewness value ranges between -0.696 and -1.026 whereas kurtosis value ranges between -0.159 and 0.955.

4.6.1 Pearson correlation

The Pearson correlation coefficient is a test statistic that determines the statistical association, or link, between two continuous variables. The researcher used a correlation analysis in this study to determine the link between the dependent and independent variables. As a result, academic achievement became the study's dependent variable. Teaching methods, motivation, perceived social support, and financial stability are all independent variables. In this study, Pearson's correlation analysis was utilised to investigate the relationship between independent and dependent variables. According to Shaun (2022), pearson's correlation coefficient r is a statistical metric that assesses the existence (provided by the p-value) and strength (given by the r coefficient ranging from -1 to +1) of a linear relationship between the independent and dependent variables.

Table 4.17: Rules of Thumb on Correlation Coefficient Sizes

Coefficient Range (*r*)	Strength of Association
0.90 to 1.0 / -0.90 to -1.0	Very high positive / negative correlation
0.70 to 0.90 / -0.70 to -0.90	High positive / negative correlation
0.50 to 0.70 / -0.50 to -0.70	Moderate positive / negative correlation
0.30 to 0.50 / -0.30 to -0.50	Low positive / negative correlation
0.00 to 0.30 / -0.00 to -0.30	Little if any correlation

Table 4.18: Results of Pearson Correlations Analysis

		TEACHING METHOD	MOTIVATION	PERCEIVED SOCIAL SUPPORT	FINANCIAL STABILITY	ACADEMICACHIEVEMENT
TEACHING METHOD	Pearson Correlation	1	.836**	.766**	.722**	.793**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	401	401	401	401	401
MOTIVATION	Pearson Correlation	.836**	1	.680**	.698**	.789**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	401	401	401	401	401
PERCEIVED SOCIAL SUPPORT	Pearson Correlation	.766**	.680**	1	.702**	.691**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	401	401	401	401	401
FINANCIAL STABILITY	Pearson Correlation	.722**	.698**	.702**	1	.719**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	401	401	401	401	401
ACADEMIC ACHIEVEMENT	Pearson Correlation	.793**	.789**	.691**	.719**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	401	401	401	401	401

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

4.6.2 Multiple linear regression

Table 4.19: MLR Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1.	.843	.710	.707	.42434

a. Predictors: (Constant), FINANCIAL STABILITY, MOTIVATION, PERCEIVED SOCIAL SUPPORT, TEACHING METHOD

b. Dependent Variable: ACADEMIC ACHIEVEMENT

Referring to table model summary, the R square equals to 0.710 or 71.0% indicate a strong significant relationship between at the level of significance at 7%. There, the value obtained is strong correlation and indicates that all independent variables can explain 71.00% of the variation in dependent variable whereas the remaining 29.00% of the variation in dependent variable is explained by other factors that are not tested in this research.

Table 4.20: ANOVA table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	174.859	4	43.715	242.772	.000^b
	Residual	71.306	396	.180		
	Total	246.164	400			

a. Dependent Variable: ACADEMIC ACHIEVEMENT

b. Predictors: (Constant), FINANCIAL STABILITY, MOTIVATION, PERCEIVED SOCIAL SUPPORT, TEACHING METHOD

From table it shows that the value of p <0.000 (Sig 0.000) is smaller than 0.05 which represents that the three independent variables have a significant relationship with academic achievement.

Thus, the three independent variables affect the academic achievement of undergraduate students at Universiti Malaysia Kelantan during the Covid-19 pandemic.

Table 4.21: MLR Correlation Coefficients Result

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.688	.146		4.708	.000
	TEACHING METHOD	.296	.060	.284	4.931	.000
	MOTIVATION	.279	.041	.343	6.740	.000
	PERCEIVED SOCIAL SUPPORT	.111	.052	.094	2.109	.036
	FINANCIAL STABILITY	.175	.036	.208	4.893	.000

a. Dependent Variable: ACADEMIC ACHIEVEMENT

Based on the results shown in the table, the variables of teaching methods, motivation, perception of social support and financial stability have the most significant effect on the level of academic achievement because these variables have a value of less than <0.05. Therefore, all independent variable factors have a significant effect on the academic achievement of undergraduate students at University Malaysia Kelantan during Covid-19.

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4.7 HYPOTHESIS TESTING

Hypothesis testing suggests that H0 will be rejected if p-value is smaller than significant alpha 0.01(p-value<0.01).

4.7.1 Hypothesis 1

H0: There is no relationship between teaching methods and the academic achievement of undergraduate students during a pandemic

H1: There is a relationship between teaching method and the academic achievement of undergraduate students during a pandemic.

P-value is equals to 0.000 less than significant alpha 0.01 indicates significant correlation. Thus, H1 is accepted. Hence, there is significant relationship teaching method and the academic achievement of undergraduate students during a pandemic. The value of correlation, r is 0.793 indicates a strong relationship between teaching method and the academic achievement of undergraduate students during a pandemic.

4.7.2 Hypothesis 2

H0: There is no relationship between motivation and the academic achievement of undergraduate students during a pandemic

H2: There is a relationship between motivation and the academic achievement of undergraduate students during a pandemic.

P-value is equals to 0.000 less than significant alpha 0.01 indicates significant correlation. Thus, H1 is accepted. Hence, there is significant relationship motivation and the academic achievement of undergraduate students during a pandemic. The value of correlation, r is 0.789 indicates a strong relationship between motivation and the academic achievement of undergraduate students during a pandemic.

4.7.3 Hypothesis 3

H0: There is no relationship between perceived social support and the academic achievement of undergraduate students during a pandemic.

H3: There is a relationship between perceived social support and the academic achievement of undergraduate students during a pandemic.

P-value is equals to 0.000 less than significant alpha 0.01 indicates significant correlation. Thus, H1 is accepted. Hence, there is significant relationship perceived social support and the academic achievement of undergraduate students during a pandemic. The value of correlation, r is 0.691 indicates a strong relationship between perceived social support and the academic achievement of undergraduate students during a pandemic.

4.7.4 Hypothesis 4

H0: There is no relationship between financial stability support and the academic achievement of undergraduate students during a pandemic.

H4: There is a relationship between financial stability and the academic achievement of undergraduate students during a pandemic.

P-value is equals to 0.000 less than significant alpha 0.01 indicates significant correlation. Thus, H1 is accepted. Hence, there is significant relationship perceived social support and the academic achievement of undergraduate students during a pandemic. The value of correlation, r is 0. 719 indicates a strong relationship between financial stability and the academic achievement of undergraduate students during a pandemic.

4.10 SUMMARY/ CONCLUSION

In summary, it can be said that the purpose of this chapter is to show the data or findings that were successfully gathered from the questionnaire-based data collection activities to finish this study. A presentation relating to some tests that have been used, such as internal reliability tests that are carried out on the reliability tests for all constructions, is also included. At the same time, testing was also conducted on independent variables such as motivation and perceived social support of factors affecting academic achievement of undergraduate students during covid-19 pandemic.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 INTRODUCTION

In this chapter, the research's findings are further examined, their implications are discussed, and suggestions are made. This chapter gives a detailed analysis of all the descriptive, Pearson Correlation, and Multiple Regression statistical analysis from the previous chapter. To support the goals and hypotheses of the study, researchers also provide an explanation and an expansion of their findings. The researchers will also talk about the difficulties they ran into while carrying out their study. Following a more comprehensive explanation of their findings, researchers will provide a brief summary.

5.2 KEY FINDINGS

Results of Factor Analysis and Cronbach Alpha

The questionnaire's statements had to be responded to on a 5-point Likert scale by each respondent. The use of this scale requires respondents to answer the question by marking a 5-point scale where from 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree according to their respective opinions. The statistics for the successfully gathered responses are briefly displayed in the following table. On average, respondents have shown higher agreement on statements related to Academic Achievement (AA), Financial Stability (FS), and Perceived Social Support (PSS) followed by Teaching Method (TM) as well as Motivation (M).

According to the data summary in the table, the range of the average scale for all items is 3.17 to 4.48. A summary of the Cronbach's value for each variable used in the study is also shown in the table below. Cronbach's coefficient values between 0.6 and 0.8 were considered moderate and acceptable (Khairul et al. 2018). Additionally, Cronbach's coefficient values above 0.80 indicate that a certain group of items is reliable (Khairul et al., 2018). It is clear from the description that the Cronbach's alpha values for the study's variables ranged from 0.872 to 0.956, which shows that the measurements for the variables of this study are between moderate and acceptable to reliable for the variables M and AA.

Table 5.1: Factor Analysis and Cronbach Alpha

Factor Analysis and Cronbach Alpha				
Variables	**Item**	**Mean**	**Standard Deviation**	**α**
Teaching Method (TM)	TM 1	4.31	.809	
	TM 2	4.17	.977	
	TM 3	4.22	.947	
	TM 4	4.32	.771	.925
	TM 5	4.37	.764	
Motivation (M)	M 1	3.35	.964	
	M 2	3.17	.893	

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	M 3	3.33	.931	
	M 4	3.31	.956	
	M 5	3.61	.789	.872
Perceived Social Support (PSS)	PSS 1	4.48	.661	
	PSS 2	4.38	.771	
	PSS 3	4.39	.775	
	PSS 4	4.43	.709	.935
	PSS 5	4.40	.716	
Financial Stability (FS)	FS 1	4.01	1.127	
	FS 2	4.07	1.050	
	FS 3	4.09	1.029	
	FS 4	4.11	1.004	.949
	FS 5	4.24	.891	
AA (Academic achievement)	AA 1	4.34	.771	
	AA 2	4.27	.870	

	AA 3	4.30	.848	
	AA 4	4.27	.910	
	AA 5	4.31	.852	.956

Normality Test

Using the Kolmogorov-Smirnova data normality test due to N> 30, the researcher performed a non-parametric version analysis i.e., skewness test and kurtosis normality. In addition, this normality test was also performed on all dependent and independent variables. In summary, the results of the analysis that have been done show that the normality table test for all dependent and independent variables for this study is significant.

Based on the table below shows that the results of the analysis using Kolmogorov-Smirnov and Shapiro-Wilk normality test for all variables. The Kolmogorov Smirnov statistic takes values 0.225 - 0.262. This has 401 degrees of freedom, or the same number of data points while Shapiro-Wilk statistic takes value 0.816 to 0.858. The p-value provided by SPSS (quoted under Sig. for Kolmogorov-Smirnov and Shapiro-Wilk) is .000 (reported as $p < .001$). Consequently, there is significant evidence against the null hypothesis that the variable has a normal distribution.

Table 5.2: Normality Analysis

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TEACHING METHOD	.238	401	.000	.854	401	.000
MOTIVATION	.226	401	.000	.855	401	.000
PERCEIVED SOCIAL SUPPORT	.258	401	.000	.816	401	.000
FINANCIAL STABILITY	.225	401	.000	.858	401	.000
ACADEMIC ACHIEVEMENT	.262	401	.000	.826	401	.000

a. Lilliefors Significance Correction

Pearson correlation coefficient analysis

To determine the relationship between two continuous variables, researchers have used Pearson correlation coefficient analysis by using the research topic of factors affecting academic achievement of undergraduate students during pandemic as a dependent variable along with 4 other independent variables. The analysis's results are summarised in the table below, which demonstrates how each factors affect the analysis's result differently.

The result of this analysis can be interpreted as having a high positive correlation between the value between Teaching Method (TM) and Academic Achievement (AA) which is 0.793 and the value between Motivation (M) and AA which is 0.789. This high positive correlation result means that both the TM and M variables have a significant effect on the M and AA variables. However, there are values that show a low positive correlation between Perceived Social Support (PSS) and AA which is 0.691 and between FS and AA which is only 0.719. This means that these two variables do not have a significant effect on the AA variable. In short, TM and M are more likely to help affecting academic achievement of undergraduate students during pandemic while the value between PSS and FS give a relatively low effect on AA.

Table 5.3: Results of Pearson Correlation Analysis

Correlations

		TEACHING METHOD	MOTIVATION	PERCEIVED SOCIAL SUPPORT	FINANCIAL STABILITY	ACADEMIC ACHIEVEMENT
TEACHING METHOD	Pearson Correlation	1	.836**	.766**	.722**	.793**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	401	401	401	401	401
MOTIVATION	Pearson Correlation	.836**	1	.680**	.698**	.789**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	401	401	401	401	401
PERCEIVED SOCIA	Pearson Corr	.766**	.680**	1	.702**	.691**

L SUPPORT	elati on					
	Sig. (2-taile d)	.000	.000		.000	.000
	N	401	401	401	401	401
FINAN CIAL STABI LITY	Pear son Corr elati on	.722**	.698**	.702**	1	.719**
	Sig. (2-taile d)	.000	.000	.000		.000
	N	401	401	401	401	401
ACAD EMIC ACHIE VEME NT	Pear son Corr elati on	.793**	.789**	.691**	.719**	1
	Sig. (2-taile d)	.000	.000	.000	.000	
	N	401	401	401	401	401

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

Correlation Coefficient Result

Based on the results stated in the table below, it can be summarized that all the variables teaching method, motivation, perceived social support, financial stability have the most significant affecting academic achievement of undergraduate students during pandemic because these variables have a value of less than <0.05.

Table 5.4: Correlation Coefficient Result

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.688	.146		4.708	.000
	TEACHING METHOD	.296	.060	.284	4.931	.000
	MOTIVATION	.279	.041	.343	6.740	.000
	PERCEIVED SOCIAL SUPPORT	.111	.052	.094	2.109	.036
	FINANCIAL STABILITY	.175	.036	.208	4.893	.000

a. Dependent Variable: ACADEMIC ACHIEVEMENT

b. Predictors: (Constant), FINANCIAL STABILITY, MOTIVATION, PERCEIVED SOCIAL SUPPORT, TEACHING METHOD

Hypothesis

The following is a relevant summary of the hypothesis test results in this study. Based on the results obtained, all of the five hypotheses tested in this study were supported. The final results of the study found that it is consistent with the results of several researchers such as Friadi et al., 2015; Gbongli et al., 2019; Karim et al., 2020; Liu & Tai, 2016; Nag & Gilitwala, 2019; Trivedi, 2017 which states that TM and M were found to be positively related to academic achievement of undergraduate students during pandemic. Finally, this study also revealed that FSs tend to be more or less attractive to academic achievement of undergraduate students during pandemic.

Table 5.5: Hypothesis summary

Factors	Hypothesis	Results
AA	H1: There is high academic achievement of undergraduate students during covid-19 pandemic	Supported
TM	H2: There is a significant relationship between factors in terms of teaching method and academic achievement of undergraduate students during covid-19 pandemic.	Supported
M	H3: There is a significant relationship between factors in terms of motivation and academic achievement of undergraduate students during covid-19 pandemic.	Supported
PSS	H4: There is a significant relationship between factors in terms of perceived social support and academic achievement of undergraduate students during covid-19 pandemic.	Supported

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FS	H5: There is a significant relationship between factors in terms of financial stability and academic achievement of undergraduate students during covid-19 pandemic.	Supported

5.3 DISCUSSION

5.3.1 The relationship between teaching method factors and the academic achievement of undergraduate students during Covid-19 pandemic.

The result shows that there is a significant relationship between the factor of teaching method and the academic achievement of undergraduate students during Covid-19 pandemic. Based on the decision rule the H0 should be rejected and H1 is accepted because the P-value is equal to 0.000 which is less than significant alpha 0.01.

This was supported by previous research, Ayeni (2015) which stated that the teaching was a continuous process that involved intended changes to the learners in order to accomplish particular results. This study's results are in accordance with previous research, appropriate teaching methods such as using new technologies, engaging in well-organized lecture sessions, fully involving students in the learning process, and acknowledging students' perspectives were one of the many characteristics considered by students to have a positively impact upon student academic performance (Ambad, Mawardi & Mohamad, 2017).

A good and motivating teaching and learning environment can improve the academic achievement of students (Chin & Surat, 2021). This is in accordance with previous research, which

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states that the application for e-learning has a lot of practical advantages (Istadi et al.,2022). This can shorten instructional time and greatly facilitate engagement and interaction among students and lecturers, and between fellow students. In addition, it enables students to share information and gain access to learning materials anytime and constantly (Petrila et al., 2022). By these means, it is a great way to make e-learning a student-oriented learning method. Under these conditions, the students are able to enhance their understanding of the content of learning material. (Prasetyo, Nurjahjanti & Ardhiani, 2021).

However, contradicts a study showing that student performance is strongly influenced by the instructor's teaching and learning expectations (Dumont, Brandmiller, & Becker, 2020). The expectancy of the professor refers to a series of events that trigger the instructor's learning expectancy. Those desires were communicated towards students, enabling students to change their behavior, which impacted student learning results. Professors' expectations often help in identification of the complexities of the work environment such as online classrooms, while meeting students' learning needs (Pham, Le & Do, 2021). However, overall, the pandemic crisis has affected the expectations of professors such as the capacity to teach by having an unfavorable impact on teaching activities, thereby decreasing students' academic performance (Lorenz et.al, 2020). Therefore, the COVID-19 has made the inability to teach to suppress

5.3.2 The relationship between motivation factors and the academic achievement of undergraduate students during Covid-19 pandemic.

The result shows that there is a significant relationship between the factor of motivation and the academic achievement of undergraduate students during Covid-19 pandemic. Based on the decision rule the H0 should be rejected and H1 is accepted because the P-value is equal to 0.000 which is less than significant alpha 0.01.

This explanation was also supported by Rima et al. (2020) who had conducted a study regarding the motivational component and found assignment grades among the highest contributors to academic achievement. Students who have a high level of motivation can have a good impact on their academic achievement and successfully adapt to changes in online learning (Muhammad & Kutty, 2021). This is because motivation is an important element in development and brilliance and will once again provide maximum input in academic achievement. Therefore, high motivation is required to continue learning and this aspect will be measured to provide an overview of student motivation in navigating the online learning process throughout the Covid-19 pandemic (Ricarda et al., 2019).

Achievement motivation is also referred to as competence motivation and can be defined as "the energy and direction of behavior related to effectiveness, ability, adequacy, or success" (Elliot et al., 2017). A significant number of meta-analyses and empirical studies have shown that motivation is a moderate to strong predictor of academic achievement (Kriegbaum et al., 2018). Moreover, motivation has been found to significantly contribute to academic achievement even though cognitive skills are considered together (Wentzel, 2017).

The lockdown at home and the switch to long-distance learning tools that were adopted over the first surge of COVID-19 probably compromised the fulfillment of students' three fundamental psychological well-being needs, thereby hindering students' intrinsic levels of motivation to study (Zaccoletti et al., 2020). The latest study did show a decrease in students' academic motivation during the COVID-19 pandemic, as younger students showed a greater drop in motivation (Pasion et al., 2020). Furthermore, learning outcomes decreased, and students were stressed with their studies. In the latest research carried out amid the COVID-19 pandemic, most students were unwilling to further their studies through engaging in online learning methods (Chung et al., 2020). A few of the challenges these students faced involved internet connectivity and understanding of their course content (Gustiani, 2020).

5.3.3 The relationship between perceived social support factors and the academic achievement of undergraduate students during Covid-19 pandemic.

The third hypothesis had been tested, which is the relationship between. perceived social support factors and the academic achievement of undergraduate students during Covid-19 pandemic. P-value is equal to 0.000 less than significant alpha 0.01 indicates significant correlation. Thus, H1 is accepted.

The results of this study are in line with previous research, namely perceived social support of the family and their peers were found positively connected to academic achievement (Liang, 2022). Those students that have close connections to peers and family and having somebody to support them when they need it will be more motivated to do well in their studies, and hence will achieve a greater academic achievement (Ambad, Mawardi & Mohamad, 2017). Indeed, students'

academic behaviors and attitudes were highly affected by major social agents, such as parents, friends, classmates and teachers (Legault et al., 2018). A positive relationship between social support on academic motivation has already been well documented (Tezci et al., 2018), with past research showing a positive relationship between students' academic motivation and the support they get from their parents, teachers, and friends (Jiang et al., 2019).

Social support in research emerges as an essential source of resources that could provide an individual with protection over stressful events (Szkody et al., 2020). In particular, social support was shown to be an effective factor in reducing students' psychological pressure during COVID-19 (Li et al., 2021). Social support additionally plays an important role in students' academic well-being in terms of academic achievement and emotional burnout mediated by self-esteem (Ozer, 2022). For students, it is important for teachers and parents to appreciate students' achievements as this will encourage students to spend more time studying (Chin & Surat, 2021). It is supported by previous research, namely social support could be described as "a process of the social exchange which contributes towards the development of an individual's existing patterns of behavior, societal cognitions, and the values" (Cahuas et al. 2021).

The results contradict the current inefficiency that online teaching during the pandemic has widened student absenteeism, increased family conflicts, and stress at work, leading to academic losses that cannot be repaired (Harris, 2020). Nearly 51.2% of teachers consider that students' low academic performance and high rates of absenteeism are caused by a lack of social relationships, which affects students' motivation to perform better during the COVID-19 pandemic crisis (Alawna et al., 2020).

5.3.4 The relationship between financial stability factors and the academic achievement of undergraduate students during Covid-19 pandemic.

The result shows that there is a significant relationship between the factor of teaching method and the academic achievement of undergraduate students during Covid-19 pandemic. Based on the decision rule the H0 should be rejected and H1 is accepted because the P-value is equal to 0.000 which is less than significant alpha 0.01.

This is supported by previous research, which states that with a limited availability of financial resources to cope with their financial problems, these students have to minimize their hours of study in order to choose an alternative source of finance by doing part-time work for longer hours or have multiple occupations, which in turn can have an impact on their academic performance (Yusuf & Al-Majdhoub,2020). In addition, some students cannot differentiate between their wants and needs. (Ibrahim et al. 2019) stated that once students have abundant money, they would use it for essential expenditures. Yet, there are some that will spend on things which are not even essential. The lack of financial aid and high financial problems where they may experience financial pressure may affect their academic performance (Wahab, 2021)

Student financial support is an important criteria in the educational institution sector, mainly at the higher education institution (Negash, 2021). The amount of cumulative costs for the undergraduate and postgraduate levels of education has been increasing year by year (Faulk et al., 2017). Accordingly, prior literature Bodvarsson et al., (2017) has shown that, with no proper planning, students would face the problem of financial support, which would then lead to many other problems; such as academic problems, their emotional and mental well-being, and also the desire to pursue employment after graduation.

Some students come from affluent backgrounds where parents are able to support money for their children. Sani (2019) stated some students were able to get weekly or monthly ad-hoc pocket money from their parents. Thus, students are able to manage their finances, so they have low financial issues. However, for the poor students, they have to rely only on the education loan they have applied for and minimize their expenses that even some of them had to cut their meal money to get additional money. The students from underprivileged families whose parents cannot afford to provide pocket money, have to work hard to pay for their needs such as food, rents and academic learning materials (Meier, Thomsen & Trunzer, 2022). As such, this impacts their health such as instances of food insecurity and financial stress, which ultimately leads to poor academic performance (Yusuf & Al-Majdhoub, 2020).

5.4 IMPLICATION OF THE STUDY

Our study's findings primarily highlight the assertion of four factors that influence academic achievement, namely teaching methods, motivation, perceived social support, and financial stability. These are the factors that will influence student academic achievement among Malaysian university students in Kelantan. As a result, it may have an impact on it, such as being a significant challenge for educators, emotional management, and holistic assessment.

5.4.1 Managerial implications

Based on the outcomes of our research, this study may be able to help many groups in society. The first group to be discussed is those who are currently or will be teachers in the future. This study's findings can serve as a guideline and reference for educators who want to better understand the challenges that must be considered while employing online learning.

According to the report, variables such as teaching techniques are critical, because nearly 90 percent of public university students who participated in the survey strongly agree with the assertion that online learning can be conveniently accessed and supplied. As a result, teachers are inspired to create online platforms such as quiz games while teaching.

Likewise, this research can help educational institutions in the future attain steady physical and spiritual education. According to this study, the factor of academic accomplishment demonstrates that pupils are able to maintain a solid Cumulative Grade Point Average (CGPA), and some even attain a high level. Furthermore, educational institutions can utilise this material to prepare the best or specific learning for students to employ when confronted with the COVID-19 pandemic.

This section's discussion focuses on the study's implications thru an examination of prior research' findings. Online learning has not heretofore additionally been utilized extensively in Malaysia, which has a positive impact on our paper and is indirectly related to the national education mission and vision, which is to fulfil the wishes of the National Education Philosophy, which wants to produce students who are balanced in physical, emotional, spiritual, and intellectual aspects.

5.5 LIMITATION OF THE STUDY

For starters, the scale employed in the study represents one of the drawbacks. Although these study employs a Likert Scale for capture respondents' impressions, prejudice could arise from respondents' tendency to reply on statements independently matter any real substance. By various phrases, each responder would have distinct perspectives and beliefs that should impact their replies to the inquiry. As a result, it will fail to capture the respondent's genuine mindset.

Similarly, all responders come from a variety of backgrounds. Because the participants for all this survey are students from a single university, the potential of differing answer outcomes is more or more or less the same. Disparities, for example, might be attributable to varying degrees of knowledge or even a shortage of exposure to the topic at hand. Such circumstance renders it more difficult to participants to convey their belief that the analyst ought to pose inquiries.

Ultimately, the breadth of that kind of study includes limits that prevent the findings from being utilised as a comprehensive reference to the elements that impact undergraduate students' academic success during the Covid-19 epidemic. It's due to the fact that this survey only included students from one public university, Universiti Malaysia Kelantan (UMK). Since it did not investigate all Malaysian institutions, the results of this study will not be disclosed in general or will not be able to draw comprehensive conclusions about the number of variables that impact the academic success of undergraduate students during the Covid-19 epidemic.

5.6 RECOMMENDATIONS/SUGGESTION

There are two sorts of recommendations provided for further research: theoretical and methodological advice.

5.6.1 Theoretical Contribution

This research uses a frequency, descriptive, reliability, and Pearson correlation analysis which had a significant and positive relationship between learning method (IV1), motivation (IV2), perceived social support (IV3) and financial stability (IV4) with the academic achievement (DV). As a result,

for more research, other analyses on the variables described in this study might be conducted, along with including other variables that may have an impact on academic accomplishment and merging the perspectives of university students and teachers.

5.6.2 Methodological Contributions

In this study, a quantitative approach was chosen to collect data from respondent. During the data gathering, it was convenient and less time-consuming. This technique enables researchers to collect a huge number of responses using social media. The targeted responder will be a university student with relevant prior or present experience who is able to assist in completing the questionnaire. The quantitative method permits the researcher to test hypotheses and determine the relationship between variables. Future researchers are encouraged to use this methodology into their research papers.

This study employed the causal research methodology, which permits the researcher to identify and explore the link between variables. On the basis of the study's objectives, the targeted respondents should be determined in advance. Future researchers are advised to identify their intended participants to facilitate data gathering.

5.7 SUMMARY/CONCLUSION

In conclusion, the pilot test has been done in which the questionnaire was found to be reliable the descriptive analysis of the demographic information was done also, and the reliability analysis of each variable was all found to be reliable. The normality test conducted found that the data were normally distributed, and the linearity test conducted found that all the independent variables have positive relationships with the dependent variable. The Pearson correlation used determined there to be a correlation among the variables, the multiple regression analysis determined that there is a significant relationship between the independent variables and dependent variable, and the hypothesis was formulated illustrating the result.

REFERENCES

Abdelrahman, R. M. (2020).). Metacognitive awareness and academic motivation and their impact on academic achievement of Ajman University students. *Heliyon, 6(9)*. https://doi.org/10.1016/j.heliyon.2020.e04192

Ambad, S. N. A., Mawardi, F., & Mohamad, M. F. (2017, 06 04). FACTORS AFFECTING UNDERGRADUATE STUDENTS' ACADEMIC PERFORMANCE. *e-Academia*, *6*(1), 191-203. https://myjms.mohe.gov.my/index.php/JeA/article/view/2242

Asarta, C. J., & Schmidt, J. R. (2017, January). Comparing student performance in blended and traditional courses: Does prior academic achievement matter? *Internet and Higher Education*, *32*, 29-38. https://doi.org/10.1016/j.iheduc.2016.08.002

Bakar, N. A., Alsamadi, M. S., Ali, Z., Shuaibu, A., & Solahudin, M. h. (2022). Influence of Students' Motivation on Academic Achievement Among Undergraduate Students in Malaysia. *Journal of Positive School Psychology*, *6*(2), 3443-3450

Chzin, D. T. J., & Surat, S. (2021, December). Sorotan Literatur Bersistematik : Faktor-Faktor Mempengaruhi Pencapaian Akademik Pelajar. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, *6*(12), 137 - 157. https://doi.org/10.47405/mjssh.v6i12.1210

Chzin, D. T. J., & Surat, S. (2021, December 12). Sorotan Literatur Bersistematik : Faktor-Faktor Mempengaruhi Pencapaian Akademik Pelajar. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, *6*(12), 137-157. https://msocialsciences.com/index.php/mjssh/article/view/1210

Correlation Coefficient: Simple Definition, Formula, Easy Steps. (n.d.). Statistics How To. Retrieved June 27, 2022, from https://www.statisticshowto.com/probability-and-statistics/correlation-coefficient-formula/

Duggal, N. (2022, May 20). *What Is Data Processing: Definition, Cycle, Types & Methods [Updated]*. Simplilearn. Retrieved June 27, 2022, from https://www.simplilearn.com/what-is-data-processing-article

Fadil, S. S. A., & Satari, H. (2021, May 15). Norma Baharu Pembelajaran Secara Terbuka Dan Jarak Jauh (Open Distance Learning (ODL) Dalam Kalangan Mahasiswa Semasa Musim Pandemik Covid-19. *Jurnal Islam Dan Masyarakat Kontemporari*, 12. https://doi.org/10.37231/jimk.2021.22.2.573

Farihah, S. N., & Umamah, A. (2021). Non-English University Students Motivation in Learning English Online. *English Language in Focus (ELIF)*, *4*(1), 41-50. https://doi.org/10.24853/elif.4.1.41-50

Fleetwood, D. (n.d.). *Likert Scale: Definition, Examples & How to use it*. QuestionPro. Retrieved June 27, 2022, from https://www.questionpro.com/blog/what-is-likert-scale/

Fox, Jonathan, and Suzanne Bartholomae. (2020). . Household finances, financial planning, and COVID-19. *Financial Planning Review 3: e1103*. https://doi.org/10.1002/cfp2.1103

G, D. I. S., Dr Mammam, Badar, & Bala. (2020, July). THE IMPACT OF TEACHING METHODS ON ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS IN NIGERIA. *International Journal of Development Research*, *10*(07), 3782-3785. http://www.journalijdr.com/sites/default/files/issue-pdf/18223.pdf

Galizty, R. C. M. F., & Saturni, N. (2021, Oktober). The Effect of Student Resilience and Self-Regulated Learning on Academic Achievement. *Jurnal Ilmiah Pendidikan*, *5*(2), 62-69. https://journal.unpak.ac.id/index.php/pedagonal

Gustiani, S. (2020, Dicember 30). STUDENTS' MOTIVATION IN ONLINE LEARNING DURING COVID-19 PANDEMIC ERA: A CASE STUDY. *HOLISTICS JOURNAL*, *12*(2), 23-40. https://jurnal.polsri.ac.id/index.php/holistic/article/view/3029

Hassan, S. A. A. (2021, March 8). KEBERKESANAN PEMBELAJARAN DAN PENGAJARAN DALAM TALIAN (EPEMBELAJARAN) TERHADAP PEMBELAJARAN PELAJAR DI KOLEJ KOMUNITI HULU LANGAT. *Iinternational Journal of Humanities Technology and Civilization (IJHTC)*, *2*(10), 1-14. https://journal.ump.edu.my/ijhtc/article/view/6241

In, J. (2017, December). Introduction of a pilot study. *ResearchGate; unknown.* https://www.researchgate.net/publication/321503093_Introduction_of_a_pilot_study

Kelley, K., & Terra, J. (2022, June 17). *What is Data Analysis? Types, Methods and Techniques [2022 Edition].* Simplilearn. Retrieved June 20, 2022, from https://www.simplilearn.com/data-analysis-methods-process-types-article#what_is_data_analysis

Khalid, N. S. M. (2019, April 24-25). Penggunaan Massive Open Online Course (Mooc) & Blended Learning Untuk Pengajaran Dan Pembelajaran: Daripada Prespektif Pelajar. *e-Prosiding Persidangan Antarabangsa Sains Sosial dan Kemanusiaan*, 107-111.

Kumar, M., Talib, S. A., & ramyan, T. (2013). *Business Research Methods*. Oxford Fajar/Oxford University Press.

Lin Luan, Jon-Chao Hong, Miao Cao, Yan Dong & Xiaoju Hou. (2020). Exploring the role of online EFL learners' perceived social support in their learning engagement: a structural equation model, Interactive Learning Environments. https://www.tandfonline.com/doi/full/10.1080/10494820.2020.1855211

Liu, Juan; Peng, Peng; Luo, Liang. (2019).). The Relation Between Family Socioeconomic Status and Academic Achievement in China: A Meta-analysis. . *Educational Psychology Review*. doi:10.1007/s10648-019-09494-0

Livingston, S. (n.d.). *Test Reliability—Basic Concepts*. ETS. Retrieved June 26, 2022, from https://www.ets.org/Media/Research/pdf/RM-18-01.pdf

Mahalingam, N. A., & Jamaludin, K. A. (2021). Impak Dan Cabaran Pelaksanaan Pengajaran Dan Pembelajaran Atas Talian Semasa Perintah Kawalan Pergerakan. *Jurnal Dunia Pendidikan*, *Vol. 3, No. 4*, 104-115. http://myjms.mohe.gov.my/index.php/jdpd

Mahalingam, N. A., & Jamaludin, K. A. (2021, December 31). Impact And Challenges Of Implementation Current Online Teaching And Learning Movement Control Order. *Jurnal Dunia Pendidikan*, *3*(4), 104-155. http://myjms.mohe.gov.my/index.php/jdpd

Majid, U. (2018). Research Fundamentals: Study Design, Population, and Sample Size. *UNDERGRADUATE RESEARCH IN NATURAL AND CLINICAL SCIENCE AND TECHNOLOGY (URNCST) JOURNAL*, *2*(1), 1-7. https://doi.org/10.26685/urncst.16

Mbangata, L., & Obono, S. D. E. (2019, November 15). A REVIEW OF ACADEMIC PERFORMANCE FACTORS IN THE CONTEXT OF E-LEARNING: THEORIES AND EMPIRICAL STUDIES. *Journal of Theoretical and Applied Information Technology*, *97*(21), 2935-2951. https://www.researchgate.net/publication/339483845_A_REVIEW_OF_ACADEMIC_PERFOR MANCE_FACTORS_IN_THE_CONTEXT_OF_E-LEARNING_THEORIES_AND_EMPIRICAL_STUDIES

Mohd Razali, M. S., & Raop, M. A. (2018). MENGENALPASTI FAKTOR-FAKTOR YANG MEMPENGARUHI PENCAPAIAN AKADEMIK PELAJAR SARJANA MUDA PSIKOLOGI, KOLEJ UNIVERSITI ISLAM MELAKA (KUIM). *Jurnal Sains Sosial*, *3*(1), 77-87. https://www.kuim.edu.my/journal/index.php/JSS/article/view/466

Mohd Shukri, S. H. D. B. (2021, Dicember 27). IMPLICATIONS OF COVID-19 PANDEMIC ON STUDENTS' ACADEMIC PERFORMANCE. *4*(1), 313-343. https://ejournal.um.edu.my/index.php/jurnalmelayusedunia/article/view/34295

Muhammad, N., & Kutty, F. M. (2021). Hubungan Antara Pembelajaran Regulasi Kendiri dan Motivasi Terhadap Pencapaian Akademik. *Malaysian Journal of Social Sciences and Humanities (MJSSH),*, *6*(9), 215-229. https://msocialsciences.com/index.php/mjssh/article/view/1006

Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, Limitations and Recommendations for online learning during COVID-19 pandemic era. *Pakistan journal of medical sciences, 36(COVID19-S4), S27–S31*. https://doi.org/10.12669/pjms.36.COVID19-S4.2785

Njuguna, N. R. (2021, Oktober). Influence of Socio-economic Factors on Academic Performance in Public Primary Schools in Murang'a South Sub County, Kenya. *Journal of Education*, *4*(6), 16-27. https://doi.org/10.53819/81018102t3014

Nominal, Ordinal, Interval & Ratio Variable + [Examples]. (2019, December 10). Formplus. Retrieved June 18, 2022, from https://www.formpl.us/blog/nominal-ordinal-interval-ratio-variable-example

Olufemi, O., Adediran, A., & Oyediran, W. (2018). FACTORS AFFECTING STUDENTS' ACADEMIC PERFORMANCE IN COLLEGES OF EDUCATION IN SOUTHWEST, NIGERIA. . *British Journal of Education, 6(10), 43–56*. https://www.eajournals.org/wp-content/uploads/Factors-Affecting-Students%e2%80%99-Academic-Performance-in-Colleges-of-Education-in-Southwest-Nigeria.pdf

Prasetyi, A. R., Nurjahjanti, H., & Ardiani, L. N. (2021, May). Impact of Changes in Teaching Methods During the COVID-19 Pandemic: The Effect of Integrative ELearning on Readiness for Change and Interest in Learning Among Indonesian University Students. *International Review of Research in Open and Distributed Learning*, *22*(2), 88-101. https://files.eric.ed.gov/fulltext/EJ1298072.pdf

Rojali, A., & Hashim, H. (2022, February 18). TESL Primary School Teachers' Motivation in the Implementation of Remote Teaching during COVID-19 Pandemic. *Creative education*, *13*(2), 537-556. https://doi.org/10.4236/ce.2022.132032

Rosa, N. T., & Domos, E. (2021, Dicember 3). http://eprosiding.snit-polbeng.org/index.php/snit/article/view/216. *Seminar Nasional Industri dan Teknologi (SNIT))*, 87-11. http://eprosiding.snit-polbeng.org/index.php/snit/article/view/216

Sidik, I. F., Awang, M. M., & Ahmad, A. R. (2018). Sokongan Persekitaran Sosial di Pelbagai Jenis Sekolah Menengah dalam Meningkatkan Kemahiran Insaniah Pelajar. *Jurnal Pendidikan Malaysia SI*, *1*(1), 67-76. http://dx.doi.org/10.17576/JPEN-2018-43.03-08

Steinmayr, R., Weidinger, A. F., Schwinger, M., & Spinath, B. (2019, Julai 31). The Importance of Students' Motivation for Their Academic Achievement - Replicating and Extending Previous Findings. *Frontiers in Psychology*, *10*(17), 1-11. https://doi.org/10.3389/fpsyg.2019.01730

Surianshah, S. (2021, October 14). Digital Divide in Education during COVID-19 Pandemic. *Jurnal Ekonomi Malaysia*, *55*(3), 103-112. http://dx.doi.org/10.17576/JEM-2021-5503-07

Szustak, G., Gradoń, W., & Szewczyk, Ł. (2021). Household Financial Situation during the COVID-19 Pandemic with Particular Emphasis on Savings—An Evidence from Poland Compared to Other CEE States. *Risks, 9(9), 166*. https://doi.org/10.3390/risks9090166

Wan Ab Razak, W. M., Syed Baharom, S. A., Abdullah, Z., Hamdan, H., Abd Aziz, N. U., & Mohd Anuar, A. I. (2019, March 28). Academic Performance of University Students: A Case in a Higher Learning Institution. *3*(3), 1294-1304. https://www.researchgate.net/publication/332190876_Academic_Performance_of_University_Students_A_Case_in_a_Higher_Learning_Institution

What is Descriptive Analysis?- Types and Advantages. (2021, March 30). Analytics Steps. Retrieved June 27, 2022, from https://www.analyticssteps.com/blogs/overview-descriptive-analysis

Yieng, L. W. S., Katenga, J. E., & Kijai, J. (2019, October). The Effect of Parental Support on Academic Performance among Students at Asia-Pacific International University. *Abstract Proceedings International Scholars Conference*, *7*(1), 1432-1453. https://jurnal.unai.edu/index.php/isc/article/view/895

APPENDIX

APPENDIX A – Draft of Questionnaire

Questionnaire

The demographic questions that follow are linked to that detail. Please pick one answer that is the most suitable for you for each question. Please mark (/) in the box below to indicate your response.

Section A: Demografic profile

1. Gender (Jantina)
    Male/Lelaki
    Female/Perempuan

2. Race (Bangsa)
    Malay/Melayu
    Chinese/ Cina
    Indian/India
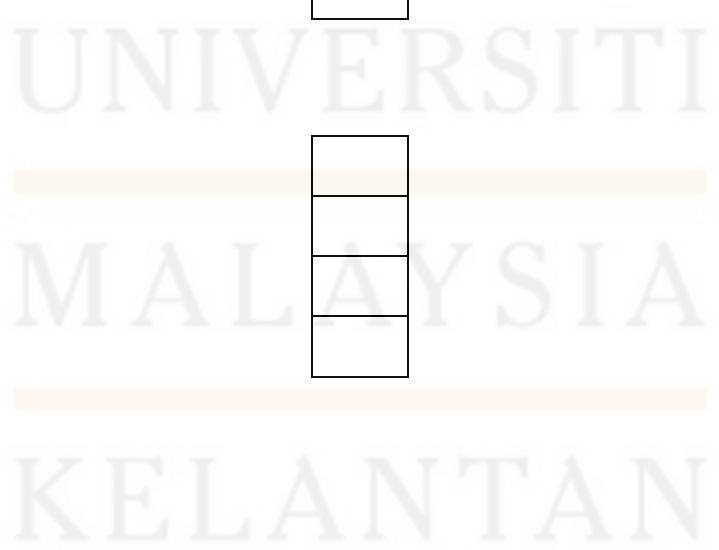   Other

3. Age (Umur)
    < 20
    21 - 22
    23 - 24
    > 25

4. Programmes (Program)

SAE

SAK

SAR

SAB

SAL

SAA

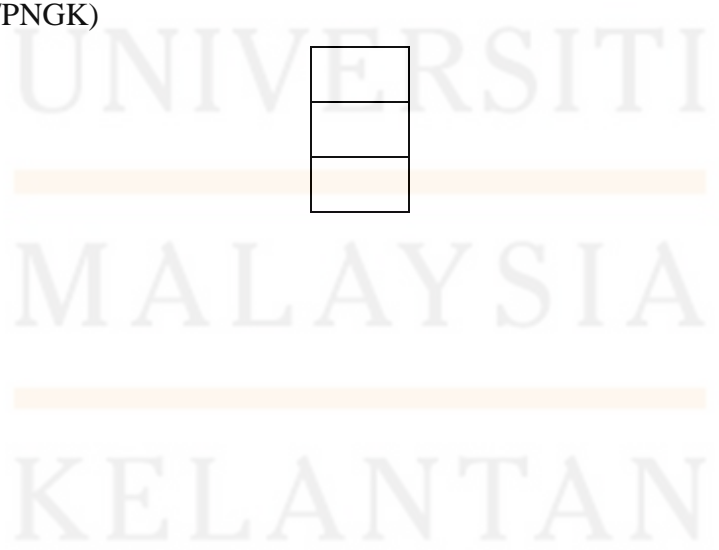5. Year of study (Tahun belajar)

Year 1/ Tahun 1

Year 2/ Tahun 2

Year 3/ Tahun 3

Year 4/ Tahun 4

Other/ lain-lain

6. Marital status (Status perkahwinan)

Single/Bujang

Married/Berkahwin

7. Grade (Gred/PNGK)

2.00-2.99

3.00-3.49

3.50-4.00

Section B: Teaching Method

This question is focused on the independent variables which is teaching method, motivation, perceived social support and financial stability. Please select one answer that is relevant for the question. the respondents need to rate the extent of agree or disagree from 1 – 5 ('5 = strongly agree', '4 = 'agree', '3 = 'neutral', '2 = 'disagree', and '1 = 'strongly disagree').

NO	STATEMENT	LIKERT SCALE				
		1	2	3	4	5
1.	I can easily access learning materials provided during Covid-19 pandemic/ Saya boleh mengakses bahan pembelajaran yang disediakan dengan mudah semasa pandemik Covid-19.					
2.	I am satisfied with the online learning experience from home digitally during Covid-19 pandemic/ Saya berpuas hati dengan pengalaman pembelajaran dalam talian dari rumah secara digital ketika pandemik Covid-19.					
3.	I feel comfortable doing assignments online during the Covid-19 pandemic/ Saya berasa selesa melakukan tugasan dalam talian semasa pandemik Covid-19.					
4.	The lecturers provide a safe and nonjudgmental environment for students to discuss their view in online class during Covid-19 pandemic/ Pensyarah menyediakan persekitaran yang selamat dan tidak menghakimi untuk pelajar membincangkan pandangan ketika pandemik Covid-19.					
5.	Lecturers ensure that students participate in every session in online class during Covid-19 pandemic/ Pensyarah memastikan pelajar mengambil bahagian					

	dalam setiap sesi kelas atas talian ketika pandemik Covid-19.					

Section C: Motivation

NO	STATEMENT	LIKERT SCALE				
		1	2	3	4	5
1.	I have the motivation to continue online learning during Covid-19 pandemic/ Saya mempunyai motivasi untuk meneruskan pembelajaran secara talian ketika pandemik Covid-19.					
2.	I able to focus on online learning during Covid-19 pandemic/ Saya dapat memberi tumpuan kepada pembelajaran secara talian semasa pandemik Covid-19.					
3.	I was interested in online learning during the Covid-19 pandemic/ Saya berminat dengan pembelajaran dalam talian semasa pandemik Covid-19.					
4.	I could easily communicate with friends in online learning during the Covid-19 pandemic/ Saya mudah berkomunikasi dengan rakan-rakan dalam pembelajaran dalam talian semasa pandemik Covid-19.					
5.	I could enhance my learning performance during the Covid-19 pandemic/ Saya boleh meningkatkan prestasi pembelajaran saya semasa pandemik Covid-19.					

Section D: Perceived Social Support

NO	STATEMENT	LIKERT SCALE				
		1	2	3	4	5
1.	My parents have supported me when learning online during Covid-19 pandemic/ Ibu bapa saya telah memberi sokongan kepada saya ketika pembelajaran secara talian ketika pandemik Covid-19.					
2.	My siblings helped me when online learning during the Covid-19 pandemic/ Adik-beradik saya telah membantu semasa pembelajaran secara online ketika pandemik Covid-19.					
3.	My siblings respected me by not making noise when online learning during the Covid-19 pandemic/ Adik beradik menghormati saya dengan tidak membuat bising semasa pembelajaran secara talian ketika pandemik Covid-19					
4.	My friends encouraged me during online learning during the Covid-19 Pandemic/ Kawan-kawan saya telah memberi semangat kepada saya semasa pembelajaran secara online ketika pandemik Covid-19.					
5.	My friends always gave me advice during online learning during the Covid-19 Pandemic/ Kawan-kawan saya sentiasa memberi nasihat semasa pembelajaran secara talian ketika pandemik Covid-19.					

Section E: Financial stability

NO	STATEMENT	LIKERT SCALE				
		1	**2**	**3**	**4**	**5**
1.	My purchasing power was not affected during the Covid-19 pandemic/ Kuasa beli tidak terjejas semasa pandemik Covid-19.					
2.	My life was financialy stable during Covid-19 pandemic/ Kehidupan saya stabil dari segi kewangan semasa pandemik Covid-19.					
3.	My spending was stable during Covid-19 pandemic/ Perbelanjaan saya stabil semasa pandemik Covid-19.					
4.	My saving was sufficient during pandemic Covid-19/ Simpanan saya mencukupi semasa pandemik Covid-19.					
5.	My parents provided enough money during the Covid-19 pandemic/ Ibu bapa saya menyediakan wang yang cukup semasa pandemik Covid-19					

Dependent variables: Academic achievement

This question is focused on the dependent variables which is academic achievement of undergraduate students during Covid-19 pandemic. Please select one answer that is relevant for the question. The respondents need to rate the extent of agree or disagree from 1 – 5 ('5 = strongly agree', '4 = 'agree', '3 = 'netural', '2 = 'disagree', and '1 = 'strongly disagree').

NO	STATEMENT	LIKERT SCALE				
		1	2	3	4	5
1.	I achieved good academic performance during the Covid-19 pandemic/ Saya memperoleh pencapaian akademik yang baik semasa pandemik Covid-19					
2.	I am proud of my academic achievements during the Covid-19 pandemic/ Saya bangga dengan pencapaian akademik saya semasa pandemik Covid-19.					
3.	My Cumulative Grade Point Average (CGPA) was increasing during the Covid-19 pandemic/ Purata Nilai Gred Kumulatif (PNGK) saya semakin meningkat ketika Pandemik Covid-19.					
4.	The Covid-19 pandemic has not affected my academic achievements/ Pendemik Covid-19 tidak menjejaskan pencapaian akademik saya.					
5.	I managed to maintain good academic achievement during Covid-19 pandemic/ Saya berjaya mengekalkan pencapaian akademik yang baik ketika pandemik Covid-19.					

TASK	OCT 2022			NOV 2022			DEC 2022			JAN 2022			FEB 2022
	W1 16 – 22	W2 23 – 29	W3 30 – 5	W4 6 – 12	W5 13 – 19	W6 & 7 20 – 3	W8 & 9 11 – 24	W10 25 - 31	W11 & 12 1 – 14	W13 15 – 21	W14 22 - 28	W15 29 – 4
Group division, supervisors, and examiners	▓											
Group, supervisor, and examiner distribution		▓										
Student and supervisor meetings (ongoing)			▓	▓	▓							
Data collection						▓	▓					
Data analysis								▓				

Chapter 4 & chapter 5 submission												
First correction for chapter 4 & chapter 5												
Turnitin check												
Submission full for final year project												
Presentation final year project												