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A STUDY OF THE TRANSITION FROM ONLINE TO FACE-TO-FACE LEARNING
DURING POST-PANDEMIC: FROM UNIVERSITY STUDENTS' PERSPECTIVES

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A RESEARCH PROJECT
SUBMITTED IN
PARTIAL FULFILLMENT FOR THE AWARD OF
BACHELOR OF COMMUNICATION (HONS) PUBLIC RELATIONS
FACULTY OF ARTS AND SOCIAL SCIENCE
UNIVERSITI TUNKU ABDUL RAHMAN

JANUARY 2023

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We truly cherish the chance that is given to express our deepest appreciation to everyone who have landed their helping hand in whole duration of our research. It was never a doubt that it is a difficult process in completing this research and it will be near to impossible to complete this research without the assistance from these people who have guided us with their thoughtful suggestions and knowledge. They have disbursed their precious time in helping us in the whole process of completing our whole project.

First, we would like to show our greatest honor and gratitude in thanking our supervisor Ms.Salomi a/p Simon for guiding us throughout the whole research. We appreciate all her effort in supervising us in this research because of his willingness in sparing her available time for us when we are encountering problems during the research. She advised us with patience from the beginning until the end of our research and he has guided us to ensure the direction of our research is always on track. We are glad and honored to have such experienced supervisor who is willing to share her knowledge to us without any conservation.

Lastly, we would like to acknowledge the efforts that have been contributed form all the members in our research group. Throughout the research project, we gave our full cooperation to each other and forego precious time in completing this research project. We willingly communicate with each other whenever we encounter any difficulties or doubts during the process of this research. All the members are willing to tolerate, corporate, contribute, and sacrifice in completing this research on time.

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DECLARATION


First of all, we would like to dedicate this research project to our beloved supervisor, Ms.Salomi a/p Simon for her willingness and kindness in guiding us throughout the whole research project.

Besides, we would like to dedicate this research project to our friends and family members. We truly appreciate them for supporting and encouraging us in completing this research project. Therefore, we are glad to share our achievements with them.

Lastly, we would like to dedicate this research project to the potential researchers by helping them in their future studies.

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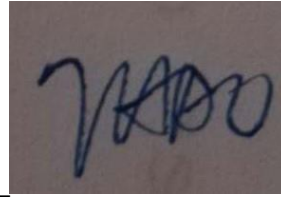
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Approval Form

This research paper attached hereto, entitled “Title of Research Paper” prepared and submitted by”
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Abstract

The Covid-19 pandemic has brought about unprecedented changes in the higher education landscape, with universities rapidly shifting to online learning to ensure continuity of education. As the pandemic situation stabilises, universities are now faced with the challenge of transitioning back to face-to-face learning while ensuring that students can adapt to the new learning environment. This study aims to investigate the university students' adaptability to the sudden transition to face-to-face learning during post-pandemic and to examine the efficiency of learning mode between online learning and face-to-face learning among university students. A quantitative research approach was employed, using probability sampling and SPSS version 29 for data analysis. The main findings indicated that most respondents had insufficient self-efficacy during face-to-face learning, which may have contributed to a lack of adaptability to the sudden transition to face-to-face learning during post-pandemic. The efficiency of the learning model may also contribute to students' discomfort with face-to-face learning. In addition, the results of the study prove that both the self-efficacy of students and the efficiency of learning mode are significantly related to the adaptability to the sudden transition to face-to-face learning during post-pandemic. On the other hand, face-to-face learning was perceived to enhance engagement during discussions and activities, while online learning was seen as more convenient and flexible. This study explored the experiences and perceptions of university students transitioning from online to face-to-face learning in the post-pandemic era. Findings revealed challenges such as technical issues, social isolation, and lack of motivation, but also highlighted opportunities for flexibility, autonomy, and deeper engagement with peers and instructors. The study has implications for educational policies and practices, emphasising the need for a flexible and adaptive approach that considers the changing circumstances of the pandemic.

Key words: Online Learning, Face-to-Face Learning, Students Adaptability

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STUDENT DECLARATION FORM
Department of Public Relations
Academic Honesty Regarding Final Year Projects

The following are examples of academic dishonesty extracted from “Student Handbook” that are more applicable to final year projects.

- plagiarism, i.e., the failure to properly acknowledge the use of another person’s work;
- submission for assessment of material that is not the student’s own work;
- collusion, i.e., obtaining assistance in doing work which is meant to be solely the student’s own work;
- use of fabricated data claimed to be obtained by experimental work, or data copied or obtained by unfair means;

It is important that the student reads the Student Handbook and understands the seriousness of academic dishonesty. The student should pay particular attention on how to avoid plagiarism.

Student Final Year Project Declaration

I have read the student handbook and I understand the meaning of academic dishonesty, in particular plagiarism and collusion. I declare that the work submitted for the final year project does not involve academic dishonesty. I give permission for my final year project work to be electronically scanned and if found to involve academic dishonesty, I am aware of the consequences as stated in the Student Handbook.

FYP Title:

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DURING POST-PANDEMIC: FROM UNIVERSITY STUDENTS’ PERSPECTIVES

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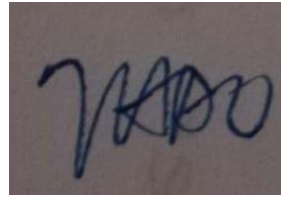
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Chapter 1: Research Overview

1.0 Introduction

The Malaysian Government started implementing the Movement Control Order on 18 March 2020 to break the chain of COVID-19. This has brought the industry to a standstill, preventing people from working as usual and closing classes in government and private educational institutions (Bunyan, 2022). The pandemic is having a profound impact on the activities related to schooling. In a couple of weeks, the whole educational system needed to undergo a thorough change in order to move to an online teaching-learning environment. This included all levels of education, from elementary school to higher education (Mishra et al., 2020). Nevertheless, this poses some challenges, such as technical difficulties, the speed of the Internet and the ability to adapt. All of these pose mental stress and financial problems for university students.

An approach for virtual education is known as online learning. Students from all over the world are able to connect with an academic institution and with other students online and study in a flexible manner, at their own pace, while working toward earning a degree or certificate through online learning, which is also referred to as e-learning in some instances. This form of education is most prevalent in higher education. Online learning is a web-based environment that connects students with various viewpoints. Higher education institutions utilise LMSs to promote online asynchronous or synchronous learning (Top Hat, 2020). For example, a Malaysian study reported that students' computer and internet efficiency and personal characteristics such as course level and ability, gender, ethnicity, and financial aid status influenced students' readiness to learn online (Lau & Shaikh, 2012).

Higher education institutions in Malaysia have been implementing online learning since the late 1990s (Hussin et al., 2009). However, urgent COVID-19 online learning is different from traditional pre-pandemic online learning. It describes the rapid online transition from face-to-face learning. Because of the pandemic, courses planned to be taught as face-to-face learning could not occur, and all students and instructors were forced to go online for a brief period. As a result, some of the instructors and students may need to gain experience in teaching or learning online, may not be ready and need to respond quickly to the change (Selvanathan et al., 2020).

Nonetheless, beginning in 2022, Malaysia will progressively loosen its epidemic prevention strategy because of the rise in immunisation rates and the decline of Covid-19 severe cases. Multiple institutions in Malaysia have progressively reverted to the face-to-face teaching approach, and university students have also resumed face-to-face learning (Malay Mail, 2022). Face-to-face learning is a technique of instruction in which students are taught course content and study materials in person. It enables interaction between students and professors in real time. Students also benefit from more peer engagement (Top Hat, 2019).

Students have struggled with recurrent school closings, erratic learning environments, social isolation, and challenges with technology over the past 24 months. With many universities beginning to open up to face-to-face teaching, many students are returning to campus for the first time in a long time. The physical isolation and alienation imposed over a long period of time can undoubtedly be mentally challenging for university students. Coupled with the completion of the academic year in a completely unknown environment, this has caused an emotional reaction among university students as normal from a national perspective. When confronted with full face-to-face classes, university students have to adapt and overcome the obstacles that lie ahead of them.

This research aims to examine the adaptability of university students to the face-to-face learning modality in light of this transition. It also provides insights for the Government of Malaysia to assist in the transition of the learning model in universities in Malaysia.

1.1 Problem statement

Since the outbreak of Covid-19, higher education has been engaged in online teaching for over three years. As recently as October 2022, physical education classes will recommence at universities and colleges in Malaysia. Initially, students found it difficult to adapt to changes; nevertheless, as time passed, they embraced and accepted online learning and education. After more than two years of online instruction, students returned to face-to-face learning despite having become used to the format (Indran, 2022) . There are many students heading to university for the first time, and face-to-face learning can be a cause for concern, especially after a long period of adjustment to online learning (Tannir & Panjwani, 2021). So for the switch back to physical class, some students also shared their nervousness and fears about returning to face-to-face classes. Their mixed feelings about returning to school were mainly attributed to a lack of physical interaction over time, discomfort with the teaching model, health and safety issues, and anxiety

about interacting with their peers in order to catch up with the pressure of school (Ibrahim, 2022). In the previous year, students have also faced a multitude of mental health concerns and difficulty in transitioning to online learning, which may compound these difficulties throughout the transition to university (Irawan et al., 2020 ; Yates et al., 2020). University students have taken time to adapt to the sudden transition from online learning to face-to-face learning.

1.2 Research Objectives

The study's main objective is to investigate the perspective of university students on the online learning transition to face-to-face learning during post-pandemic. This study specifically intended to seek:

RO1: To investigate the university students' adaptability to the sudden transition to face-to-face learning during post-pandemic.

RO2: To examine the efficiency of learning mode between online learning and face-to-face learning among university students.

1.3 Research Questions

The study sought to answer the following research questions:

RQ1: How are the adaptability of university students from online learning to face-to-face learning during post-pandemic?

RQ2: Which learning mode is more efficient for university students between online learning or face-to-face learning?

1.4 Research Significance

The findings of this study would make contributions to the Ministry of Higher education (MOHE), University institutions as well as university students and further research by giving beneficial information about the outcomes of the transitions from online learning to face- to face learning. Educators need to be aware of the latest research in order to make the right decisions and provide quality learning opportunities for their students. Firstly, the student who participates in this study

would have a better understanding of individuals' adaptations toward the sudden changes in academic study mode. For example, what are the effects of them facing sudden changes. This study could help the MOHE and University institutions to have a better understanding of students' willingness and adaptation. With the findings, removing online academic study mode can still be deferred because some of the students who haven't studied for face-to-face mode before. Lastly, this research can contribute to future studies about which academic study mode is the most suitable for students. In a nutshell, the result of this study may contribute knowledge to the limited research on students' adaptability toward a sudden change of academic study mode during post-pandemic. Furthermore, it may provide direction for future large-scale research studies.

Chapter 2: Literature Review & Theoretical Framework

2.0 Online learning

Online learning, also known as E-learning, is the newest and most popular instruction delivered by the Internet. Even though it would seem that online education began in the late 1900s with the establishment of the United States Postal Service, the concept of distant learning was first implemented in actuality in the middle of the 19th century. Previous research has established that online learning is an effective learning method but has its positives and negatives (Abuhmaid, 2020; Kwon et al., 2021). Understanding the advantages and disadvantages would help institutions create plans for more effective course delivery, providing a better learning environment for the students. Distance learning allows students flexibility in terms of where and when they study. Students now have more discretion over when and how they finish their course-related learning activities. However, online learning necessitates a variety of skills, including familiarity with technology, time management, and organisation online technological engagement (Joosten & Cusatis, 2020).

There are numerous studies that explain the advantages of online classes, which claim that they are easy to access, affordable, and convenient. As a result, there are differences between online and face-to-face learning, and many students who perform well in a traditional classroom struggle in an online setting (Kebritchi et al., 2017). In actuality, those with GPAs below 2.9 performed better in an online course than those over 2.9. (Sugilar, 2017). According to research conducted by Kwon et al. (2021), the majority of trial participants indicated that "the online course hindered the students' capacity to absorb classroom material more effectively" and that "the course became much more difficult once it was converted to an online format". Many students had the opinion that online degrees were less legitimate than those earned through regular classroom instruction.

Due to the prevalence and pervasiveness of digital technologies, an increasing number of university instructors are contemplating transferring some courses online. Online learning has the potential to give practical and efficient solutions to some of the most important issues in education, so educators and educational institutions are focusing more on it. By enabling teachers to effectively handle huge student curricular, populations, pedagogical, and administrative challenges,

online learning can enhance learning opportunities (Blin & Munro, 2008; Sanagavarapu, 2018; Selwyn, 2007). Online education is often lauded for its versatility, as it enables students to learn remotely (Keengwe & Kidd, 2010). Additionally, the growing disruptions to conventional on-campus education may favour online learning. For instance, a massive number of educational institutions and nations worldwide have prioritised online learning to restrict the spread of the coronavirus (COVID-19), which mandates that students learn from home (Quintana, 2020; Zubaşcu, 2020). In order to quickly adjust to the disruption, instructors were compelled to change their teaching style, and UTAR was no exception.

Before the epidemic, education faced enormous challenges throughout the world. The promise of education as a fundamental human right also included addressing the issues and providing practical and beneficial remedies (UNESCO, 2020). Due to the impact of the pandemic on educational systems around the world, numerous schools have been forced to close. As part of efforts to prevent the spread of COVID-19, higher education institutions around the world have begun working remotely using internet platforms for emergency remote teaching and learning (Bozkurt & Sharma, 2020; Crawford et al., 2020). However, the efficiency of online learning can be affected by both differences between higher education and socio-economic differences between students. Due to this, numerous scholars have questioned whether higher education institutions are prepared to move to the digital age of learning (Houlden & Veletsianos, 2020).

2.1 Face-to-face learning

Traditional education relies heavily on face-to-face contacts between instructors and students. However, the engagement of students with online instructional materials and indirect connection with the instructor lessens this reliance. Face-to-face learning emphasises on students as passive recipients of the teacher's information, in contrast to active and effective teaching methods such as problem-based learning, which encourage students to create their own discoveries (Stanley, 2012). However, its effectiveness for learning, which is the basic objective of school, remains debatable (Blin & Munro, 2008; Sanagavarapu, 2018). Due to the epidemic's sudden onset, senior institutions did not have time to prepare, and teachers and students had to adapt to online teaching and learning. In light of the fact that quality in online learning has evolved into an educational policy guiding

principle, a catchphrase for practitioners, and a significant demand from learners (Ehlers & Pawlowski, 2006), the current study compares the efficiency of online and face-to-face learning for university students. Focusing on the effectiveness of online teaching and learning is essential as the global adoption of this type of instruction increases.

Learning systems with face-to-face interaction, also known as offline learning systems, are learning methods that are disconnected from a computer network (Sohn et al., 2009). All of the instruction and learning that goes on during an offline session takes place in real time, face-to-face, between the teachers and the students (Fathoni, 2018). Students get materials from their teachers in the form of hard-copy homework assignments, which they subsequently complete outside the classroom. Offline use of television, radio, independent learning models and worksheets, printed textbooks, teaching aids, and learning media from objects in the school environment, depending on the availability and readiness of facilities and infrastructure owned by educators and students (Prasetyo et al., 2022).

In addition, the learning process in the offline environment will consist of collaborative learning, typically in groups of several students (Bullard & Felder, 2007). These groups will be composed of students with varying knowledge and abilities and composition of students with different skills. Students can better understand their capabilities and limitations when participating in group projects requiring them to work in teams. After the group has come together, they discuss and agree on a set of guidelines for working together. These ground rules include individual accountability, positive engagement, face-to-face contact, frequent self-assessment of the team, and the growth of teamwork abilities (Felder et al., 2000; Bullard & Felder, 2007). The teacher will also outline the objectives and outputs that need to be accomplished, such as laboratory reports or process designs. Members of the team are liable for their responsibilities after being briefed on the work of their colleagues. The work is broken up into individual and group projects, with a strong focus on collaborative endeavours that revolve around scheduled gatherings. During these sessions, students build interpersonal and collaboration skills such as leadership, communication, dispute resolution, and time management. Additionally, students arrange their time for problem-solving outside the classroom and do their assignments (Felder et al., 2000).

Therefore, when students engage in offline learning, they do not need to connect their devices to the internet in order to study or complete their assignments. In addition, offline activities

are carried out in conjunction with offline meetings, which take place in person and do not include any online platforms or media (Prasetyo et al., 2022). However, traditional face-to-face learning also has several constraints, including the need for students and instructors to be physically present at specified times and periods (Kemp & Grieve, 2014).

Classroom socialising is one of the merits of traditional face-to-face learning over online learning, which is one of the benefits of conventional face-to-face learning classes over online learning (Adnan & Anwar, 2020). Traditional interactions between students in the classroom are another important component that are lacking in online education. Students are able to have virtual interactions with their classmates while they are engaged in virtual learning; however, in contrast to face-to-face learning classes, in which students can communicate physically with their peer group, the real-time freedom of thought, information, and knowledge is not achieved by the online learning component. Students have the ability to have digital conversations with one another while they are participating in online learning (Britt, 2006). Nonetheless, the interviews with most of the students who participated in the face-to-face classroom revealed that most of the students highlighted the discord within the team that was present in the face-to-face classroom. The students concentrate on discovering why and when dissonance occurs. Students who take courses in person say that there is dissonance within the team during stages of tasks or problem-solving when someone on the team does not attend lectures or does not want to work together on problem-solving (Lukman & Krajnc, 2012).

Moreover, research has shown that more students believe that traditional face-to-face learning is more motivating. Some say it is only possible to effectively complete part of the university course online. Also, the research has shown that most students believe that resistance to online learning is more motivating than traditional learning (Adnan & Anwar, 2020). However, research has also shown that traditional or face-to-face educational environments have been derided for encouraging rote learning, avoiding the dissimilarities and necessities of students, and reimbursing little focus to problem-solving, critical analysis, or other greater thinking skills. These criticisms have been levelled against traditional instructional environments because they ignore the individual differences and necessities of students. This criticism has been levelled against these environments because of the lack of attention paid to these higher-order thinking skills (Banathy, 1994; Hannum & Briggs, 1982). According to the findings of this study, conventional

or face-to-face teaching settings have been criticised for encouraging learners to take a more passive approach to their education, neglecting the unique characteristics and requirements of students, and paying little attention to issues (Johnson et al., 2000).

2.2 Students' adaptability

Adaptability is described as the cognitive, behavioural, and emotional response to uncertainty and novelty that is suitable (Martin et al., 2013). This personality characteristics capability is an unique type of self-regulation of cognition, behaviour, and emotion that comes into play when people are presented with unpredictability and newness that disrupt their processes and install extra scenarios, as was the occurrence in the first 'global lockdown' in 2020 (Martin et al., 2013). From this vantage point, it is possible to suppose that personal characteristics in adaptability, which is typically considered as a context-independent disposition about how people cope with uncertainty and change (Van den Bos, 2015), are important to the COVID-19 higher education setting. This is because adaptability is frequently viewed as a context-independent disposition about how people deal with uncertainty and change (Besser et al., 2020). Adaptability is linked to and separate from resilience, although it is vital to both. Adaptability is necessary for problem-solving and coping, but it is distinct from resilience (Martin, 2017). For the purpose of evaluating degrees of adaptability in general, a scale that goes by the name Adaptability Scale was developed (Martin et al., 2013). This nine-item self-report assessment has been used in a number of experiments that consistently demonstrate the advantages of having the ability to efficiently alter one's behaviour to new and unclear conditions (Collie, Holliman, & Martin, 2017; Holliman, Martin, & Collie, 2018; Martin et al., 2013; Putwain, Loderer, Gallard, & Beaumont, 2020).

According to the findings of earlier research, flexibility may be used to predict a wide variety of academic and non-academic student outcomes (Stockinger et al., 2021). These include increased participation in class and a more positive attitude toward one's own behaviour at school, increased academic engagement, decreased academic self-handicapping, increased academic accomplishment, completion of degrees by university students, and increased overall happiness in one's life (Putwain et al., 2020; Holliman et al., 2018; Collie & Martin, 2017; Collie et al., 2017; Martin et al., 2013; Burns et al., 2018). Notably, adaptability was shown to anticipate these results even after adjusting for socio-demographic characteristics and previous variation in the target variables. Furthermore, adaptability was found to predict these outcomes well beyond comparable

concepts relating to people's capacity to deal with educational adversity and discouragements, such as endurance, resilience, and academic lightness, as well as students' self-regulation of learning behaviours, so the adaptability was found to be the most important predictor of these outcomes (Martin, 2017 ; Martin et al., 2013). Moreover, flexibility and self-regulation are distinct entities with distinct associations with academic and extracurricular student performance (Martin et al., 2013). Adaptability may be useful for dealing with situational difficulty, and it may be connected to concepts like self-regulation, endurance, or lightness. Nevertheless, adaptability is philosophically and empirically separate from these concepts in terms of situational uncertainty/novelty and change (Stockinger et al., 2021).

Over the past two years, the outbreak of covid-19 pandemic has caused a rise in online learning among universities worldwide. In addition, the growth of online distance learning has increased learning opportunities for all students. Nevertheless, it is frequently most appealing to nontraditional students, who are more likely to have obligations related to work and family that make attending traditional face-to-face classes challenging. According to Jaggars (2012), a recent qualitative study looked at the course topics students favoured online instead of in person. In contrast to "easy" courses, which could be taken online, students said they preferred to take "difficult" classes during face-to-face study. According to McSporrán and Young (2001), they looked at course observation and concluded that the women in their sample had higher motivation, better online communication, and better scheduling skills.

Apart from that, male participants had lower time management skills, less access to course website pages and discussion forum posts, and a tendency to overestimate their capacity to complete learning tasks and assignments. Furthermore, the sudden transition from online learning for two years to face-to-face study has negatively affected students' mental health. Karnbach et al. (2022), in their findings they found that low to medium levels of anxiety, stress, depression, and loneliness were experienced by undergraduate students just before, during, and after their first return to campus in September 2021. Lastly, internet coverage is one of the factors that will affect the student adaptability of those students who live in rural areas with poor Internet coverage. However, the impact of poor Internet coverage and access to online education is limited to online learning resources. The study shows that regions of the nation with higher income levels, better internet coverage, and fewer rural schools saw significantly more significant increases in search

intensity compared to less privileged areas using high-frequency Google search intensity data for online learning resources across 210 different regions. It emphasises the necessity of providing extra assistance for students in rural and low-SES areas if disparities in access to and use of online learning resources are to be reduced (Bacher-Hicks et al.,2021)

2.3 Theoretical Framework

The Social Cognitive Theory (SCT) is a widely accepted model of individual behaviour that has been scientifically validated across a range of subject topics. The SCT lays an emphasis on the lifelong learning that takes place (Bandura, 1986). Social cognitive theory may explain human behaviour using three sets of factors: personal, environmental, and behavioural impacts or theory sets (Bandura, 2001). In the framework of the Social Cognitive Theory, self-efficacy is a self-regulatory route that signifies not only the skill or performance potential, but also the self-belief in the potential to be efficient, i.e., the capacity to enhance motivation and problem-solving efforts. Self-efficacy is a subset of the SCT that indicates a self-regulatory system (Bandura, 1998). Included among the core SCT constructs are result expectancy and self-efficacy beliefs (Young et al., 2005). Regarding accomplishment motivation, individuals are motivated to do a certain activity if they feel driven, but self-efficacy is concerned with assessments of one's learning and operating activities when confronting a potential circumstance. In other words, individuals are motivated to engage in a certain conduct if they feel driven to do so (Schunk & Pajares, 2009; Young et al., 2005).

Initial applications of SCT included therapeutic research, the media, public health, and educational contexts (Carillo, 2010). Individual conduct, according to the core postulate of Social Cognitive Theory, is an important part of a triadic structure in which behaviour, personal variables, and environmental factors are in a constant state of interaction and mutually define one another (Compeau & Higgins, 1995). Environmental components are those that are physically external to the person and give opportunities and social support (Glanz et al., 2002). Social pressure and contextual influences are examples of environmental forces (Compeau & Higgins, 1995). People are accountable not just for creating the environment in which they live, but also for shaping the environment in which they choose to develop. Personal factors may also relate to a person's cognitive talents, personality attributes, or demographic information (Carillo, 2010). The method in which people evaluate their past performances affects and adjusts their environment and self-

beliefs, which in turn influences and shapes their future performances (Pajares, 1996). In addition, environmental (or situational) and cognitive or personal factors influence and are influenced by an individual's behaviour in a certain learning scenario. Person behaviour is a result of the interaction between an individual and his or her environment (Carillo, 2010). The social cognitive theory explains how people acquire and maintain distinct behavioural patterns and serves as the basis for therapeutic attempts (Bandura, 1997). SCT provides a structure for developing, running, and evaluating programs. Therefore, evaluating behavioural change depends on environment, people, and behaviour factors (Carillo, 2010).

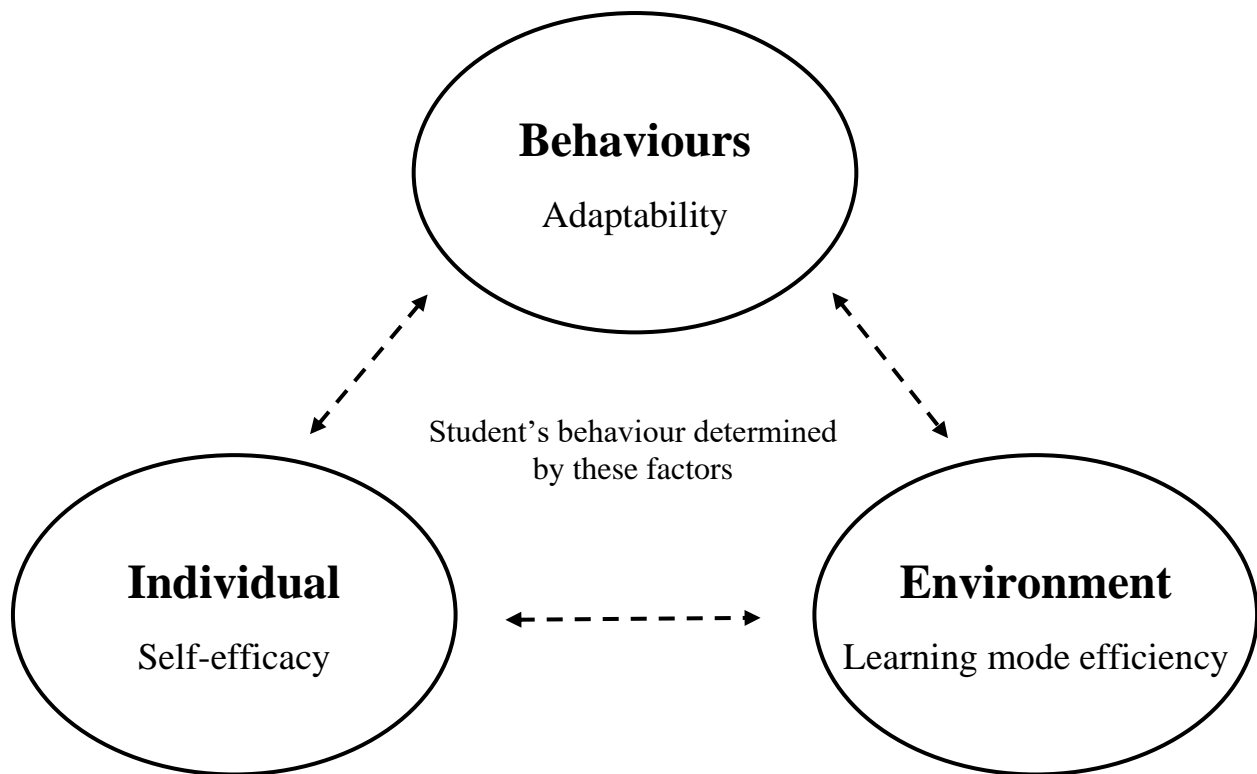


Figure 1. Social-Cognitive Theory (SCT) applied to university students' adaptability when facing transition from online to face-to-face learning during post-pandemic.

2.3.1 Individual influence

Self-efficacy and expectancy are two extremely influential motivating aspects depicted in Figure 1 as critical personal traits of online learners. According to Pintrich and Schunk (2002), the expectation factor can be understood as the student's confidence in their ability to do the

assignment. Specifically, self-efficacy, the students' judgments of their capacity to perform an activity necessary to accomplish a given objective, was found to predict academic achievement (Bandura, 1986). It has been demonstrated to exert significant effects on activity selection, effort expenditure, persistence, and task completion (Bandura et al., 1996). For instance, when students think they have mastered a particular task, they become more diligent, energetic, attentive, highly motivated, and better (Saeed & Zyngier, 2012). People with a high level of self-efficacy are more likely to feel capable of overcoming obstacles and recovering fast from failures and disappointments. People with poor self-efficacy are often less confident and do not feel they can do it effectively, causing them to shun challenging jobs. Consequently, self-efficacy is crucial to behaviour performance. Observers with strong self-efficacy are likely to engage in observational learning behaviours (Pajares, 2004).

When people believe they are capable of doing the desired action (i.e., self-efficacy) and have a reasonable hope that the activity will lead to the intended outcome (i.e., outcome expectation), behaviour change is launched and sustained (Wong & Monaghan, 2020). Others see it as a strategy for achieving goals, such as success in studying science subjects or completing a university degree, called academic self-efficacy (Ackerman, 2020). To learn a particular behaviour, individuals must comprehend the potential consequences of repeating that conduct. The observer does not anticipate the model's actual rewards or penalties. Nevertheless, the modelling affects cognition and behaviour because the observer predicts comparable outcomes when mimicking the activity (Pintrich & Schunk, 2002). According to most research, task values correlate favourably with actual student accomplishment (Doménech-Betoret et al., 2017). Even though research indicates that task value plays a crucial role in academic learning, its impacts on sudden transition are seldom examined.

2.3.2 Environmental influence

Environmental factors are considered to be physically external to a person and provide possibilities and social support (Glanz et al., 2002). The environment refers to the numerous facets of a person's existence, both positive and negative, that have the ability to shape their behaviours (Weibell, 2011). There is a concomitant existence of both social and physical settings (Devi et al., 2017). The people who are in a person's immediate vicinity are considered to be a part of their social

environment (Weibell, 2011). Some examples of environmental impacts include social pressure and situational features (Compeau & Higgins, 1995). Environmental impacts include feedback and evaluation in face-to-face or online learning classes from other students and professors, as well as reviews of the efforts made by others to enhance their performance (Wang & Lin, 2007). Given its focus on learning from the social environment and mutual interrelations among individual, behavioural, and social environmental variables, social cognitive theory emphasises the importance of interpersonal comparisons, which refer to the process of trying to compare ourselves with others (Wheeler & Suls, 2005). People often judge their performances in comparison to objective criteria; nevertheless, they sometimes rely on social evaluations of their talents, particularly in situations in which objective standards are hazy or nonexistent. For example, students are inclined to hold internal comparisons between themselves and certain classmates involved in educational endeavors that are similar to those they are participating in on a daily basis (Schunk & Usher, 2012). The physical environment includes things like the size of the face-to-face learning classroom, the temperature in the air in the face-to-face learning classroom, and the current status of the equipment in face-to-face learning classes(Weibell, 2011). The quality and dependability of an online learning environment, as well as simple access to relevant educational technology, enduring issues, and information linked to the course, are essential factors in determining how well an individual will engage in online learning (Piccoli et al., 2001). Previous studies have demonstrated that the system's operation substantially impacts the beliefs held by users in various computer-related scenarios (Igbaria, Gamers, & Davis, 1995; Venkatesh & Davis, 2000). Therefore, the system's functionalities and the content's characteristics have been highlighted as crucial aspects of the technological environment (Wu et al., 2010).

2.3.3 Behavioural influence

In terms of behavioural influences, the researcher focused on how learning strategies will affect students' adaptability towards sudden changes of academic study mode. It is anticipated that adaptability will perform similarly as a self-regulation strategy. Similar to the sub-functions of the Social Cognitive Theory (SCT), adaptability fosters and directs a learner's cognitive, behavioural, and emotional resources to support them in maintaining self-direction in the face of novelty, change, and uncertainty (Burns et al., 2017).

From the perspective of students' adaptability, the capability of students to control their reaction to novelty, change, and to effectively manage and respond to academic demands, uncertainty is essential. Because learning styles are a dynamic environment subject to frequent change, adaptability is thought to be especially important for students. In fact, prior research has discovered that adaptability positively predicts engagement, success, and wellbeing of students enrolled in the classroom (Martin et al., 2013).

The framework that is essential to the growth of adaptability is the lifespan development theory. The life-span development theory asserts that a person's psycho-behavioural mechanisms are obtained, established, and formed throughout their lifetime (Baltes, 1987). Change, novelty, and uncertainty are frequent occurrences in the academic environment. Behavioural flexibility is a critical psycho-behavioural mechanism for controlling these academic phenomena. Therefore, it is an essential skill to learn and apply inside and outside the classroom.

2.4 Research Framework

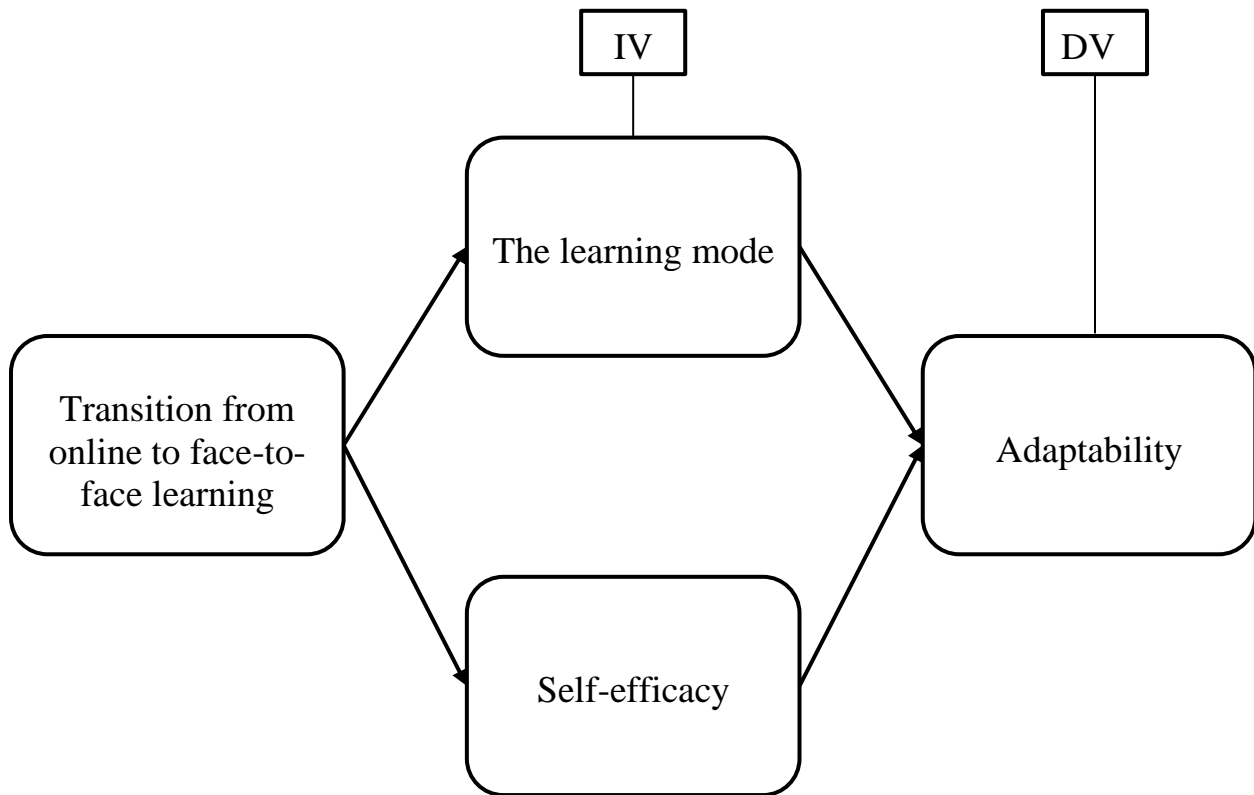


Figure 2. Research Framework Graph

Adaptability is the capability to manage one's behaviours, thoughts, and emotions in response to unfamiliar, changeable, unpredictable, and unexpected conditions and scenarios (Martin et al., 2012). The learning modes and self-efficacy are two independent variables that can influence adaptability of university students from online learning to face-to-face learning during post-pandemic. Online and face-to-face learning modes have different characteristics that may affect students' ability to adapt. For example, online learning requires stronger self-direction and time management skills, while face-to-face learning may offer more social interaction and hands-on learning opportunities (Paul & Jefferson, 2019). Studying the relationship between learning modes such as online and face-to-face and student resilience can provide valuable insights into how to best prepare students for future success. By identifying the factors that influence adaptation in different learning environments, researchers can develop strategies to promote this important skill and improve student performance. Self-efficacy is a key factor in academic success and has been found to be a predictor of resilience (Cassidy, 2012). Studying the relationship between self-efficacy and adaptation during the transition from online to face-to-face learning can provide valuable insights into how best to support student success during this challenging time. By identifying the factors that contribute to successful adaptation, researchers can develop strategies and interventions to help students make a successful transition between learning environments.

2.5 Hypothesis Development

Based on the studies conducted on literature reviews, two hypotheses have been developed for this experiment.

H1: There is a significant relationship between students' adaptability and study self-efficacy among UTAR students.

H2: There is a significant relationship between students' adaptability and the learning mode efficiency among UTAR students.

Chapter 3: Methodology

3.0 Introduction

This chapter will discuss on research design, sample and sampling, data analysis, method and instrument, measurement, scale and reliability and validity analysis. These methods were used for this research to observe and analyse the study of the transition from online to face-to-face learning during post-pandemic: From University Students' perspective.

3.1 Research design

In this research, the researchers had used a quantitative research method approach. Greater knowledge and comprehension of the social world are the goals of quantitative research. To examine situations or events that have an impact on people, researchers use quantitative methods. Quantitative research generates unbiased data that can be explained in detail using statistics and numbers. According to Streefkerk (2022), quantitative research is preferred over qualitative research because data can be gathered and analysed statistically. Besides, data from quantitative research are precise, trustworthy, consistent, and numerical which have higher credibility. Researchers use quantitative methods to examine situations or events that have an impact on people. Unbiased data from quantitative research can be thoroughly explained using statistics and numbers (Bahsin, 2019). According to Bhasin (2020), the quantitative research method is to measure variables, analyse and report the relationship amongst the studied variables through a numerical system. The quantitative research methods that researchers had used in this research would be online survey forms with questionnaires. Since our research title is a study of the transition from online to face-to-face learning during post-pandemic: From University Students' perspective. Therefore, surveys would be easier to collect and analyse the data of the participants.

3.2 Causal research

According to Oppewal (2010), one of the most helpful sorts of information is causal knowledge. Causal research always includes one or more independent variables and their correlations with one or more dependent variables since its goal is to examine causal links. Causal research is defined as conclusive research since it tries to establish a cause-and-effect relationship between two variables. Many methodologies can be used in causal research, including observational,

longitudinal, and experimental designs. Each form of design has advantages and disadvantages and is appropriate for addressing various research problems. Overall, Causal research is an essential tool for studying cause-and-effect which linkages among variables, and it may assist influence treatments and policies targeted at promoting health and well-being.

This study aims to determine the causal relationship between the independent variables—learning mode, self-efficiency, and the dependent variable would be students' adaptability towards the sudden transition of online study to face-to-face learning during post-pandemic. Martin et al. (2021) showed that the adaptability of their participants was significantly linked to higher levels of online learning self-efficacy and success enhancements which supported its hypothesis 1 - the adaptability will be positively associated with students' online learning self-efficacy and advances in end-of-year accomplishment, in addition to the impacts of online learning demands, online and parental learning assistance, and background qualities. Thus, this can prove that there is a relationship between these three variables. Also, Chisadza et al. (2021) conducted research into the elements that predict students' success after switching from face-to-face to online learning because of the Covid-19 epidemic. The study discovered that increasing internet infrastructure and providing supported learning can help reduce the negative effects of the Covid-19 epidemic on learning results.

3.3 Sample and sampling

Omnicovert (2022) stated that sample size refers to the total number of respondents which can be divided into groups by demographic for example ages, gender, religion, and locations The number of subjects included in a sample size is referred to as the sample size in market research. A group of subjects chosen from the general population who are thought to be a representative sample size for that study is referred to as the sample size (Omnicover, 2022).

There are two types of sampling methods which are probability and non-probability sampling methods. In this research. Researchers will use the probability sampling method as the most valid choice because this method can produce results that represent the whole population and helps researchers to get a generalised result which gives all of the respondents a chance of being selected. In this study, samples will be chosen through simple random sampling. Simple random

sampling is a sampling technique that involves selecting a sample from a population where each member has an equal probability of being chosen. To utilize this method effectively, the population must first be clearly defined, the sample size established, and each member assigned a distinct identification number. A random number generator or a table of random numbers can then be used to select the sample, and data can be collected from the selected members. However, it is essential to bear in mind that alternative sampling methods exist and that selecting the most appropriate one for the research question and study design is crucial. Students from UTAR University test this methodology. The sample size of university students was then determined proportionally based on the total population. The respondents are given questionnaires at random after the researchers subdivide the sample according to factors like ethnicity.

According to Slovin’s formula (1960) for calculating the effective sample size, the sample size for researchers to collect is 500 university students from age 18-29 which requires 222 respondents. This sample size will result in reliable data while it meets 95% of confidence level with margin of error of 0.05%.

| | |
|---------------------------------------|---------|
| Population Size (N) | 500 |
| Acceptable Margin of Error (e) | 0.05 |
| Sample Size (n) | 222.222 |

3.4 Pilot Study

A pilot study is a scaled-down version of the main study that is undertaken prior to the real investigation or to test a research instrument (Ismail, 2017). It can assist us in assessing the study topic as well as the research design's reliability, validity, and feasibility. It does support researchers in evaluating their planned approaches and implementing the appropriate strategies for the study.

The questionnaires were distributed by using an online survey form. A total of 20 responses from the students who are studying in Universiti Tunku Abdul Rahman Kampar campus were included in the pilot study. The data was collected within two weeks and was analysed by using SPSS version 29. Participants were required to read the terms and conditions of informed consent and chose either agree or disagree to proceed in the study. It has been found that three variables

have high reliability $\alpha = 0.806$ for Learning Mode, $\alpha = 0.844$ for Self-Efficacy, and 0.839 for Adaptability in Cronbach's Alpha, which were considered moderate reliability and good reliability respectively for the researchers to maintain the questionnaire. Overall, these findings suggest that the questionnaire used in the study is reliable and can be used by the researchers in future data collection. Therefore, there are no further changes and refinements for the questionnaire.

3.5 Data Collection

In this research, primary data was collected by using a self-administered online survey method. According to Saunders et al. (2012), self-administered questionnaires enable the researchers to effectively collect data on respondents in a fast and low-cost manner. This research was done online, with a total of five researchers in this team targeting students in University Tunku Abdul Rahman. As a result, in order to gather data for this study, survey questions in the form of a Google form were delivered to respondents via social media platforms owing to safety concerns. To begin, the survey form was created and distributed via social media platforms such as WhatsApp, Facebook Messenger and Instagram to recruit participants for this study. The URL to the survey form was distributed to reach as many as possible to UTAR undergraduates who may be the researchers' course mates and friends at first. Respondents may be quickly and efficiently recruited in this manner. The researchers stopped collecting data once they received 222 replies from the sample through Google form.

The survey form was divided into four sections. First, there is the permission form. The permission form includes the title and objective of the study, the information that the researchers will gather from the respondents, the parties with whom the researchers will communicate the study's findings, and how the respondents' anonymity will be safeguarded. The second section of the Google form has questions about inclusion criteria. Inclusion and exclusion criteria govern who may and cannot be included in the study sample. The inclusion criteria reliably, consistently, uniformly, and objectively identify the research population. Following data collection, for analysing the data, the Statistical Package for Social Sciences (SPSS) will be used.

3.6 Method and Instrumentation

3.6.1 Questionnaires Survey

This study uses a questionnaire as its instrument, and its research design is a descriptive survey. While the questionnaire technique was deemed the most appropriate instrument for gathering all pertinent information, descriptive surveys are conducted to classify or define the existing situations or attitudes that are currently present. Mathers, Fox, and Hunn stated that questionnaires have an efficient and quick method for obtaining data from a large number of respondents (2009). According to previous research conducted by Kendra Cherry, cross-sectional studies are observational in nature and are referred to as descriptive research (2019). The focus of descriptive research is on the characteristics of the population or phenomenon under study. Descriptive research under the quantitative approach can be further categorised into longitudinal studies. In addition, questionnaires allow participants to give more precise responses because they can do so when they are free and without feeling under pressure.

There are three sections in this questionnaire, which are Section A, Section B and Section C. Section A is about demographic items, which are name, age, gender, ethnicity, religion, area, name of university, course study, year and trimester of study. Nominal scale is used to determine gender, ethnicity, religion, area and education level whereas ratio scale is used to determine the age of respondents.

Section B and Section C are designed for respondents to answer the research questions in this study. There are a total of five items in Section B. Question 1 is asking the respondent whether studying online during the ongoing pandemic. It will be a binary question, only required to answer yes or no. Question 2 is asking the respondent whether they prefer online learning or face-to-face learning. It will be a this or that question also known as “either or questions”. The third question requires the respondent to tick 5-point Likert Scale to express how much they agree with the statement of concern on creating a bad impression in face-to-face learning. The fourth question requires respondents to express how much they agree with less stress when studying online learning because of the open book examination. The fifth question requires

In section C, there are a total of two items. Question 1 is what the effects of transition from are online to face-to-face learning during post-pandemic. Question 2 is what the extent of the

transition from online learning to face-to-face learning is affects university students. It would be determined using ordinal scale and tested using the Five Point Likert Scale which is from “1=Strongly Affected” “2=Affected”, “3=Neutral”, “4=Not Affected”, “5=Strongly Not Affected”.

3.6.2 Scale of Measurement

Quantitative data collection approach can be referred to as measurement. In other words, quantitative data collected by using survey methods is the measurement for the study. There are four types of data measurement scales, which include nominal, ordinal, interval and ratio. Each level of the measurement scale is essential as it has specific characteristics that determine the different uses and affect the accuracy as well as reliability of data analysis (Lee, 2016). In this research, nominal scale, ordinal scale and ratio scale would be used to conduct the survey questionnaire to identify the adaptability of the adults who are between 18-29 years old and still studying as undergraduates.

3.6.3 Nominal Scale

A nominal scale is merely descriptive in the sense that it has a distinct name that is used to identify or assign values to the project. This scale does not feature numerical values, natural order, or ranking, but rather serves as a unique identification for several categories. This scale is one of the simplest to comprehend statistically. Variables are classified using a nominal scale. Rather than rank or order, this classification depends on nomenclature. According to Robert (2008), when considering how groups on a nominal scale are frequently established, this coefficient has limits. Instead of being fundamental, nominal categories can be described in relation to one another. In this research, nominal scale helps to identify and classify the object to measure based on our survey. For example, the questionnaire asks people to agree or disagree, yes or no.

Do you agree that online learning mode works efficiently? *

- Agree
- Disagree

Besides that, numbers in nominal scale are random that are used to categorise and identify the object. For instance, there is no way to measure basketball players ability by the number of them.

Which learning mode is more efficient for university students between online learning and face-to-face learning? *

- o Online Learning
- o Face-to-face learning
- o All of the above

3.6.4 Ordinal Scale

The ordinal scale is the inverse of the nominal scale since the variables in this measuring scale are grouped in ranks and orders. Based on Wolverton (2014), ordinal scale data include those that are or should be regarded as rank order. Greater-than-less-than contrasts are understandable, but magnitudes of difference are not. Furthermore, the scale is just used to rank the factors and not to assess the degree of difference between each. Based on Forest, ordinal scales are frequently required due to the lack of a precise means of measurement, but the selection of informative measures, such as the mean, standard deviation, and median, is dependent on the scale of measurement. Ordinal data is quantitative data that has occurred naturally with no discernible distinction. It can be identified, categorised, and rated. In this research, ordinal scale is used to collect surveys to measure respondent satisfaction and assists in research in using appropriate data analysis methodologies.

I more prefer on face-to-face learning*

- o Strongly disagree
- o Disagree
- o Neutral
- o Agree

- o Strongly agree

3.6.5 Ratio Scale

Ratio scales are a particular kind of variable measurement scale that are quantitative in nature. Any researcher is able to contrast the ranges or variations. Having a zero point or character of origin, the ratio scale is the fourth level of measurement. This scale's particular quality is this. The majority of the properties shared by the nominal, ordinal, and interval measurement scales are also shared by the ratio scale. In this research, ratio scale aids in understanding the ultimate-order, interval, and values, and the true zero property is crucial when computing ratios. The most illuminating scale is a ratio scale because it tends to convey information about the number and order of the objects between the scale's values.

Age *

- o 18-20
- o 21-23
- o 24-26
- o 27-29

3.7 Data Analysis

The collected data was entered and analysed by using SPSS statistical software. The bivariate Pearson Correlation produces a sample correlation coefficient, r , which measures the strength and direction of linear relationships between pairs of continuous variables. By extension, the Pearson Correlation evaluates whether there is statistical evidence for a linear relationship among the same pairs of variables in the population, represented by a population correlation coefficient, ρ (“rho”). The Pearson Correlation is a parametric measure (Kent State University, 2022).

The researchers applied a descriptive analysis method in this study to the collected data from the survey. Descriptive analysis is a type of data analysis that aids in accurately describing,

displaying, or summarising data points so that patterns may appear that satisfy all the data's requirements (Rawat,2021). This method can give researchers a conclusion of the distributions of the data which will assist researchers to detect or identify the similarities among all the variables.

3.7.1 Procedure

IBM SPSS is one of the leading statistical analysis software packages for the social sciences, the IBM SPSS Statistics programme would be utilised to conduct descriptive analysis for this study. The SPSS statistics package is a suitable statistical programme for ratifying variables since it gives considerable results as compared to other statistical packages. The Pearson Correlation Coefficient tests for analysing the bivariate connection between three specified variables might also be simply performed using the SPSS statistical programme.

According to Kaur et al. (2018), descriptive statistics are used to describe data in an ordered manner by explaining the connection between variables in a sample or population. In this study, researchers used descriptive analysis to analyse respondents' demographic data such as age, gender, race, religion and so on in terms of frequency and percentage. Data will be methodically summarised and presented in the form of mean, sum, and percentages. Data screening and cleaning were carried out to eliminate invalid or unusable data. Unengaged responses were screened using Microsoft Excel to remove responses that are given without regard to the content of questions. None of the responses in this study was removed during the analysis. Moreover, the assumptions of statistical tests were explored before proceeding to hypothesis testing to ensure the data meet the assumptions.

3.7.2 Reliability and Validity Analysis

According to Mohajan (2017), The two most crucial and fundamental aspects to consider when assessing any measurement tool or instrument are reliability and validity. Although they are closely related, validity and reliability have different meanings. According to Middleton (2019), the consistency with which a method measures something is known as reliability. When using the same techniques in the same circumstances, a measurement is considered accurate, and validity refers to how precisely a method measures the variable it is intended to measure. When a study's

conclusions are highly valid, it means that they faithfully represent the actual characteristics, tendencies, Furthermore, researchers will use the Cronbach's Alpha developed by Lee Cronbach (1951) to find out the level of reliability. According to Cronbach's Alpha, a figure above 0.80 is considered as a very good reliability. Therefore, the researchers consider the scores they obtained from this experiment, which ranged from 0.80 to 0.95, to be extremely reliable.

| Cronbach Alpha (α) | Level of Reliability |
|-----------------------------|-----------------------|
| 0.80-0.95 | Very good reliability |
| 0.70-0.80 | Good reliability |
| 0.60-0.70 | Fair reliability |
| <0.60 | Poor reliability |

Source: Zach. (2021, December 13). *How to report Cronbach's alpha (with examples)*. Statology. <https://www.statology.org/how-to-report-cronbachs-alpha/>

Chapter 4: Findings & Analysis

4.0 Introduction

This chapter demonstrates the findings and analysis derived from all the data collected. The study has chosen 231 respondents to complete its questionnaire. Statistical Package for the Social Sciences (SPSS) Version 29 was used to analyse and interpret the collected data descriptively. In addition, Cronbach's Alpha was performed to determine the reliability of the questionnaire. The findings will be detailed in the following section.

4.1 Findings

4.1.1 Demographic Profile of Respondent

| Age | Frequency | Percent | Valid Percent |
|-------|-----------|---------|---------------|
| 18-20 | 28 | 12.1 | 12.1 |
| 21-23 | 151 | 65.4 | 65.4 |
| 24-26 | 48 | 20.8 | 20.8 |
| 27-29 | 4 | 2.7 | 1.7 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.1: Respondents' Age

The majority of respondents (151), or 65.4% of the total number of respondents, were between the ages of 21 and 23. 28% of the total respondents were between the ages of 24-26, making up the second largest age group. The age group between 18 and 20 years old had 28 respondents or 12.1% of the total. The age group between 27 and 29 years old had the smallest number of respondents, with only four individuals, or 1.7% of the total.

| Gender | Frequency | Percent | Valid Percent |
|---------------|------------------|----------------|----------------------|
| Female | 100 | 43.3 | 43.3 |
| Male | 131 | 56.7 | 56.7 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.2: Respondents' Gender

The survey form was answered by a total of respondents, with 100 of them being female, which accounts for 43.3% of the total number. Additionally, there were 131 male respondents, representing 56.7% of the total number of respondents.

| Ethnicity | Frequency | Percent | Valid Percent |
|------------------|------------------|----------------|----------------------|
| Chinese | 199 | 86.1 | 86.1 |
| Indian | 19 | 8.2 | 8.2 |
| Japanese | 1 | 0.4 | 0.4 |
| Malay | 12 | 5.2 | 5.2 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.3: Respondents' ethnicity

Most of the respondents, 199 out of 231 (86.1%), were Chinese. In addition, 12 respondents or 5.2%, were Malay. 19 or 8.2% of respondents were Indian, while 1 or 0.4% were Japanese that participated in this study.

| Course of Study | Frequency | Percent | Valid Percent |
|------------------------|------------------|----------------|----------------------|
| FAS | 108 | 56.8 | 56.8 |
| FBF | 55 | 23.8 | 23.8 |
| FICT | 11 | 4.8 | 4.8 |
| FSc | 31 | 13.9 | 13.9 |
| FEGT | 19 | 8.2 | 8.2 |
| ICS | 6 | 2.6 | 2.6 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.4: Respondents' Course of study

Most survey respondents came from the Faculty of Arts and Social Sciences (FAS) with 108 or 48.8%. The Faculty of Business and Finance (FBF) was the second highest contributors with 55 or 23.8% contributions. Next, 31 (13.9%) respondents from Faculty of Information and Communication Technology (FEGT) and 4.8% or 11 respondents from the Faculty of Engineering and Green Technology (FICT) took part in this study. Six (2.6%) Institute Chinese Studies (ICS) and 19 (8.2%) Faculty of Science (FSC) respondents participated to this study.

| Year of Study | Frequency | Percent | Valid Percent |
|----------------------|------------------|----------------|----------------------|
| Year 1 | 31 | 13.4 | 13.4 |
| Year 2 | 36 | 15.6 | 15.6 |
| Year 3 | 140 | 60.6 | 60.6 |

| | | | |
|--------|-----|-------|-------|
| Year 4 | 23 | 10.0 | 10.0 |
| Year 5 | 1 | 0.4 | 0.4 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.5: Respondents' Year of study

A total of 140 respondents (60.6%) of the responses were in their third year of study. Less respondents, 31 (13.4%) and 36 (approximately 15.6%) of Year 1 and Year 2 respondents, respectively. Another 10% or so of respondents, or 23 in all, are Year 4 respondents. Only one respondent, or less than 1% of all respondents, is from Year 5, making up the entire sample.

4.1.2 Self-efficacy

| I feel embarrassed to ask and answer question in face-to-face learning, especially in lecture class | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 38 | 16.5 | 16.5 |
| 2 | 24 | 10.4 | 10.4 |
| 3 | 47 | 20.3 | 20.3 |
| 4 | 78 | 33.8 | 33.8 |
| 5 | 44 | 19.0 | 19.0 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.6: I feel embarrassed to ask and answer question in face-to-face learning, especially in lecture class

Among the respondents, 38 respondents (16.5%) chose “strongly disagree”, while 24 (10.2%) chose “disagree”. The majority of respondents (122 respondents, or 52.8%) either agreed or strongly agreed with the statement, with 78 respondents (33.8%) choosing “agree” and 44 respondents (19%) choosing “strongly agree”. Meanwhile, 47 respondents (20.3%) chose “neutral”. From this analysis, it's clear that a majority of the respondents (52.8%) agree or strongly agree that they feel embarrassed to ask and answer questions in face-to-face learning. This finding suggests that many students may feel less confident in their ability to participate in face-to-face learning, which is an important factor to consider in the transition from online to face-to-face learning during post-pandemic.

| I am worried about my performance during the presentation in face-to-face learning. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 24 | 14.7 | 14.7 |
| 2 | 19 | 8.2 | 8.2 |
| 3 | 30 | 14.0 | 14.0 |
| 4 | 90 | 39.0 | 39.0 |
| 5 | 58 | 25.1 | 25.1 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.7: I am worried about my performance during the presentation in face-to-face learning.

There are 34 respondents (14.7%) selected "strongly disagree," while 19 respondents (8.2%) selected "disagree." The majority of respondents (64.1%) either concurred or strongly agreed with the statement, with 90 respondents (39%) selecting "agree" and 58 respondents (25.1%) selecting

"strongly agree." Meanwhile, 30 respondents (13%) chose "neutral". It is evident from this analysis that the majority of respondents (64.1%) were concerned about my performance during the presentation in face-to-face learning. This finding suggests that many students may experience anxiety or uncertainty when it comes to public speaking, which could impact their academic performance and participation in face-to-face classes.

| I am concerned that I may create a bad impression in face-to-face learning. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 39 | 16.9 | 16.9 |
| 2 | 25 | 10.8 | 10.8 |
| 3 | 46 | 19.9 | 19.9 |
| 4 | 77 | 33.3 | 33.3 |
| 5 | 44 | 19.0 | 19.0 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.8: I am concerned that I may create a bad impression in face-to-face learning.

A total of 39 respondents (16.9%) chose "strongly disagree," while 25 respondents (10.8%) selected "disagree." The majority of respondents (121 respondents, or 52.3%), either agreed or strongly agreed with the statement, with 77 respondents (33.3%) and 44 respondents (19%) choosing "agree" and "strongly agree," respectively. While 46 respondents (19.9%) selected "neutral," This study shows that the majority of respondents (52.3%) agree or strongly agree that they are concerned about making a bad impression during face-to-face learning. This finding suggests that many students might be concerned with how they are regarded by others, which may have an impact on their involvement and engagement in face-to-face classes.

| I feel that there is less stress when studying online learning because of the open book examination. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 7 | 3.0 | 3.0 |
| 2 | 13 | 5.6 | 5.6 |
| 3 | 23 | 10.0 | 10.0 |
| 4 | 56 | 24.2 | 24.2 |
| 5 | 132 | 57.1 | 57.1 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.9: I feel that there is less stress when studying online learning because of the open book examination.

There were 7 respondents (3%) who picked "strongly disagree," while 13 (5.6%) chose "disagree." The majority of respondents (188, or 81.3%) agreed or strongly agreed with the statement, with 56 (24.2%) selecting "agree" and 132 (57.1%) selecting "strongly agree." Meanwhile, 23 people (10%) voted "neutral." According to this data, the majority of respondents (52.3%) agree or strongly agree that the open book examination reduces stress when studying online. This finding suggests that some students may find open book exams to be less stressful than traditional closed book exams during online learning, possibly because they feel more prepared and confident with access to resources during the exam.

| I worried that I may overwhelmed by the | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
|--|------------------|----------------|----------------------|

| amount of information or work presented in person. | | | |
|---|-----|-------|-------|
| 1 | 31 | 13.4 | 13.4 |
| 2 | 30 | 13.0 | 13.0 |
| 3 | 58 | 25.1 | 25.1 |
| 4 | 78 | 33.8 | 33.8 |
| 5 | 34 | 14.7 | 14.7 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.10: I worried that I may overwhelmed by the amount of information or work presented in person.

A total of 31 respondents (13.4%) answered "strongly disagree," while 30 (13%) chose "disagree." The majority of respondents (112 respondents, or 48.5%) agreed or strongly agreed with the statement, with 56 respondents (24.2%) picking "agree" and 132 respondents (57.1%) choosing "strongly agree." Meanwhile, 23 respondents (10%) chose "neutral." Based on this study, it is obvious that the majority of respondents (52.3%) are concerned that the amount of information or work delivered in person may overwhelm them. This finding suggests that some students may find face-to-face learning to be more challenging than online learning, possibly due to the pace or volume of information presented.

| I feel face-to-face learning enhances engagement in the lesson during discussions and activities. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
|--|------------------|----------------|----------------------|

| | | | |
|-------|-----|-------|-------|
| 1 | 1 | 0.4 | 0.4 |
| 2 | 17 | 7.4 | 7.4 |
| 3 | 36 | 15.6 | 15.6 |
| 4 | 78 | 33.8 | 33.8 |
| 5 | 99 | 42.9 | 42.9 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.11: I feel face-to-face learning enhances engagement in the lesson during discussions and activities.

There was 1 respondents (0.4%) who picked "strongly disagree," while 17 (7.4%) chose "disagree." The majority of respondents (177, or 76.7%) agreed or strongly agreed with the statement, with 78 (33.8%) selecting "agree" and 99 (42.9%) selecting "strongly agree." Meanwhile, 36 respondents (15.6%) said they were "neutral." According to this data, the majority of respondents (76.7%) agree or strongly agree that face-to-face learning enhances engagement in the lesson during discussions and activities. Only a tiny minority of respondents (18, or 7.8%) objected or strongly disagreed with the assertion. This finding suggests that just a small number of students believe that face-to-face learning does not improve involvement during conversations and activities.

| I am anguished to mingle with a large group of students in face-to-face learning. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 38 | 16.5 | 16.5 |
| 2 | 30 | 13.0 | 13.0 |

| | | | |
|-------|-----|-------|-------|
| 3 | 66 | 28.6 | 28.6 |
| 4 | 56 | 24.2 | 24.2 |
| 5 | 41 | 17.7 | 17.7 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.:12 I am anguished to mingle with a large group of students in face-to-face learning.

A minority of respondents (68 respondents or 29.5%) disagree or strongly disagree with the statement, with 38 respondents (16.5%) selecting "strongly disagree" and 30 respondents (13%) selecting "disagree." The majority of respondents (97 respondents, or 41.9%) either concurred or strongly agreed with the statement. Meanwhile, 66 respondents (28.6%) chose "neutral". It is evident from this analysis that the majority of respondents (41.9%) concur or firmly agree that they feel anguished to mingle with a large group of students in face-to-face learning. This finding suggests that a significant number of students may experience anxiety when interacting with others in a large group setting, which may hinder their transition to face-to-face learning.

| I worry that returning to campus will cost a higher expense in life (such as rentals, transportation fees). | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 2 | 0.9 | 0.9 |
| 2 | 11 | 4.8 | 4.8 |
| 3 | 37 | 16.0 | 16.0 |

| | | | |
|-------|-----|-------|-------|
| 4 | 68 | 29.4 | 29.4 |
| 5 | 113 | 48.9 | 48.9 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.13: I worry that returning to campus will cost a higher expense in life (such as rentals, transportation fees).

Two respondents (0.9%) selected "strongly disagree," while eleven (4.8%) selected "disagree." With 68 respondents picking "agree" and 113 selecting "strongly agree," a total of 181 respondents, or 78.3%, indicated that they either agreed or strongly agreed with the statement. Meanwhile, "neutral" was selected by 37 respondents (16%). This study shows that the majority of respondents (78.3%) agreed or strongly agreed that they were concerned that leaving campus would result in greater living expenses like rent and transportation costs. Only a few students objected or strongly disagreed with the statement (13 respondents, or 5.6%). This finding suggests that financial concerns are a significant factor for university students when considering the transition from online to face-to-face learning during post-pandemic.

| I think that I cannot adjust to the new routine of campus life after a long period of online learning. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 51 | 22.1 | 22.1 |
| 2 | 35 | 15.2 | 15.3 |
| 3 | 38 | 16.5 | 16.5 |
| 4 | 74 | 32.0 | 32.0 |

| | | | |
|-------|-----|-------|-------|
| 5 | 33 | 14.3 | 14.3 |
| <hr/> | | | |
| Total | 231 | 100.0 | 100.0 |
| <hr/> | | | |

Table 4.2.14: I think that I cannot adjust to the new routine of campus life after a long period of online learning.

There are 51 respondents (22.1%) selected "strongly disagree," and 35 (15.2%) selected "disagree" from the group of respondents. The majority of respondents (107 respondents, or 46.3%) agreed or strongly agreed with the statement, with 74 respondents (32%) picking "agree" and 33 respondents (14.3%) selecting "strongly agree." The choice of "neutral" was made by 38 respondents (16.5%). It is evident from this research that the majority of respondents (46.3%) believe they cannot adjust to the new routine of campus life after a long period of online learning. This result implies that a sizable proportion of students could require additional assistance or resources to assist them in adjusting to the new pattern of in-person learning after online learning.

| I fear that I may face social pressure from my peers to skip face-to-face learning. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 43 | 18.6 | 18.6 |
| 2 | 35 | 15.2 | 15.2 |
| 3 | 49 | 21.2 | 21.2 |
| 4 | 64 | 27.7 | 27.7 |

| | | | |
|-------|-----|-------|-------|
| 5 | 40 | 17.3 | 17.3 |
| <hr/> | | | |
| Total | 231 | 100.0 | 100.0 |
| <hr/> | | | |

Table 4.2.15: I fear that I may face social pressure from my peers to skip face-to-face learning.

Among the respondents, there are 43 respondents (18.6%) chose “strongly disagree”, while 35 (15.2%) chose “disagree”. The majority of respondents (104 respondents, or 45%) either agreed or strongly agreed with the statement, with 64 respondents (27.7%) choosing “agree” and 40 respondents (17.3%) choosing “strongly agree”. Meanwhile, 49 respondents (21.2%) chose “neutral”. From this analysis, it's clear that a majority of the respondents (45%) agree or strongly agree that they fear facing social pressure from their peers to skip face-to-face learning. It's worth noting that the number of respondents who chose neutral (21.2%) is higher than for other questions, indicating that some students may not be sure about the extent to which they will face social pressure from their peers. This finding suggests that social pressure could be an important factor to consider when investigating university students' self-efficacy to the sudden transition to face-to-face learning during post-pandemic/social pressure could be a factor influencing students' decisions to attend face-to-face learning.

| I am nervous when speaking or presenting in front of my classmates in face-to-face learning. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 43 | 18.6 | 18.6 |
| 2 | 35 | 15.2 | 15.2 |
| 3 | 49 | 21.2 | 21.2 |
| 4 | 64 | 27.7 | 27.7 |

| | | | |
|-------|-----|-------|-------|
| 5 | 40 | 17.3 | 17.3 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.16: I am nervous when speaking or presenting in front of my classmates in face-to-face learning.

39 respondents (16.9%) answered "strongly disagree," while 26 respondents (11.3%) chose "disagree." The statement was agreed or highly agreed upon by the majority of respondents (123 students, or 53.3%), with 63 respondents (27.3%) selecting "Agree" and 60 respondents (26%) selecting "Strongly Agree." Meanwhile, 43 people (18.6%) said they were "neutral." According to the findings of this study, the majority of respondents (53.3%) agree or strongly agree that they are nervous when speaking or presenting in front of their classmates during face-to-face learning. The finding suggests that many students are hesitant to spend time with their peers, which may affect their willingness to participate in face-to-face learning.

| I am too comfortable in online learning last two years, which makes it difficult for me to adapt with campus life. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 30 | 16.9 | 16.9 |
| 2 | 26 | 11.3 | 11.3 |
| 3 | 43 | 18.6 | 18.6 |
| 4 | 63 | 27.3 | 27.3 |

| | | | |
|-------|-----|-------|-------|
| 5 | 60 | 26.0 | 26.0 |
| <hr/> | | | |
| Total | 231 | 100.0 | 100.0 |
| <hr/> | | | |

Table 4.2.17: I am too comfortable in online learning last two years, which makes it difficult for me to adapt with campus life.

51 of the respondents who answered chose "strongly disagree," while 29 (12.6%) chose "disagree." Most of the students who answered (118, or 51.1%) agreed or strongly agreed with the statement. Of the 118 students who answered, 63 (27.3%) chose "Agree" and 55 (23.8%) chose "Strongly Agree." Meanwhile, 33 respondents (14.3%) picked "neutral". Based on this analysis, it's clear that 51.1% of respondents agree or highly agree that they are too used to online learning, which makes it hard for them to adjust to life on campus. This finding suggests that many students may have trouble participating in face-to-face learning, which is an important reason why students have trouble adjusting to face-to-face learning after the pandemic.

| I am concerned that I may be confronting negative experiences that have occurred in the face-to-face learning environment in the past. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 51 | 22.1 | 22.1 |
| 2 | 29 | 12.6 | 12.6 |
| 3 | 33 | 14.3 | 14.3 |
| 4 | 63 | 27.3 | 27.3 |

| | | | |
|-------|-----|-------|-------|
| 5 | 55 | 23.8 | 23.8 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.18: I am concerned that I may be confronting negative experiences that have occurred in the face-to-face learning environment in the past.

Among the respondents, 45 people (19.5%) chose "strongly disagree", and 38 people (16.5%) chose "disagree". The majority of respondents (61 students, or 26.4%) agreed with the statement, while 31 respondents (13.4%) chose to "strongly agree." In addition, 56 respondents (24.2%) chose "neutral". It is evident from this analysis that only a small percentage of respondents (36%) disagreed or strongly disagreed with the statement that they worried about potentially confronting negative past experiences that occurred in face-to-face learning settings. This finding suggests that more students expressed concerns about possible negative experiences they may have in face-to-face learning environments. This is also one of the factors that students cannot adapt to the transaction of online learning to face-to-face learning.

| I am worry that I will be late to face-to-face classes because I cannot estimate arrival time accurately. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 45 | 19.5 | 19.5 |
| 2 | 38 | 16.5 | 16.5 |
| 3 | 56 | 24.2 | 24.2 |
| 4 | 61 | 26.4 | 26.4 |

| | | | |
|-------|-----|-------|-------|
| 5 | 31 | 13.4 | 13.4 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.19: I am worry that I will be late to face-to-face classes because I cannot estimate arrival time accurately.

Out of the total number of respondents, 19.5% picked "strongly disagree," while 16.5% picked "disagree." Among the respondents, 61 (26.4%) students said they agreed and 31 (13.4%) said they "strongly agreed" with the statement. Another 54 respondents(25.6%) went with the "other" option. Only 36% of respondents disagreed or strongly disagreed with the statement that they will be late to face-to-face classes because they cannot estimate arrival time accurately; the remaining 84% either agreed or were unsure. This finding suggests that more students expressed concern about being late for face-to-face learning. This is also one of the factors that exacerbate students' inability to quickly adapt to the transaction of online learning to face-to-face learning.

| I feel that I'm more disciplined when having face-to-face learning. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 21 | 9.1 | 9.1 |
| 2 | 33 | 14.3 | 14.3 |
| 3 | 44 | 29.0 | 29.0 |
| 4 | 69 | 29.9 | 29.9 |
| 5 | 64 | 27.7 | 27.7 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.20: I feel that I'm more disciplined when having face-to-face learning.

Only one respondent (0.4%) selected "strongly disagree," while 18 (7.1%) selected "disagree." In addition, 49 respondents (21.2%) chose "neutral". The majority of respondents (163 students, or 70.6%) agreed or strongly concurred with the statement, with 70 respondents (30.3%) choosing "Agree" and 93 respondents (40.3%) choosing "Strongly Agree." From this analysis it is evident that it can be seen that most respondents think that they will be more disciplined when having face-to-face learning. And this factor will reduce their rejection of face-to-face learning, and may make them more adaptable to face-to-face learning in the process of the transaction of online learning to face-to-face learning.

4.1.3 Learning Mode Efficacy

| Face-to-face learning can help me develop better study habits and establish a regular study routine. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 1 | 0.4 | 0.4 |
| 2 | 18 | 7.8 | 7.8 |
| 3 | 49 | 21.2 | 21.2 |
| 4 | 70 | 30.3 | 30.3 |
| 5 | 93 | 40.3 | 40.3 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.21: Face-to-face learning can help me develop better study habits and establish a regular study routine.

Just 1% of those polled had a "strongly disagree" response, while 6.9% of those asked were on the fence about their opinion. Also, 48 people (or 20.8%) opted for the "neutral" option. A total of 166 students (71.9% of the sample) provided responses, with 35.1% choosing "Agree" and 36.8% choosing "Strongly Agree" to the statement. From this analysis it is obvious that more respondents think that face-to-face learning can help me develop better study habits and establish a regular study routine. This finding demonstrates the efficacy of the traditional classroom setting.

| Face-to-face learning can stimulate my creativity, as they are able to interact with the material hands-on. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 4 | 1.7 | 0.4 |
| 2 | 24 | 10.4 | 6.9 |
| 3 | 42 | 18.2 | 20.8 |
| 4 | 76 | 32.9 | 35.1 |
| 5 | 85 | 36.8 | 36.8 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.22: Face-to-face learning can stimulate my creativity, as they are able to interact with the material hands-on

Only 4% of respondents selected "strongly disagree," while 10% selected "disagree," and 10.4% selected "neutral." In addition, 42 respondents (18.2%) picked "neutral" as their answer. Sixty-nine percent of the students polled agreed or strongly agreed with the statement, and a total of 161 students participated in the study. As can be seen from this breakdown, a larger proportion of

respondents said that engaging with the content in a face-to-face setting sparked their imagination. The effectiveness of the traditional classroom setting is still reflected in this finding.

| Face-to-face learning makes me more focused than online classes without any distraction. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 5 | 2.2 | 1.7 |
| 2 | 22 | 9.5 | 10.4 |
| 3 | 68 | 29.4 | 18.2 |
| 4 | 83 | 35.9 | 32.9 |
| 5 | 53 | 22.9 | 36.8 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.23: Face-to-face learning makes me more focused than online classes without any distraction.

There are 5 of the respondents, which is 2.2% of the total, selected "strongly disagree," and 22 of the respondents, which is 9.5%, selected "disagree." In addition, 68 respondents (29.4%) picked "neutral". The majority of respondents (136 students, or 58.8%) agreed or strongly agreed with the statement. The responses "agree" and "strongly agree" were selected by 83 respondents (35.9%) and 53 respondents (22.9%) respectively. According to the findings of this survey's analysis, a greater proportion of respondents believe that studying in person allows them to concentrate better than taking courses taught entirely online. This study demonstrates that the traditional classroom setting is the most effective method of education.

| Lecturer's body gesture in face-to-face learning allows me to have a better understanding of the topic. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 2 | 0.9 | 2.2 |
| 2 | 23 | 10.0 | 9.5 |
| 3 | 59 | 25.5 | 29.4 |
| 4 | 92 | 39.8 | 35.9 |
| 5 | 55 | 23.8 | 22.9 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.24: Lecturer's body gesture in face-to-face learning allows me to have a better understanding of the topic.

Only two persons out of the total responses (0.9%) selected "strongly disagree," while 23 people (10.1%) selected "disagree" as their response. In addition, 59 respondents (25.5%) picked "neutral". A large majority of respondents (92 students, or 39.8%) were in agreement with the statement, with 23.8 percent of respondents picking "Strongly Agree." As a result of this study, it is clear that a greater number of respondents believe that the body movements of the lecturer in face-to-face learning provide me with a better comprehension of the subject matter. This study suggests that the traditional classroom setting is the most effective method of education.

| Bad internet access can affect my academic performance. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 3 | 1.3 | 0.9 |
| 2 | 14 | 6.1 | 10.0 |
| 3 | 31 | 13.4 | 25.5 |
| 4 | 72 | 31.2 | 39.8 |
| 5 | 111 | 48.1 | 23.8 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.25: Bad internet access can affect my academic performance.

Only three individuals (1.3%) answered "strongly disagree," while 14 respondents (6.1%) chose "disagree." In addition, 31 respondents (13.4%) selected "neutral." 72 (31.2%) agreed with the statement. However, the majority of responders (111 students, or 48.1%) picked "strongly agree." According to this data, the majority of respondents believe that poor internet connectivity will have an impact on my academic achievement. This finding demonstrates that the online learning method is inefficient.

| I can join an assignment group in face-to-face learning easier than online learning. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 7 | 3.0 | 1.3 |
| 2 | 26 | 11.3 | 6.1 |

| | | | |
|-------|-----|-------|-------|
| 3 | 47 | 20.3 | 13.4 |
| 4 | 63 | 27.3 | 31.2 |
| 5 | 88 | 38.1 | 48.1 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.26: I can join an assignment group in face-to-face learning easier than online learning.

Six respondents (3%) answered "strongly disagree," while 26 respondents (11.3%) chose "disagree." However, 47 respondents (20.3%) voted "neutral." The majority of respondents (151 students, or 65.4%) agreed or strongly agreed with the statement, with 63 (27.3%) choosing "Agree" and 88 (38.1%) choosing "Strongly Agree." This research shows that only a small minority of respondents (14.3%) agreed or strongly agreed with the assertion that joining an assignment group in face-to-face learning was simpler than online learning. When students join an assignment group, this data shows that face-to-face learning is more successful than online learning. This indicates the effectiveness of face-to-face learning, and students may adjust to the transition from online to face-to-face learning more quickly.

| Face-to-face learning is more efficient with physical presence whereas online learning doesn't. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 4 | 1.7 | 3.0 |
| 2 | 20 | 8.7 | 11.3 |

| | | | |
|-------|-----|-------|-------|
| 3 | 36 | 15.6 | 20.3 |
| 4 | 81 | 35.1 | 27.3 |
| 5 | 90 | 39.0 | 38.1 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.27: Face-to-face learning is more efficient with physical presence whereas online learning doesn't.

Among the respondents, 4 respondents (1.7%) chose "strongly disagree", and 20 respondents (8.7%) chose "disagree". However, 36 respondents (15.6%) chose "neutral". A majority of respondents (171 students, or 74.1%) agreed or strongly agreed with the statement, with 81 respondents (35.1%) selecting "Agree" and 90 respondents (39%) selecting "Strongly Agree". It is evident from this analysis that only a small percentage of respondents (10.4%) disagreed or strongly disagreed with the statement that face-to-face learning is more efficient with physical presence whereas online learning doesn't. This finding suggests that face-to-face learning is more effective than online learning due to face-to-face learning with physical presence whereas. This reflects the efficiency of face-to-face learning, and students may adapt to the transaction of online learning to face-to-face learning faster.

| Online learning reduces interpersonal communication between lecturers and students. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 4 | 1.7 | 1.7 |

| | | | |
|-------|-----|-------|-------|
| 2 | 18 | 7.8 | 8.7 |
| 3 | 26 | 11.3 | 15,6 |
| 4 | 81 | 35.1 | 35.1 |
| 5 | 102 | 44.2 | 39.0 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.28: Online learning reduces interpersonal communication between lecturers and students.

Only 4 of the respondents, which is 1.7% of the total, selected "strongly disagree," while 18 of the respondents, which is 7.8% of the total, selected "disagree." Additionally, 26 respondents (11.3%) selected "neutral" as their response. 35.1 percent of these respondents, or 81 people, agreed with the statement. Nonetheless, the majority of respondents (102 students, or 44.2%) picked the option "strongly agree." As a result of this study, it is clear that the vast majority of respondents had the perception that online learning had a negative impact on the amount of interpersonal contact they experienced during lectures. This study demonstrates that the traditional classroom setting is superior to the online learning model in terms of providing students with opportunities for interpersonal contact with the instructors.

| Having a face-to-face discussion on assignment is more efficient compared to online discussion. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 7 | 3.0 | 1.7 |

| | | | |
|-------|-----|-------|-------|
| 2 | 24 | 10.4 | 7.8 |
| 3 | 32 | 13.9 | 11.3 |
| 4 | 72 | 31.2 | 35.1 |
| 5 | 96 | 41.6 | 44.2 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.29: Having a face-to-face discussion on assignment is more efficient compared to online discussion.

Seven of the respondents, or three percent, selected "strongly disagree," while 24 of the respondents, or ten percent, selected "disagree." However, out of the total respondents, 32 (13.9%) selected "neutral." 72 respondents (31.2%) selected "Agree," and 96 respondents (41.6%) selected "Strongly Agree" as their response to the statement. This indicates that the majority of respondents (168 students, or 72.8%) agreed or strongly agreed with the statement. Based on the findings of this research, it is clear that only a small minority of respondents (13.4%) disagreed or strongly disagreed with the assertion that having a face-to-face learning conversation on assignment is more efficient than having an online discussion. This conclusion implies that learning face-to-face is more effective than learning online owing to the fact that there is a greater potential for efficiency in assignment discussion when learning face-to-face. This demonstrates the effectiveness of learning face-to-face, and students may be able to transition from the transactional nature of online learning to face-to-face learning more quickly.

| Online learning offers flexible learning opportunities in terms of time and place. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
|---|------------------|----------------|----------------------|

| | | | |
|-------|-----|-------|-------|
| 1 | 1 | 0.4 | 3.0 |
| 2 | 6 | 2.6 | 10.4 |
| 3 | 28 | 12.1 | 13.9 |
| 4 | 60 | 26.0 | 31.2 |
| 5 | 136 | 58.9 | 41.6 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.30: Online learning offers flexible learning opportunities in terms of time and place.

Of the responses, just 1% picked "strongly disagree," while 6% picked "disagree." Among the 231 respondents that participated in the survey, 84.9% agreed or strongly agreed with the statement. Sixty (26% of the total) students selected "agree," while 136 (58.9%) selected "strongly agree." Meanwhile, 28 respondents (12.1%) went with the "neutral" option. The vast majority of respondents (84.9%) agree or strongly agree that online learning provides time and location freedom for study. These results imply that many students like online learning due to the flexible learning options in terms of time, which is an essential consideration in the transitions from online learning to face-to-face learning in the wake of a pandemic.

| Online learning allows me to revise the course content because I can refer back to the recording. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 0 | 0.0 | 0.4 |
| 2 | 2 | 0.9 | 2.6 |

| | | | |
|-------|-----|-------|-------|
| 3 | 20 | 8.7 | 12.1 |
| 4 | 54 | 23.4 | 26.0 |
| 5 | 155 | 67.1 | 58.9 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.31: Online learning allows me to revise the course content because I can refer back to the recording.

There were no "strongly disagree" responses and just two "disagree" responses (0.9%). Ninety-five percent of the students that responded (209) either agreed or strongly agreed with the statement, with 155 students (67.1%) selecting "strongly agree" and 54 students (23.4%). Twenty people, or 8.7 percent, were neutral. The results of this study show that a large majority of students (90.5%) feel they are able to improve their understanding of course material via the usage of online learning platforms that include recording capabilities. These results imply that many students like online learning because of the recording capabilities of the software; this is an essential consideration in the transitions between online and face-to-face learning in the wake of a pandemic.

| Online learning helps me develop my technical skills and digital literacy. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 3 | 1.3 | 1.3 |
| 2 | 13 | 5.6 | 5.6 |
| 3 | 42 | 18.2 | 18.2 |
| 4 | 74 | 32.0 | 32.0 |

| | | | |
|-------|-----|-------|-------|
| 5 | 99 | 42.9 | 42.9 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.32: Online learning helps me develop my technical skills and digital literacy.

Thirteen respondents (5.6%) disagreed, although just three respondents (1.3%) severely disagreed. Seventy-four respondents (32%) selected "agree," while 99 respondents (42.9%) selected "strongly agree" out of a total of seventeen hundred and three students (74.9%). And 42 respondents, or 18.2%, were just neutral. A large majority of respondents (74.9% to be exact) agree or strongly agree that participating in online learning opportunities helps them acquire technical skills and digital literacy. As these results show, many students believe online courses may help them become more technically proficient and digitally literate, which is crucial in the post-pandemic shift from virtual to physical classrooms.

| Online learning has improved my willingness to listen to the classes because the software has many interesting interactive features. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 8 | 3.5 | 3.5 |
| 2 | 26 | 11.3 | 11.3 |
| 3 | 46 | 19.9 | 19.9 |
| 4 | 58 | 25.1 | 25.1 |

| | | | |
|-------|-----|-------|-------|
| 5 | 93 | 40.3 | 40.3 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.33: Online learning has improved my willingness to listen to the classes because the software has many interesting interactive features.

In the survey, 26 respondents (11.3% of the total) said they disagreed with the statement, while 8 respondents (3.5%) said they strongly disagreed. Among the 151 respondents, 65.4% selected "agree" or "strongly agree," with 58 (25.1%) selecting "agree" and 93 (40.3%) selecting "strongly agree." In contrast, 46 people (19.9%) picked "neutral" as their answer. The results show that over two-thirds of respondents (66.4% to be exact) agree or strongly agree that online learning increased their motivation to pay attention in class. These results highlight the need of considering student preferences in the transition from online to face-to-face learning in the wake of a pandemic, since they indicate that many students are ready to listen online thanks to the intriguing interactive aspects of the programme.

| I can maximize the usage of internet resources during online learning mode. | Frequency | Percent | Valid Percent |
|--|------------------|----------------|----------------------|
| 1 | 1 | 0.4 | 0.4 |
| 2 | 4 | 1.7 | 1.7 |
| 3 | 37 | 16.0 | 16.0 |
| 4 | 64 | 27.7 | 27.7 |
| 5 | 125 | 54.1 | 54.1 |

| | | | |
|-------|-----|-------|-------|
| Total | 231 | 100.0 | 100.0 |
|-------|-----|-------|-------|

Table 4.2.34: I can maximize the usage of internet resources during online learning mode.

Only 1% of those respondents picked "strongly disagree," while 1.7% picked "disagree." Eighty-one percent of the students who responded (189) found the statement to be true or mostly true; 64 selected "agree" (27.7%) and 125 selected "strongly agree" (54.1%). Meanwhile, 37 people, or 16%, went with the "neutral" option. 81.8% of respondents agree or strongly agree that they can make the best possible use of internet resources during online learning. This study suggests that students may make the most of their internet access via online learning; this is a crucial consideration for transitions from online to face-to-face learning in the wake of a pandemic.

| Face-to-face learning allows for better skill development and opportunities for practical application. | Frequency | Percent | Valid Percent |
|---|------------------|----------------|----------------------|
| 1 | 3 | 1.3 | 1.3 |
| 2 | 10 | 4.3 | 4.3 |
| 3 | 43 | 18.6 | 18.6 |
| 4 | 71 | 30.7 | 30.7 |
| 5 | 104 | 45.0 | 45.0 |
| Total | 231 | 100.0 | 100.0 |

Table 4.2.35: Face-to-face learning allows for better skill development and opportunities for practical application.

10 of the respondents, representing 4.3% of the total, selected "disagree," while 3 of the respondents (1.3% of the total) selected "strongly disagree." The vast majority of respondents (175

students, or 75.7%) either agreed or strongly agreed with the statement. Of those who responded, 71 respondents (30.7%) selected "agree" and 104 respondents (45%) selected "strongly agree." In the meanwhile, 43 respondents, or 18.6%, picked the option "neutral." As a result of this study, it is abundantly obvious that 75.7% of the respondents agree or strongly agree that face-to-face learning enables higher skill development and possibilities for practical applications. This conclusion suggests that students' soft skills and practical abilities may be improved via face-to-face learning, which is an essential issue to consider in the transitions from online learning to face-to-face learning during the post-pandemic period.

4.1.4 Reliability Test

| Variable | Number of items (N) | Cronbach Alpha (a) | |
|---------------|---------------------|--------------------|----------------------|
| | | Pre-test (n=20) | Actual Study (n=250) |
| Self-efficacy | 15 | 0.844 | 0.877 |
| Learning mode | 15 | 0.806 | 0.860 |
| Adaptability | 15 | 0.839 | 0.812 |

Table 4.2.36: Reliability score of pre-test and actual data

Regarding research issues, the relevance and quality of the equipment is always a primary priority. Reliability is the constancy or stability of an instrument's measurement and the capacity to guarantee that it is error-free (Drost, 2011). As shown from the table above, the variable of learning mode that consists of 15 items scored the lowest Cronbach's alpha value and achieved good reliability, which is 0.860 among all the other dependents variables. Next, the variable of self-efficacy consists of 15 items and it has very good reliability result as affective commitment score highest Cronbach's alpha value among others, which scored 0.877. Lastly, the variable of adaptability is also considered to have achieved a good reliability as normative commitment scored the value of 0.812 in Cronbach's alpha. In conclusion, internal reliability is considered very good because all the dependent variables scored more than 0.8 in Cronbach's alpha (Ursachi et al., 2015). Therefore, the scores ranging from 0.806 to 0.877 that the researchers got from this experiment is considered as highly reliable.

4.1.5 Hypothesis Testing

Using SPSS statistical software, two bivariate Pearson correlations were conducted to determine the relationships between (1) students' adaptability and study self-efficacy, and (2) students' adaptability and learning mode efficiency. The Pearson correlation coefficient between students' adaptability and study self-efficacy is 0.491 with a significance level (p-value) of 0.000 (which is less than the chosen level of significance of 0.05). The sample size (N) is 231. The correlation coefficient of 0.491 indicates a moderate positive correlation between students' adaptability and study self-efficacy among UTAR students. The significance level of 0.000 suggests that this correlation is statistically significant, supporting Hypothesis 1. Therefore, there is evidence to conclude that there is a significant relationship between students' adaptability and study self-efficacy among UTAR students.

The Pearson correlation coefficient between students' adaptability and learning mode efficiency is 0.664 with a significance level (p-value) of 0.000 (which is less than the chosen level of significance of 0.05). The sample size (N) is 231. The correlation coefficient of 0.664 indicates a strong positive correlation between students' adaptability and learning mode efficiency among UTAR students. The significance level of 0.000 suggests that this correlation is statistically significant, supporting Hypothesis 2. Therefore, there is evidence to conclude that there is a significant relationship between students' adaptability and learning mode efficiency among UTAR students.

In conclusion, the results of the bivariate Pearson correlation analysis support both Hypothesis 1 and Hypothesis 2, indicating significant positive relationships between students' adaptability and study self-efficacy, as well as between students' adaptability and learning mode efficiency among UTAR students. These findings suggest that students' adaptability may play a role in influencing their study self-efficacy and learning mode efficiency during the transition from online to face-to-face learning after the pandemic, as examined from the perspectives of university students.

4.1.6 Pearson Correlation Coefficient Analysis

The Pearson Correlation Coefficient Analysis is utilised in this research to examine the association between students' adaptability and study self-efficacy as well as the association between students' adaptability and learning mode efficiency among UTAR students in the post-pandemic period. The significance level for this study is set at 0.05.

Hypothesis 1

H0: There is no significant relationship between students' adaptability and study self-efficacy among UTAR students in the post-pandemic period.

H1: There is a significant relationship between students' adaptability and study self-efficacy among UTAR students in the post-pandemic period.

| | | Students' Adaptability | Study Self-efficacy |
|------------------------|-----------------------|------------------------|---------------------|
| Students' Adaptability | Pearson's Correlation | 1 | 0.491** |
| | Significance | | 0.000 |
| | N | 231 | 231 |
| Study Self-efficacy | Pearson's Correlation | 0.491** | 1 |
| | Significance | 0.000 | |
| | N | 231 | 231 |

Table 4.2.37: Correlations between Students' Adaptability and Study Self-efficacy

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

Direction

As students' adaptability increases, their study self-efficacy is expected to increase as well.

Strength

The Pearson correlation coefficient value of 0.491** indicates a moderate positive relationship between students' adaptability and study self-efficacy, as it falls within the range from ± 0.3 to ± 0.5 .

Significance

The p-value (0.000) is less than the alpha value of 0.05, indicating a significant relationship between students' adaptability and study self-efficacy. Therefore, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted.

Hypothesis 2

H0: There is no significant relationship between students' adaptability and learning mode efficiency among UTAR students in the post-pandemic period.

H1: There is a significant relationship between students' adaptability and learning mode efficiency among UTAR students in the post-pandemic period.

| | | Students' Adaptability | Learning Mode Efficiency |
|--------------------------|-----------------------|------------------------|--------------------------|
| Students' Adaptability | Pearson's Correlation | 1 | 0.664** |
| | Significance | | 0.000 |
| | N | 231 | 231 |
| Learning Mode Efficiency | Pearson's Correlation | 0.664** | 1 |
| | Significance | 0.000 | |

Table 4.2.38: Correlations between Students' Adaptability and Study Self-efficacy

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

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

Direction

As students' adaptability increases, their learning mode efficiency is expected to increase as well.

Strength

The Pearson correlation coefficient value of 0.664** suggests a strong positive relationship between students' adaptability and learning mode efficiency, as it falls within the range from ± 0.7 to ± 1.0 .

Significance

The p-value (0.000) is less than the alpha value of 0.05, indicating a significant relationship between students' adaptability and learning mode efficiency. Therefore, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted.

4.2 Summary of findings

Through this chapter, the researchers had found out that students were affected by Covid-19 pandemic which caused them cannot attend face-to-face learning. During this period, the majority of university students were forced to continue their study with online sessions of learning. After two years of online learning, students finally have the opportunity to return to campus for face-to-face learning. At the same time, the sudden transitions of online learning to face-to-face learning during the post-pandemic caused student don't have enough time to do preparation. In the next chapter, the researchers will conclude this research and provide recommendations for future research.

Chapter 5: Discussion & Conclusion

5.0 Overview

The researchers will discuss and draw conclusions in this chapter based on the results of the whole study. To respond to the following study questions:

RQ1: How are the adaptability of university students from online learning to face-to-face learning during post-pandemic?

RQ2: Which learning mode is more efficient for university students between online learning or face-to-face learning?

It will begin with a recap of the statistical study presented in Chapter 4, which examined the Pearson Correlation Coefficient. The preliminary results that were used to validate and test the hypotheses were then discussed. The researchers will also describe this study's ramifications and constraints. In addition, the researchers suggested a future study based on the constraints of the current one. The researcher then presents a conclusion to wrap up the whole study.

5.1 Discussion of Self efficacy and adaptability

H1: There is a significant relationship between students' adaptability and study self-efficacy among UTAR students in the post-pandemic period.

The first objective of this study is to investigate the university students' adaptability to the sudden transition to face-to-face learning during post-pandemic. Based on the result shown in chapter four, a significant and positive relationship exists between students' adaptability and study self-efficacy among UTAR students. In other words, students with higher self-efficacy levels correlate to better adaptability to sudden transition to face-to-face learning during post-pandemic. This positive association aligns with a previous study by Campos et al. (2022). The previous study emphasises the fully mediating role of self-efficacy in the relationship between academic expectations and high education adjustment, which is consistent with Bandura's social cognitive theory. According to a previous study by Campos et al., the relationship between self-efficacy and adaptation in higher education can be explained by the fact that individuals with high self-efficacy work harder and invest more resources to accomplish their goals (2022). Students with a high sense

of self-efficacy will plan and forecast their future career vision in advance, modify their behaviour, and approach obstacles with greater confidence (Bubic, 2017; Hou et al., 2019).

Besides, adaptable students are more likely to possess higher study self-efficacy (Wang et al., 2021). When students are adaptable, they can better cope with academic challenges, such as changes in syllabus, unexpected assignments, or difficult exams (Sánchez-Cardona et al., 2012). They are more likely to view these challenges as opportunities for growth rather than threats, which enhances their self-efficacy beliefs (Kong et al., 2021). In contrast, students who lack adaptability may struggle to adjust to changes, leading to lower study self-efficacy and reduced academic performance (Rocca, 2010). Students with high study self-efficacy are more likely to be proactive in seeking resources, utilizing effective study strategies, and managing their time efficiently (Lynch & Dembo, 2004). As students become more adapted, their study self-efficacy is likely to increase, leading to better academic performance. Conversely, as students develop higher study self-efficacy, they are more likely to be adaptable in the face of challenges, leading to improved adaptability skills (Xie et al., 2019).

5.1.1 Major findings of Self efficacy and adaptability

The majority of the surveyed higher education students were not adaptive to the sudden transition from online to face-to-face learning during post-pandemic. Among the significant challenges encountered by higher education students were social anxiety, academic performance, adjusting to a new learning environment, attitudes towards interaction in face-to-face learning, and relationships with peers and campus life. During the post-pandemic transition from online to face-to-face learning, students had a radically different learning experience. The research revealed that students confront additional obstacles, such as concerns about campus socialisation, group study issues, and academic performance. Most of the students felt less confident in their abilities to engage in face-to-face learning, which is an essential element to consider. Many respondents expressed concern or nervousness about interacting with others, asking questions, or presenting in a face-to-face learning environment. All of these with lower self-efficacy affect their ability to adapt to the transition. Students who exhibit lower levels of self-efficacy may experience reduced confidence in their capacity to manage the volume of information or workload associated with in-person classes (Talsma et al., 2021).

Furthermore, this study also identified concerns about academic performance in face-to-face learning, with respondents expressing concerns about their performance and ability in areas such as presentation, questioning, and participation in class discussions. Low self-efficacy can have negative impacts on students' adaptability in a face-to-face learning environment (Cassidy, 2015). A significant proportion of participants, comprising 64.1%, expressed apprehension regarding their presentation skills in face-to-face classroom settings. According to Chapell et al. (2005), individuals who exhibit elevated anxiety levels when speaking in public may encounter unfavorable outcomes, including reduced academic performance and diminished engagement in classroom exercises. In addition, some students expressed a dislike of classroom interaction and discussion and a lack of confidence in asking and answering questions. This is because the COVID-19 outbreak could have potentially intensified sentiments of apprehension or unease regarding physical proximity with others (Marroquín et al., 2020). According to Bandura's research in 1997, a positive correlation exists between an individual's level of self-efficacy and their perceived control over a given situation, ultimately resulting in reduced stress levels. A considerable number of students may harbor apprehensions regarding their social image, potentially influencing their participation and investment in in-person courses. The present discovery is consistent with earlier studies posited the impact of social anxiety on students' academic achievement and involvement in traditional classroom settings (Hofmann & DiBartolo, 2000). Individuals who encounter social anxiety may exhibit a decreased inclination to engage in classroom dialogues or pose inquiries, potentially losing valuable knowledge and educational prospects.

Moreover, the study also identified adjustment difficulties and anxiety students may face after transitioning from online to face-to-face learning. They are not confident in adapting to the new learning environment. Bandura (1997) defines self-efficacy as an individual's confidence in their ability to complete a task or reach an objective. After a long period of remote learning, some students may have less self-confidence in their ability to adjust to face-to-face education. Despite their choice or need for in-person classes, students may avoid them due to peer pressure. The pandemic may hinder their ability to adapt to the new learning modality and affect their ability to adapt to the educational environment afterward. Peer-induced social pressure on students to forgo in-person learning can lower their self-efficacy and confidence in their ability to transfer. The apprehension of social pressure has the potential to considerably affect the ability of students to

adjust to the abrupt shift toward in-person learning (Xu & Tu, 2022). Nora and Zhang (2010) show that students' perception of peer support for in-person sessions may lower their self-efficacy to adjust to the new learning environment. Overreliance on online learning may have decreased their face-to-face learning self-efficacy (Chen et al., 2023). Self-efficacy helps students believe they can succeed in academic tasks, such as transitioning to face-to-face learning after the epidemic (Kong et al., 2021). This research suggests that students who express concerns about confronting Negative prior experiences in traditional learning environments may struggle to transition from virtual to in-person training. Negative experiences can make it hard for pupils to acclimatize to a typical classroom, according to Xu and Tu (2022).

In addition, the study also identified students' perceptions and feelings about learning discipline in face-to-face learning, including perceptions of self-discipline and self-discipline. And students have concerns about time management in face-to-face learning, including Being late or not being able to estimate the time of arrival accurately. Financial issues may be linked to college students' self-efficacy and flexibility when considering switching from remote to in-person instruction following the epidemic. Finance problems and poor money management might lower self-efficacy, especially if students believe they cannot get in-person education (Elliott & Sherraden, 2006). If they are used to online learning's cheaper costs, some may struggle to shift to traditional classroom-based education's higher costs. This study shows that pupils lack self-efficacy in time management and punctuality. Students who doubt their time management skills may struggle to adjust to face-to-face classes. Adaptability is adapting to new surroundings and prospering (Wang et al., 2021). Suppose students are concerned about being late to face-to-face classes. In that case, it may indicate difficulties adapting to the new learning environment, which may require different time management skills, commuting arrangements, and classroom structure (Liu et al., 2014). Most respondents agreed or strongly agreed that face-to-face -face learning would make them more disciplined, which may reduce their rejection of it and increase their adaptability to switching from online to face-to-face learning. They may be more adaptable because they believe they can be disciplined during face-to-face learning (Vincent-Ruz & Boase, 2022). This suggests that self-efficacy beliefs influence face-to-face learning attitudes and behaviors. Firmer self-efficacy beliefs may lead to more positive attitudes toward face-to-face learning, making The transition from online to face-to-face learning easier (Caprara et al., 2006).

The findings of the present study, which examined the relationship between adaptability and study self-efficacy among UTAR students, are consistent with those of a previous study that examined career adaptability as a mediator between cognitive emotion regulation and career decision-making self-efficacy among college students. Prior research examined the relationship between career adaptability, cognitive emotion regulation, and career decision-making self-efficacy among Chinese college students. Lee and Jung (2002) found that cognitive emotion regulation mediated the positive relationship between career adaptability and decision-making self-efficacy. Another study found that the self-efficacy of non-native English speakers correlates positively with their adaptability to the integrated learning mode in college English (Yang & Pu, 2022).

Similarly, researchers found a moderately positive correlation between adaptability and academic self-efficacy among UTAR students in the current study. The correlation coefficient of 0.491 indicates a positive relationship between these two variables, supporting the study's hypothesis. This result is consistent with the findings of a previous study (Lee & Jung, 2022), which also found a positive correlation between career adaptability and self-efficacy in career decision-making. Also, there is a significant positive correlation between the variables self-efficacy and adaptability to integrated learning mode in College English among Non-English primary learners (Yang & Pu, 2022).

This similarity in findings may be due to the fact that both three studies were conducted on university students undergoing significant academic transitions. In a previous study, the researchers investigated the students' career decision-making process, which involves making decisions that will affect their future careers. This result is consistent with the previous study, which also found a positive correlation between career adaptability and self-efficacy in career decision-making (Lee & Jung, 2022). Furthermore, the previous study investigated the correlation between Non-English primary learners' self-efficacy and adaptability to blended learning mode in College English (Yang & Pu, 2022). Similarly, in the present study, the researchers examined the students' adaptability to the transition from online to face-to-face learning, which represents a significant change in their academic lives due to the pandemic. These three studies found a positive relationship between adaptability/self-efficacy and decision-making/career goals, suggesting that students with greater adaptability and self-efficacy may be better equipped to navigate these significant changes and make informed decisions about their academic and career paths.

Moreover, these three studies employed quantitative research methods for data collection and analysis. The current study collected data through an online questionnaire survey, whereas the previous study utilized structured questionnaires. Quantitative research methods enable the collection and statistical analysis of precise numerical data, increasing the findings' reliability and validity.

In conclusion, The findings of the current study on the relationship between adaptability and study self-efficacy among UTAR students are consistent with those of a previous study on career adaptability as a mediator between cognitive emotion regulation and career decision-making self-efficacy among university students, as well as those of a previous study on Non-English majored learners' self-efficacy and adaptability to blended learning mode in College English. The similarities in findings may be attributable to the significant changes that university students face in their academic careers and the use of quantitative research methods in both studies to collect and analyze data. These findings highlight the significance of adaptability and self-efficacy in supporting students during significant changes in their academic lives. While the two studies differ in their focus and context, they both support the idea that a positive correlation exists between self-efficacy and adaptability in university students. This highlights the importance of fostering self-efficacy in students, as it can lead to greater adaptability and success in various academic and career contexts.

5.2 Discussion of Learning mode efficiency and adaptability

H2: There is a significant relationship between students' adaptability and learning mode efficiency among UTAR students in the post-pandemic period.

The second objective of this study is to examine the relationship between the learning mode and students' adaptability toward the sudden transition from online to face-to-face learning. Based on the result shown in chapter four, a significant and positive relationship exists between students' adaptability and learning mode among UTAR students. Pearson Correlation Analysis examines the relationship between learning mode and student adaptability, and the results are shown in Table 4.2.38. According to the result, the p-value is 0.000, which is lower than 0.05. It means that learning mode significantly influences students' adaptability while the r-value is 0.664, indicating a positive linear relationship between the two variables.

According to a study by Brantmeier, L., Callahan, J., & Markowitz, E. (2021), In comparison to students who participated in remote learning, those who participated in face-to-face learning "demonstrated greater levels of adaptability in terms of accepting new challenges and engaging in novel situations" (p. 54). The authors speculate that this might be the case because in-person instruction provides more chances for social interaction, feedback, and immediate assistance from peers and instructors. Regarding social skills development and forming connections with peers and teachers, face-to-face instruction may offer a more favorable environment for students' learning and growth (Zheng, R., Li, H., & Zhu, J. 2021).

5.2.1 Major findings of Learning mode efficiency and adaptability

The majority of those polled came to the conclusion that university students were able to quickly adjust to the abrupt switch from online learning to studying face-to-face during the time after the epidemic. Students are motivated to improve their creative output and their ability to concentrate when they have improved study habits and routines; these are the primary benefits that students experience. Students see a profound transformation in their environment as a direct result of the abrupt change from online to in-person instruction that is being implemented in their education. The first investigation suggested that face-to-face learning may enable students to get more useful feedback from instructors. The vast majority of students had the perception that they were capable of improving their interpersonal communication skills during face-to-face instruction. Face-to-face learning is considered to be the most successful style of education since it allows for more adaptation towards pupils. Face-to-face learning, as described by Oztok and Brett (2018), affords students a greater opportunity for engagement and collaboration with both classmates and instructors, both of which may contribute to enhanced learning outcomes.

Moreover, this study also concentrated on students' creativity during face-to-face learning. A majority of the respondents said that they could maximize their creativity during face-to-face learning. A positive learning mode can effectively affect students' adaptability. According to X. Wang et al. (2021), compared to students who took online classes, those who attended in-person classes reported having higher levels of adaptability. The authors credit the increased opportunities for social interaction and individualised instruction that are frequently provided in face-to-face learning environments as the cause of this difference.

The COVID-19 pandemic has forced university students to adapt to online learning, as mentioned in John Lemay et al. (2021) and Feraco et al. (2022), which has been challenging for many due to technological, instructional, social, and affective challenges. While the changeover from online to face-to-face learning mode may need some adaptation, students who learned flexibility and self-regulated learning skills during the pandemic may be more prepared to deal with the change (Feraco et al., 2022).

The findings of this study, which investigated the relationship between adaptability and study learning mode among UTAR students, are consistent with studies done by several authors. According to Almanar (2020), the study investigated the responses of 30 students from the University of Muhammadiyah (UMT) Tangerang toward online learning and methodology used in Almanar's study, same with current study with the topic "A study of the transition from online to face-to-face learning during post-pandemic: From University students' perspectives", which is an online questionnaire. Hence, Almanar (2020) result showed that online learning modes are not as effective as face-to-face. This occurred because almost half of the participants from the University of Muhammadiyah (UMT) Tangerang found it challenging to communicate with the teacher online. A face-to-face learning mode with direct communication is more effective than an online learning mode. Many reasons caused participants to react that they will favor and adapt to face-to-face learning mode by comparison with online learning mode. 51.6% of students' gadgets or cell phones were incompatible with accessing the application. Distance learning did not significantly replace face-to-face learning since it caused virtually all students to struggle with time management, comprehending new concepts from new material, and lacking lecturer-student connection (Almanar, 2020).

Students were able to adjust to the abrupt change from online learning to face-to-face learning, according to another research conducted by Atwa (2022). Staff and mean student evaluations were higher for face-to-face and blended learning than for online learning. However, more than half of the students surveyed said that they would rather have face-to-face training. The majority of the teaching staff supported the blended learning method. In particular, face-to-face and hybrid learning received better lqmean assessments from faculty as well as students in comparison to online learning. In addition, the clear majority of teachers questioned expressed their support for the blended learning technique, which often combines traditional classroom instruction with online instruction. According to the results of a survey conducted with students,

more than half of them said that they preferred traditional classroom instruction over alternative methods of education (Atwa, 2022). This study demonstrated a preference for traditional schooling in the form of classroom-based instruction. This finding is in accordance with the findings of a research conducted by Bourzgui (2020), which found that 53.8% of students believed that learning could not be completed totally online. This result is compatible with those findings.

In conclusion, the present study's findings on the relationship between adaptability and study learning mode among UTAR students are consistent with the findings of some past year studies from 2020 to 2022. All studies indicate and give strong proof that there is a significant relationship between students' adaptability and learning mode efficiency among UTAR students in the post-pandemic period.

5.3 Limitation

The study has several limitations. One of the most challenging limitations was the lack of research on similar topics, as this was a new study. While conducting research, previous research was vital because it provided information related to the topic at hand. For instance, the literature review required a huge amount of previous studies to support the research problem. Hence, limited sources of studies would result in a lack of efficiency when conducting the research. Future researchers should likely conduct more research on similar studies.

According to the Statista Research Department (2021), there are around 234.08 thousand male students and 358.6 female students, a total of 592.68 university students in Malaysia in 2020. A larger sample size is required to increase the study's statistical power and improve the results' accuracy. However, this study has a limited sample size, which could affect the generalizability and dependability of the findings. The sample size was restricted due to the population size as the study was conducted in Perak Kampar and only for the students studying at University Tunku Abdul Rahman.

One of the criticisms that might be levelled at this piece of research is that it does not include a control group. The research does not contain a control group of students who did not go through the process of switching from online learning to face-to-face learning instruction in any way. The capacity to draw conclusions regarding the influence of the shift on the experiences and viewpoints of university students is hindered as a result of this, and this in turn brings to light

another restriction, which is the bias introduced by self-reporting. Measures that rely on self-report, such as questionnaires and interviews, are potentially prone to response bias. It is possible that participants will not offer accurate or true replies as a consequence of social desirability bias or because they will not have experienced the transition from online learning to face-to-face learning. As a result, the results will be erroneous.

Last but not least, limited variables are also one of the limitations of this study. This may limit the overall understanding of the impact of the study's findings. Therefore, it is essential to acknowledge this limitation and highlight the need for future studies to explore a broader range of variables to provide a more comprehensive understanding of the study.

5.4 Recommendations

The recommendation of this study is to use a mixed-methods approach in order to gain a comprehensive understanding of the study. A mixed-methods approach should be used. This will enable the collection of both quantitative and qualitative data, allowing for a more comprehensive examination of the phenomenon. It will be much better if this study uses a mixed-methods approach since it is essential to collect the data through face-to-face interviews. This allows the researchers to get different perspectives and genuine replies from the interviewees for this study. Plus, interviews or open-ended questions may give the researchers a deeper understanding of the study. By applying the qualitative research method in the study, the quality of the whole study will be increased, and more potential dimensions will be limited by quantitative research methods that can be explored to provide more in-depth information and enhance the comprehensiveness of this topic (Almeida, 2017).

Furthermore, the data of this study was only collected from students of the University Tunku Abdul Rahman via survey form. In order to ensure that the study captures a diverse range of perspectives, it is essential to ensure that a diverse sample of university students is recruited. This should include students from different universities, faculties, academic levels, and demographic backgrounds. Future research should incorporate random sampling and a larger sample size to increase the significance of the findings. Also, the researchers should have more research on this area as the study environment keeps changing with this digital advancement.

5.5 Conclusion

In conclusion, this study's primary purpose was to explore university students' experiences and perceptions during the transition from online to face-to-face learning during post-pandemic. Through a quantitative approach, the study uncovered several key findings that shed light on the challenges and opportunities of this transition. As part of an online survey form, the findings suggest that students faced various challenges, including technical issues, social isolation, and lack of motivation, particularly those who struggle with the social and emotional aspects of learning. However, the study also highlighted that the transition process could provide opportunities and benefits for students, such as flexibility, increased autonomy, and to engage more deeply with their peers and instructors.

This study has important implications for educational policies and practices, particularly in the current context of the ongoing pandemic. It suggests the need for a flexible and adaptive approach to education that considers the changing circumstances of the pandemic. Furthermore, as the pandemic has accelerated the adoption of technology in education, it is crucial that students are equipped with the necessary skills and resources, such as technology and digital literacy, to navigate the digital landscape effectively in the transition process in physical learning mode.

The researchers have discovered that the Covid-19 pandemic had a profound impact on students, rendering them unable to attend in-person classes. As a result, the majority of university students were forced to adapt to online learning for a period of two years. With the pandemic subsiding, students finally have the opportunity to return to campus for face-to-face learning. However, the sudden shift from online to in-person learning poses a challenge for students, who may need more time to prepare for the transition.

In short, this study contributes significantly to the field of post-pandemic education by providing insights into the experiences and perspectives during the transition from online to face-to-face learning. It also facilitates the higher education institution and the educator to provide an effective learning environment based on learners' expectations amid post-pandemic education. Thus, they can prepare well in teaching to allow the students to have better adaptability.

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