FACTORS AFFECTING HIGHER EDUCATION STUDENTS' BEHAVIOURAL INTENTION TOWARD HYBRID LEARNING IN MALAYSIAN PRIVATE UNIVERSITIES

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DECLARATION

We hereby declare that:

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(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the FYP.

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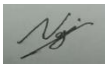
3. Ng Kok Seng	19ABB06354	
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LIST OF ABBREVIATIONS

BI	Behavioral Intention
CCT	Campus Class Technology Theory
CS	Campus Support
HEIs	Higher Educational Institutions
IA	Internet Access
IT	Information Technology
MMU	Multimedia University
OLS	Ordinary Least-Squares
PAGE	Parent Action Group for Education
PE	Perceived Ease of Use
PHEI	Private Higher Education Institution in Malaysia
PU	Perceived Usefulness
SCT	Social Cognitive Theory
SE	Self-efficacy
SPM	Sijil Pelajaran Malaysia
SPSS	Statistical Package for the Social Science
SST	Social Support Theory
TAM	Technology Acceptance Model
TARUMT	Tunku Abdul Rahman University of Management and Technology
TPB	Theory of Planned Behavior
TS	Teacher Support
UAE	United Arab Emirates
UNESCO	United Nations Educational, Scientific and Cultural Organization
UTAR	Universiti Tunku Abdul Rahman

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PREFACE

Current final year project is executed to satisfy the requirements of Bachelor of Business Administration (Hons). This research methodology project is accomplished and furnished with reference to the other researches which were quoted as references.

The title of the current research project is 'Factors Affecting Higher Education Students' Behavioural Intention Toward Hybrid Learning in Malaysian Private Universities'. There are a number of past empirical researches that conducted studies about the student's perception, satisfaction, and attitudes towards hybrid learning. However, there is a dearth of studies scrutinizing on the higher education students' behavioural intention toward hybrid learning in Malaysian private universities. Thus, we were inspired to carry out this research. This study shed new light on the factors affecting higher education students' behavioural intention toward hybrid learning in Malaysian private universities.

ABSTRACT

The standard pedagogical method can be improved with hybrid learning, which serves as a flexible tool to aid students in higher education in their learning. Since the Covid-19 epidemic, hybrid learning has emerged as a fast-expanding educational trend in Malaysia's educational paradigm, and it is becoming one of the essential learning modes for students at the higher education level. The importance of behavioural intention toward hybrid learning is recognized and played as the fundamental purpose of the current research. The primary purpose of conducting this research is to examine whether the six variables: perceived usefulness of hybrid learning system (PU), perceived ease of use (PE), internet access (IA), self-efficacy (SE), teacher support (TS), and campus support (CS) will influence the higher education students' behavioural intention toward hybrid learning in Malaysian private universities. This research was conducted, and questionnaires were distributed to 500 respondents in 8 selected private universities located in Kuala Lumpur, Negeri Sembilan, Perak, and Selangor, with 500 responses well received. Reliability and Multiple Linear Regression analysis were used to test the research model. The findings manifest that PU, PE, IA, and TS are found to have a significant influence on higher education students' behavioural intention toward hybrid learning. Besides, this research provides implications for institutions and future researches to understand the factors affecting higher education students' behavioural intention toward hybrid learning in Malaysian private universities. Several recommendations are also highlighted for future researches so that the potential area of improvement can be further justified.

Keywords: Behavioural Intention Toward Hybrid Learning, Perceived Usefulness of Hybrid Learning System, Perceived Ease of Use, Internet Access, Self-efficacy, Teacher Support, Campus Support

CHAPTER 1: INTRODUCTION

1.0 Introduction

This study examined the factors that affecting higher education students' behavioural intentions toward hybrid learning in Malaysian private universities. Chapter 1 provides an overview of the research background concerning the topic of study, including the comprehensive clarification of the problem statement. Besides, it also comprised the research questions, objectives, hypotheses, significance of the study, and chapter layout. In the end, a summary of Chapter 1 will be provided as the conclusion.

1.1 Research Background

Education is a continuous process of knowledge or experiences transferred from the instructor to the learner or the previous generations to the followings (Naziev, 2017). There are several ways for people to receive an education. Meanwhile, the most direct and fundamental way is to take courses or training in educational institutions, for instance universities, colleges, and schools. At the same time, the education institution will prepare appropriate course content and implement a suitable learning system and a learning method to ensure their students can receive the best learning experiences. The physical learning method in a classroom is the learning method that most education institutions commonly use. The physical study method has lasted for at least two centuries, and this method remains nowadays, known as the traditional learning method. However, a worldwide crisis has broken the norm.

The advent of the Covid-19 pandemic has brought significant effects to the world, and the education field is one of the "victims" of the crisis. According to

the data shown by UNESCO (n.d.), as of 2021, there are 158 countries with a school closure duration of 20 weeks and above. All students in those countries were forced to interrupt their studies as their school was closed for pandemic prevention measures. For example, many education institution around the world had closed due to the pandemic. Such a situation will seriously affect the study performance of the student. Therefore, the internet has been utilized to solve the problem by most of the affected countries. Many education institutions have transferred their lesson to the online method to resolve the problem (Li & Lalani, 2020). As a result, students can attend classes while keeping them safe from contracting Covid-19.

1.1.1 Online Basic Learning Method

Learning online has several approaches, including e-learning, blended learning, and hybrid learning. Although these learning methods use using the internet, the implementation is different.

E-learning is a learning system that utilizes electric devices with the connection of internet networking, such as computers, tablets, and smartphones, to seek the resources of content related to the lesson. The knowledge or skills are transferred to the learners through networking, and the number of receivers could be enormous, yet the distance between the instructor and receiver can be short or even in the same venue (The Economic Times, 2022). On the other hand, online learning also uses networking, yet the lesson is conducted online, and the instructor uses the online platform to transfer the lesson content. Learners learn through a virtual form classroom. This method is usually used with a geographical distance barrier (Moore et al., 2011).

Apart from that, blended learning is another approach that learning through the internet. Blended learning is a combination of transitional face-to-face schooling with online schooling (Hrastinski, 2019). In short, the learners are studying through online learning and physically simultaneously. However, the

blended learning method is often mistaken for hybrid learning as both have apparent commonalities. Hybrid learning is also a schooling method that utilizes the combination of online learning and physical learning (O'Byrne & Pytash, 2015), but participants' appearances in both methods are different. For blended learning, a learner is learning both online and physically, while hybrid learning is a lesson that gathers different learners that learn through both online and physical methods (Steele, 2022). In short, in a hybrid learning lesson, the learners are combined with the learner from physical and online learning, and the lesson is conducted simultaneously.

1.1.2 Hybrid Learning System in Malaysian Private Higher Institution

1.1.2.1 Malaysian Private Higher Education Institution (PHEI)

Private higher education institutions, as known as PHEI are the higher education institutions that fully funded by the non-government origination or private sectors differ from the public higher education institution that enjoy the government funded (Education Malaysia, 2022). The PHEI in Malaysia has played an essential role as it has provided an additional opportunity for the local students to pursue higher education, especially for those students who are unable to enter public universities and find it unaffordable to study oversea (Ong & Nordin, n.d.). The establishment of PHEI has brought some significant contributions to the nation since it has provided greater access for the citizens to pursue higher education (Ramachandran et al., 2009). Thereby, the Malaysia's education level has improved and cultivate more citizens who are eligible to well contribute to nations. The Ministry of Higher Education Malaysia governed PHEI(s) with several legislations such as "The Private Higher Education Institution Act 1996" and "The National Council of Higher Education Act 2006" (Study Malaysia, 2015). There is total more than hundred PHEI(s) in Malaysia which including 10 foreign university branch campuses, 34 private university colleges, 47 private universities, and others non-universities status PHEI(s) (Study Malaysia, 2020).

1.1.2.2 Implementation of Hybrid Learning in Malaysia PHEI

Malaysian higher education institution started to implement online learning and had followed the declaration of the Ministry of Education under the Malaysian Education Blueprint 2015–2025 mentioned that online schooling would be a necessary element of higher education and lifetime learning (Selvanathan et al., 2020). However, the implementation unable to widely use in Malaysia private higher education institution as the challenges of online learning could not be solved at the time, such as the learning quality, students' behaviour, learning software and hardware access. Until the outbreak of Covid-19 pandemic, Malaysian private higher education institutions force to implement online learning since the physical contact are not allowed by the situation at the time and student unable to attend classes physically, online learning had been widely used in Malaysia during this pandemic (Nordin & Nordin, 2020).

In the line with the implementation of online learning in Malaysia, Hybrid learning also be recognized by the several parties. Parent Action Group for Education's (PAGE) president, Noor Azimah Abdul Rahman, invoked the education institution to implement the hybrid learning to bridge the accessibility barrier during the epidemic as well as to optimize 21st-century learning (Chua, 2021). Furthermore, in the wake of the gradual increase in the vaccination rate of the population, campus also gradually reopened for the student to return. However, crowd gatherings are still discouraged, hence some campus unable to return all students while observing social distancing. Therefore, hybrid learning is a best way that utilized by most private higher education institution to resolve this problem and ensure each of the students able to be involved in the lesson (The Malaysia Reserves, 2021).

Besides that, hybrid learning has been widely used due to other advantages. Hybrid learning could assist students in combining the previous and latest knowledge and provide them a self-management of the study program; thus, it could better motivate the students to contribute more effort to the study process, especially for the university student (Ora et al., 2018). Critical thinking skills

could be enhanced through the hybrid learning method (Ora et al., 2018). Moreover, hybrid learning also resolves time and location limitations as the learning process are flexible in both location and time (Eryilmaz, 2015). The hybrid classes are conducted on the internet, and students can attend the class at anytime and anywhere if only they can access the internet. Hybrid learning also makes it easier for teachers to share class materials with students and facilitate interaction between teachers and students (Eryilmaz, 2015).

However, the implementation of hybrid learning has some challenges. One of the most significant challenges required to be solved is the students' behavioural intention. The literal contains behavioural intention refers to the desires or the planning of a person to do an action. By implementing hybrid learning, some of the students are not required to attend the class physically. Therefore, the student will have a distinct perspective regarding this method, affecting their behavioural intention to attend the class. For instance, communication is the tremendous difference between physical and hybrid learning. Some students may be unlikely to have hybrid learning as they could not physically communicate with their course mate, or the instructor inadvertently ignored the student online. Those factors will affect students' behavioural intention to attend the hybrid method class.

Apart from the effects led by the Covid-19 pandemic, hybrid learning would become a trend of learning method in the future as the changing in the environment and the requirement of students nowadays, such as the need for more flexible and effective learning environments. Hybrid learning had led several improvements towards the education field, including creating content that matches the requirements and learning styles of a wide range of students, extending learning by utilizing online resources in novel ways, etcetera (Meydanlioglu & Arikan, 2014). Therefore, it is essential to overcome the challenges faced and implement hybrid learning in Malaysia's education system and institutions. This study is being driven to fathom the factors and solutions to resolve the significant challenges of implementing hybrid learning.

1.2 Problem Statement

1.2.1 Research Problem

The hybrid learning system was created due to the introduction of remote learning to address the problem of space as a barrier to educational access. The hybrid system combines traditional face-to-face instruction with online instruction (Christensen, 2003). The fundamental issue with the hybrid system is that instructors and education officials find it difficult to evaluate it (IvyPanda, 2019). Due to the strong demand for hybrid education, most higher learning institutions are compelled to implement it.

The hybrid learning is ideal because it does provide students and teachers with accessibility on a local and global level (Boyarsky, 2021). Students can access classes regardless of their physical ability or location with hybrid learning, and virtual learning is a more cost-effective choice for many learners. Besides, in-person engagement is possible with hybrid learning (Shumate, 2020). As most people would agree, hybrid learning takes away many of the enjoyable components of school and inhibits students' capacity to collaborate. Further, a hybrid class adjusts to students' learning methods better than an online or face-to-face program (Carlton, 2021). Auditory learners, for example, may benefit from the option to rewind recorded lectures, whereas visual learners may gain from the opportunity to study slides at their leisure. Meanwhile, students who benefit from face-to-face interactions can maintain contact with their instructors and classmates. With this ideal situation about hybrid learning, it is believed that higher education students' behavioural intention toward hybrid learning will increase.

While in reality, hybrid learning may enhance students' possibility of being exposed to COVID-19 dramatically (Shumate, 2020). This is because people cannot ensure that they will not be exposed to COVID-19 every day when they go to school or campus. The virus's effects on any individual are unpredictable. Besides, there is an adaptability struggle in accepting and success of hybrid learning. From traditional classroom and face-to-face instructor

instruction to computer-based training in a virtual classroom, students' learning experiences are vastly different. Their reluctance to change prevents them from adapting to the hybrid learning environment (Rasheed et al., 2020). In a traditional classroom, passive listening and taking notes are expected, while online discussions demand springing into action. Students find it challenging to adapt to the hybrid learning environment with a "traditional" mindset. Thus, it will affect the higher education students' behavioural intention toward hybrid learning to getting lower.

Further, the students continue to struggle with their schoolwork daily since the school board has chosen a hybrid learning style in which one instructor instructs both in-person and online students (Wong, 2021). The teachers must spend much time fiddling with the additional technology required for accommodating remote students and dealing with persistent connectivity issues (Wong, 2021). As a result, class is fruitful neither at school nor at home. Moreover, converting to hybrid learning made students upset and unable to focus on exam preparations at first, and it took time to adapt (Zainal, 2021). When asking ten teachers, at least seven will say they are not looking forward to it. It is challenging to instruct students seated a few feet away while also "speaking" to the screen (Lau, 2021).

Technological challenges may have an impact on students' intentions toward hybrid learning (Ali et al., 2018). The students must be aware of the orientation and location of cameras or when they must talk into a microphone, that disrupts flow of conversation (Cunningham, 2014; Bower et al., 2015; Zydney et al., 2019). Minor usability concerns caused by constant updates to novel technology have also been discovered to confuse, impede, or obstruct students' learning processes. Students may become stressed when instructors vanish from the screen due to a technical issue, such as a faulty connection (Raes et al., 2020).

Internet access was a significant exogenous construct that directly and indirectly influenced student style and user intention as a technological component. Many students cannot keep up with their virtual classmates due to a lack of sufficient bandwidth or a robust internet connection required for online courses.

Their poor monitors make it difficult to keep track of their learning progress, challenging their learning experience. Furthermore, many of them reside off-campus, making it challenging to meet the course's practical requirements. Some do not even possess computers and seek technical support from the IT Infrastructure and Support Centre. However, because putting those services in place is very costly, some students may not have easy access to high-speed Wi-Fi infrastructure (Badri et al., 2016). Some students explained that the audio sometimes fails, and they cannot hear clearly what their teacher is saying. Meanwhile, if there is no Wi-Fi at the school, they have no way of knowing what is going on (Wong, 2021).

Besides, self-motivation is a prerequisite for hybrid learning (Sudevan et al., 2021). However, many students lack it. Many students fall behind after enrolling in hybrid learning courses and consider giving up because the challenges of navigating a technology medium appear overwhelming. Students have to discover the drive to go along with the latest educational trends and prepare themselves effectively for upcoming challenges in their careers and education. In the synchronous hybrid learning environment, students who follow remotely or online must exercise more self-discipline. This is because the teacher has less control over the students' involvement when he or she is not physically there (Sudevan et al., 2021).

Last but not least, deficits are observed at the institutional level due to the lack of a consistent, unified approach in higher education institutions (Medina, 2018). There are no plans or models for integrating digital technologies into the classroom at the institutional level. As a result, it is typical for teachers to develop their practices, which means that the frequency and consistency of technology use depend on the teacher's interest, resulting in sporadic and inconsistent integration (Medina, 2018). The lack of a common approach on the part of the educational centre will affect higher education students' behavioural intention towards hybrid learning because they do not feel supported by their institution, whether it is from the aspects of teacher support or campus support.

The significant issues mentioned above, such as the usefulness of the hybrid learning system, ease of use, internet accessing, lacking self-efficacy, and lacking teacher and campus support, will lead to low behavioural intention to adopt hybrid learning among higher education students. Therefore, this study will examine the students' behavioral intention toward hybrid learning through six factors: perceived usefulness of hybrid learning system, perceived ease of use, internet access, self-efficacy, teacher support, and campus support.

1.3 Research Objectives

The general and specific objectives are formulated to generate an intent for this research.

1.3.1 General Objectives

To examine the factors affecting higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

1.3.2 Specific Objectives

1. To examine whether there is a significant influence between the perceived usefulness of hybrid learning system and higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

2. To examine whether there is a significant influence between perceived ease of use and higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

3. To examine whether there is a significant influence between internet access and higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

4. To examine whether there is a significant influence between self-efficacy and higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

5. To examine whether there is a significant influence between teacher support and higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

6. To examine whether there is a significant influence between campus support and higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

1.4 Research Questions

We developed general and specific questions linked to problem statements to continue doing this research.

1.4.1 General Research Questions

What factors affecting higher education students' behavioural intention towards hybrid learning in Malaysian private universities?

1.4.2 Specific Research Question

Q1: Is there significant influence between perceived usefulness of hybrid learning system and higher education students' behavioural intention towards hybrid learning in Malaysian private universities?

Q2: Is there significant influence between perceived ease of use and higher education students' behavioural intention towards hybrid learning in Malaysian private universities?

Q3: Is there significant influence between internet access and higher education students' behavioural intention towards hybrid learning in Malaysian private universities?

Q4: Is there significant influence between self-efficacy and higher education students' behavioural intention towards hybrid learning in Malaysian private universities?

Q5: Is there significant influence between teacher support and higher education students' behavioural intention towards hybrid learning in Malaysian private universities?

Q6: Is there significant influence between campus support and higher education students' behavioural intention towards hybrid learning in Malaysian private universities?

1.5 Hypotheses of the Study

In this study, six hypotheses are being developed:

H1: The perceived usefulness of the hybrid learning system significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

H2: The perceived ease of use significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

H3: Internet access significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

H4: Self-efficacy significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

H5: Teacher support significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

H6: The campus support significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

1.6 Significance of the Study

This study is vital to acknowledge the factors affecting higher education students' behavioural intention towards hybrid learning in Malaysian private universities. This research has the potential to benefit a variety of people, including the government, policymakers, institutes, instructors, and future researchers.

This study would contribute to the government by assessing the likelihood of the implementation of hybrid learning in education. The government is committed to advancing academic achievement, and the issue of hybrid learning is discussed concerning the future aspiration of technology-enhanced education in Malaysia. This present study would consider the implementation of hybrid learning since hybrid learning in an educational context has been successfully implemented in other countries. It is believed to be an indicative study for the government since hybrid learning has come into existence in Malaysia's teaching and learning scenario.

Additionally, this study can also become a reference or guide for policymakers. While designing and developing a curriculum or an academic scheme, efforts and costs invested in educational and technological transformations need to be considered. For example, a needs assessment is required before curriculum planning and designing to ensure learning objectives can be derived into effective hybrid learning. If IA significantly influences higher education students' behavioural intention towards hybrid learning, IA could be considered in the needs assessment. Therefore, this study could indicate the factors affecting higher education students' behavioural intention towards hybrid learning in which other necessary solutions can be planned to meet the education objectives.

Further, this study would enhance the institute to create a most efficient hybrid learning system to attract the higher education student's behavioural

intention towards hybrid learning in Malaysian private universities. This would help private universities provide facilities and teachers with training in the effective use of modern technologies as teaching aids.

This study would provide a reference for the instructors to understand higher educational private university students' learning on their behavioural intention towards hybrid learning across individual differences. Instructors may support the higher education private university students' behavioural intention towards hybrid learning based upon the relevant factors to boost hybrid learning effectiveness. Moreover, this study would also help the instructors identify the technological challenges students face in the hybrid learning process.

Although this study only focuses on the factors affecting higher education students' behavioural intention towards hybrid learning in Malaysian private universities, it can also serve as a guideline for future investigations into other factors influencing higher education students' behavioural intentions toward hybrid learning in Malaysia or other countries.

1.7 Chapter Layout

A total of five chapters in this study are as follows:

Chapter 1: Introduction

This research's Chapter 1 serves as an introduction. It gives a synopsis of our study background. The problem statement states the study challenges, which permits us to move forward with the research topic. It also established the study's objectives and hypotheses to be examined. This research's significance is also being debated.

Chapter 2: Literature Review

The theoretical knowledge and model and the conceptual framework are discussed in Chapter 2 of this study's literature review section. The primary purpose of this chapter is to manifest how the research topic is exciting within the study field by explaining what researches, scholars, and writers have done and have not done within the field's issue. It also demonstrates where we stand and how we compare to other pertinent or alike past or current researchers on the suggested research topic. The creation and conclusion of hypotheses are also included in this chapter.

Chapter 3: Methodology

In Chapter 3, we learn about the research methodology. It specifies how the study will be conducted, including the data gathering methodology and sampling design. We also go through the research instrument and how to quantify constructs. This section goes into data analysis and data processing in more detail.

Chapter 4: Research Result

Chapter 4 presents the analysis of the findings that are pertinent to the study objectives and hypotheses. Scale measurement, descriptive, and inferential analyses are all thoroughly evaluated using the Statistical Package for the Social Science (SPSS) software.

Chapter 5: Discussion and Conclusion

Finally, chapter 5 will provide a statistical analysis summary, discussions of critical findings, theoretical and practical implications, research's limitations and recommendations for future study, and the research's comprehensive conclusion.

1.8 Conclusion

In summary, this Chapter 1 outlines the composition of summary and research background, the online primary learning method, Malaysian private higher education institutions, and the implementation of essential online learning in Malaysia. In addition, this chapter outlines our research's problem statement. We may discover the factors affecting higher education students' behavioural intention towards hybrid learning in Malaysian private universities and develop hypotheses based on the variables through the problem statement.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

Chapter 2 covered the review of literature, that included past studies of hybrid learning and a review of variables with definitions provided to help readers comprehend. This chapter also goes through some of the theoretical models pertinent to this research. A theoretical framework is constantly being built to show the link between the variables. The research's hypotheses are formulated at the end of this chapter.

2.1 Review of Past Hybrid Learning Studies

This study proposes to examine the significant influence of perceived usefulness of hybrid learning system, perceived ease of use, internet access, self-efficacy, teacher support, and campus support on higher education student's behavioural intention towards hybrid learning. Based on the research, we found that these variables have different arguments in different research. Neither perceived usefulness nor ease of use has a significant influence on behavioural intention to use hybrid learning (Park, 2009). The research of Hanafizadeh et al. (2014) argued that perceived usefulness significantly influences the behavioural intention of higher education students.

Nevertheless, according to Nguyen (2015), the study shows that internet access has a significant influence on affecting students' behavioural intention. However, Fidalgo et al. (2020) found that internet access does not significantly influence students' behavioural intentions. Still, self-efficacy does not significantly influence a student's behavioural intention (Alqurashi, 2016).

According to Womble (2007), he discovered a significant relationship between self-efficacy and student behavioural intention in hybrid learning contexts.

Besides, teacher support significantly influences the higher education student's behavioural intention towards hybrid learning (Kuar, 2019). Moreover, campus support has a significant influence on students' behavioural intention toward hybrid learning (Powers, et al., 2016; Northey et al., 2015). However, Glazer and Wanstreet (2011) found that campus support does not significantly influence the higher education student's behavioural intention towards hybrid learning. With all these studies on factors affecting higher education student's behavioural intention towards hybrid learning providing mixed results with significant or not significant relationship, thus a clear picture of the significant influence of these factors on higher education student's behavioural intention towards hybrid learning cannot be established.

Table 2.1

Review of Past Hybrid Learning Studies

Author(s)/Year	Research Title/Constructs	Findings/Discussions	Limitations/ Recommendations
Meydanlioglu and Arikan (2014)	Effect of Hybrid Learning in Higher Education	• The use of hybrid learning is more effective than online or FTF models in higher education. • The hybrid format for the lab-based class supplies positive experience in student's learning. • Students enrolled in a hybrid course that integrated online learning management systems had higher estimates of learning activity, higher degrees of satisfaction, and higher communication with teachers than in courses not using the portal. • An increasing number of institutions are interested in developing hybrid courses, programs, and degrees.	**Limitations** •Traditional education becomes integrated into FCT classes due to the increased use of technology and online learning in higher education. **Recommendations** • Evaluate the effectiveness of hybrid learning.

Sameer Mosa AlNajdi (2014)	Hybrid Learning in Higher Education	• Allows a flexible approach to learning process performed collaboratively by the student, the teacher, and the participating experts or institution. • The key feature of hybrid learning is that it can be adjusted according to the needs of the learner, the course, and the other significant indicators, such as pace, time, and space. • Hybrid learning has also been found conceptually effective and applicable in different forms of collaborative learning approaches in cross-disciplines, institutional bridging, and in non-formal settings.	**Limitation** • Less adopted by providers due to drawbacks in terms of applicability, integration, and social effects to learners, and cost restrictions. **Recommendation** • Further studies related to the challenges associated to the adoption of hybrid learning, particularly in distant learning in terms of cost-effectiveness, implications of distant learning in the social belongingness or social presence of the learner, and the faculty-encountered challenges affecting their satisfaction in adopting e-learning systems.
Nawaporn Sampanich (2021)	Investigating Factors Affecting Students' Attitudes Toward Hybrid Learning	• Online learning, classroom learning, online interaction, technology, study management, and learning flexibility had positive views toward hybrid learning. • Some students may not feel comfortable because they are not familiar with online learning as this approach is still new and in a pioneer stage of language learning context, but this approach is suitable for autonomous learners. • Computer literacy plays a significant role in hybrid learning because this factor influenced students' attitudes toward all learning aspects, especially technology.	**Limitations** • Limited to Bangkok University Students only. • Limited to those students who are taking General English courses using a hybrid learning approach. **Recommendations** • This study could be replicated with other groups of students in other universities. • An investigation into other factors that may affect attitudes, such as age, motivation, learning styles, etc.
Kastomova and Gerova (2021)	Use Of Hybrid Learning in School Education in France	• ICT tools in the implementation of hybrid learning offer advantages over face-to-face learning of language disciplines. • Educational practice is at a prominent level and can serve as an example for the implementation of this concept in other countries of the world.	**Limitation** • Limited to the French students only. • The study was conducted at France. **Recommendations** •Maintaining a hybrid system of education, combining physical presence of students in class with distance learning. •Government money should be spent on digital development projects such as training teachers to use computers, hiring new technicians, and buying necessary equipment.

Purahong, Sithiyopasakul, Sithiyopasakul, Anuwongpinit, Archevapanich, and Vichaiva (2021)	Hybrid Learning During the Covid-19 Pandemic of Engineering Students at KMITL, Thailand.	•The students who assessed their satisfaction with the issues of hybrid learning during Covid-19 had a proficient level of satisfaction. •The satisfaction level of project-based learning was at a proficient level. •Knowledge issues applied to the project have a proficient level of satisfaction •Hybrid instructors during Covid-19 had a proficient level of satisfaction.	**Limitations** •Limited to the students, instructors, supporters, and executives of KMITL only. •The study was conducted at Thailand. •The sample size of the study was only limited to 29 students. **Recommendations** •Instructors who handle teaching and learning must design an instructional model for learning under the COVID-19 era for maximum efficiency according to the learning development of Bloom's Taxonomy. •Formed a hybrid teaching-learning model to be consistent with teaching and learning in the situation of the COVID-19 outbreak.

Note. Developed for the research.

Despite the limited past hybrid learning studies on factors that affect higher education students' behavioural intention toward hybrid learning in Malaysian private universities, several research papers have been done on other countries. According to AINajdi (2014), he has studied hybrid learning in higher education in Indina State University, United States. Sanpanich (2021) focused his study on investigating factors affecting students' attitudes toward hybrid learning in Bangkok University International, Thailand. Besides, Kastornova and Gerova (2021) have studied the use of hybrid learning in school education in France. Moreover, Purahong et al. (2021) have studied the hybrid learning during the Covid-19 pandemic of engineering students at KMITL, Thailand. These show that students' behavioural intention toward hybrid learning in Malaysian private universities is still not well researched upon, specifically among higher education students and play a vital role in the education segment.

As a result, a study on perceived usefulness of hybrid learning system, perceived ease of use, internet access, self-efficacy, teacher support, and campus support that affect higher education students' behavioural intention towards hybrid learning in Malaysian private universities is limited. Nonetheless, studies among Malaysian's private universities students have received less attention in the past hybrid learning studies as shown in Table 2.1. Therefore, this is the research gap to be filled up.

2.2 Underlying Theories

2.2.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), as shown in Figure 2.1, is a framework that explains why individuals choose to use or not use certain technologies while completing specific jobs (Wallace & Sheetz, 2014). TAM may also be used to forecast students' adoption intentions toward hybrid learning (Oh & Yoon, 2014). Therefore, TAM is a goal-based model created to explain or anticipate consumer adoption of computer technology (Hu et al., 1999). Many empirical investigations of user adopted hybrid learning have used it as a theoretical foundation (Adams et al., 1992; Mathieson, 1991; Davis et al., 1989; Davis, 1989). According to Hendrick and Brown (1984), "An individual's psychological condition with relation to his or her voluntary or anticipated usage of a certain technology" was characterized as "technology acceptance".

Recent technological advancements have changed participation and communication strategies in conventional university courses. In this setting, particularly during the COVID-19 issue, hybrid learning is becoming more common in Malaysia's higher educational institutions (HEIs) and universities. Computer-based training is directly tied to the educational theory surrounding hybrid learning. The goal is to provide students with courses. Depending on the needs of higher education institutions, a hybrid learning system may be constructed in a variety of ways. Some HEIs merely distribute course materials over the internet, while others have an integrated framework for their hybrid learning system that can be utilize by both recent and distant students (Masrom, 2007). Therefore, the TAM proposes that perceived usefulness and perceived ease of use are the two elements that affect whether a hybrid learning will be adopted by the students (Davis, 1989). Perceived usefulness refers to the user's perception that using the technology will enhance his or her learning performance.

Perceived ease of use and perceived usefulness tend to be the factors that can influence the attitudes of students towards using the hybrid learning system

(Granić & Marangunić, 2019). Both are considered distinct factors influencing the user's attitude towards using the hybrid learning system, though perceived ease of use is also hypothesized to influence perceived usefulness and attitude towards using the system. Perceived ease of use and perceived usefulness tend to be the factors that can influence the attitudes of students towards using the hybrid learning system. At the same time, perceived usefulness is also a term that refers to a student's belief of whether a system may help them improve their learning performance (Rogers, 1995). The element known as perceived usefulness was discovered to significantly affect behavioural intention to use hybrid learning (Alharbi & Drew, 2014).

In contrast, the term "perceived ease of use" refers to a student's belief that a system is simple or straightforward (Rogers, 1995). Also, it can be said that perceived ease of use relates to how simple the user feels that utilizing the technology will be. This phrase is used in this study to refer to the students' thoughts on how they might improve their learning experiences and performance by using this system (Venkatesh & Davis, 2000). However, perceived simplicity of use is also thought to affect perceived usefulness and attitude (Masrom, 2007).

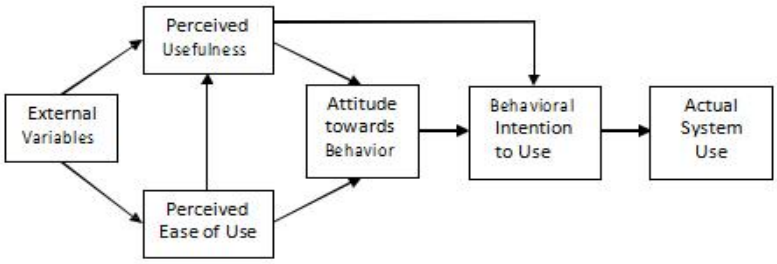


Figure 2.1. Technology Acceptance Model. Adapted from Davis (1989 cited in Masrom and Hussein, 2008, p.52).

TAM can analyze the perceived usefulness of hybrid learning system and perceived ease of use to study higher education students' behavioural intention towards hybrid learning. The theory is suitable for examining a student's attitude toward conduct, which embark on a behavioural intention to use the hybrid learning system, and it works in many studies. Therefore, our study believes that TAM is a suitable tool for analyzing the higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

2.2.2 Theory of Planned Behaviour (TPB)

According to the study, Icek Ajzen created the notion of planned behaviour in 1985, a refinement of the 1980s-developed notion of reasoned action (Kan & Fabrigar, 2017). The goal is to forecast a wide range of behavioural intentions. The Theory of Planned Behaviour (TPB), as shown in Figure 2.2, on the other hand, is being developed, and it is used to explain people's behaviour, intentions, and attitudes. According to some, planned behaviour is also used to analyze and predict human behaviour. It was explained that three aspects might influence behaviour intention: perceived behaviour control, subjective norm, and attitude toward behaviour (Shin & Hancer, 2016).

The TPB raised the component of perceived behaviour control, which addressed the reasonable action theory's weakness. When it comes to perceived behavioural control, it can be said that if a person has a positive attitude and believes he has control over his actions, he will have no problems or impediments when employing hybrid learning. Subjective norms describe an individual's viewpoint, which is influenced by a significant other who will support or oppose their behaviour. In contrast, his attitude toward the behaviour refers to how certain his behaviour goal will result in the desired result.

It aids the researcher in comprehending, determining, and analyzing the part that causes an individual's behaviour to be influenced by anything. The TPB can shed light on this issue at the individual level of analysis, particularly when it comes to using "emergency remote instruction" during the COVID-19 crisis. According to the study, the idea of planned behaviour is used in many different studies in information systems literature. Likewise, the principle of planned behaviour may be used in hybrid learning research (Ajzen, 2006). As a result, hybrid learning is becoming increasingly popular, and it has had a considerable influence on both course delivery and course design. The integration of web-based technology into the learning and teaching process has created new options for students to engage with their classmates, teachers, and course content both within and outside the classroom (Vaughan, 2007).

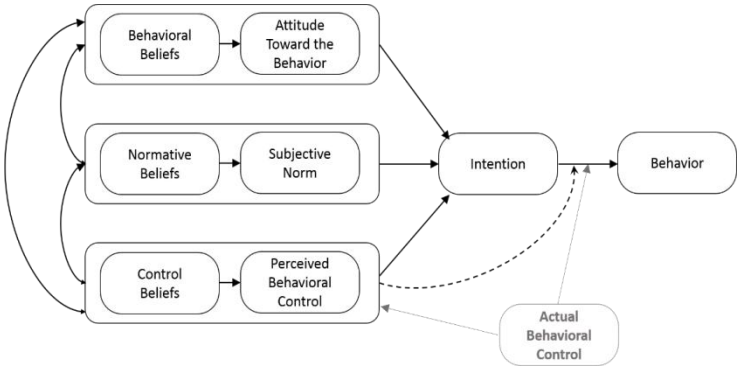


Figure 2.2. Theory of Planned Behaviour model. Adapted from Ajzen (2006).

The TPB has been applied in various sectors, including education, to predict behaviours or design behavioural interventions. Its reputation for foresight has remained unrivalled thus far (Armitage & Conner, 2001). Theory of planned behaviour can analyze internet access, teacher support, and campus support to study higher education students' behavioural intention towards hybrid learning. The theory is suitable to be used in analyzing students' behavioural intentions, and it works in many studies. Thus, our study believes that the TPB is a suitable tool in analyzing higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

2.2.3 Social Cognitive Theory (SCT)

Social-cognitive theory is to explain task-specific self-confidence and how one's degree of confidence affects what one performs (O'Neill & Mone, 1998). According to social cognitive theory, a student will learn knowledge by witnessing something in the social and school environment that would be influenced by his actions later (Cahyono & Asikin, 2019). This notion is known as self-efficacy, and it is seen as a necessary component of behaviour change.

Therefore, Bandura (1977a) used SCT to illustrate self-efficacy. According to Bandura (1977b), self-efficacy is a person's assessment of their ability to plan and carry out the steps necessary to achieve specific findings. Bandura (1977a) discovered that both vicariously and emotively, self-efficacy is favorably related

to behavioural changes. After self-efficacy had been defined, it was time to put it into practice. Bandura (1994) validated the concept of self-effect efficacies on an individual's thinking, motivation, and behaviour intention. Persons who have an elevated level of self-efficacy are able to plan well and complete a task successfully (Bandura, 1986). Such people have faith in their abilities and boldly use them to attain goals, even if they are difficult to execute. Furthermore, Wang et al. (2015) emphasize the importance of self-efficacy in influencing student views. Users consist of strong self-efficacy will approach issues as a provocation rather than call it a day.

Hybrid learning environment aided new understandings of self-efficacy development for students by using a social-cognitive theory to our research (Bennett et al., 2020). Those with high self-efficacy are aware of their abilities and successfully organize their actions, whereas those with low self-efficacy are unable to complete their tasks (Bandura, 1986). Therefore, we believe that SCT is a suitable tool in analyzing higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

2.2.4 Theory of Connectivity

The theory of connectivity is a consistent shift in performance or performance potential that ought to happen as one of the finding of the apprentice's experience and contact with the outside world (Carreno, 2014).

The integration of the concepts covered by the chaos, network, complexity, and self-organization theories is known as the theory of connectivity (Carreno, 2014). The learning process is not totally within the control of the individual and takes place in hazy surroundings with fluctuating fundamental components. The connections that allow us to learn more are more significant than our current level of knowledge since learning may occur outside of ourselves, is centered on joining specialized information sets, and is not limited to oneself (Carreno, 2014). Understanding that choices are made based on principles that change fast is key to the operation of the idea of connectedness.

The Theory of Connectivity is an epistemological perspective that places less emphasis on a person's recollection of what to do, what to believe, or how to create sense. It emphasizes the interactions within networks within and outside the individual's mind (Downes, 2012). The keys to its utility are its implications and functioning. Due to its usage as the epistemological foundation for massive open online courses (MOOCs), it is becoming more controversial and influential (Bell, 2011). Because it is spread by nature, knowledge depends on networks. Dunaway (2011) agrees that "learning occurs when connections are created" and that "knowledge" emerges from a person's learning network as connections are acknowledged.

Theory of Connectivity can analyze internet access to study higher education students' behavioural intention towards hybrid learning. Therefore, we believe that the Theory of Connectivity is suitable for analyzing higher education students' behavioural intention toward hybrid learning in Malaysian private universities.

2.2.5 Social Support Theory (SST)

Don Drennon-Gala (1994) and Francis Cullen (1994) developed the Social Support Theory (SST), which made a distinction between the impacts of social support at the macro and interpersonal levels and focused on how supportive societies and supportive relationships are, respectively (Kort-Butler, 2018). Social resources that a person might use to cope with challenges and stressors in life are often understood as providing social support (Thoits, 1995). Cullen et al. (1999) defined *social support* as transmitting human, cultural, material, and social capital, whether between people or between larger social units (communities, states) and their constituents. Social contacts are a common source of informal help, but formal support can also come from organizations with official statuses, such as government assistance.

According to the SST, it has several dimensions (Thoits, 2011). First, assistance can be viewed as perceived, such as feeling supported or being available, as opposed to receiving, such as reporting that help was given (Thoits,

2011). Second, assistance may take information, emotional support, or both (Thoits, 2011). Providing resources or aid with practical activities or issues is referred to as instrumental support. Informational support is providing advice, direction, or knowledge that might aid someone in resolving an issue. The expression of sympathy, caring, regard, value, or encouragement is a form of emotional support. Third, the source of social support might differentiate it (Thoits, 2011). Significant others, such as family, friends, teachers, and members of the person's primary group, are typically regarded as sources of support. People may also seek assistance from tertiary groups, such as campus and religious organizations, where interactions are less intimate and more regulated or hierarchical. Throughout a person's life, the most crucial sources of support are the level of support in a relationship and the influence of support on behaviour change (Umberson et al., 2010).

The influence on student involvement in learning will improve as teacher assistance grows. Teacher support, therefore, refers to the assistance and feeling of autonomy, emotion, and ability that students develop through instructors (Xiaoyun & Shaoying, 2013). Studies comparing two groups of students revealed that those who feel more teacher support outperform those who perceive less teacher support in terms of academic performance (Gunuc, 2021). Students who feel more supported by their teachers are more motivated to study, which improves their academic achievement. On the other hand, students who get less support from teachers are more likely to concentrate on dodging criticism, which has a detrimental influence on learning efficiency and academic success.

Therefore, this theory is applicable when explaining the influence of teacher support on studying higher education students' behavioural intention towards hybrid learning. We believe that the SST is suitable for analyzing higher education students' behavioural intention toward hybrid learning in Malaysian private universities.

2.2.6 Campus Class Technology Theory (CCT)

The theory of Campus-Class-Technology (CCT) was created by Gunuc (2013). Figure 2.3 shows that the connections between student engagement and technology were conceptually described under the CCT theory. Accordingly, one of the key elements that contributed to students feeling a sense of campus and university belonging, allowing them to spend time on campus, and increasing class participation was the value students placed on university life and education.

Technology had a significant impact on student involvement in the classroom. In order to improve student involvement in the classroom, technological integration must be done effectively. Enhancing student participation in class has advantageous effects and raises academic achievement levels. The CCT hypothesis is cyclical, with academic success and successful findings impacting how much students value learning, going to campus, and feeling like they belong there (Gunuc, 2021).

Generally, utilizing campus resources and integrating technology improves student achievement and engagement. Additionally, increasing student involvement is crucial for achieving excellent student findings. Additionally, students become more engaged and succeed when they use campus resources. The professor's successful use of technology in lectures raises student achievement and class participation (Gunuc, 2021).

Therefore, this theory is applicable when explaining the influence of campus support on studying higher education students' behavioural intention towards hybrid learning. We believe that CCT is suitable for analyzing higher education students' behavioural intention toward hybrid learning in Malaysian private universities.

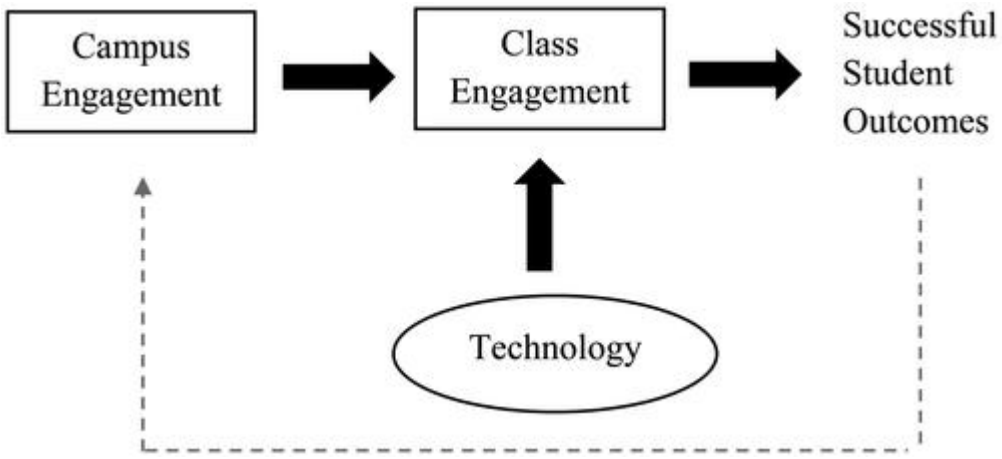


Figure 2.3 Campus-Class-Technology Theory. Adapted from Gunuc (2021).

2.3 Review of Variables

2.3.1 Dependent Variable: Behavioural Intention Towards Hybrid Learning

According to Venkatesh et al. (2003), BI impacts user behaviour. A person's plan to undertake an action is defined as BI (Van Schaik, 2009). BI also refers to the likelihood that an individual will engage in each behaviour (Azjen, 1991; Mathieson, 1991). Meanwhile, Cruz et al. (2014) proposed that a person's BI can explain their behaviour because it entails a personal decision to do a specific future behaviour. According to Karaali et al. (2011), BI holds motivating variables that contribute to user behaviour. The stronger a person's desire to engage in an action, the more likely it will be carried out.

Furthermore, evidence related to the association between intention and behaviour has been growing since the 1980s, according to Azjen's (1991) literature survey. It explained the effect of intention toward behaviour on dispositional prediction. As a result, intention can be used to describe behavioural usage (Azjen, 1991) accurately. Kaaali et al. (2011) and Zawawi et al. (2009), for example, highlighted BI as a direct determinant of an individual's behaviour. The research further emphasized the link between BI and behaviour, proving that BI might lead to actual behaviour.

Moreover, Ajzen (2002) says that purpose is assumed to be the forerunner of behaviour. When an individual has a solid intention towards hybrid learning, there will be a high percentage that the individual will do so (Venkatesh et al., 2000). Furthermore, due to the awkwardness in figuring out the actual level of adoption, the intention to adopt has proven to be a more significant predictor of behaviour than actual adoption (Schuitema et al., 2013). As an example, several studies in educational domains such as hybrid learning (Jamison et al., 2014), e-books (Tri-Agif et al., 2016), and e-learning (Lee, 2010; Ho, 2010) focused on intent rather than actual adoption.

Consequently, BI is measured by requiring an item that refers to a particular behaviour of interest (Sheeran, 2002; Fishbein & Ajzen, 2011). For instance, I intend to be a heavy user of hybrid learning systems and I intend to continue using the hybrid learning environment in the future (Badri et al., 2016; Daghan & Akkoyunlu, 2016).

2.3.2 Perceived Usefulness of Hybrid Learning System (PU)

According to Davis (1986) (as cited in Tahar et al., 2020), perceived usefulness refers to the belief and degree of an individual towards a system where they believe the system could improve their job performance. Davis further defined it as an individual's positive attitude towards the system and intended to use it as the system is helpful for them (Joo et al., 2011). According to Hsieh and Cho (2011), perceived usefulness complements measuring the quality of the learning system, and it could improve the student's performance in hybrid learning. Hybrid learning makes the students have an easier way to learn as it has provided several benefits that could resolve the problem of physical classes, such as the high flexibility on time and geographically, cost-effectiveness, and ease of interaction with teachers (Abi Raad & Odhabi, 2021).

2.3.3 Perceived Ease of Use (PE)

According to Joo et al. (2011), perceived ease of use shows how people believe that using a particular technology would be painless. According to Davis (1989), perceived ease of use clarifies how an individual believes that a specific system is more straightforward to use than another, and the effort needed is less joint. It is more likely to be accepted by others. Perceived ease of use is also defined as when individuals believe that a system can be used with little endeavour or can be used quickly. The system will be more embraced as the technique is simple to use and may be applied to various applications to improve performance (Dhingra & Mudgal, 2019). According to the study done by Drelich-Zbroja et al. (2021), the degree of negative emotions and thoughts during hybrid learning is lesser than traditional learning methods as well as lower degree of mental efforts as it encourages the use of active and adaptive coping strategies.

2.3.4 Internet Access (IA)

According to Tutkun (2011), the internet is a tool that keeps everyone in the world connected, and it is one of the most enthralling aspects of the information age. Internet access refers to the capability of the student to connect to the internet. According to Asio et al. (2021), internet access has become essential for students nowadays to have their education program, especially after the advent of the Covid-19 pandemic has increased student demand for internet access. According to Dogruer et al. (2011), the internet is a tool that could spread and share information at high speed to large receivers without limitation of space and time, and the information could be academic and scientific. However, technology is a critical part and condition that needs to be fulfilled in implementing hybrid learning (Olapiriyakul & Scher, 2006). Thus, students acquire basic technical knowledge and skills of the hybrid learning system to have a better learning experience. According to Jagboro (2003) (as cited in Chirwa, 2018), installing internet access points at the departmental and faculty levels is necessary to boost the usage of the online-basic learning method.

2.3.5 Self-efficacy (SE)

According to Bandura (1997) (as cited in Maddux, 2012), self-efficacy is an individual's belief in their potential to create the effects according to the desired finding. The way individuals think, feel, motivate themselves, and their self-efficacy beliefs influence act. Self-efficacy is focused on the impression or assessment of an individual's ability to achieve a particular goal and cannot be measured internationally (Zulkosky, 2009). A hybrid learning system is an easy and suitable online base source for the student to acquire structured lesson resources and professional tools to help them in acquiring knowledge and learning materials (Zitter & Hoeve, 2012). According to Lischer et al. (2021), it claims that the online base learning method has influenced their mental health by stress and anxiety during hybrid learning due to the uncertainties of study related.

2.3.6 Teacher Support (TS)

According to Amro and Borup (2019), the responsibilities of a teacher in a hybrid learning method include introducing the software to the students, solving the technical problem of the system during the lesson, motivating the student to use the system, supervising students' learning behaviour and personalized learning and supplying extra lesson content to the students. Therefore, teachers' technological skills and knowledge are needed to implement hybrid learning. Teachers are also required to supply the necessary aid to the students regardless of whether it is offline or online (AlNajdi, 2014). Thus, real-time interaction tools are needed during the hybrid learning process. According to Hediansah and Surjono (2020), teachers have a favorable view and belief of hybrid learning as it could improve independence during the interaction between teachers and students. However, the mental status of a student must be different compared to the physical class.

2.3.7 Campus Support (CS)

Technology could supply a better teaching and learning environment when the lesson is using technology effectively (Sharma, 2019). Thus, the education institution is providing technical support to the student when facing technical problems during the hybrid learning process since not all the students are familiar with the technology (Kenney & Newcombe, 2011; Zhu et al., 2021). According to Matukhin and Zhitkova (2015), technical support is essential for the institution that applies hybrid learning as the technical support is the database of teaching materials, database's control system, teaching methods, tests, as well as the suggestions for hybrid learning technologies in terms of didactic and psychological factors.

2.4 Proposed Conceptual Framework

We presented the conceptual framework for this study, as shown in Figure 2.3, based on the theoretical debate and literature review. This research examines the independent variables (perceived usefulness of hybrid learning system, perceived ease of use, internet access, self-efficacy, teacher support, and campus support) has a significant influence on the dependent variable (higher education student's behavioural intention toward hybrid learning) in Malaysian private universities.

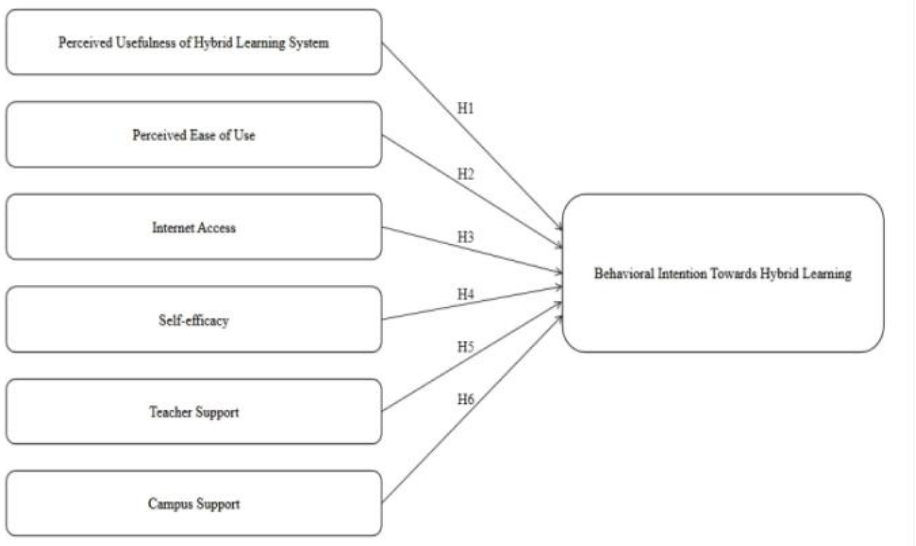


Figure 2.4. Proposed Conceptual Framework. Developed for the research.

2.5 Hypotheses Development

2.5.1 Relationship Between Perceived Usefulness of Hybrid Learning Systems and Perceived Ease of Use with Higher Education Students' Behavioural Intention Towards Hybrid Learning

The perceived usefulness of hybrid learning systems plays a vital role in affecting higher education students' behavioural intention toward hybrid learning. The relationship between perceived usefulness and ease of use, and behavioural intention of hybrid learning showed mixed results (Park, 2009). The perceived usefulness and perceived ease of use has a significant influence on behavioural intention to utilize hybrid learning (Park, 2009). Nowadays, learning to use the Internet is often thought to be simple, and the advantages of studying through the Internet are familiar to students. Therefore, neither of these two cognitive structures can significantly influence university students' willingness to use network learning. Instead, these structures influence people's attitudes towards hybrid learning, and their attitudes also influence their willingness to use it.

Furthermore, perceived usefulness and ease of use are not significant influence on university students' willingness to utilize hybrid learning as these structures are associated with attitudes towards hybrid learning (Park, 2009). Ignoring these structures can adversely influence users' acceptance of information technology. For example, once less user-friendly hybrid learning content and hybrid learning systems are being developed, it will then lead to less satisfaction. This satisfaction, in turn, inspires students to have less intentions toward hybrid learning.

In addition, a previous study shows that as users' perceived ease of use increases, perceived usefulness also increases. For instance, students were optimistic about using hybrid learning systems when they thought it was easy to use. Similarly, perceived usefulness increases the degree of positivity to use and thus influences the behavioural intent. Thus, perceived ease of use and usefulness

significantly influenced higher education students' behavioural intention toward hybrid learning, which explains how ease of use, benefits, and positive attitudes can increase participation (Davis, 1989). Li et al. (2012) found that perceived usefulness and perceived ease of use significantly influence system functions because the system interaction will affect the user's willingness to use a hybrid learning system.

The studies of Hanafizadeh et al. (2014) also argued that perceived usefulness significantly influences the behavioural intention of higher education students. For instance, students' willingness to use a hybrid learning system in a specific activity is based on their knowledge and belief of its desirability and its merit to everyday pursuits (Hanafizadeh et al., 2014). Perceived usefulness has been actually recognized and proved to have a significant positive influence on intention of usage. More particularly, hybrid learning systems (Chen and Tseng, 2012). Therefore, the more optimistic the use intention of the hybrid learning system is when the individual perceives its usefulness, the more likely he or she is to use it.

In hybrid learning, perceived ease-of-use is related to individual users' belief of ease-of-use in the use of systems related to the completion of hybrid learning responsibilities (Davis, 1989). It clarifies that perceived usefulness is affected by perceived ease of use and that when users realize technology simple to use, their belief is that the technology is advantageous. Therefore, this supplies a causal relationship between these two basic concepts: perceived ease of use and perceived usefulness are the primary indicators.

Studies have proved its influence on individuals' willingness to use hybrid learning (Chen and Tseng, 2012). For evidence, the more expected students perceive the less physical and mental effort needed to adopt a hybrid learning system in their academic activities, the more positive or probable their intention to use it and it is more likely to be used (Mohammadi, 2015). When the perceived usefulness of a hybrid learning system and perceived ease of use are high, the higher education student's behavioural intention toward hybrid learning will also be high. Therefore, this research proposed the hypotheses as follows:

H1: The perceived usefulness of the hybrid learning system significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

H2: The perceived ease of use significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

2.5.2 Relationship Between Internet Access And Higher Education Students' Behavioural Intention Towards Hybrid Learning

Due to the development of information technology in the 21st century, everyone is not to be separated from technology (Martha et al., 2018). Internet accessibility plays a role in affecting higher education students' behavioural intention toward hybrid learning. The relationship between internet access and behavioural intention toward hybrid learning shows mixed results from several kinds of research. The study shows that internet access has a significant influence on affecting students' behavioural intention (Nguyen, 2015). When students have access to the internet, they can receive a top-class education from anybody, any time, and anywhere.

However, many family members have to utilize the Internet at the same time to work, take lessons, and go through their daily lives, especially amid the Covid-19 pandemic, the connection of the internet is an issue of concern (Hussein et al., 2020). Students had difficulty accessing the Internet due to the UAE (United Arab Emirates) is one of the wealthiest countries globally, with 91 per cent of residents utilizing mobile Internet and more than 98 per cent of households having Internet access despite the exceptional circumstance (Knoema, 2018). Students who reported internet accessibility issues, in contrast with the finding of Fidalgo et al. (2020), found that UAE students were not self-assured in their home internet connectivity and reliability. This has shown that internet access does not significantly influence students' behavioural intentions.

Internet access affects higher education students' behavioural intention toward hybrid learning, referring to previous studies on the relationship between internet access and behavioural intention (Adnan & Anwar, 2020). For instance, when there is high internet accessibility, Malaysian private university higher education students will have high behavioural intentions toward hybrid learning. Due to the Covid-19 pandemic worldwide, including in Malaysia, most institutions are shifting physical learning towards hybrid learning. Thus, the following hypothesis has been developed to examine further whether internet access has a significant influence on higher education students' behavioural intention toward hybrid learning in Malaysian private universities.

H3: Internet access significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

2.5.3 Relationship Between Self-Efficacy And Higher Education Students' Behavioural Intention Towards Hybrid Learning

Bandura (1977) points out that self-efficacy plays a crucial role in affecting behaviour and motivation. The mixed results show that self-efficacy, significantly and not significantly, influences higher education students' behavioural intentions. Self-efficacy does not significantly influence a student's behavioural intention (Alqurashi, 2016). Similarly, Simmering et al. (2009) discovered that self-efficacy is unrelated to a willingness to study in hybrid courses. Therefore, self-efficacy has the potential for practical application in developing and managing hybrid learning in universities.

Lim (2000) considers self-efficacy as the main factor that significantly influences users' behavioural intention with hybrid learning systems to pursue hybrid courses. Womble (2007) discovered a significant relationship between self-efficacy and student behavioural intention in hybrid learning contexts. It is revealed that self-efficacy is one of the critical determinants of student

behavioural intention in hybrid learning system contexts, according to finding from another study (Wu et al., 2010).

Pellas (2014) discovered that self-efficacy had a positive relationship with students' cognitive and emotional engagement elements but a negative relationship with behavioural components in the research of 305 university students studying hybrid courses. Self-efficacy is a highly essential and critical aspect of students' behavioural intention with hybrid learning, according to Lee and Hwang (2007), who provided a model for quantifying hybrid learning effectiveness. As a result, when self-efficacy is high, the higher education student's behavioural intention toward hybrid learning will also be high. Therefore, this research proposed the hypothesis as follows:

H4: Self-efficacy significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

2.5.4 Relationship Between Teacher Support And Higher Education Students' Behavioural Intention Towards Hybrid Learning

Teachers play the most critical roles in every education process because they are the leading role in the educational job in the educational institution (Kuar, 2019; Murati, 2015). The relationship between teacher support and behavioural intention toward hybrid learning shows mixed results from several kinds of research. In the hybrid learning system environment, Schoonenboom (2014) found no correlations between the tools and tasks used by lecturers or teachers. The academic workload is negatively influenced by the time commitment required by the instructional design of hybrid learning (Ibrahim & Nat, 2019). Further, according to Ibrahim and Nat (2019), teacher support, either mental or physical support, will decrease when the workload rises. These have shown that teacher support does not significantly influence students' behavioural intentions toward hybrid learning.

In classroom management, teachers handle controlling, encouraging, aiding, assessing, and tutoring the learning process of each student to ensure the students are gained through the learning process (Kuar, 2019). Teachers are an integral part of students' learning process; therefore, teachers will directly affect students' results, including academic performance, behavioural, belief, and attitude. This has shown that teacher support significantly influences the higher education student's behavioural intention towards hybrid learning.

Unlike transitional learning methods, hybrid learning methods have different requirements for teachers. The hybrid learning method has transformed the role of teachers in the classroom into a trainer or mentors instead of a knowledge provider because students in hybrid learning are required more outstanding guidance from the teachers as hybrid learning advocates for students to have a self-management learning process (Sharma, 2019). Compared to traditional teaching methods, teachers will significantly influence students in hybrid learning methods. Therefore, teachers' support is the main factor that could affect the quality of the hybrid learning process. The teacher's support plays a significant role in hybrid learning that lasts long and is successful (Jeffrey et al., 2014). As a result, the higher the teacher supports, the higher the higher education students' behavioural intention towards hybrid learning. Thus, the following hypothesis has been developed:

H5: Teacher support significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

2.5.5 Relationship Between Campus Support And Higher Education Students' Behavioural Intention Towards Hybrid Learning

Many post-secondary institutions supply technical support to the students, like the Microsoft Teams account and Google Classroom account, to let them attend the class through these online applications. According to Heggart and Yoo (2018), Google Classroom encourages students to take part and learn more, but it also improves classroom dynamics at the tertiary level. Furthermore, Iftakhar (2016) said that Google Classroom encouraged collaborative learning. Moreover, the technical support from campus significantly influences the learning satisfaction of the student, making them more active in the learning of hybrid classes (Zhu et al., 2021). This can be said that campus support has a significant influence on students' behavioural intention toward hybrid learning (Powers et al., 2016; Northey et al., 2015).

However, Glazer and Wanstreet (2011) found that both on-campus and online synchronous hybrid students experience experiences of social isolation is not significantly influence the higher education student's behavioural intention towards hybrid learning because the incompatibility of varied attendance patterns constrains their interactions. Besides, Cotler et al. (2013) examined class involvement and perceived stress in a hybrid business programme and found that students reported less stress in online sessions than in on-campus sessions. According to previous studies, we can say that campus support has mixed results on higher education students' behavioural intention toward hybrid learning. For instance, the higher the campus support provided, the higher the behavioural intention of higher education students toward hybrid learning. Therefore, this research proposed the hypothesis as follows:

H6: The campus support significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

2.6 Conclusion

In summary, the literature on hybrid learning, independent factors, dependent variables, and related theory are all discussed in this chapter. It sheds light on our study's topic of factors affecting higher education students' behavioural intention toward hybrid learning in Malaysian private universities. The proposed framework is constructed in this chapter. Hypotheses are also formed to carry on to the research methodology in the following chapter.

CHAPTER 3: METHODOLOGY

3.0 Introduction

In Chapter 3, the research methodology is discussed. The procedures used to collect data for a research project are referred to the methods used, and it is an essential aspect of this dissertation. This chapter will identify the research design, data collection methods, sampling design, instrument, construct measurement, data processing, and data analysis.

3.1 Research Design

A research design is refer to a structural framework for a researcher's use of many research methods and procedures (Team Leverage Edu, 2022). It relates to the decision between qualitative and quantitative research methods ("Research Design - Research Methodology," n.d.). Quantitative methods are used for research instrument in this study. The quantitative method is defined as collecting and interpreting numerical data (Bhandari, 2021). The quantitative method allowed us to identify a very particular and fixed problem of research, and we used questionnaires to collect data from the respondents.

Further, there are three research design methods: causal, descriptive, and exploratory research design. Descriptive research tries to characterize a population, circumstance, or phenomenon methodically and precisely (McCombes, 2020). It can answer the questions of where, when, what, and how, but not why. While exploratory research is a process that looks at research questions that have not been thoroughly investigated before (George, 2022). However, causal research was used in this study. Causal research is a form of study that decides if two

events have a cause-and-effect relationship (Indeed Editorial Team, 2021). It can determine the causes of procedures and evaluate the consequences of changes in current norms ("Causal Research (Explanatory Research)," n.d.).

The cause-and-effect relationship between the independent and dependent variables are determined by using the causal research in our study. The causes are the independent variables, whereas the effect is the dependent variable in this study. We chose to use casual research since the aim of this study is to examine the factors affecting higher education students' behavioural intention toward hybrid learning in Malaysian private universities. We able to recognize the cause-and-effect relationship between factors that are perceived usefulness of hybrid learning system, perceived ease of use, internet access, self-efficacy, teacher support, and campus support while the effect on higher education student's behavioural intention toward hybrid learning in Malaysian private universities.

3.2 Data Collection Method

A systematic procedure of obtaining observations or measurements is known as data collection (Bhandari, 2022). The data collection method can be broken down into two techniques that are primary data and secondary data (Simplilearn, 2020). Primary data is the information gained firsthand by the researcher, while secondary data is the information gathered previously by another party other than the user (Surbhi, 2020).

3.2.1 Primary Data

The information obtained directly from sources by researchers utilizing procedures such as interviews, questionnaires, and experiments is referred to as primary data in this study (Formplus Blog, 2020). In essence, our inquiries are designed to elicit information that will aid us in the investigation. Primary data is usually acquired directly from the source—where the data came from—and is

contemplated the most significant type of data in research. Primary data sources are typically chosen and adjusted to satisfy a particular research project (Formplus Blog, 2020). Before deciding on a data collection source, it is also necessary to figure out what the research's aim is and who the target population is.

Questionnaires were applied to obtain primary data in this research. A questionnaire is a research instrument that involves a set of questions meant to gather information from respondents (Mcleod, 2018). It can be done in the form of a written interview. We need to collect substantial amounts of data from many people. Therefore, questionnaires enable us to collect data rapidly (Mcleod, 2018).

In addition, the questionnaire's questions were fixed-alternative questions, which helped us save time when compared to open-ended response questions. Furthermore, the questionnaire questions aided us in answering our research hypotheses and research questions. We used the SPSS software to examine all the data from the questionnaire after generating it.

3.2.2 Secondary Data

Primary data was applied in this study because this research subjects to understand the behavioural intentions of higher education students. Secondary data was not used in this study. Nonetheless, data from sources such as the internet, publications, professional journals, and textbooks were incorporated (Sekaran & Bougie, 2009). Research reports, theses, institute websites, official reports, publications, and professional journal articles were used in our study. They are utilized to support the inquiry of primary data and the questionnaire design. We accessed the internet to identify applicable reports, theses, journals, and articles pertinent to our study. Primary data became more particular due to the information acquired, and we were able to find the gaps, shortages, or further information that needed to be gathered. Higher education is any of many types of education provided in post-secondary institutions of learning and usually leads to the

awarding of a named degree, diploma, or certificate of higher studies after a term of study.

3.3 Sampling Design

3.3.1 Target Population

A population is defined as a group of individuals, whether the group understands a nation or a class of people who share a common characteristic in a similar environment (Momoh, 2021). More specifically, the target population is the group of potential respondents that have consistent or relevant interest for the researcher to assess the nature of a particular population after the fine selection from the general population (Asiamah et al., 2017). In this study, higher education students who study in Malaysian private universities will be our target population. We have selected the students from eight Malaysian private universities as the target population of this study, the estimated private higher education students' figure of 116,000 will be the target population in this study.

Table 3.1

Number of Students from Selected Private Universities as of 2021

Private Universities	Number of Students	Sources
Universiti Tunku Abdul Rahman	20,000	Universiti Tunku Abdul Rahman, 2022
Tunku Abdul Rahman University of Management and Technology	28,000	Rajaendram, 2022
INTI University	13,000	INTI International University & Colleges, 2022
UCSI University	12,000	UCSI University, 2022
Sunway University	8,000	Sunway University, 2022
HELP University	11,000	Study Malaysia, 2022
Multimedia University	18,000	Times Higher Education (THE), 2021
Taylor University	6,000	Sharifstudy, 2022
Total	**116,000**	

Note. Developed for the research.

These private universities have implemented hybrid learning methods during the pandemic. Although these selected private universities accounted for only 8 out of the 51 total private university in Malaysia, the total students are 116,000 students as shown in Table 3.1, which are the 41% of the total private university student in Malaysia that is around 280,000 students. Additionally, all the selected private universities have the potential to better facilitate and efficiently execute hybrid learning in the future due to greater resources and opportunities, for instance, easier access to funding. Therefore, selected private universities are proper to this research.

3.3.2 Sampling Frame and Sampling Location

The sampling frame shows the listing of selected respondents suitable for the research from the target population (Turner, 2003). However, we are unable to get the name list of private higher education students in Malaysia, thus we unable to obtain the sampling frame. While the sample location is the destination or location where the research is going to be done, or the data will be collected. The selected private universities are in 4 states of Malaysia which are Perak, Selangor, Negeri Sembilan, and Kuala Lumpur. Since we distribute the questionnaire online, our research is not restricted to specific locations.

3.3.3 Sampling Elements

A sampling element shows the target that could act as the respondent of this study. All the students from higher educational institutions that experienced hybrid learning in their study are entitled to be involved in this study by filling up the questionnaire. Therefore, higher education students who studied in private universities will be involved in filling up the questionnaire. They could provide us with information regarding the factors affecting their behavioural intention toward hybrid learning by responding the questions in the questionnaire.

3.3.4 Sampling Technique

Convenience sampling that categorized in non-probability sampling, is used in this research. This is due to the population is large and found in various locations. The targeted respondents had to take part in the study after their identification had been proved as higher education students. Due to the lack of a population list, the probability sampling method is not suitable for this study.

Furthermore, snowball sampling is also used in this study. Snowball sampling is a technique for reducing bias and keeping confidentiality during sampling (Penrod et al., 2003). In the team of research, there have no relationship to the selected private institutions. So, we need to send the questionnaire to our friends who studied in those selected private institutions, and they will then distribute the questionnaires to their colleague once they have completed and keep distributing to let out questionnaires send to more private higher education students. The questionnaires will gradually gather traction among the institutions, enlarging the number of respondents like a rolling snowball grows larger and larger.

Judgment sampling, also known as judgmental sampling or authoritative sampling, has also being used in this research. Judgmental sampling is a non-probability sampling approach in which the researcher selects sample units based on his prior knowledge or professional judgement (Alchemer, 2021). When only a small number of people possess the attribute that a researcher is interested in, judgement sampling is most effective. For instance, we have designed two screening questions in the questionnaire that ask about whether the respondent is a higher education student and if he or she has experienced hybrid learning before.

3.3.5 Sampling Size

Sampling size defines the total number of respondents from the target population and is considered the representative. Because a full population study would be too large and costly to execute, setting up a sampling size will be the most cost-

effective and time-efficient way to carry out a study. In our study, the targeted population was 116,000 of higher education students in Malaysian private universities. The simplified sample size decision was given in a table by referring to the population size, based on Krejcie and Morgan (1970). According to Krejcie and Morgan Table as shown in Table 3.2, our study population is within the class of 75,000 and 1,000,000 population size and the sample size will be at least 384 respondents. The sampling size would be inflated to 500 due to we take into consideration for the low response rate from the respondents.

Table 3.2
Table for Determining Sample Size for a Finite Population

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

Note.—*N* is population size. *S* is sample size.
Source: Krejcie & Morgan, 1970

Note. Adopted from Krejcie & Morgan. (1970). Developed for the research.

3.4 Research Instrument

3.4.1 Questionnaire Survey

Questionnaires were chosen as the research tool in this study because they allow researchers to obtain a large amount of data from many people. Furthermore, we designed our questionnaire by adopting and adapting questions from questionnaires that were created by past studies researchers as shown in Table 3.3. The questionnaire's questions were fixed-alternative questions, which means respondents are only given a few options to pick. It can ensure consistency in responses. As a result, it is more accessible to code and key in the input when we wish to receive an output, such as a reliability test.

A month has been spent collecting questionnaires from academic publications and delivering them to respondents. There are altogether three sections in the questionnaire. In Section A, there are seven questions about the individual's background. Gender, age, state, ethnicity, religion, university, and degree of education. Aside from demographic inquiries, two questions are used as a filter to weed out unqualified survey participants. Section B is devoted to the perceived usefulness of a hybrid learning system, internet access, perceived ease of use, self-efficacy, teacher support, and campus support. There is a sum of 29 questions in Section B.

On the other hand, Section C asks five questions about the private higher education student's behavioural intention toward hybrid learning in Malaysia. The five-point likert scale, that ranges from "strongly disagree" to "strongly agree," is used for most questionnaires. According to Marton-Williams' (1986) study (cited in Alharbi & Sayed, 2017), a five-point likert scale helped respondents understand and articulate their thoughts. Furthermore, using a five-point scale can result in less frustration and enhanced response rate and quality (Babakus & Mangold (1992) as cited in Buttle, 1996). The questions are all designed reasonably. The affirmative question is the best fit because this study is primarily concerned with

the factors affecting higher education students' behavioural intention toward hybrid learning in Malaysian private universities.

Finally, at least 384 sets of questionnaires were being distributed to target respondents. Each respondent was given enough time to finish the survey in order for them to interpret and analyse the question. As a result, the information gathered will be more reliable.

3.4.2 Pre-test

Before we design our questionnaire, we conduct pre-tests to confirm that our questions are pertinent, and the comprehension from the sight of the respondents. Pretesting also aids in the reduction of mistakes in our questions and ensures that respondents clarify the survey in the similar way as we do. Our supervisor, Ms. Seow Ai Na, reviewed the questionnaires before authorized by the UTAR Scientific and Ethical Review Committee (SERC), after that we made a minor amendment based on the feedback.

Table 3.3

Measurement Items

Original Scale Items	Modified Scale Items
E-learning will make it easier for me to learn.	Hybrid learning system will make it easier for me to learn.
E-learning will help me to accomplish study tasks more quickly.	Hybrid learning system will help me to accomplish study tasks more quickly.
E-learning will help me to obtain a better grade.	Hybrid learning system will help me to obtain a better grade.
E-learning will help me to improve the quality of my projects.	Hybrid learning system will help me to improve the quality of my projects.
Using the e-learning system in my study increases my productivity.	Hybrid learning system will help me to increase my productivity.
I expect that it will be easy for me to become skillful at using an e-learning system.	I expect that it will be easy for me to become skillful at using an e-learning system.
I expect that I will find an e-learning system easy to use.	I expect that I will find a hybrid learning system that is easy to use.
It is easy to acquire knowledge by using web-based e-learning systems to advance studies.	It is easy for me to get knowledge by using hybrid learning systems to advance my studies.
Interacting with Moodle does not require a lot of mental effort.	I expect that interacting with hybrid learning system does not require a lot of mental effort.

I find it easy to get Moodle to do what I want to do.	I find it easy to get hybrid learning system to do what I want to do.
I am among the first in my circle of friends to acquire new technology.	I am among the first in my circle of friends to get modern technology.
I have the technological knowledge and skills necessary to use e-learning.	I have the technological knowledge and skills necessary to use hybrid learning.
I am convinced that I am able to successfully learn all relevant subject content even if it is difficult.	I am convinced that I am able to successfully learn all relevant subject content by using hybrid learning system even if it is difficult.
I am convinced that I can develop creative ways to cope with the stress that may occur while taking this course.	I am convinced that I can develop creative ways to cope with the stress that may occur while using hybrid learning system.
The Division of ICT provides me with an e-learning service with a high level of technical security.	The campus has IT technical support who can provide me with an hybrid learning service with a high level of technical security.
The Division of ICT provides me with data management advice and consultancy.	The campus has IT technical support who can provide me with data management advice and consultancy.
The Division of ICT enables me to receive and exchange information and knowledge with lecturers and other students by using (e.g. electronic linkages and software applications).	The campus has IT technical support who can enable me to receive and exchange information and knowledge with lecturers and other students by using electronic linkages and software applications.
The Division of ICT provides me with a wide range of facilities to perform e-learning activities, such as access to the library.	The campus has IT technical support who can provide me with a wide range of facilities to perform hybrid learning activities, such as access to the library.
I intend to be a heavy user of e-learning systems.	I intend to be a heavy user of hybrid learning mode.
I would use e-learning systems to obtain class notes and lecture outlines.	I would use hybrid learning systems to obtain class notes and lecture outlines.
I would use e-learning systems to make contact with the teacher.	I would use hybrid learning systems to contact the tutor or lecturer.
I would use e-learning systems to get help with studying for assignments and exams.	I would use hybrid learning systems to get help with studying for assignments and exams.
I intend to continue using the online learning environment in the future.	I intend to continue using the hybrid learning environment in the future.

Note. Developed for the research.

3.4.3 Pilot Study

A pilot study is one type of prediction test in which a small number of questionnaires are sent to ensure the questionnaires' accuracy, internal consistency, and reliability (Trakulmaykee et al., 2013). Prior to the actual inquiry, the pilot test supplies a chance to find and correct any possible issues in the questionnaires (Dikkow, 2016). In our pilot study, we allocate questionnaires to the higher education students who studied in UTAR, INTI University, Sunway University, Taylor's University, Multimedia University, TARUMT, UCSI University, and HELP University by using Google Form. We only distribute 30 sets of questionnaires to target respondents due to the bigger population size. We

received a total of 30 responses through Google Form. After collecting all 30 sets of questionnaires, there are no unusable data. We use SPSS to run the reliability test for 30 sets of data. Table 3.4 displays the results of the pilot study's reliability.

Table 3.4

Results of Reliability of Pilot Study

Constructs	Number of Items	Cronbach's Alpha
Perceived Usefulness of Hybrid Learning System (PU)	5	0.820
Perceived Ease of Use (PE)	5	0.820
Internet Access (IA)	5	0.833
Self-efficacy (SE)	5	0.786
Teacher Support (TS)	4	0.753
Campus Support (CS)	5	0.900
Behavioral Intention Towards Hybrid Learning	5	0.777

Note. Developed for the research.

3.4.4 Data Collection

According to Khalid et al. (2012), data collection is critical because data collected via questionnaires must be correct and aim for examination. Questionnaires were distributed to higher education students who studied at MMU, UTAR, TARUMT, UCSI, INTI, Taylor's, Sunway, and HELP using social media platforms such as Facebook, WhatsApp, and Instagram. All the questionnaires were collected once the respondents answered them completely. Five hundred sets of completed questionnaires were then well received. When certain data is missing from a questionnaire, it will be rejected. Some respondents did not finish answering the questionnaires due to time constraints, impatience, and omission of some questions. As a result, incomplete questionnaires were excluded from our study.

3.5 Constructs Measurement

3.5.1 Origins of Constructs

The items from each of the constructs in this study have been adopted and adapted from past studies. The origin of the taken construct is shown in Table 3.5.

Table 3.5

Origins of Constructs

Variables	Code	Items (Question)	Sources
Perceived Usefulness of Hybrid Learning System (PU)	PU1	Hybrid learning system will make it easier for me to learn.	Adopted and adapted from Badri, Al Rashedi, Yang, Mohaidat & Al Hammadi (2016)
	PU2	Hybrid learning system will help me to carry out study tasks more quickly.	
	PU3	Hybrid learning system will help me to obtain a better grade.	
	PU4	Hybrid learning systems will help me to improve the quality of my projects.	
	PU5	Hybrid learning system will help me to increase my productivity.	Adopted and adapted from Alsabawy, Cater-Steel & Soar (2016)
Perceived Ease of Use (PE)	PE1	I expect that it will be easy for me to become skillful at using a hybrid learning system.	Adopted and adapted from Badri, Al Rashedi, Yang, Mohaidat & Al Hammadi (2016)
	PE2	I expect that I will find a hybrid learning system that is easy to use.	
	PE3	It is easy for me to get knowledge by using hybrid learning systems to advance my studies.	Adopted and adapted from Chen & Tseng (2012)
	PE4	I expect that interacting with hybrid learning system does not require a lot of mental effort.	Adopted and adapted from Islam (2013)
	PE5	I find it easy to get hybrid learning system to do what I want to do.	
Internet Access (IA)	IA1	I have a high-speed connection to the Internet.	Adopted from Badri, Al Rashedi, Yang, Mohaidat & Al Hammadi (2016)
	IA2	I have convenient access to the Internet.	
	IA3	I have easy access to the Internet to enter the web while on campus.	Adopted from Rasmitadila, Widyasari, Humaira, Tambunan, Rachmadtullah & Samsudin (2020)
	IA4	I have free Internet use on campus to enter the web.	
	IA5	I can access the Internet at any time on campus.	

Self-efficacy (SE)	SE1	I am among the first in my circle of friends to get modern technology.	Adopted and adapted from Badri, AI Rashedi, Yang, Mohaidat & AI Hammadi (2016)
	SE2	I have the technological knowledge and skills necessary to use hybrid learning.	
	SE3	I am convinced that I can successfully learn all relevant subject content by using hybrid learning system even if it is difficult.	Adopted and adapted from Latip, Noh, Tamrin & Latip (2020)
	SE4	Even if I get distracted during learning, I am confident that I can continue to learn well.	
	SE5	I am convinced that I can develop creative ways to cope with the stress that may occur while using hybrid learning systems.	
Teacher Support (TS)	TS1	The tutors or lecturers at campus are capable of handling online subjects if asked to do so.	Adopted from Badri, AI Rashedi, Yang, Mohaidat & AI Hammadi (2016)
	TS2	The tutors or lecturers on campus are competent IT users.	
	TS3	The tutors or lecturers on campus have a positive attitude toward IT.	
	TS4	The tutors or lecturers at campus supply real time interaction tools, such as text messages, chat rooms or video calls.	Adopted from Ayuni & Mulyana (2019)
Campus Support (CS)	CS1	The campus has IT technical support person(s) whom I can turn to if I face technical problems.	Adopted from Badri, AI Rashedi, Yang, Mohaidat & AI Hammadi (2016)
	CS2	The campus has IT technical support who can provide me with a hybrid learning service with a prominent level of technical security.	Adopted and adapted from Alsabawy, Cater-Steel & Soar (2016)
	CS3	The campus has IT technical support who can provide me with data management advice and consultancy.	
	CS4	The campus has IT technical support who can enable me to receive and exchange information and knowledge with lecturers and other students by using electronic linkages and software applications.	
	CS5	The campus has IT technical support who can provide me with a wide range of facilities to perform hybrid learning activities such as access to the library.	
Hybrid Learning Behavioral Intention	BI1	I intend to be a heavy user of hybrid learning mode.	Adopted and adapted from Badri, AI Rashedi, Yang, Mohaidat & AI Hammadi (2016)
	BI2	I would use hybrid learning systems to obtain class notes and lecture outlines.	
	BI3	I would use hybrid learning systems to contact the tutor or lecturer.	
	BI4	I would use hybrid learning systems to get help with studying for assignments and exams.	
	BI5	I intend to continue using the hybrid learning environment in the future.	Adopted and adapted from Dağhan & Akkoyunlu (2016)

Note. Developed for the research.

3.5.2 Research Questionnaire Sections Management

This research survey was separated into three sections that are Section A, Section B, and Section C as shown in Table 3.6 to make it easier for respondents to understand while filling out the questionnaires.

Table 3.6

Sections Content of the Research Questionnaire

Section	Content	Items
A	Respondent Demographic Profile	6
B	Independent Variables: Perceived Usefulness of Hybrid Learning System, Perceived Ease of Use, Internet Access, Self-efficacy, Teacher Support, and Campus Support.	29
C	Dependent Variable: Higher Education Student's Behavioral Intention Towards Hybrid Learning	5

Note. Developed for the research.

3.5.3 Scale of Measurement

3.5.3.1 Nominal Scale

According to the research of Admin (2020), the nominal scale is the primary level of the measurement scale, in which numbers are used as "labels" to classify or name objects. The nominal scale is convenient and straightforward without any numerical variables or integers. Therefore, in our study, questions about gender, ethnicity, religion, and the name of a private university have been measured by using a nominal scale. Table 3.7 shows an example of a nominal scale used in this study.

Table 3.7

Example of Nominal Scale in Research Questionnaire

Gender:
Male
Female

Note. Developed for the research.

3.5.3.2 Ordinal Scale

The ordinal scale is a type of variable measurement scale used to show the order of variables rather than the differences between them (QuestionPro, 2021). These scales commonly stand for non-mathematical concepts like frequency, pleasure, happiness, pain level, and others. The implementation of this scale is simple to remember because 'Ordinal' sounds like 'Order,' which is precisely the aim of this scale. In this study, questions about age and level of education have been measured by using an ordinal scale. Table 3.8 shows an example of an ordinal scale used in this study.

Table 3.8

Example of Ordinal Scale in Research Questionnaire

Age:
19 to 20 years old
21 to 23 years old
24 to 26 years old
27 years old and above

Note. Developed for the research.

3.5.3.3 Interval Scale

The interval scale is referred to the level of measurement in which the traits that make up variables are measured on numerical scores or values and equal distances between them (Salkind, 2010). An interval is a distance between two consecutive qualities, and intervals are always equal. The Likert scale is commonly used in questionnaire to figure out the degree of respondents' agreement with the statement. The Likert scale has five basic measures, which are Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA). Moreover, in our questionnaire, we used the measurement interval scales in Section B and Section C to show whether the respondents disagree or agree with the scope of the statements mentioned in the questionnaire by applying a 5-point Likert scale. Table 3.9 shows an example of the 5-Point Likert scale is being used in this study.

Table 3.9

Example of Interval Scale in Research Questionnaire

Perceived Usefulness of Hybrid Learning System		SD (1)	D (2)	N (3)	A (4)	SA (5)
1.	Hybrid learning system will make it easier for me to learn.					
2.	Hybrid learning system will help me to carry out study tasks more quickly.					
3.	Hybrid learning system will help me to obtain a better grade.					
4.	Hybrid learning systems will help me to improve the quality of my projects.					
5.	Hybrid learning system will help me to increase my productivity.					

Note. Developed for the research.

3.6 Data Processing

In order to complete our study, several processes were carried out once the questionnaires have been collected from the target respondents. Data processing encompasses data checking, editing, coding, and transcribing.

3.6.1 Data Checking

Data checking helped to find and distribute missing data that may lead to unreliable testing. Before sending the questionnaire to our target respondents, we checked the questionnaire to ensure that all questions were filled in accurately, and no data was missing. We must also ensure that all questions were free from grammatical errors and complex wording so that the respondents can understand the questions more easily. In addition, we must ensure that all questions followed the variables, reliability test, and pilot test of independent and dependent variables in the research field. After received the questionnaire, we will carefully review the questionnaire to ensure that the questionnaire was complete, there were no omissions, no invalid codes, no wrong answers, and no inconsistent answers. Because the questionnaire was designed in Google Form format, there were no omissions, invalid codes, unreasonable answers, and inconsistent answers. Respondents only need to fill in all the questions' options.

3.6.2 Data Editing

Data editing was reviewing and correcting errors to ensure that there were no errors in the collected data and that all data were consistent and complete. Therefore, all questionnaires were reviewed to find missing data and omissions. If any missing or inconsistent answers were found, adjustments should be made. However, if many questions were ignored in the questionnaire, they will be considered invalid and removed from the database. We were lucky because there were no omissions, unreasonable answers, and inconsistent answers in our 500 sets of questionnaires. Therefore, there was no need to edit the data.

3.6.3 Data Coding

Data coding was allocating numbers to every possibility for respondents to answer in the questionnaire. The SPSS software was used to code all the data gathered for this study. The responses to each demographic question asked in Section A of the questionnaire were coded in Table 3.10.

Table 3.10

Data Coding for Demographic Questions

Number of Question	Demographic Questions	Options	Coding
1	Gender	Male Female	1 2
2	Age	19 to 20 years old 21 to 23 years old 24 to 26 years old 27 years old and above	1 2 3 4
3	Ethnicity	Malay Chinese Indian	1 2 3
4	Religion	Islam Buddha Hinduism Christian	1 2 3 4
5	Private University	MMU TARUMT UTAR UCSI INTI Taylor's Sunway HELP	1 2 3 4 5 6 7 8
6	Level of Education	Foundation Diploma Bachelor's Degree Master's Degree Doctoral Degree	1 2 3 4 5

Note. Developed for the research.

While the responses for each question in Section B and Section C of the questionnaire asked were coded as shown in Table 3.11.

Table 3.11

Data Coding for Interval Scale Question

Likert Scale	Coding
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

Note. Developed for the research

3.6.4 Data Transcribing

Data transcribing involved transforming the collected data into code and keying into the SPSS software. We used SPSS software to run and analyze all data, which will help us convert all data into information and ease our data analysis. Finally, we checked whether the data entered on the computer was consistent with the data collected in the questionnaire to avoid missing items.

3.7 Data Analysis

The act of transforming raw data into organized information that may be used to explain our research concerns is known as data analysis. We used SPSS software to produce the data after collecting the questionnaires from the respondents.

3.7.1 Descriptive Analysis

We use the descriptive analysis technique to recognize the data trend we have gathered (Hayes, 2021). Furthermore, descriptive analysis enables us to present and understand our collected data most straightforwardly. In Section A of our study, we use descriptive analysis to present the demographic profile of our

respondents. The data in Section A of the questionnaire can be represented using a pie chart, bar chart, or histogram. The ranking of the data can be easily distinguished using a bar chart, while the nominal scale can be represented using a pie chart. The pie chart, which divides all types of data into portions with a total of 100 percent, can give us a better insight.

3.7.2 Inferential Analysis

The evidence for generating the conclusion based on the sample data is provided by inferential analysis. The findings figure out the relationship between the independent and dependent variables. The findings will reveal the strength or weakness of the relationship between the independent and dependent variables.

3.7.2.1 Reliability Test

The reliability test measures the accuracy and consistency degree of the result for the constructs (Malhotra & Peterson, 2006). The reliability of questionnaire items were assessed by using Cronbach's Alpha, with Alpha exceeding 0.70, showing that the item is reliable (Nunnally & Bernstein (1994) as referenced in Iacobucci & Duhachek, 2003). Table 3.12 demonstrates the Cronbach's Alpha range.

Table 3.12

Cronbach's Alpha Range

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

Note. Developed for the research

3.7.2.2 Normality Test

The data must be regularly distributed (Al-Hujran et al., 2014). The normality test would undertaken using Skewness and Kurtosis, with good questionnaire questions being those with skewness of ±1 and kurtosis of ±2 (Hair et al., 2010).

3.7.2.3 Multiple Linear Regression Analysis

Multiple linear regression analysis refers to statistical method that uses multiple explanatory variables to forecast the result of a response variable (Hayes, 2022). The linear relationship between explanatory (independent) and response (dependent) variables is tried to be represented using multiple linear regression. Because it incorporates more than one explanatory variable, multiple regression is an extension of ordinary least-squares (OLS) regression. Before doing this analysis, the normality, linearity, and multicollinearity tests must all be fulfilled (Osborne & Waters, 2002). The r2, which is the coefficient of determination illustrates how independent factors predict variance in the dependent variable, and the model fit is reached if the p-value is less than 0.05 (Uyanik & Güler, 2013). In this study, we could find the most influential independent variables in affecting the higher education student's behavioural intention toward hybrid learning in Malaysian private universities (dependent variable). The multiple regression equation is presented in Table 3.13.

$$Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + b6X6$$

Table 3.13

Multiple Regression Equation

Y	Higher Education Students' Behavioral Intention
a	Constant, "Y Intercept"
bi	Value of Parameter Estimates, where i = 1, 2, 3, ...
X1	Perceived Usefulness of Hybrid Learning System
X2	Perceived Ease of Use
X3	Internet Access
X4	Self-efficacy
X5	Teacher Support
X6	Campus Support

Note. Developed for the research.

3.8 Conclusion

We have been discussing the planning of our research methodology in this chapter. A pilot study was conducted to assess the questionnaire's reliability and consistency. In addition, Multiple Linear Regression Analysis was utilized to assess all hypotheses. The research findings from the questionnaire results and the data collecting details will be further discussed in the following chapter.

CHAPTER 4: DATA ANALYSIS AND FINDINGS

4.0 Introduction

The analysis results, which were performed using SPSS software, will be displayed in a table and figures in Chapter 4. This chapter includes three analyses: descriptive analysis, which is utilized for figuring out the demographic profile of respondents. An inferential analysis, such as a Multiple Regression Analysis, is being used for discovering the relationship between independent and dependent variables in scale measurement, that is used to assess the reliability of variables.

4.1 Descriptive Analysis

Descriptive analysis refers to the extent to which data is collected to comprehend the respondent demographic profile frequency distribution. There are six questions in this section about the respondents' personal information. The amount of questionnaires used in this research was 500, as shown in Table 3.4.

4.1.1 Respondent Demographic Profile

The details of respondent demographic profile contains of gender, age, ethnicity, religion, university, and level of education.

4.1.1.1 Gender

The percentages of male and female respondents obligated in the survey are shown in Table 4.1 and Figure 4.1. The bulk of the respondents is male, with 253 (50.6%) and 247 (49.4 %) responding female.

Table 4.1

Statistics of Respondents' Gender

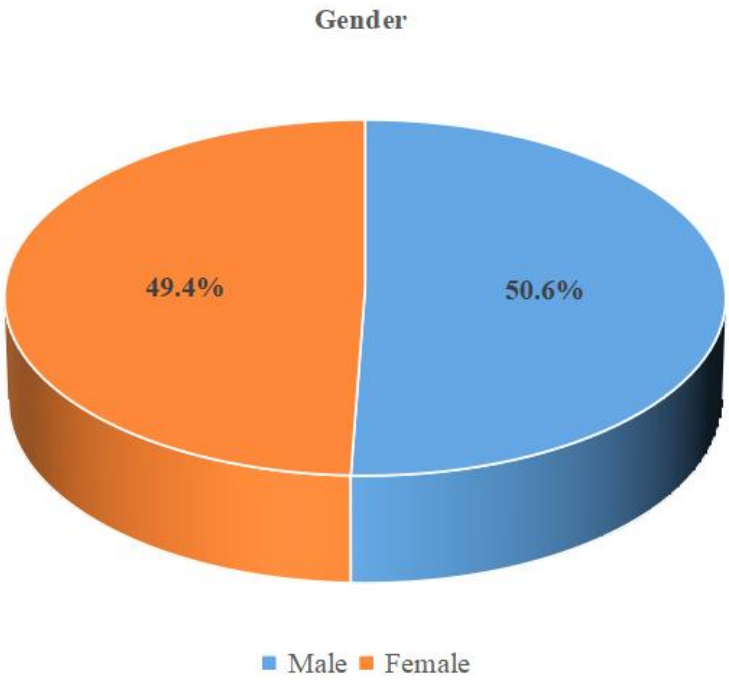
Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	253	50.6	50.6	50.6
	Female	247	49.4	49.4	100.0
	Total	500	100.0	100.0	

Note. Developed from SPSS Software.

Figure 4.1

Statistics of Respondents' Gender



Note. Developed for the research.

4.1.1.2 Age

The different age ranges of respondents in this survey are shown in Table 4.2 and Figure 4.2. The age group has been divided into four categories: 19 to 20 years old, 21 to 23 years old, 24 to 26 years old, and 27 years old and above. The age group of 19 to 20 years old accounts for 14.8% (74 respondents) of the 500 respondents, followed by most respondents (79.4%) who are between the ages of 21 and 23 years old (397 respondents). Furthermore, 5.8% of the population is between the ages of 24 and 26 (29 respondents). Lastly, the respondents who aged 27 years old and above contains of 0% (0 respondent) of the total number of respondents.

Table 4.2

Statistics of Respondents' Age

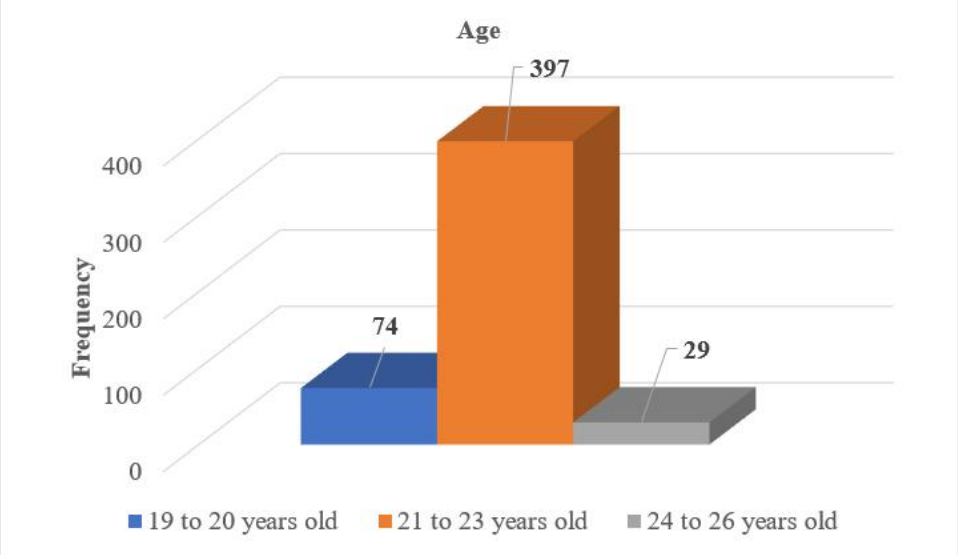
Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19 to 20 years old	74	14.8	14.8	14.8
	21 to 23 years old	397	79.4	79.4	94.2
	24 to 26 years old	29	5.8	5.8	100.0
	Total	500	100.0	100.0	

Note. Developed from SPSS Software.

Figure 4.2

Statistics of Respondents' Age



Note. Developed for the research.

4.1.1.3 Ethnicity

Table 4.3 and Figure 4.3 show the ethnicity of the respondents who taken part in the study. Out of 500 respondents, 0.2% (1 respondent) is Malay, 98.4% (492 respondents) are Chinese, and 1.4% (7 respondents) are Indian. The reason there was only one Malay respondent might be due to private universities requiring higher tuition fees (Lim & Williams, 2015). For mostly Malay students, they are a costly alternative. Moreover, the English-language classes offered here draw pupils from affluent metropolitan backgrounds (Lim & Williams, 2015). On the other hand, the government completely funds public universities, providing them with yearly budgetary allotments for administration, infrastructure, and research (Cheong & Narayanan, 2020). Public universities are less expensive than private ones and draw students from a wider range of socioeconomic backgrounds (Cheong & Narayanan, 2020). Their undergraduate programmes are mostly taught in Malay, Malaysia's official language. However, the Malays and other indigenous people are the only ones who may enter public universities.

Table 4.3

Statistics of Respondents' Ethnicity

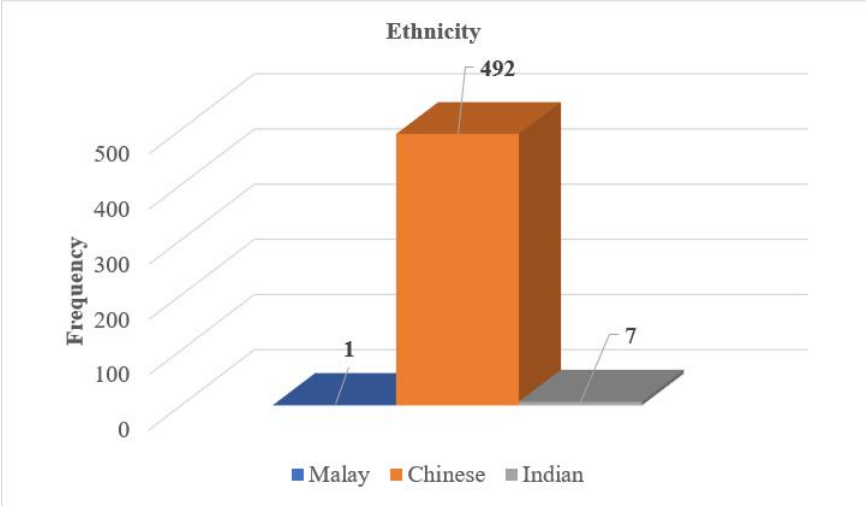
Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	1	0.2	0.2	0.2
	Chinese	492	98.4	98.4	98.6
	Indian	7	1.4	1.4	100.0
	Total	500	100.0	100.0	

Note. Developed from SPSS Software.

Figure 4.3

Statistics of Respondents' Ethnicity



Note. Developed for the research.

4.1.1.4 Religion

Table 4.4 and Figure 4.4 illustrate the religion of respondents who taken part in the study. There are 0.4% of the respondents are Islam. Moreover, 79.6% of the respondents are Buddhist, come after with Hinduism (1%), and Christian (19%) in this survey, respectively.

Table 4.4

Statistics of Respondents' Religion

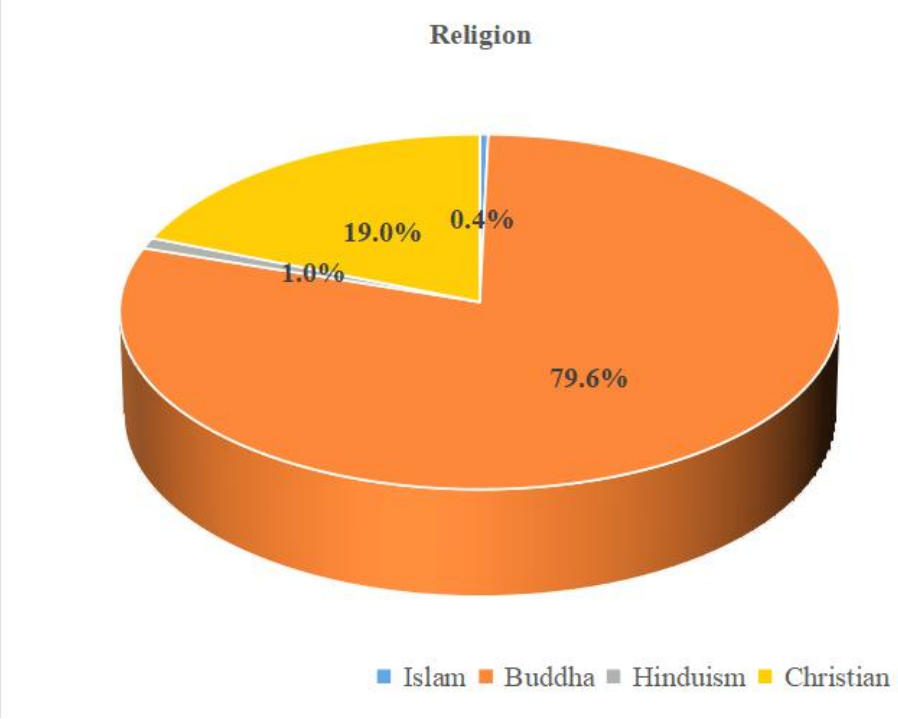
Religion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Islam	2	0.4	0.4	0.4
	Buddha	398	79.6	79.6	80.0
	Hinduism	5	1.0	1.0	81.0
	Christian	95	19.0	19.0	100.0
	Total	500	100.0	100.0	

Note. Developed from SPSS Software.

Figure 4.4

Statistics of Respondents' Religion



Note. Developed for the research.

4.1.1.5 University

Table 4.5 and Figure 4.5 show the university where the respondents studied in this study. The respondents who are studying at TARUMT and UCSI University are the same, which have 40 respondents (8%). 41 respondents (8.2%) are studied in INTI International University and 63 respondents (12.6%) are studied in HELP University. The respondents who are studying at Sunway University have 78 respondents (15.6%). The most and second most of the respondents are studied in UTAR and Taylor's University which have 122 respondents (24.4%) and 82 respondents (16.4%), respectively. In contrast, the least of the respondents is studied in Multimedia University (MMU) which is 34 respondents (6.8%).

Table 4.5

Statistics of Respondents' University

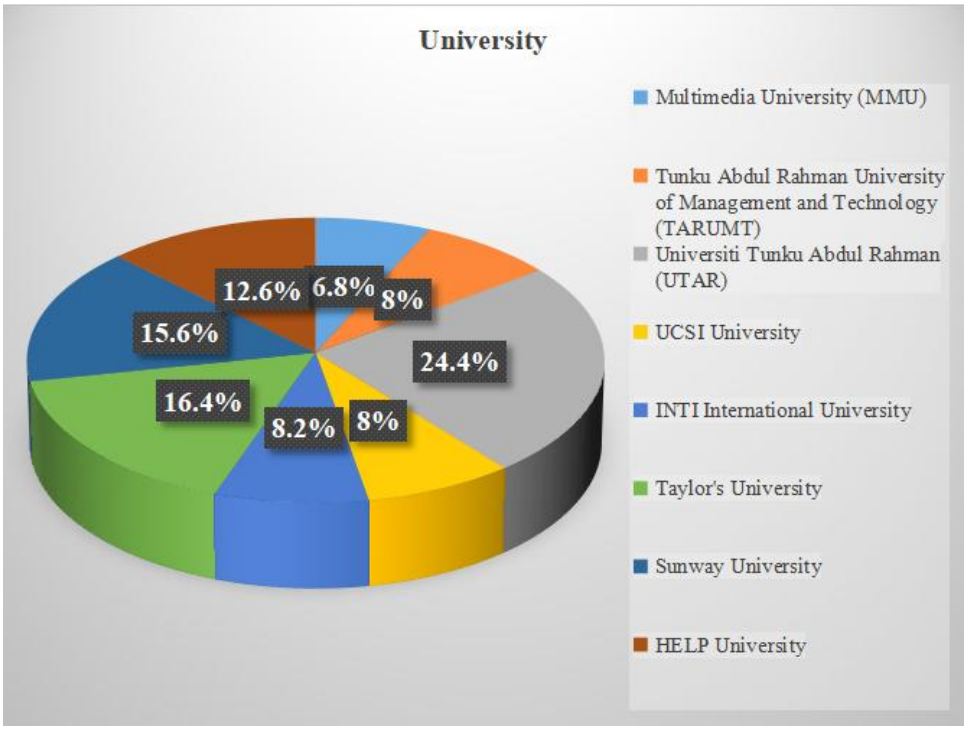
University

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Multimedia University (MMU)	34	6.8	6.8	6.8
	Tunku Abdul Rahman University of Management and Technology (TARUMT)	40	8.0	8.0	14.8
	Universiti Tunku Abdul Rahman (UTAR)	122	24.4	24.4	39.2
	UCSI University	40	8.0	8.0	47.2
	INTI International University	41	8.2	8.2	55.4
	Taylor's University	82	16.4	16.4	71.8
	Sunway University	78	15.6	15.6	87.4
	HELP University	63	12.6	12.6	100.0
	Total	500	100.0	100.0	

Note. Developed from SPSS Software.

Figure 4.5

Statistics of Respondents' University



Note. Developed for the research.

4.1.1.6 Level of Education

Table 4.6 and Figure 4.6 demonstrate the respondents who reached the highest qualification. Through the survey, most respondents who reached highest qualification are bachelor's degree (376 respondents or 75.2%). While the minority of respondents who reached highest qualification are Doctoral Degree (1 respondent or 0.2%). Meanwhile, 65 respondents or 13% are Foundation and 53 respondents or 10.6% are Diploma holders. Lastly, 5 respondents or 1% are Master's Degree.

Table 4.6

Statistics of Respondents' Level of Education

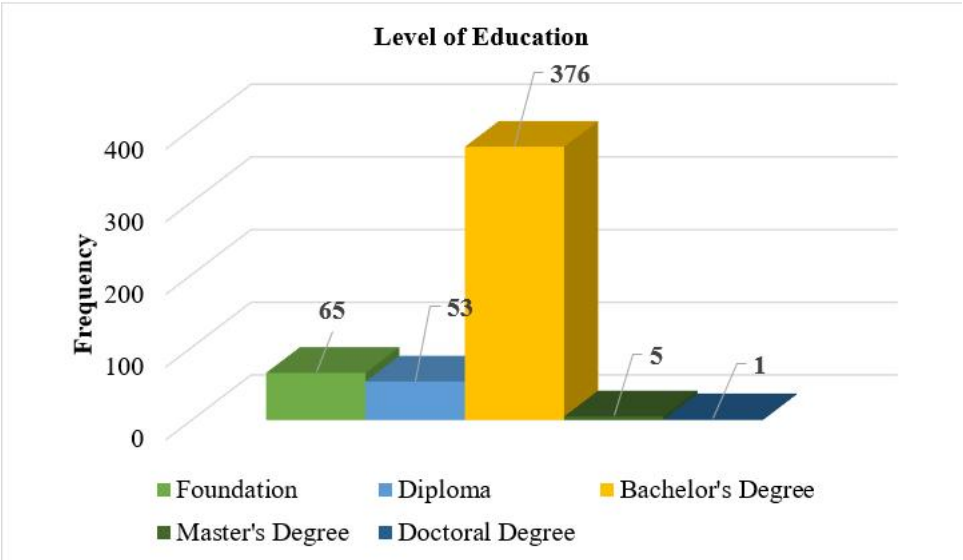
Level of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Foundation	65	13.0	13.0	13.0
	Diploma	53	10.6	10.6	23.6
	Bachelor's Degree	376	75.2	75.2	98.8
	Master's Degree	5	1.0	1.0	99.8
	Doctoral Degree	1	0.2	0.2	100.0
	Total	500	100.0	100.0	

Note. Developed from SPSS Software.

Figure 4.6

Statistics of Respondents' Level of Education



Note. Developed for the research.

4.1.2 Central Tendencies Measurement of Constructs

This section will display the mean and standard deviation of all independent variables and the dependent variable in the form of table.

4.1.2.1 Perceived Usefulness of Hybrid Learning System

As shown in Table 4.7, the statement "Hybrid learning system will help me to accomplish study tasks more quickly" contributes the highest mean value 4.3260 with the standard deviation of 0.74082. Then, the statement "Hybrid learning system will help me to obtain a better grade" and "Hybrid learning system will make it easier for me to learn" contribute the mean value of 4.2040 and 4.1860 with standard deviation of 0.79476 and 0.69308, respectively. Meanwhile, the statement "Hybrid learning will help me to increase my productivity" contributes a mean value of 4.1640 with standard deviation of 0.81390. The statement "Hybrid learning systems will help me to improve the quality of my projects" contributes the lowest mean value (4.1580) with the standard deviation of 0.79138.

Table 4.7

Central Tendency Measurement for Perceived Usefulness of Hybrid Learning System

No.	Statement	N	Mean	Ranking (Mean)	Std. Deviation	Ranking (Std. Deviation)
1	Hybrid learning system will make it easier for me to learn.	500	4.1860	3	0.69308	5
2	Hybrid learning system will help me to accomplish study tasks more quickly.	500	4.3260	1	0.74082	4
3	Hybrid learning system will help me to obtain a better grade.	500	4.2040	2	0.79476	2
4	Hybrid learning systems will help me to improve the quality of my projects.	500	4.1580	5	0.79138	3
5	Hybrid learning system will help me to increase my productivity.	500	4.1640	4	0.81390	1

Note. Developed from SPSS Software.

4.1.2.2 Perceived Ease of Use

Table 4.8 showed the central tendency measurement for perceived ease of use. The statement "I expect that I will find a hybrid learning system that is easy to use" contributes the highest mean value 4.1904 with the standard deviation of 0.68681. Moreover, the statement of "It is easy for me to acquire knowledge by using hybrid learning systems to advance my studies", "I find it easy to get hybrid learning system to do what I want to do" and "I expect that it will be easy for me to become skillful at using a hybrid learning system" have mean values of 4.1162, 4.1122, and 4.0822 with standard deviation of 0.75949, 0.69380, and 0.70231, respectively. The statement "I expect that interacting with hybrid learning system does not require a lot of mental effort" contributes the lowest mean value (4.0521) with the standard deviation of 0.87656 as shown in Table 4.8.

Table 4.8

Central Tendency Measurement for Perceived Ease of Use

No.	Statement	N	Mean	Ranking (Mean)	Std. Deviation	Ranking (Std. Deviation)
1	I expect that it will be easy for me to become skillful at using a hybrid learning system.	500	4.0822	4	0.70231	3
2	I expect that I will find a hybrid learning system that is easy to use.	500	4.1904	1	0.68681	5
3	It is easy for me to acquire knowledge by using hybrid learning systems to advance my studies.	500	4.1162	2	0.75949	2
4	I expect that interacting with hybrid learning system does not require a lot of mental effort.	500	4.0521	5	0.87656	1
5	I find it easy to get hybrid learning system to do what I want to do.	500	4.1122	3	0.69380	4

Note. Developed from SPSS Software.

4.1.2.3 Internet Access

Table 4.9 showed the central tendency measurement for internet access. The statement "I have convenient access to the Internet" contributes the highest mean value 4.2620 with the standard deviation of 0.66199. Next, the statement "I have a high-speed connection to the Internet" and "I have free Internet use on campus to enter the web" contribute the mean value of 4.1580 and 4.0880 with standard deviation of 0.76826 and 0.72754, respectively. Meanwhile, the statement "I can access the Internet at any time on campus" contributes a mean value of 4.0600 with standard deviation of 0.76784. The statement "I have easy access to the Internet to enter the web while on campus" contributes the lowest mean value (4.0160) with the standard deviation of 0.85393.

Table 4.9

Central Tendency Measurement for Internet Access

No.	Statement	N	Mean	Ranking (Mean)	Std. Deviation	Ranking (Std. Deviation)
1	I have a high-speed connection to the Internet.	500	4.1580	2	0.76826	2
2	I have convenient access to the Internet.	500	4.2620	1	0.66199	5
3	I have easy access to the Internet to enter the web while on campus.	500	4.0160	5	0.85393	1
4	I have free Internet use on campus to enter the web.	500	4.0880	3	0.72754	4
5	I can access the Internet at any time on campus.	500	4.0600	4	0.76784	3

Note. Developed from SPSS Software.

4.1.2.4 Self-efficacy

Table 4.10 displayed the central tendency measurement for internet access. The statement "I am convinced that I can develop creative ways to cope with the stress

that may occur while using hybrid learning systems" contributing highest mean value of 4.1080 with the standard deviation of 0.72760. Besides, the statement "Even if I get distracted during learning, I am confident that I can continue to learn well" and "I have the technological knowledge and skills necessary to use hybrid learning" both having mean value of 4.0860 and 4.0680 with standard deviation of 0.84382 and 0.74840, respectively. Meanwhile, the statement "I am convinced that I can successfully learn all relevant subject content by using hybrid learning system even if it is difficult" contributes a mean value of 4.0320 with standard deviation of 0.72760. The statement of "I am among the first in my circle of friends to acquire modern technology" contributes the lowest mean value (3.7660) with the standard deviation of 0.88363.

Table 4.10

Central Tendency Measurement for Self-efficacy

No.	Statement	N	Mean	Ranking (Mean)	Std. Deviation	Ranking (Std. Deviation)
1	I am among the first in my circle of friends to acquire modern technology.	500	3.7660	5	0.88363	1
2	I have the technological knowledge and skills necessary to use hybrid learning.	500	4.0680	3	0.71302	5
3	I am convinced that I can successfully learn all relevant subject content by using hybrid learning system even if it is difficult.	500	4.0320	4	0.74840	3
4	Even if I get distracted during learning, I am confident that I can continue to learn well.	500	4.0860	2	0.84382	2
5	I am convinced that I can develop creative ways to cope with the stress that may occur while using hybrid learning systems.	500	4.1080	1	0.72760	4

Note. Developed from SPSS Software.

4.1.2.5 Teacher Support

According to Table 4.11, the statement "The tutors or lecturers at campus provide real time interaction tools, such as text messages, chat rooms or video calls" contributes the highest mean value of 4.1040 with the different standard deviation of 0.68566. Besides, the statements "The tutors or lecturers at campus have a positive attitude toward IT" and "The tutors or lecturers at campus are capable of handling online subjects if asked to do so" contribute the mean value of 4.1000 and 4.0660 with a standard deviation of 0.71486 and 0.58165, respectively. The statement "The tutors or lecturers at campus are competent IT users" contributes the lowest mean value (3.9560) with the standard deviation of 0.83153 as shown in Table 4.11.

Table 4.11

Central Tendency Measurement for Teacher Support

No.	Statement	N	Mean	Ranking (Mean)	Std. Deviation	Ranking (Std. Deviation)
1	The tutors or lecturers at campus are capable of handling online subjects if asked to do so.	500	4.0660	3	0.58165	4
2	The tutors or lecturers at campus are competent IT users.	500	3.9560	4	0.83153	1
3	The tutors or lecturers at campus have a positive attitude toward IT.	500	4.1000	2	0.71486	2
4	The tutors or lecturers at campus provide real time interaction tools, such as text messages, chat rooms or video calls.	500	4.1040	1	0.68566	3

Note. Developed from SPSS Software.

4.1.2.6 Campus Support

According to Table 4.12, the statement of "The campus has IT technical support who can provide me with a hybrid learning service with a prominent level of technical security" contributes the highest mean value 4.0660 with the highest standard deviation of 0.76709. Apart from that, the statement of "The campus has IT technical support who can provide me with a wide range of facilities to perform hybrid learning activities such as access to the library", "The campus has IT technical support person(s) whom I can turn to if I face technical problems" and "The campus has IT technical support who can enable me to receive and exchange information and knowledge with lecturers and other students by using electronic linkages and software applications" have the mean value of 4.0260, 4.0080, and 3.9900 with standard deviation of 0.69447, 0.68474, and 0.73415, respectively. The statement of "The campus has IT technical support who can provide me with data management advice and consultancy" contributes the lowest mean value (3.8860) with the standard deviation of 0.76037.

Table 4.12

Central Tendency Measurement for Campus Support

No.	Statement	N	Mean	Ranking (Mean)	Std. Deviation	Ranking (Std. Deviation)
1	The campus has IT technical support person(s) whom I can turn to if I face technical problems.	500	4.0080	3	0.68474	5
2	The campus has IT technical support who can provide me with a hybrid learning service with a prominent level of technical security.	500	4.0660	1	0.76709	1
3	The campus has IT technical support who can provide me with data management advice and consultancy.	500	3.8860	5	0.76037	2
4	The campus has IT technical support who can enable me to receive and exchange information and knowledge with lecturers and other students by using electronic linkages and software applications.	500	3.9900	4	0.73415	3
5	The campus has IT technical support who can provide me with a wide range of facilities to perform hybrid learning activities such as access to the library.	500	4.0260	2	0.69447	4

Note. Developed from SPSS Software.

4.1.2.7 Higher Education Students' Behavioural Intention

The central tendencies measurement for higher education students' behavioural intention has been shown in Table 4.13. The statement of "I intend to continue using the hybrid learning environment in the future" is agreed by majority of the respondents as it contributes the highest value of mean 4.3400 and highest standard deviation of 0.74398. Then, the statement which contributes the lowest value of mean 4.1940 and standard deviation of 0.66124 is "I would use hybrid learning systems to contact the tutor or lecturer" Apart from that, the statement of "I would use hybrid learning systems to get help with studying for assignments and exams," "I would use hybrid learning systems to obtain class notes and lecture outlines," and "I intend to be a heavy user of hybrid learning systems" contribute the mean value of 4.3360, 4.3260, and 4.3020 with standard deviation of 0.62920, 0.64851, and 0.69264, respectively.

Table 4.13

***Central Tendency Measurement for* Higher Education Students' Behavioural Intention**

No.	Statement	N	Mean	Ranking (Mean)	Std. Deviation	Ranking (Std. Deviation)
1	I intend to be a heavy user of hybrid learning systems.	500	4.3020	4	0.69264	2
2	I would use hybrid learning systems to obtain class notes and lecture outlines.	500	4.3260	3	0.64851	4
3	I would use hybrid learning systems to contact the tutor or lecturer.	500	4.1940	5	0.66124	3
4	I would use hybrid learning systems to get help with studying for assignments and exams.	500	4.3360	2	0.62920	5
5	I intend to continue using the hybrid learning environment in the future.	500	4.3400	1	0.74398	1

Note. Developed from SPSS Software.

4.2 Scale Measurement

The findings of a reliability test for the entire research with a total sample size of 500 respondents are presented in this section. The independent and dependent variables' reliability were assessed using SPSS software to make sure that all data acquired for hypothesis testing was correct.

4.2.1 Reliability Analysis

All the independent and dependent variables are reliable, according to Table 4.14. Furthermore, all the variables are within the Cronbach's Alpha range of 0.7 to 0.8 except for the independent variable of teacher support which showed Cronbach's Alpha value of 0.638. All in all, it showed strong reliability. Perceived Usefulness of Hybrid Learning System shows the highest Cronbach' Alpha value among the variables which is 0.805. Campus Support is the second highest Cronbach's Alpha value which is 0.804 followed by Internet Access variable (0.749), Higher Education Students' Behavioural Intention variable (0.743), Self-efficacy variable (0.724), and Perceived Ease of Use variable (0.702). The Teacher Support variable has the lowest Cronbach' Alpha value among the variables which is 0.638 showing that it is questionable reliability. However, according to Pallant (2001), Alpha Cronbach's value of at least 0.6 is regarded as reliable and respectable (Nunnally & Bernstein, 1994). While an Alpha Cronbach value of less than 0.6 is considered low. The values of Alpha Cronbach between 0.60 and 0.80 are considered modest yet acceptable.

Table 4.14

Reliability Statistics

No.	Variables	Items	Cronbach's Alpha
1.	Perceived Usefulness of Hybrid Learning System	5	0.805
2.	Perceived Ease of Use	5	0.702
3.	Internet Access	5	0.749
4.	Self-efficacy	5	0.724
5.	Teacher Support	4	0.638
6.	Campus Support	5	0.804
7.	Higher Education Students' Behavioural Intention	5	0.743

Note. Developed from SPSS Software.

4.2.2 Normality Test

According to Table 4.15, the value of skewness for each elements in the questionnaire ranged between –1.396 and -0.050 while for kurtosis, it ranged between -0.954 and 2.307. Based on the findings, all data is normally distributed as the values fall within ±1 and ±2 respectively (Hair et al., 2010). Apart from that, the mean values of all variables ranged from 3.5667 to 4.4667. According to the results, most respondents selected 'neutral,' 'agree,' or 'strongly agree' for every element. Most of the variables have a standard deviation of less than one.

Table 4.15

Normality Test (Pilot Test)

Variable	Items	Mean	Standard Deviation	Skewness	Kurtosis
Perceived Usefulness of Hybrid Leaming System (PU)	PU 1	4.0000	.90972	-.883	.379
	PU 2	4.4333	.81720	-1.396	1.405
	PU 3	3.7000	1.11880	-.937	.576
	PU 4	4.0333	.96431	-1.306	2.307
	PU 5	4.0333	.96431	-.812	-.127
Perceived Ease of Use (PE)	PE 1	4.0000	.94686	-.522	-.699
	PE 2	4.1000	.92289	-.773	-.174
	PE 3	4.3333	.88409	-1.057	.057
	PE 4	4.1333	1.04166	-1.264	1.464
	PE 5	4.2000	.84690	-.774	-.110
Internet Access (IA)	IA 1	3.9667	.92786	-.486	-.623
	IA 2	4.3000	.70221	-.499	-.781
	IA 3	3.7333	1.11210	-.557	-.330
	IA 4	4.0667	1.14269	-1.178	.586
	IA 5	3.9333	1.08066	-.914	.419
Self-efficacy (SE)	SE 1	3.5667	1.19434	-.754	.145
	SE 2	4.2333	.89763	-1.110	.685
	SE 3	4.2667	.78492	-.983	.903
	SE 4	4.1333	.86037	-.618	-.443
	SE 5	4.0667	.94443	-1.192	2.238
Teacher Support (TS)	TS 1	4.3667	.71840	-.692	-.699
	TS 2	3.9000	1.02889	-.806	.586
	TS 3	3.9000	.99481	-.914	1.060
	TS 4	4.2333	.81720	-.876	.340
Campus Support (CS)	CS 1	4.0333	.71840	-.050	-.954
	CS 2	4.0667	.82768	-.520	-.300
	CS 3	4.0667	.73968	-.656	.842
	CS 4	4.1000	.88474	-.525	-.736
	CS 5	4.2000	.80516	-.815	.363
Behavioural Intention (BI)	BI 1	4.1667	.87428	-.676	-.474
	BI 2	4.4333	.62606	-.635	-.453
	BI 3	4.3667	.76489	-.755	-.836
	BI 4	4.4667	.62881	-.758	-.321
	BI 5	4.3000	.91539	-.948	-.362

Note. Developed from SPSS Software.

The actual findings of the normality test are shown in Table 4.16. The findings for the skewness ranged from -1.182 to -0.245 while for kurtosis, it ranged from -0.057 to 3.009. As a result, the data is normally distributed, with the kurtosis and skewness values falling between ±2 and ±1, respectively (Hair et al., 2010). Moreover, the mean values of all construct ranged from 3.7660 to 4.3400. According to the results, most respondents selected 'neutral,' 'agree,' or 'strongly agree' for each element. Meanwhile, the standard deviation of the factors is less than 1, which range from 0.58165 to 0.88363.

Table 4.16

Normality Test (Actual Test)

Variable	Items	Mean	Standard Deviation	Skewness	Kurtosis
Perceived Usefulness of Hybrid Leaming System (PU)	PU 1	4.1860	.69308	-1.027	2.547
	PU 2	4.3260	.74082	-1.109	1.4
	PU 3	4.2040	.79476	-1.127	1.709
	PU 4	4.1580	.79138	-1.141	2.254
	PU 5	4.1640	.81390	-1.182	2.002
Perceived Ease of Use (PE)	PE 1	4.0822	.70231	-.814	1.568
	PE 2	4.1904	.68681	-.564	.546
	PE 3	4.1162	.75949	-.667	.439
	PE 4	4.0521	.87656	-1.089	1.559
	PE 5	4.1122	.69380	-.588	.837
Internet Access (IA)	IA 1	4.1580	.76826	-.784	.628
	IA 2	4.2620	.66199	-.679	.775
	IA 3	4.0160	.85393	-1.039	1.559
	IA 4	4.0880	.72754	-.920	2.148
	IA 5	4.0600	.76784	-1.063	2.228
Self-efficacy (SE)	SE 1	3.7660	.88363	-.732	.789
	SE 2	4.0680	.71302	-.499	.634
	SE 3	4.0320	.74840	-.599	.669
	SE 4	4.0860	.84382	-.887	.928
	SE 5	4.1080	.72760	-.513	.064
Teacher Support (TS)	TS 1	4.0660	.58165	-.681	3.009
	TS 2	3.9560	.83153	-.505	-.046
	TS 3	4.1000	.71486	-.545	.494
	TS 4	4.1040	.68566	-.548	1.031
Campus Support (CS)	CS 1	4.0080	.68474	-.424	.599
	CS 2	4.0660	.76079	-.385	-.295
	CS 3	3.8860	.76037	-.245	-.057
	CS 4	3.9900	.73415	-.442	.427
	CS 5	4.0260	.69447	-.359	.280
Behavioral Intention (BI)	BI 1	4.3020	.6264	-.991	1.948
	BI 2	4.3260	.64851	-.528	-.256
	BI 3	4.1940	.66124	-.526	.735
	BI 4	4.3360	.62920	-.695	1.194
	BI 5	4.3400	.74398	-1.111	1.517

Note. Developed from SPSS Software.

4.3 Inferential Analysis

Multiple Regression Analysis is applied to evaluate six hypotheses in this research. This analysis will manifest the findings, including the model summary, ANOVA, and coefficient. The confidence level that has been used in this research was 95%.

4.3.1 Multiple Linear Regression Analysis

This research desires to figure out whether there are any cause-and-effect relationships between the six independent variables and the dependent variable. The causality will be tested using multiple regression analysis. Table 4.17, Table 4.18, Table 4.19, and Table 4.20 showed the model summary, ANOVA, coefficients, and multiple regression equation, respectively.

Table 4.17

Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.664[3]	.441	.435	.35718	.441	64.932	6	493	.000

a. Predictors: (Constant), CS Average, IA Average, PE Average, PU Average, SE Average, TS Average

Note. Developed from SPSS Software.

The R-value stands for the correlation coefficient between the dependent variable and all the independent variables. As shown in Table 4.17, the correlation coefficient (R-value) is 0.664. The dependent variable (Higher Education Students' Behavioural Intention Towards Hybrid Learning) and independent variables (Perceived Usefulness of Hybrid Learning System, Perceived Ease of Use, Internet Access, Self-efficacy, Teacher Support, and Campus Support) have a positive and high correlation.

The value of R square is 0.441, or 44.1%. This shows that the six independent variables account for 44.1% of the variation in the dependent variable

of higher education students' behavioural intention towards hybrid learning in Malaysian private universities. The independent variables are perceived usefulness of hybrid learning system, perceived ease of use, internet access, self-efficacy, teacher support, and campus support average, and the results show that other variables account for 55.9% (100% - 44.1%) of the dependent variable in this research. Putting it in another way, other variables are essential in understanding higher education students' behavioural intention towards hybrid learning that was not considered in this research.

Table 4.18

ANOVA Model Summary

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	49.704	6	8.284	64.932	.000[a]
	Residual	62.896	493	0.128		
	Total	112.600	499			

a. Predictors (Constant), CS Average, IA Average, PE Average, PU Average, SE Average, TS Average
b. Dependent Variable: BI Average

Note. Developed from SPSS Software.

Based on Table 4.18, the F-value (64.932) was significant since the p-value (0.000) was less than 0.05. This required at least one independent variable to be substantially associated with the dependent variable. As a result, the model has statistical significance and is well-fit.

Table 4.19

Coefficients Model Summary

Coefficient[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.276	0.169		7.548	0.000	0.944	1.608
	PU Average	0.284	0.039	0.345	7.228	0.000	0.207	0.362
	PE Average	0.203	0.046	0.215	4.423	0.000	0.113	0.293
	IA Average	0.070	0.035	0.079	2.028	0.043	0.002	0.138
	SE Average	-0.11	0.042	-0.013	-0.264	0.792	-0.093	0.071
	TS Average	0.155	0.048	0.160	3.236	0.001	0.061	0.249
	CS Average	0.030	0.042	0.035	0.718	0.473	-0.053	0.113

a. Dependent Variable: BI Average

Note. Developed from SPSS Software.

As seen in Table 4.19, the Perceived Usefulness of Hybrid Learning System, Perceived Ease of Use, Internet Access, and Teacher Support are a significant factor of this study's dependent variable (Higher Education Students' Behavioural Intention Towards Hybrid Learning Average). This is because the Perceived Usefulness of Hybrid Learning System, Perceived Ease of Use, Internet Access, and Teacher Support p-values are 0.000, 0.000, 0.043, and 0.001 respectively, which is lower than the alpha value of 0.05. Because Self-efficacy and Campus Support have a p-value of 0.792 and 0.473, which is higher than the alpha value of 0.05, it is not significant in forecasting the dependent variable in this research (Higher Education Students' Behavioural Intention Towards Hybrid Learning Average). Thus, four alternate hypotheses (H1, H2, H3, and H5) were accepted in the research.

Table 4.20

Multiple Regression Equation

Y	Higher Educational Student's Behavioral Intention
a	Constant, "Y intercept"
bi	Value of Parameter Estimates, where i = 1, 2, 3, ...
X1	Perceived Usefulness of Hybrid Learning System
X2	Perceived Ease of Use
X3	Internet Access
X4	Self-efficacy
X5	Teacher Support
X6	Campus Support

Note. Developed for the research.

According to Table 4.20, the expression of the regression equation is:

Higher Education Students' Behavioural Intention Towards Hybrid Learning = 1.276 + 0.284(PU) + 0.203(PE) + 0.070(IA) - 0.011(SE) + 0.155(TS) + 0.030(CS)

4.3.2 Level of Contribution

4.3.2.1 The Highest Ranking of Contribution

Since the Beta value that under standardized coefficients is the greatest (0.345) as compared to other predictor variables (PE, IA, SE, CS, and TS), the Perceived Usefulness of Hybrid Learning System Average is the predictor variable that shows the highest variation of the dependent variable (Higher Education Students' Behavioral Intention). When all other predictor variables in the model are adjusted for, the perceived usefulness of hybrid learning system makes the most significant isolated contribution to explaining the variation in the dependent variable (Higher Education Students' Behavioral Intention).

4.3.2.2 The Second Highest Ranking of Contribution

When compared to other predictor variables (PU, IA, SE, CS, and TS), Perceived Ease of Use Average is the predictor variable that shows the second highest variation of the dependent variable (Higher Education Students' Behavioral Intention) since its Beta value is the second highest (0.215). When the variance described by all other predictor variables in the model is adjusted for, perceived ease of use makes the second highest significant contribution to explaining the variation in the dependent variable (Higher Education Students' Behavioral Intention).

4.3.2.3 The Lowest Ranking of Contribution

Since the Beta value is the lowest (-0.013) as compared to other predictor variables (PU, PE, IA, CS, and TS), Self-efficacy Average is the predictor variable that shows the lowest variation of the dependent variable (Higher Education Students' Behavioral Intention). When all other predictor variables in the model are adjusted for, self-efficacy makes the least significant contribution to

explaining the variation in the dependent variable (Higher Education Students' Behavioral Intention).

Table 4.21

Ranking of Each Independent Variables Based on Beta Value

Independent Variables	Standardized Coefficient, Beta	Ranking
Perceived Usefulness of Hybrid Learning System Average	0.345	1
Perceived Ease of Use Average	0.215	2
Teacher Support Average	0.160	3
Internet Access Average	0.079	4
Campus Support Average	0.035	5
Self-efficacy Average	-0.013	6

Note. Developed for the research.

4.4 CONCLUSION

In conclusion, the SPSS software was used to create a clear picture of the research findings. All the analyses described in this chapter have been thoroughly conducted. The validity and reliability of the scale measurement employed in this study are confirmed using Cronbach's alpha coefficient test. Multiple linear regression analysis described the relationship between the independent and dependent variables. The following chapter will go through more about this study, including a description of the analysis, major findings discussion, implications of the study, limitations and recommendations.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.0 Introduction

We will review the statistical analysis in this chapter, that holds both descriptive and inferential analysis interpretation together with the theoretical and practical implications of our research's findings. Chapter 5 also includes the primary findings, research limitations, recommendations for future research, and lastly the conclusion.

5.1 Summary of Statistical Analyses

The two types of analyses mentioned in the earlier chapter are descriptive and inferential analyses. A bar chart and a pie chart are used in the descriptive analysis test to display the percentages of respondent demographic information such as gender, age, ethnicity, religion, university, and level of education, which is found in question 1 till 6 of the questionnaires. Multiple Regression Analysis has been used in inferential analysis to examine the strength, direction, and significance of the relationship between the independent and dependent variables.

5.1.1 Descriptive Analysis

Table 5.1 shows the demographic profile of the respondents in this study. Male respondents outnumber female respondents, with a reported rate of 50.6 per cent versus 49.4 per cent, respectively. Majority respondents are aged between 21 to 23 years old, accounting for 79.4 per cent of our data. About 0.2% of our respondents are Malay, Chinese stands for 98.4%, and Indian stands for 1.4%, while

respondents' religious majority are Buddhist with a reported figure of 79.6%. Most respondents (24.4 per cent) attended UTAR as their study university. The most common level of education among respondents was a bachelor's degree, which accounted for 75.2 per cent of our data, followed by Foundation, which was 13.0 per cent of the data.

Table 5.1

Summary of Descriptive Analysis

Variables	Frequency	Percentage (%)
Gender		
Male	253	50.6
Female	247	49.4
Age		
19 to 20 years old	74	14.8
21 to 23 years old	397	79.4
24 to 26 years old	29	5.8
27 years old and above	0	0
Ethnicity		
Malay	1	0.2
Chinese	492	98.4
Indian	7	1.4
Religion		
Islam	2	0.4
Buddha	398	79.6
Hinduism	5	1.0
Christian	95	19.0
University		
MMU	34	6.8
TARUMT	40	8.0
UTAR	122	24.4
UCSI	40	8.0
INTI	41	8.2
Taylor's	82	16.4
Sunway	78	15.6
HELP	63	12.6
Level of Education		
Foundation	65	13.0
Diploma	53	10.6
Bachelor's Degree	376	75.2
Master's Degree	5	1.0
Doctoral Degree	1	0.2

Note. Developed for the research.

5.1.2 Central Tendency

Behavioural intention has the most significant average score (mean) of 4.2296, with a standard deviation of 0.47503, as shown in Table 5.2. Perceived usefulness of hybrid learning system (4.2076) has the second-highest mean, with a standard deviation of 0.57582, followed by Internet Access (4.1168), with a standard deviation of 0.53566. Perceived ease of use has the fourth-highest mean of 4.1104 with a standard deviation of 0.50438, while campus support has the lowest mean of 3.9952 with a standard deviation of 0.54458. Meanwhile, teacher support (4.0565) and self-efficacy (4.0120) have the fifth highest and sixth-highest mean, with a standard deviation of 0.49083 and 0.54211, respectively.

Table 5.2

Summary of Central Tendency Measurement

Variable	N	Mean	Standard Deviation
Perceived Usefulness of Hybrid Learning System	500	4.2076	0.57582
Perceived Ease of Use	500	4.1104	0.50438
Internet Access	500	4.1168	0.53566
Self-efficacy	500	4.0120	0.54211
Teacher Support	500	4.0565	0.49083
Campus Support	500	3.9952	0.54458
Behavioural Intention	500	4.2296	0.47503

Note. Developed for the research.

5.1.3 Reliability Test

For the reliability test, 500 sets of questionnaires were used in the current study. Based on the findings as shown in Table 5.3, all independent and dependent variables have showed a great strength of reliability, with Cronbach's Alpha values ranging from 0.7 to 0.8 except for the independent variable of teacher support, with Cronbach's Alpha value of 0.638. PU had the highest Cronbach's Alpha value (0.805) out of the six independent variables, come after with CS (0.804), IA (0.749), SE (0.724), PE (0.702), and TS (0.638). In the reliability test, the dependent variable, higher education students' behavioural intention towards hybrid learning, showing a Cronbach's Alpha value of 0.743.

Table 5.3

Summary Result of Reliability Test

No	Variable	Cronbach's Alpha	Reliability
1	Perceived Usefulness of Hybrid Learning System (PU)	0.805	Good
2	Perceived Ease of Use (PE)	0.702	Acceptable
3	Internet Access (IA)	0.749	Acceptable
4	Self-efficacy (SE)	0.724	Acceptable
5	Teacher Support (TS)	0.638	Questionable
6	Campus Support (CS)	0.804	Good
7	Behavioural Intention (BI)	0.743	Acceptable

Note. Developed for the research.

5.1.4 Normality Test

Table 5.4 outlined the summary actual findings for the normality test. The findings for the skewness ranged from –1.182 to –0.245 while for the kurtosis, it ranged from –0.057 to 3.009. As a result, the data is normally distributed, with the kurtosis and skewness values falling between ±2 and ±1, respectively. Moreover, the mean values of all construct ranges from 3.7660 to 4.3260. According to the results, most respondents selected 'neutral,' 'agree,' or 'strongly agree' for every element. Further, the standard deviation of the factors is less than 1, which range from 0.58165 to 0.88363.

Table 5.4

Summary Result of Normality Test (Actual Test)

Variable	Items	Mean	Standard Deviation	Skewness	Kurtosis
Perceived Usefulness of Hybrid Learning System (PU)	PU 1	4.1860	.69308	-1.027	2.547
	PU 2	4.3260	.74082	-1.109	1.4
	PU 3	4.2040	.79476	-1.127	1.709
	PU 4	4.1580	.79138	-1.141	2.254
	PU 5	4.1640	.81390	-1.182	2.002
Perceived Ease of Use (PE)	PE 1	4.0822	.70231	-.814	1.568
	PE 2	4.1904	.68681	-.564	.546
	PE 3	4.1162	.75949	-.667	.439
	PE 4	4.0521	.87656	-1.089	1.559
	PE 5	4.1122	.69380	-.588	.837
Internet Access (IA)	IA 1	4.1580	.76826	-.784	.628
	IA 2	4.2620	.66199	-.679	.775
	IA 3	4.0160	.85393	-1.039	1.559
	IA 4	4.0880	.72754	-.920	2.148
	IA 5	4.0600	.76784	-1.063	2.228
Self-efficacy (SE)	SE 1	3.7660	.88363	-.732	.789
	SE 2	4.0680	.71302	-.499	.634
	SE 3	4.0320	.74840	-.599	.669
	SE 4	4.0860	.84382	-.887	.928
	SE 5	4.1080	.72760	-.513	.064
Teacher Support (TS)	TS 1	4.0660	.58165	-.681	3.009
	TS 2	3.9560	.83153	-.505	-.046
	TS 3	4.1000	.71486	-.545	.494
	TS 4	4.1040	.68566	-.548	1.031
Campus Support (CS)	CS 1	4.0080	.68474	-.424	.599
	CS 2	4.0660	.76079	-.385	-.295
	CS 3	3.8860	.76037	-.245	-.057
	CS 4	3.9900	.73415	-.442	.427
	CS 5	4.0260	.69447	-.359	.280
Behavioral Intention (BI)	BI 1	4.3020	.6264	-.991	1.948
	BI 2	4.3260	.64851	-.528	-.256
	BI 3	4.1940	.66124	-.526	.735
	BI 4	4.3360	.62920	-.695	1.194
	BI 5	4.3400	.74398	-1.111	1.517

Note. Developed for the research.

5.1.5 Inferential Analysis

5.1.5.1 Multiple Linear Regression Analysis

R square has a value of 0.441 or 44.1 per cent. This means that the six independent variables handle 44.1 per cent of the variation in the dependent variable of higher education students' behavioural intention towards hybrid learning. According to Table 5.5, other potential variables explained 55.9 per cent (100 per cent – 44.1 per cent) of the dependent variable of higher education students' behavioural intention towards hybrid learning. The adjusted R square is

0.435, with the significant contribution of the six independent variables to the dependent variable accounting for 43.5 per cent.

The alpha value of 0.05 is more than the p-value (0.000). With a value of 64.932, the F-statistic is noteworthy. This manifests that the model used in this research is adequate. With a positive beta of 1.276, the independent variable that was perceived usefulness of hybrid learning system has the highest significant positive beta. Compared to other independent variables, it has a more significant impact on higher education students' behavioural intention towards hybrid learning.

To sum up, the PU, PE, IA, and TS significantly affects higher education students' behavioural intention towards hybrid learning in Malaysian private universities, but SE and CS has insignificant impact. Because PU, PE, IA, and TS contributes more to higher education students' behavioural intention towards hybrid learning than SE and CS, one's institute should focus on PU, PE, IA, and TS rather than SE and CS to enhance higher education students' behavioural intention towards hybrid learning.

Table 5.5

Summary Result of Multiple Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.664[3]	.441	.435	.35718	.441	64.932	6	493	.000

a. Predictors: (Constant), CS Average, IA Average, PE Average, PU Average, SE Average, TS Average

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	49.704	6	8.284	64.932	.000[a]
	Residual	62.896	493	0.128		
	Total	112.600	499			

a. Predictors (Constant), CS Average, IA Average, PE Average, PU Average, SE Average, TS Average
b. Dependent Variable: BI Average

Coefficient[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.276	0.169		7.548	0.000	0.944	1.608
	PU Average	0.284	0.039	0.345	7.228	0.000	0.207	0.362
	PE Average	0.203	0.046	0.215	4.423	0.000	0.113	0.293
	IA Average	0.070	0.035	0.079	2.028	0.043	0.002	0.138
	SE Average	-0.11	0.042	-0.013	-0.264	0.792	-0.093	0.071
	TS Average	0.155	0.048	0.160	3.236	0.001	0.061	0.249
	CS Average	0.030	0.042	0.035	0.718	0.473	-0.053	0.113

a. Dependent Variable: BI Average

Note. Developed for the research.

5.2 Discussion on Major Findings

The hypotheses provided in this research had distinct findings, with four being approved and the other two being rejected. PU, PE, IA, and TS are the most crucial factor influencing higher education students' behavioural intention towards hybrid learning in Malaysian private universities, while SE and CS are not. Table 5.6 shows the summary results obtained for PU, PE, IA, SE, TS, and CS.

Table 5.6

Summary Results Obtained for PU, PE, IA, SE, TS, and CS

Hypotheses	Results
H1: The perceived usefulness of the hybrid learning system significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.	Supported
H2: The perceived ease of use significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.	Supported
H3: Internet access significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.	Supported
H4: Self-efficacy significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.	Not Supported
H5: Teacher support significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.	Supported
H6: The campus support significantly influences higher education students' behavioural intention towards hybrid learning in Malaysian private universities.	Not Supported

Note. Developed for the research.

5.2.1 Influence of Perceived Usefulness of Hybrid Learning System and Perceived Ease of Use on Higher Education Students' Behavioural Intention Towards Hybrid Learning in Malaysian Private Universities

According to Table 5.6, the finding is complied with the hypotheses constructed. This is tallied with the relevant past research, that emphasized the significant positive influence of the perceived usefulness of the hybrid learning system and perceived ease of use on higher education students' behavioural intention towards hybrid learning in Malaysian private universities (Davis, 1989; Li et al., 2012; Hanafizadeh et al., 2014; Chen and Tseng, 2012). The results of this study show that a hybrid learning system is an important predictor of perceived ease of use and perceived usefulness of a hybrid learning system.

The significant positive influence on higher education students' behavioural intention towards hybrid learning in Malaysian private universities for perceived usefulness of hybrid learning system and perceived ease of use can be manifested through current study. When the students believe that high-quality hybrid learning systems fulfill their needs and are easy to use, they will have high behavioural intention toward hybrid learning (Chang & Tung, 2008; Lee & Lee, 2008; Wang and Xiao, 2009; Calisir et al., 2014; Devaraj et al., 2002; Pavlou, 2003). The research results also complement previous studies where increased performance was the finding of improved ease of use and positively influenced perceived usefulness (Venkatesh & Davis, 2000).

Additionally, the findings of the survey questionnaires further confirm the conclusion. According to the results, both PU and PE items contribute a mean higher than 4, with PU2 contributing the highest mean of 4.3260 and PE2 having the highest mean of 4.1904. Most respondents agreed with the PU2 item of "Hybrid learning system will help me to accomplish study tasks more quickly" and the PE2 item of "I expect that I will find a hybrid learning system that is easy to use". This supported the positive influence of the perceived usefulness of the hybrid learning system and perceived ease of use on higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

5.2.2 Influence of Internet Access on Higher Education Students' Behavioural Intention Towards Hybrid Learning in Malaysian Private Universities

According to Table 5.6, the result is consistent with the relevant past study, which manifested the significant positive influence of internet access on higher education students' behavioural intention towards hybrid learning in Malaysian private universities (Nguyen, 2015). If students have access to the internet, they can receive a top-class education from anybody, any time, and anywhere (Nguyen, 2015). Therefore, the result complied with the hypotheses constructed. For the current research, higher education students considered internet access a crucial factor in determining their behavioural intention towards hybrid learning. This may be because most institutions are shifting physical learning towards hybrid learning due to the Covid-19 pandemic worldwide (Adnan & Anwar, 2020). Additionally, most respondents agreed with the IA2 item that stated: "I have convenient access to the Internet," with IA2 contributing the highest mean of 4.2620 out of the five items in the questionnaire. This proved that internet access is predominant in higher education students' behavioural intention towards hybrid learning.

5.2.3 Influence of Self-efficacy on Higher Education Students' Behavioural Intention Towards Hybrid Learning in Malaysian Private Universities

The study's result does not comply with the hypothesis that self-efficacy influences higher education students' behavioural intention toward hybrid learning in Malaysian private universities, as stated in Table 5.6. This is contrary to the previous studies conducted by Bandura (1977), Lim (2000), Womble (2007), and Wu et al. (2010), which stated that self-efficacy significantly influenced higher education students' behavioural intention toward hybrid learning. The finding tallies with Raub (2020) stated that if the students lack self-efficacy in online peer communication, their attitudes toward teamwork and behavioural intentions

toward hybrid learning would be affected. Additionally, a minority of the respondents agreed with item SE1 and item SE3, bearing the lowest mean of 3.7660 and the second lowest mean of 4.0320, respectively, out of the five items in the questionnaire. Therefore, "I am among the first in my circle of friends to acquire modern technology" and "I am convinced that I can successfully learn all relevant subject content by using hybrid learning system even if it is difficult" are not supported. This supported the negative influence of self-efficacy on higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

5.2.4 Influence of Teacher Support on Higher Education Students' Behavioural Intention Towards Hybrid Learning in Malaysian Private Universities

The result is consistent with the relevant past researches, which manifested the significant influence of teacher support on higher education students' behavioural intention toward hybrid learning in Malaysian private universities (Kuar, 2019; Murati, 2015). If teachers could handle controlling, encouraging, aiding, assessing, and tutoring each student's learning process, the students can gain through the learning process (Kuar, 2019). Therefore, according to Table 5.6 shows that the result complied with the hypotheses constructed. For the current research, higher education students considered teacher support an essential factor in figuring out their behavioural intention towards hybrid learning. This may be because most teachers will directly affect students' results, including academic performance, behaviour, beliefs, and attitude. Additionally, most respondents agreed with item TS4, stating, "The tutors or lecturers at campus have a positive attitude toward IT," with TS4 contributing the highest mean of 4.1040 out of the four items in the questionnaire. This shown that teacher support is predominant in higher education students' behavioural intention towards hybrid learning.

5.2.5 Influence of Campus Support on Higher Education Students' Behavioural Intention Towards Hybrid Learning in Malaysian Private Universities

Table 5.6 verified that campus support is not significant to the higher education students' behavioural intention towards hybrid learning in Malaysian private universities. This is contrary to the past studies carried out by Zhu et al. (2021), Powers et al. (2016), and Northey et al. (2015), which assert that campus support significantly influenced higher education students' behavioural intention toward hybrid learning in Malaysian private universities. However, the results tallied by Glazer and Wanstreet (2011) said that both on-campus and online synchronous hybrid students' experience experiences of social isolation do not significantly influence the higher education student's behavioural intention toward hybrid learning because the incompatibility of varied attendance patterns constrains their interactions.

Additionally, a minority of the respondents agreed with the item CS3 and item CS4, contributing the lowest mean of 3.8860 and the second lowest mean of 3.9900, respectively, among the five items in the questionnaire. Therefore, "The campus has IT technical support who can provide me with data management advice and consultancy" and "The campus has IT technical support who can enable me to receive and exchange information and knowledge with lecturers and other students by using electronic linkages and software applications" are not supported. Further, the p-value of campus support (0.473) is more than 0.05. Hence, it can be concluded that campus support is not significant to the higher education students' behavioural intention towards hybrid learning in Malaysian private universities.

5.3 Implications of the Study

5.3.1 Theoretical Implication

According to the current study's academic findings, the Technology Acceptance Model, Theory of Planned Behaviour, Theory of Connectivity, Social Cognitive Theory, Social Support Theory, and Campus Class Technology Theory are relevant for the current research. As proof, the six factors may account for 44.10 per cent of the diversity in higher education students' behavioural intentions toward hybrid learning, as shown by the R-square value of 0.441.

Additionally, the new conceptual framework in the ongoing study, which consists of PU, PE, IA, SE, TS, and CS, gave researchers new insights into how the element can be combined with the Technology Acceptance Model, Theory of Planned Behaviour, Theory of Connectivity, Social Cognitive Theory, Social Support Theory, and Campus Class Technology Theory to explain higher education students' behavioural intention toward hybrid learning. The verity is that PU, PE, IA, and TS in the model were significant in this research serves as evidence.

Moreover, this research enriched important behavioural intentions for studies about hybrid learning. A few theory-based research uses the Technology Acceptance Model, Theory of Planned Behaviour, Theory of Connectivity, Social Cognitive Theory, Social Support Theory, and Campus Class Technology Theory to examine higher education students' behavioural intentions toward hybrid learning. Most empirical studies used models like TAM and TPB in the pertinent investigations. As a result, this study can be a reference for future researchers.

5.3.2 Practical Implications

According to the findings, the perceived usefulness of a hybrid learning system has the greatest influence on higher education students' behavioural intentions towards hybrid learning in Malaysian private universities. Therefore, hybrid learning system developers should prioritize ease of use and convenience when creating hybrid learning instruments and strive to offer the maximum level of flexibility to encourage hybrid learning among higher education students.

Furthermore, perceived ease of use is the second most significant factor influencing this study's higher education students' behavioural intention toward hybrid learning. For higher education students to persist in their hybrid learning efforts, hybrid learning designers must ensure the hybrid learning system is more embraced as the technique is simple to use and may be applied to various applications to improve performance. Additionally, higher education students should know the benefits and value of hybrid learning through various channels. This may raise their awareness of the value of hybrid learning, thus increasing their behavioural intention toward it.

Besides, internet access is another significant factor influencing higher education students' behavioural intention toward hybrid learning. Private higher educational institutions should encourage the acquisition of hybrid learning among higher education students by giving high-speed internet access to large receivers without limitation of space and time. In addition, private higher education institutions may install internet access points at the departmental and faculty levels to boost the usage of the online-basic learning method.

Then, self-efficacy was proven to have an insignificant influence higher education students' behavioural intentions towards hybrid learning in Malaysian private universities. Although the result was insignificant but self-efficacy plays a vital role in affecting behavioural intention. This is because self-efficacy beliefs are mental constructs that influence how much effort is put forth, whether or not behaviour change is launched, and how long it is maintained in the face of

setbacks and failures. Self-efficacy affects how hard one tries to alter behaviour, and how persistent one is in pushing through obstacles and failures that could sap drive. One of the materializing educational prototypes should be incorporated in higher education students' lifelong learning and development, encouraging higher education students to devote themselves to hybrid learning efforts. Hence, the Student Representative Council (SRC) should discuss the issues about hybrid learning faced by the students and propose some motivational programs that can increase higher education students' behavioural intention toward hybrid learning. By motivating higher education students toward hybrid learning, they will tend to be confident about hybrid learning and thus, increase their behavioural intention towards it.

Moreover, teacher support significantly influences higher education students' behavioural intention toward hybrid learning. Higher education students will have high behavioural intention toward hybrid learning once teachers' technological skills and knowledge have been implemented in hybrid learning. Teachers must also supply the necessary aid to the students regardless of whether it is traditional (whiteboard and textbooks) or mechanical (video-projectors and audio teaching machine) teaching aids. Teaching aids clarify the subject, facilitate revision, plan activities, and offer students novel and engaging learning methods. They assist in carrying out instructional strategies and activities. They serve as managerial tools as well. Over time, teachers can amass a collection of teaching resources by creating their own or purchasing them from educational supply shops. This may improve independence during the interaction between teachers and students.

Lastly, campus support was proven to have an insignificant influence on higher education students' behavioural intentions towards hybrid learning in this study. Although campus support have an insignificant result but it play an important role in affecting higher education students' behavioural intention toward hybrid learning. Campus support that fully provided to the students could help them to improve persistence and academic performance which will then affect their behavioural intention toward hybrid learning. Therefore, private higher education institutions should fully provide technical support to the higher

education students, for instance, the Microsoft Teams account and Google Classroom account. Once these online applications can fulfill the higher education students' needs and wants, their behavioural intention toward hybrid learning will increase.

5.4 Limitations and Recommendations of the Study

The current research had exist several limitations. Firstly, The target respondents who took part in the current research were restricted. This survey focused on the views of students at private universities. The opinions of students at public universities were disregarded. In addition, the study only focused on eight private universities in the states of Perak, Selangor, Negeri Sembilan, and Kuala Lumpur. This restricted focus could limit the representativeness of the data that was gathered. As a result, the respondents are restricted to a narrow group of individuals. In order to increase the reliability and validity of the findings, future researches may use target respondents from both public and private universities.

Besides, the approach we connect with most of the respondents is through social media platforms and collect the data by using Google Form. Thus, our respondents are limited to social media users, and the university students that are non-social media users have been ignored. Therefore, future research may diversify the approach of collecting the data from respondents rather than focusing on social media platforms, for instance, connecting with the respondent physically. Through physical communication, we can reach university students that are not social media users and improve the comprehensiveness of our research.

Furthermore, this current research only use quantitative method to collect the data but not the qualitative method. Hence, future researches may use both qualitative and quantitative method to collect the data. For an example of qualitative method, the interview section could be incorporated into one of the data collection methods in the future study. Interviews are useful in collecting information that is difficult to explain and express through survey questions. In

such a way, the information collected by the interview will be more detailed and specific.

Moreover, this research incorporated perceived usefulness of hybrid learning system, perceived ease of use, internet access, self-efficacy, teacher support, and campus support as the independent variables. Therefore, future investigation can be probed to determine other factors for instance, the course content, activities during the class, perceived satisfaction, and performance expectancy that can be used to justify behavioural intention towards hybrid learning.

Finally, 397 out of 500 respondents or 79.4% of the respondents are fall under the age group of 21 to 23 years old in this research. It demonstrates a proportional disparity in age groups. As a result, future researchers may use quota sampling when distributing questionnaires to respondents to ensure there is an equal number of respondents from each age group when conducting the research. This can improve the research's accuracy by reducing sampling bias, resulting in errors during data analysis.

5.5 Conclusion

Briefly, this study used a research model and six independent variables to examine the factors affecting higher education students' behavioural intention towards hybrid learning in Malaysian private universities (PU, PE, IA, SE, TS, and CS). These independent variables are being used to assess higher education students' behavioural intention in Malaysian private universities on hybrid learning. The data revealed that six independent variables have significantly influence on higher education students' behavioural intention towards hybrid learning in Malaysian private universities. PU, PE, IA, and TS have a significant influence. In contrast, the SE and CS has not significantly influenced the dependent variable: higher education students' behavioural intention towards hybrid learning in Malaysian private universities. Moreover, we also highlighted limitations and recommendations for future research to avoid the constraint that causes the reliable result to be lower. It will be helpful for future academics who are conducting research on higher education students' behavioural intention towards hybrid learning. In conclusion, this research has been contributed to the research by proving that the independent variables significantly influenced the dependent variable: higher education students' behavioural intention towards hybrid learning.

References

Abi Raad, M. E., & Odhabi, H. Original Paper Hybrid Learning Here to Stay!.

Adams, D. A., Nelson, R.R. and Todd, P.A. (1992). *'Perceived usefulness, ease of use, and usage of information technology: A replication.'* MIS Quarterly, 16, 2, 227-247.

Admin. (2020, August 24). Scales of Measurement- Nominal, Ordinal, Interval and Ratio. Retrieved from https://byjus.com/maths/scales-of-measurement/

Adnan, M., & Anwar, K. (2020). Online Learning amid the COVID-19 Pandemic: Students' Perspectives. *Online Submission*, *2*(1), 45-51.

Ajzen, I. (2006). behavioral interventions based on the theory of planned behavior.

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology, 32*(4), 665-683. doi:10.1111/j.1559-1816.2002.tb00236.x

Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.

Alharbi, S., & Drew, S. (2014). Using the technology acceptance model in understanding academics' behavioural intention to use learning management systems. *International Journal of Advanced Computer Science and Applications*, *5*(1), 143-155.

Alharbi, S. H., & Sayed, O. A. (2017). Measuring services quality: Tabuk municipal. *British Journal of Economics, Management & Trade, 17* (2), 1-9. doi:10.9734/BJEMT/2017/33021

Al-Hujran, O., Al-Lozi, E., & Al-Debei, M. (2014). Get ready to mobile learning: Examining factors affecting college students' behavioral intentions to use m-learning in Saudi Arabia. *Jordan Journal of Business Administration, 10*(1), 111-128. doi:10.12816/0026186

Ali, S., Uppal, M. A., & Gulliver, S. R. (2018). A conceptual framework highlighting e-learning implementation barriers. *Information Technology & People*, 31(1), 156-180.

Aljuaid, N. M., Alzahrani, M. A., & Islam, A. A. (2014). Assessing mobile learning readiness in Saudi Arabia higher education: An empirical study. *Malaysian Online Journal of Education Technology, 2* (2), 1-14. Retrieved from https://files.eric.ed.gov/fulltext/EJ1086443.pdf

AlNajdi, S. (2014, March). Hybrid learning in higher education. In *Society for Information Technology & Teacher Education International Conference* (pp. 214-220). Association for the Advancement of Computing in Education (AACE).

Alqurashi, E. (2016). Self-efficacy in online learning environments: A literature review. *Contemporary Issues in Education Research (CIER)*, 9(1), 45-52.

Alsabawy, A. Y., Cater-Steel, A., & Soar, J. (2016). Determinants of perceived usefulness of e-learning systems. *Computers in Human Behavior*, 64, 843-858.

Amro, F., & Borup, J. (2019). Exploring blended teacher roles and obstacles to success when using personalized learning software. *Journal of Online Learning Research*, 5(3), 229-250.

Alchemer. (2021, August 26). An introduction to judgment sampling. Retrieved April 21, 2022, from https://www.alchemer.com/resources/blog/introduction-to-judgment-sampling/

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British journal of social psychology*, *40*(4), 471-499.

Asiamah, N., Mensah, H. K., & Oteng-Abayie, E. F. (2017). General, target, and accessible population: Demystifying the concepts for effective sampling. *The Qualitative Report*, 22(6), 1607.

Asio, J. M. R., Gadia, E., Abarintos, E., Paguio, D., & Balce, M. (2021). Internet connection and learning device availability of college students: Basis for institutionalizing flexible learning in the new normal. *Studies in Humanities and Education*, 2(1), 56-69.

Ayuni, D., & Mulyana, A. (2019). Applying service quality model as a determinant of success in E-learning: The role of institutional support and outcome value. *Review of Integrative Business and Economics Research*, 8, 145-159.

Azlan, C. A., Wong, J. H. D., Tan, L. K., Huri, M. S. N. A., Ung, N. M., Pallath, V., ... & Ng, K. H. (2020). Teaching and learning of postgraduate medical physics using Internet-based e-learning during the COVID-19 pandemic–A case study from Malaysia. *Physica Medica*, *80*, 10-16.

Badri, M., Al Rashedi, A., Yang, G., Mohaidat, J., & Al Hammadi, A. (2016). Students' intention to take online courses in high school: A structural equation model of causality and determinants. *Education and Information Technologies*, 21(2), 471-497.

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.

Bandura, A. (1977a). Social Learning Theory. Englewood Cliffs, NJ: *Prentice-Hall*

Bandura, A. (1977b). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review* 84 (2), 191–215

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: *Prentice Hall*.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). *New York: Academic Press*. (Reprinted in H. Friedma [Ed.], Encyclopedia of mental health. *San Diego: Academic Press*, 1998).

Bell, F. (2011). Connectivism: Its place in theory-informed research and innovation in technology-enabled learning. *International Review of Research in Open and Distributed Learning*, *12*(3), 98-118.

Bell, J., Sawaya, S., & Cain, W. (2014). Synchromodal classes: Designing for shared learning experiences between face-to-face and online students. *International Journal of Designs for Learning*, https://doi:10.14434/ijdl.v5i1.12657

Bennett, D., Knight, E., & Rowley, J. (2020). The role of hybrid learning spaces in enhancing higher education students' employability. *British Journal of Educational Technology*, 51(4), 1188-1202.

Bhandari, P. (2021, December 8). An introduction to quantitative research. Scribbr. Retrieved April 5, 2022, from https://www.scribbr.com/methodology/quantitative-research/

Bhandari, P. (2022, March 10). A step-by-step guide to data collection. Scribbr. Retrieved April 5, 2022, from https://www.scribbr.com/methodology/data-collection/

Bower, M., Dalgarno, B., Kennedy, G. E., Lee, M. J. W., & Kenney, J. (201 Design and implementation factors in blended synchronous learning environments: Outcomes from a cross-case analysis. *Computers and Education*, https://doi:10.1016/j.compedu.2015.03.006

Boyarsky, K. (2021, October 7). The benefits of hybrid learning in a post-COVID world. Owl Labs Blog. Retrieved April 21, 2022, from https://resources.owllabs.com/blog/hybrid-learning-benefits

Buttle, F. (1996). SERVQUAL: Review, critique, research agenda. *European Journal of Marketing, 30* (1), 8-32. Doi: 10.1108/03090569610105762

Carlton, G. (2021, March 15). Hybrid classes: What are they, and pros and cons. TheBestSchools.org. Retrieved April 21, 2022, from https://thebestschools.org/magazine/hybrid-classes-pros-cons/

Carreno, I. D. V. G. (2014). Theory of connectivity as an emergent solution to innovative learning strategies. *American Journal of Educational Research*, *2*(2), 107-116.

Causal Research (Explanatory research). (n.d.). Retrieved from https://research methodology.net/causal-research/

Cahyono, A. N., & Asikin, M. (2019, October). Hybrid learning in mathematics education: How can it work?. *In Journal of Physics: Conference Series* (Vol. 1321, No. 3, p. 032006). IOP Publishing.

Chen, H. R., & Tseng, H. F. (2012). Factors that influence acceptance of web-based e-learning system for the in-service education of junior high school teachers in Taiwan. *Evaluation and Program Planning*, 35, 398– 406.

Cheong, J. Q., & Narayanan, S. (2021). Factors affecting the transition from university to work in selected Malaysian cities: is a public university degree a disadvantage?. *Asia Pacific Journal of Education*, 41(1), 39-54.

Chirwa, M. (2018). Access and use of internet in teaching and learning at two selected teachers' colleges in Tanzania. *International Journal of Education and Development using ICT*, 14(2).

Christensen, T.K. (2003). Finding the balance: Constructivist pedagogy in a blended course. *Quarterly Review of Distance Education, 4(3)*, 235-243.

Chua, S. (2021). "Focus on hybrid, online learning, Radzi urged". Free Malaysi Today. Retrieved from https://www.freemalaysiatoday.com/category/nation/2021/08/27/focus-on-hybrid-online-learning-radzi-urged/

Clark, J. D. (2007). *Learning and teaching in the mobile learning environment of the twenty-first century*. Retrieved from http://www.austincc.edu/jdclark/mobilelearningenables.pdf

Cotler, J., Kassab, D., & Yuan, X. (2013). Under what conditions does web conferencing inhibit learning in a computer science classroom. *Journal of Computing Sciences in Colleges*, *28*(6), 179-185.

Cruz, Y., Boughzala, I., & Assar, S. (2014). Understanding the influence of learning styles in mobile learning usage from the perspective of technology adoption and continuance use. *Pre-ICIS Workshop.* Retrieved from ecis2014.eu/E-poster/files/0937-file1.pdf

Cullen, F. T. (1994). Social support as an organizing concept for criminology: Presidential address to the Academy of Criminal Justice Sciences. *Justice Quarterly*, *11*(4), 527-559.

Cullen, F. T., Wright, J. P., & Chamlin, M. B. (1999). Social support and social reform: A progressive crime control agenda. *Crime & Delinquency*, *45*(2), 188-207.

Cunningham, U. (2014). Teaching the disembodied: Othering and activity systems in a blended synchronous learning situation. *International Review of Research in Open and Distributed Learning*, https://doi.org/10.19173/irrodl.v15i6.1793

Dağhan, G., & Akkoyunlu, B. (2016). Modeling the continuance usage intention of online learning environments. *Computers in Human Behavior*, *60*, 198-211.

Dallas. (2021, May 20). Future of school: Hybrid learning models are here to stay. Future of School: Hybrid Learning Models are Here to Stay. Retrieved March 14, 2022, from https://about.att.com/story/2021/future_of_school.html

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management science*, 35(8), 982-1003.

Davis, F.D. (1989). *'Perceived usefulness, perceived ease of use and user acceptance of information technology.' MIS Quarterly*, 13(3), 319-339.

Dhingra, M., & Mudgal, R. K. (2019). Applications of Perceived Usefulness and Perceived Ease of Use: A Review. 2019 8th International Conference System Modeling and Advancement in Research Trends (SMART), System Modeling and Advancement in Research Trends (SMART), 2019 8th International Conference, 293–298. https://doi-org.libezp2.utar.edu.my/10.1109/SMART46866.2019.9117404

Dikkow, M. (2016). Establishing construct validity and reliability: Pilot testing of a qualitative interview for research in Takaful (Islamic Insurance). *The Qualitative Report, 21*(3), 521-528

Dogruer, N., Eyyam, R., & Menevis, I. (2011). The use of the internet for educational purposes. *Procedia-Social and Behavioral Sciences*, 28, 606-611.

Downes, S. (2012). Connectivism and connective knowledge.

Drelich-Zbroja, A., Jamroz-Wiśniewska, A., Kuczyńska, M., Zbroja, M., Cyranka, W., Drelich, K., ... & Markiewicz, K. (2021). The Impact of Study Mode (Online vs. Hybrid) on Early Symptoms of Depression and Coping Strategies among University Students in Poland in Time of COVID-19 Pandemic—Preliminary Study. *Brain Sciences*, 11(12), 1578.

Drennon-Gala, D. T. (1994). *The effects of social support and inner containment on the propensity toward delinquent behavior and disengagement in education*. University of Rochester.

Dunaway, M. K. (2011). Connectivism: Learning theory and pedagogical practice for networked information landscapes. *Reference services review*.

Education Malaysia. (2022). Malaysia Higher Education in Brief. Retrieved from https://educationmalaysia.gov.my/malaysia-higher-education-in-brief/

Eryilmaz, M. (2015). The effectiveness of blended learning environments. *Contemporary Issues in Education Research (CIER)*, 8(4), 251-256.

Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J. A. (2020). Students' perceptions on distance education: A multinational study. *International Journal of Educational Technology in Higher Education*, 17(1), 1-18.

Fishbein, M., & Ajzen, I. (2011). *Predicting and changing behavior: The reasoned action approach*. Psychology press.

Formplus Blog. (2020, January 15). What is primary data? + [examples & collection methods]. Formplus. Retrieved April 5, 2022, from https://www.formpl.us/blog/primary-data

Granić, A., & Marangunić, N. (2019). Technology acceptance model in educational context: A systematic literature review. *British Journal of Educational Technology*, 50(5), 2572-2593.

Geoffrey, W., & Paul, L. (2015). Private Higher Education in Malaysia: Are We Heading Towards A Crisis. Penang Institute.

George, T. (2022, March 10). A guide to exploratory research. Scribbr. Retrieved April 5, 2022, from https://www.scribbr.com/methodology/exploratory-research/#:~:text=Exploratory%20research%20is%20a%20methodology,can%20be%20quantitative%20as%20well.

Glazer, H. R. and Wanstreet, C. E., 2011. H.R. Glazer, C.E. Wanstreet 'Connection to the academic community perceptions of students in online education.' *Quarterly Review of Distance Education*, 12 (1) (2011), pp. 55-62. Retrieved from https://www.sciencedirect.com/science/article/pii/S1096751615300026?casa_token=y6f13QzcZ6kAAAAA:QxI7Ap4DKsOhfZb-9EoAmhEvG63s9DpKEvPIn_nhiMhp_tedp3Kxp7pOZfIQgZiu4n2Zmh2zgcl1#bb0220

Gunuc, S. (2013). Determining the role of technology in student engagement and examining of the relationships between student engagement and technology use in class. *Unpublished doctoral dissertation, The Graduate School of Educational Sciences, Anadolu University, Turkey*.

Gunuc, S. (2021). Testing campus-class-technology theory in student engagement: a large sample path analysis. *Journal of College Student Retention: Research, Theory & Practice*, 1521025121995939.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed.). New Jersey: *Prentice Hall*.

Hanafizadeh, P., Behboudi, M., Khoshksaray, A., & Shirkhani Tabar, M. (2014). Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics*, 31(1), 62–78.

Hayes, A. (2021, August 3). Descriptive statistics. Investopedia. https://www.investopedia.com/terms/d/descriptive_statistics.asp.

Hayes, A. (2022, January 3). *Multiple linear regression (MLR) definition*. Investopedia. Retrieved March 28, 2022, from https://www.investopedia.com/terms/m/mlr.asp

Hediansah, D., & Surjono, H. D. (2020). Hybrid learning development to improve teacher learning management. *JKTP: Jurnal Kajian Teknologi Pendidikan*, 3(1), 1-9.

Heggart, K., & Yoo, J. (2018). Getting the most from Google Classroom: A pedagogical framework for tertiary educators. *Australian Journal of Teacher Education*, 43(3), 140-153.

Hendrick, H. & Brown, O. (1984). Editors, *Human Factors in Organizational Design* 1, North-Holland, Amsterdam, The Netherlands, pp. 395–403.

Ho, C.-H. (2010). Continuance intention of e-learning platform toward an integrated model. *International Journal of Electronic Business Management, 8*(3), 206-215. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.473.1115&rep=e&type=pdf

Houwer, J.D., Holmes, D.B. & Moors, A. (2013). "What is learning? On the nature and merits of a functional definition of learning"

Hrastinski, S. (2019). "What Do We Mean by Blended Learning?"

Hsieh, P.-A. J., & Cho, V. (2011). Comparing e-Learning tools' success: The case of instructor–student interactive vs. self-paced tools. *Computers & Education*, 57(3), 2025–2038. https://doi-org.libezp2.utar.edu.my/10.1016/j.compedu.2011.05.002

Hu, P.J., Chau, P.Y.K., Sheng, O.R.L., & Tam, K.Y. (1999). *'Examining the technology acceptance model using physical acceptance of telemedicine technology'. Journal of Management Information Systems*, 16(2), 91-112.

Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE. *Children and youth services review*, *119*, 105699.

Iacobucci, D., & Duhachek, A. (2003). Advancing alpha: Measuring reliability with confidence. *Journal of Consumer Psychology*, 13(4), 478-487. Retrieved from http://www2.owen.vanderbilt.edu/dawn.iacobucci/articles/jcpalpha_iacobucciduhachek.pdf

Ibrahim, M. M., & Nat, M. (2019). Blended learning motivation model for instructors in higher education institutions. *International Journal of Educational Technology in Higher Education*, *16*(1), 1-21.

Iftakhar, S. (2016). Google classroom: what works and how. *Journal of Education and Social Sciences*, 3(1), 12-18.

Indeed Editorial Team. (2021, June 24). What is causal research? (with examples, benefits and tips). Indeed Career Guide. Retrieved April 5, 2022, from https://www.indeed.com/career-advice/career-development/causal-research

INTI International University & Colleges. (2022). *Malaysia*. Retrieved April 7, 2022, from https://newinti.edu.my/

Islam, A. N. (2013). Investigating e-learning system usage outcomes in the university context. *Computers & Education*, 69, 387-399.

IvyPanda. (2019, July 3). *Hybrid Education Model.* https://ivypanda.com/essays/hybrid-education-model/

Jamison, A., Kolmos, A., & Holgaard, J. E. (2014). Hybrid learning: An integrative approach to engineering education. *Journal of Engineering Education*, *103*(2), 253-273.

Jeffrey, L. M., Milne, J., Suddaby, G., & Higgins, A. (2014). Blended learning: How teachers balance the blend of online and classroom components. *Journal of Information Technology Education*, 13.

Johnson, J. (2002). Reflections on teaching a large enrollment course using a hybrid format. *Teaching with technology today*, *8*(6), 4.

Joo, Y. J., Lim, K. Y., & Kim, E. K. (2011). Online university students' satisfaction and persistence: Examining perceived level of presence, usefulness and ease of use as predictors in a structural model. *Computers & Education*, 57(2), 1654–1664. https://doi-org.libezp2.utar.edu.my/10.1016/j.compedu.2011.02.008

Kan, M. P. H., & Fabrigar, L. R. (2017). Theory of planned behavior. *Encyclopedia of personality and individual differences*, 1-8.

Karaali, D., Gumussoy, C. A., & Calisir, F. (2011). Factors affecting the intention to use a web-based learning system among blue-collar workers in the automotive industry. *Computers in Human Behavior, 27*(1), 343-354.

Kastornova, V. A. E., & Gerova, N. V. (2021, June). Use of hybrid learning in school education in France. In *2021 1st International Conference on Technology Enhanced Learning in Higher Education (TELE)* (pp. 260-264). IEEE.

Kenney, J., & Newcombe, E. (2011). Adopting a blended learning approach: Challenges encountered and lessons learned in an action research study. *Journal of Asynchronous Learning Networks*, 15(1), 45-57.

Khalid, K., Hilman, H., & Kumar, D. (2012). Get along with quantitative research process. *International Journal of Research in Management, 2*(2), 15–29.

King, K. P. (2002). Identifying success in online teacher education and professional development. *The Internet and Higher Education*, *5*(3), 231-246.

Knoema (2018). United Arab Emirates – Share of households with Internet. Retrieved August 7, 2020, website: https://knoema.com/atlas/United-Arab-Emirates/topics/Telecommunication/Internet-Users/Share-of-households-with-Internet.

Kort-Butler, L. (2018). Social support theory.

Krejcie, R., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607-610.

Kuar, S. (2019). Role of a Teacher in Student Learning Process. International *Journal of Business and Management Invention (IJBMI)*

Latip, M. S. A., Noh, I., Tamrin, M., & Latip, S. N. N. A. (2020). Students' acceptance for e-learning and the effects of self-efficacy in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 10(5), 658-674.

Lau, A. (2021, November 1). Should school lessons now be F2F, online or hybrid?: Malay mail. Opinion | Malay Mail. Retrieved February 26, 2022, from https://www.malaymail.com/news/opinion/2021/11/02/should-school-lessons-now-be-f2f-online-or-hybrid/2017752

Lee, J.-K., & Hwang, C.-Y. (2007). The effects of computer self-efficacy and learning management system quality on eLearner's satisfaction. In L. Cameron, A. Voerman, & J. Dalziel (Eds.), *Proceedings of the 2007 European LAMS Conference: Designing the future of learning* (pp. 73-79). Greenwich: LAMS Foundation.

Lee, M.-C. (2010). Explaining and predicting users' continuance intention toward e-learning: An extension of the expectation-confirmation model. *Computers & Education, 54*, 506-516. doi:10.1016/j.compedu.2009.09.002

Li, C., & Lalani, F. (2020, April). The COVID-19 pandemic has changed education forever. In *World economic forum* (Vol. 29). The rise of online learning during the COVID-19 pandemic| World Economic Forum (weforum. org).

Lim, C. K. (2000). Computer self-efficacy, academic self-concept and other factors as predictors of satisfaction and future participation of adult learners in Web-based distance education. *Dissertation Abstracts International*, 61.

Lischer, S., Safi, N., & Dickson, C. (2021). Remote learning and students' mental health during the Covid-19 pandemic: A mixed-method enquiry. *Prospects*, 1-11.

Li, Y., Duan, Y., Fu, Z., & Alford, P. (2012). An empirical study on behavioral intention to reuse e-learning systems in rural China. *British Journal of Educational Technology*, 43(6), 933–948.

Maddux, J. (2012). Self-Efficacy: The Power of Believing You Can. *The Handbook of Positive Psychology*. 227-287. doi:10.1093/oxfordhb/9780195187243.013.0031.

Malhotra, N. K., & Peterson, M. (2006). Basic marketing research: A decision-making approach. *Prentice hall*.

Martha, Z. D., Adi, E. P., & Soepriyanto, Y. (2018). E-book berbasis Mobile learning. *Jurnal Kajian Teknologi Pendidikan*, *1*(2), 109-114.

Masrom, M. (2007). Technology acceptance model and e-learning. *Technology*, *21*(24), 81.

Mathieson, K. (1991). Predicting user intentions: comparing the technology acceptance model with the theory of planned behavior. *Information systems research, 2*(3), 173-191.

Matukhin, D., & Zhitkova, E. (2015). Implementing blended learning technology in higher professional education. *Procedia-Social and Behavioral Sciences*, 206, 183-188.

McCombes, S. (2020, September 3). Descriptive research. Scribbr. Retrieved April 5, 2022, from https://www.scribbr.com/methodology/descriptive-research/

Mcleod, S. (2018). Questionnaire: Definition, examples, design and types. Questionnaire: : Definition, Examples, Design and Types | Simply Psychology. Retrieved April 5, 2022, from https://www.simplypsychology.org/questionnaires.html

Medina, L. C. (2018). Blended learning: Deficits and prospects in higher education. *Australasian Journal of Educational Technology*, *34*(1).

Meydanlioglu, A., & Arikan, F. (2014). "Effect of hybrid learning in higher education." *International Journal of Information and Communication Engineering*, 8(5), 1292-1295.

Miranda, J., & Molina, A. (2020, September). Designing Hybrid Learning Programs in Higher Education by Applying Education 4.0: The Innovation Challenge Bootcamp as Case Study. In *2020 IEEE Learning With MOOCS (LWMOOCS)* (p. 31-36). IEEE.

Mohammadi, H. (2015). Investigating users' perspectives on e-learning: An integration of TAM and IS success model. *Computers in Human Behavior*, 45, 359-374.

Momoh, O. (2021, September 13). Understanding population statistics. Investopedia. Retrieved April 6, 2022, from https://www.investopedia.com/terms/p/population.asp#:~:text=A%20population%20is%20a%20distinct,is%20drawn%20for%20a%20study.

Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). "e-Learning, online learning, and distance learning environments: Are they the same?." The Internet and higher education.

Muilenburg, L. Y., & Berge, Z. L. (2005). Student barriers to online learning: A factor analytic study. *Distance Education*, 26(1), 29-48.

Murati, R. (2015). The role of the teacher in the educational process. *The Online Journal of New Horizons in Education*, 5(2), 75-78.

Naziev, A. (2017). What is an education. In *Conference Proceedings. The Future of Education* (pp. 1-4). libreriauniversitaria. it Edizioni.

Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. *MERLOT Journal of Online Learning and Teaching*, *11*(2), 309-319.

Nordin, N., & Nordin, N. (2020). "Impact of Pandemic COVID-19 to the Online Learning: Case of Higher Education Institution in Malaysia". *Universal Journal of Educational Research*.

Northey, G., Bucic, T., Chylinski, M. and Govind, R., 2015. Increasing Student Engagement Using Asynchronous Learning. *Journal of Marketing Education*, 37(3), pp. 171-180. Retrieved from https://academic-publishing.org/index.php/ejel/article/view/1855/1818

Nunnally, J.C. and Bernstein, I.R. (1994), Psychometric theory, Ed. ke-3, McGraw-Hill, New York.

O'Byrne, W. I., & Pytash, K. E. (2015). Hybrid and blended learning: Modifying pedagogy across path, pace, time, and place. *Journal of Adolescent & Adult Literacy*.

Oh, J., & Yoon, S. J. (2014). Validation of Haptic Enabling Technology Acceptance Model (HE-TAM): Integration of IDT and TAM. *Telematics and Informatics*, 31, 585-596.

Olapiriyakul, K., & Scher, J. M. (2006). A guide to establishing hybrid learning courses: Employing information technology to create a new learning experience, and a case study. *The Internet and Higher Educatio*n, 9(4), 287-301.

Ong, S. F., & Nordin, M. R. (n.d.) Malaysia Private Higher Educational Institution (PHEI): Exporting Education (Conceptual Paper).

O'Neill, B. S., & Mone, M. A. (1998). Investigating equity sensitivity as a moderator of relations between self-efficacy and workplace attitudes. *Journal of Applied Psychology*, 83(5), 805.

Ora, A., Sahatcija, R., & Ferhataj, A. (2018). Learning styles and the hybrid learning: An empirical study about the impact of learning styles on the perception of the hybrid learning. *Mediterranean Journal of Social Sciences*, 9(1), 137.

Osborne, J. W., & Waters, E. (2002). Four assumptions of multiple regression that research should always test. *Practical Assessment, Research & Evaluation, 8*(2). Retrieved from http://PAREonline.net/getvn.asp?v=8&n=2

Pallant, J. (2020). SPSS survival manual: A step by step guide to data analysis using IBM SPSS. Routledge.

Pandurov, M. (2021, August 6). *35 exciting blended learning statistics [the 2021 view]*. Mark in Style. Retrieved March 14, 2022, from https://markinstyle.co.uk/blended-learning-statistics/

Park, S. (2009). An analysis of the technology acceptance model in understanding university students' behavioral intention to use e-learning. *Educational Technology and Society*, 12(3), 150–162.

Pellas, N. (2014). The influence of computer self-efficacy, metacognitive self-regulation and self-esteem on student engagement in online learning programs: Evidence from the virtual world of Second Life. *Computers in Human Behavior*, 35, 157- 170. doi:10.1016/j.chb.2014.02.048

Penrod, J., Preston, D. B., Cain, R. E., & Starks, M. T. (2003). A discussion of chain referral as a method of sampling hard-to-reach populations. *Journal of Transcultural nursing*, 14(2), 100-107.

Powers, K. L., Brooks, P. J., Galazyn, M., and Donnelly, S., 2016. Testing the efficacy of MyPsychlab to replace traditional instruction in a hybrid course. *Psychology Learning and Teaching*, 15(1), pp. 6-30. Retrieved from https://academic-publishing.org/index.php/ejel/article/view/1855/1818

Purahong, B., Sithiyopasakul, S., Sithiyopasakul, P., Anuwongpinit, T., Archevapanich, T., & Vichaiva, P. (2021, November). Hybrid learning during the COVID-19 pandemic of engineering students at KMITL, Thailand. In *2021 6th International STEM Education Conference (iSTEM-Ed)* (pp. 1-4). IEEE.

QuestionPro. (2021, October 4). Nominal, ordinal, interval, ratio scales with examples. Retrieved April 5, 2022, from https://www.questionpro.com/blog/nominal-ordinal-interval-ratio/

Raes, A., Detienne, L., Windey, I., & Depaepe, F. (2020). A systematic literature review on synchronous hybrid learning: Gaps identified. *Learning Environments Research*, *23*(3), 269-290.

Rajaendram, R. (2022, April 13). *Uni status: Tar UC is tar UMT now*. The Star. Retrieved April 7, 2022, from https://www.thestar.com.my/news/nation/2022/04/13/tar-uc-gets-university-status

Ramachandran, S. D., Chong, S. C., & Ismail, H. (2009). The practice of knowledge management processes: A comparative study of public and private higher education institutions in Malaysia. Vine.

Ramsey, D., Evans, J., & Levy, M. (2016). Preserving the Seminar Experience *Journal of Political Science Education*, https://doi:10.1080/15512169.2015.1077713

Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & Education*, *144*, 103701.

Rasmitadila, R., Widyasari, W., Humaira, M., Tambunan, A., Rachmadtullah, R., & Samsudin, A. (2020). Using blended learning approach (BLA) in inclusive education course: A study investigating teacher students' perception. *International Journal of Emerging Technologies in Learning (IJET)*, *15*(2), 72-85.

Raub, P. (2020). Attitude as mediator of technical usage self-efficacy, online communication self-efficacy, technology access and online media on the blended learning readiness.

Research Design - Research Methodology. (n.d.). Retrieved from https://research methodology.net/research-methodology/research-design/

Rogers, E. Diffusion of Innovations, New York, NY, *USA:Free Press*, 1995.

Rungta, K. (2022, January 22). *100+ must know online learning statistics in 2022*. Guru99. Retrieved March 14, 2022, from https://www.guru99.com/online-learning-statistics.html

Salkind, N. J. (2010). Interval scale. Sage Research Methods. Retrieved April 5, 2022, from https://methods.sagepub.com/reference/encyc-of-research-design/n195.xml

Sanpanich, N. (2021). Investigating Factors Affecting Students' Attitudes toward Hybrid Learning. *rEFLections*, *28*(2), 208-227.

Schoonenboom, J. (2014). Using an adapted, task-level technology acceptance model to explain why instructors in higher education intend to use some learning management system tools more than others. *Computers & Education*, *71*, 247-256.

Schuitema, G., Anable, J., Skippon, S., & Kinnear, N. (2013). The role of instrumental, hedonic, and symbolic attributes in the intention to adopt electric vehicles. *Transportation Research Part A, 48*, 39-49. doi:10.1016/j.tra.2012.10.004

Schwarzer , R., & Luszczynska , A. (n.d.). *Schwarzer final bolded 2 - National Cancer Institute*. Retrieved August 18, 2022, from https://cancercontrol.cancer.gov/sites/default/files/2020-06/self-efficacy.pdf

Sekaran, U., & Bougie, R (2009). Research methods for business: A skill building approach. (5th ed.). Chichester, West Sussex: John Wiley & Sons, Inc.

Selvanathan, M., Hussin, N. A. M., & Azazi, N. A. N. (2020). "Students learning experiences during COVID-19: Work from home period in Malaysian Higher Learning Institutions.". Teaching Public Administration. https://doi.org/10.1177/0144739420977900

Sharifstudy. (2022, August 16). *Taylor's University Malaysia*. Retrieved April 7, 2022, from https://sharifstudy.com/en/taylors-university-malaysia

Sharma, M. (2019). The changing role of teacher in blended learning. *International Journal of Applied Research*, 5 (8), 325-327.

Shea, P., & Bidjerano, T. (2010). Learning presence: Towards a theory of self-efficacy, self-regulation, and the development of a communities of inquiry in online and blended learning environments. *Computers & education*, 55(4), 1721-1731.

Sheeran, P. (2002). Intention—behavior relations: a conceptual and empirical review. *European review of social psychology*, *12*(1), 1-36.

Shin, Y. H., & Hancer, M. (2016). The role of attitude, subjective norm, perceived behavioral control, and moral norm in the intention to purchase local food products. *Journal of foodservice business research*, *19*(4), 338-351.

Shumate, S. (2020, November 20). The Pros and cons of Hybrid Learning. The Laurel Leaf. Retrieved April 21, 2022, from https://agslaurelleaf.com/2061/features/the-pros-and-cons-of-hybrid-learning/

Simmering, M. J., Posey, C., & Piccoli, G. (2009). Computer Self-Efficacy and Motivation to Learn in a Self-Directed Online Course. *Decision Sciences Journal of Innovative Education*, 7(1), 99-121.

Simplilearn. (2022, March 3). What is data collection: Methods, types, tools, and techniques [updated]. Simplilearn.com. Retrieved April 5, 2022, from https://www.simplilearn.com/what-is-data-collection-article

Statistik Pendidikan tinggi 2020 - 01. cover. KPT - 2020. (n.d.). Retrieved April 15, 2022, from https://www.mohe.gov.my/muat-turun/statistik/2020

Steele, C. (2022). "Hybrid vs. Blended Learning: The Difference and Why It Matters." *Leading Learning*. Retrieved from https://www.leadinglearning.com/hybrid-vs-blended-learning/

Study Malaysia. (2020). List of Universities in Malaysia. Student Info & Guide Retrieved from https://www.studymalaysia.com/education/top-stories/list-of-universities-in-malaysia

Study Malaysia. (2015). Private Higher Educational Institutions: Study Opportunities For Upper & Post Secondary School Leavers. Student Info & Guide. Retrieved from https://www.studymalaysia.com/education/higher-education-in-malaysia/private-higher-educational-institutions-study-opportunities-for-upper-post-secondary-school-leavers

StudyMalaysia. (2022). *Profile help university - elm business school - where to study*. Retrieved April 7, 2022, from https://studymalaysia.com/where/profile.php?code=help

Sudevan, S., Barwani, B., Al Maani, E., Rani, S., & Sivaraman, A. K. (2021). Impact of Blended Learning during Covid-19 in Sultanate of Oman. *Annals of the Romanian Society for Cell Biology*, 14978-14987.

Sunway University. (2022). *Students: Sunway University*. Students. Retrieved April 7, 2022, from https://university.sunway.edu.my/students

Surbhi, S. (2020, July 13). Difference between primary and secondary data (with comparison chart). Key Differences. Retrieved April 5, 2022, from https://keydifferences.com/difference-between-primary-and-secondary-data.html

Tahar, A., Riyadh, H. A., Sofyani, H., & Purnomo, W. E. (2020). Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Intention to Use E-Filing: The Role of Technology Readiness. *The Journal of Asian Finance, Economics and Business*, 7(9), 537–547. https://doi.org/10.13106/JAFEB.2020.VOL7.NO9.537

Team Leverage Edu. (2022, January 24). *Research design*. Leverage Edu. Retrieved April 5, 2022, from https://leverageedu.com/blog/research-design/

The Economic Times. (2022). "Definition of 'E-learning' ". Retrieved from https://economictimes.indiatimes.com/definition/e-learning

The Malaysia Reserves. (2021). "Hybrid Learning Key for Herding Community." Retrieved from https://themalaysianreserve.com/2021/04/16/hybrid-learning-key-for-herding-community/

Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next?. *Journal of health and social behavior*, 53-79.

Thoits, P. A. (2011). Mechanisms linking social ties and support to physical and mental health. *Journal of health and social behavior*, *52*(2), 145-161.

Times Higher Education (THE). (2021, November 12). *Multimedia University*. Retrieved April 7, 2022, from https://www.timeshighereducation.com/world-university-rankings/multimedia-university

Trakulmaykee, N., Lim, S. C., & Trakulmaykee, Y. (2013). Investigating determinants of international tourists' intention to use mobile tourism guide: Thai Nation Parks context. *Labuan Bulletin of International Business & Finance, 11*(11), 46–60.

Tri-Agif, I., Noorhidawati, A., & Ghalebandi, S.G. (2016). Continuance intention of using E-book among higher education students. *Malaysian Journal of Library & Information Science, 21* (1), 19-33. Retrieved from http://majlis.fsktm.um.edu.my/document.aspx?FileName=1581.pdf

Turner, A. G. (2003). Sampling frames and master samples. *United Nations secretariat statistics division*, 1-26.

Tutkun, O. F. (2011). Internet Access, Use and Sharing Levels among Students during the Teaching-Learning Process. *Turkish Online Journal of Educational Technology-TOJET*, 10(3), 152-160.

UCSI University. (2022, February 18). *The university*. Retrieved April 7, 2022, from https://www.ucsiuniversity.edu.my/about-us/the-university

Umberson, D., Crosnoe, R., & Reczek, C. (2010). Social relationships and health behavior across life course. *Annual review of sociology*, *36*, 139.
UNESCO. (n.d.). "Education: From disruption to recovery". Retrieved from https://en.unesco.org/covid19/educationresponse

Universiti Tunku Abdul Rahman. (2022). *Introduction*. Retrieved April 7, 2022, from https://utar.edu.my/Introduction.php

Uyanik, G. K., & Guler, N. (2013). A study on multiple linear regression analysis. *Procedia - Social and Behavioral Sciences, 106*, 234-240. doi: 10.1016/j.sbspro.2013.12.027

Van Schaik, P. (2009). Unified theory of acceptance and use for websites used by students in higher education. *Journal of Educational Computing Research*, *40*(2), 229–257. doi:10.2190/EC.40.2.e

Vaughan, N., & Garrison, D. R. (2005). Creating cognitive presence in a blended faculty development community. *The Internet and higher education*, *8*(1), 1-12.

Vaughan, N. (2007). *'Perspectives on blended learning in higher education.' International Journal on E-learning*, 6(1), 81–94.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, *46*(2), 186-204.

Venkatesh, V., Morris, M. G., & Ackerman, P. L. (2000). A longitudinal field investigation of gender differences in individual technology adoption decision-making processes. *Organizational behavior and human decision processes*, *83*(1), 33-60.

Wallace, L. G., & Sheetz, S. D. (2014). The adoption of software measures: A technology acceptance model (TAM) perspective. *Information & Management*, 51, 249-259.

Wang, J. L., Jackson, L. A., Wang, H. Z., & Gaskin, J. (2015). Predicting social networking site (SNS) use: Personality, attitudes, motivation and internet self-efficacy. *Personality and Individual Differences*, 80, 119-124.

Weitze, C. L., Ørngreen, R., & Levinsen, K. (2013). The global classroom video conferencing model and first evaluations. In I M. Ciussi, & M. Augier (Eds.), Proceedings of the 12th European Conference on ELearning: SKEMA Business School, Sophia Antipolis France, 30-31 October 2013 (Bind 2, s.503-510). Reading, *UK: Academic Conferences and Publishing International*

Weitze, C. L. (2015). Pedagogical innovation in teacher teams: An organisational learning design model for continuous competence development. In I A. Jefferies, & M. Cubric (Eds.), Proceedings of 14th European Conference on e-Learning ECEL-2015 (s. 629-638). Reading, UK: Academic Conferences and Publishing International. *Proceedings of the European Conference on e- Learning*.

Wiles, G. L., & Ball, T. R. (2013, June 23-26). The converged classroom. Paper presented at 2013 ASEE Annual Conference: Improving course effectiveness, Atlanta, Georgia. https://peer.asee.org/22561

Womble, J. C. (2007). *E-learning: The Relationship Among Learner Satisfaction, Self-efficacy, and Usefulness*. (Doctoral disertation), Alliant International University, San Diego. Retrieved from http://books.google.com/books?id=oSyz3R5YTAIC

Wong, J. (2021, October 24). *High schoolers, educators decry split focus of Hybrid Learning Model | CBC news*. CBCnews. Retrieved February 26, 2022, from https://www.cbc.ca/news/canada/hybrid-learning-high- school-1.6217868

Wu, J.-H., Tennyson, R. D., & Hsia, T.-L. (2010). A study of student satisfaction in a blended e-learning system environment. *Computers & Education*, 55(1), 155-164. doi:10.1016/j.compedu.2009.12.012

Xiaoyun, C., & Shaoying, G. (2013). The development of questionnaire on perceived mathematics teacher support for middle school students. *Studies of Psychology and Behavior*, *11*(4), 511.

Zainal, F. (2021, June 9). *SPM 2020 candidates suggest e-learning improvements to benefit future batches*. The Star. Retrieved February 26, 2022, from https://www.thestar.com.my/news/nation/2021/06/09/spm-2020-candidates-suggest-e-learning-improvements-to-benefit-future-batches

Zawawi, S. N. H. M., Jusoff, K., Rahman, R. A., & Idris, K. M. (2009). Behavioural Intention for Fraudulent Reporting Behaviour Using Cognitive Theory. *Asian Social Science, 4*(7), 43.

Zhu, M., Berri, S., & Zhang, K. (2021). Effective instructional strategies and technology use in blended learning: A case study. *Education and Information Technologies*, 26(5), 6143-6161.

Zitter, I., & Hoeve, A. (2012). Hybrid learning environments: Merging learning and work processes to facilitate knowledge integration and transitions.

Zulkosky, K. (2009). Self-efficacy: a concept analysis. In Nursing forum (Vol. 44, No. 2, pp. 93-102). Malden, USA: Blackwell Publishing Inc.

Zydney, J. M., McKimm, P., Lindberg, R., & Schmidt, M. (2019). Here or There Instruction: Lessons Learned in Implementing Innovative Approaches to Blended Synchronous Learning. *TECHTRENDS*, https://doi.org/10.1007/s11528-018-0344-z

Appendix

Appendix 3.1: Questionnaire

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Survey Questionnaire

Dear respondents,

We are third-year students of Faculty of Business and Finance who are currently pursuing Bachelor of Business Administration (Honours) at University Tunku Abdul Rahman (UTAR), Kampar Campus. We are conducting a research study to examine the factors affecting higher education students' behavioral intention toward hybrid learning in Malaysian private universities.

This questionnaire consists of 3 main sections:
Section A: Demographic Data
Section B: Constructs
Section C: Behavioral Intention Toward Hybrid Learning

Your participation in this study is entirely voluntary. There will be no disadvantage if you decide not to complete the attached anonymous questionnaire. Your personal information and data will be kept strictly private and confidential. If you have decided to participate in this study, please answer **ALL** questions as honestly as possible. This questionnaire would take around 10-15 minutes to complete. The data collected will be used solely for academic purposes.

Thank you for your participation. If you have any questions regarding this questionnaire, you may contact us at our email address as stated below:

Ng Kok Seng (Student ID No. 1906354), Email: (ngkokseng888@1utar.my)
Chen Chee Heng (Student ID No. 1905659), Email: (cheeheng0406@1utar.my)
Ngeau Jiun Yuan (Student ID No. 1905415), Email: (jy.ngeau4963@1utar.my)
Lee Wen Chye (Student ID No. 1906788), Email: (wenchye1108@1utar.my)

PERSONAL DATA PROTECTION STATEMENT

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

Notice:

1. The purposes for which your personal data may be used are inclusive but not limited to: -
   - For assessment of any application to UTAR
   - For processing any benefits and services
   - For communication purposes
   - For advertorial and news
   - For general administration and record purposes
   - For enhancing the value of education
   - For educational and related purposes consequential to UTAR
   - For the purpose of our corporate governance
   - For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan
2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining, and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.
3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.
4. UTAR is committed in ensuring the confidentiality, protection, security, and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

1. By submitting this form, you hereby authorize and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.
2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.
3. You may access and update your personal data by writing to us at ngkokseng888@1utar.my

Acknowledgment of Notice

[ ] I have been notified by you and that I hereby understood, consented, and agreed per UTAR above notice.

[ ] I disagree, my personal data will not be processed.

Screening Questions:

a) **Are you a higher education student in Malaysia?**
[ ] Yes
[ ] No (If no, then this questionnaire is not relevant to you, thanks for your time)

b) **Have you experiencing hybrid learning before?**
[ ] Yes
[ ] No (If no, then this questionnaire is not relevant to you, thanks for your time)

Section A: Demographic Data
Please choose the appropriate response by place a tick "✓" for each of the items given below.

1. Gender
( ) Male
( ) Female

2. Age
( ) 19 to 20 years old
( ) 21 to 23 years old
( ) 24 to 26 years old
( ) 27 years old and above

3. Ethnicity
( ) Malay
( ) Chinese
( ) Indian

4. Religion
( ) Islam
( ) Buddha
( ) Hinduism
( ) Christian

5. **Private University**
( ) Multimedia University (MMU)
( ) Tunku Abdul Rahman University of Management and Technology (TARUMT)
( ) Universiti Tunku Abdul Rahman (UTAR)
( ) UCSI University
( ) INTI International University
( ) Taylor's University
( ) Sunway University
( ) HELP University

6. Level of Education (Highest Qualification Attained)
( ) Foundation
( ) Diploma
( ) Bachelor's Degree
( ) Master's Degree
( ) Doctoral Degree

Section B

This section consists of the constructs (e.g., perceived usefulness of hybrid learning system, perceived ease of use, internet access, self-efficacy, teacher support, and campus support) that affecting higher education students' behavioral intention toward hybrid learning in Malaysian private universities. Please select the most appropriate option that best indicates your agreement level about the following statements.

Level of agreement:

1 – Strongly Disagree (SD); 2 – Disagree (D); 3 – Neutral (N): 4 – Agree (A); 5 – Strongly Agree (SA)

Perceived Usefulness of Hybrid Learning System (PU)

Perceived usefulness of hybrid learning system is defined as the degree to which a person believes that using a hybrid learning system would improve his or her study performance.

No.	Code	Items	SD (1)	D (2)	N (3)	A (4)	SA (5)
1	PU1	Hybrid learning system will make it easier for me to learn.					
2	PU2	Hybrid learning system will help me to accomplish study tasks more quickly.					
3	PU3	Hybrid learning system will help me to obtain a better grade.					
4	PU4	Hybrid learning systems will help me to improve the quality of my projects.					
5	PU5	Hybrid learning system will help me to increase my productivity.					

Perceived Ease of Use (PE)

Perceived ease of use is defined as the degree to which people perceive how simple it is to use technology that is hybrid learning system.

No.	Code	Items	SD (1)	D (2)	N (3)	A (4)	SA (5)
11	PE1	I expect that it will be easy for me to become skillful at using a hybrid learning system.					
12	PE2	I expect that I will find a hybrid learning system that is easy to use.					
13	PE3	It is easy for me to acquire knowledge by using hybrid learning systems to advance my studies.					
14	PE4	I expect that interacting with hybrid learning system does not require a lot of mental effort.					

15	PE5	I find it easy to get hybrid learning system to do what I want to do.					

Internet Access (IA)
Internet access is the process of people or businesses connecting to the internet via personal computers, laptops, or mobile devices.

No.	Code	Items	SD (1)	D (2)	N (3)	A (4)	SA (5)
6	IA1	I have a high-speed connection to the Internet.					
7	IA2	I have convenient access to the Internet.					
8	IA3	I have easy access to the Internet to enter the web while on campus.					
9	IA4	I have free Internet use on campus to enter the web.					
10	IA5	I can access the Internet at any time on campus.					

Self-efficacy (SE)
Self-efficacy refers to a person's belief in his or her ability to carry out the actions required to achieve specified performance goals. Self-efficacy also refers to a person's belief in their ability to manage their own motivation, behavior, and social environment.

No.	Code	Items	SD (1)	D (2)	N (3)	A (4)	SA (5)
16	SE1	I am among the first in my circle of friends to acquire modern technology.					
17	SE2	I have the technological knowledge and skills necessary to use hybrid learning.					
18	SE3	I am convinced that I can successfully learn all relevant subject content by using hybrid learning system even if it is difficult.					
19	SE4	Even if I get distracted during learning, I am confident that I can continue to learn well.					
20	SE5	I am convinced that I can develop creative ways to cope with the stress that may occur while using hybrid learning systems.					

Teacher Support (TS)
Teacher support is defined as a teacher providing emotional, appraisal, informational, or instrumental support to a student in any environment.

No.	Code	Items	SD (1)	D (2)	N (3)	A (4)	SA (5)
21	TS1	The tutors or lecturers at campus are capable of handling online subjects if asked to do so.					
22	TS2	The tutors or lecturers at campus are competent IT users.					
23	TS3	The tutors or lecturers at campus have a positive attitude toward IT.					
24	TS4	The tutors or lecturers at campus provide real time interaction tools, such as text messages, chat rooms or video calls.					

Campus Support (CS)
Campus support classified employees provide assistance in the office and on campus, including IT department, classrooms, libraries, cafeterias, and other allocated sites.

No.	Code	Items	SD (1)	D (2)	N (3)	A (4)	SA (5)
25	CS1	The campus has IT technical support person(s) whom I can turn to if I face technical problems.					
26	CS2	The campus has IT technical support who can provide me with a hybrid learning service with a prominent level of technical security.					
27	CS3	The campus has IT technical support who can provide me with data management advice and consultancy.					
28	CS4	The campus has IT technical support who can enable me to receive and exchange information and knowledge with lecturers and other students by using electronic linkages and software applications.					
29	CS5	The campus has IT technical support who can provide me with a wide range of facilities to perform hybrid learning activities such as access to the library.					

Section C: Higher Education Students' Behavioral Intention Toward Hybrid Learning in Malaysian Private Universities

Higher education students' behavioral intention toward hybrid learning is the result of a combination of numerous variables and represents a higher education students' commitment to act toward hybrid learning. Please choose the most appropriate option that best indicates your agreement level about the following statements.

No.	Code	Items	SD (1)	D (2)	N (3)	A (4)	SA (5)
30	BI1	I intend to be a heavy user of hybrid learning systems.					
31	BI2	I would use hybrid learning systems to obtain class notes and lecture outlines.					
32	BI3	I would use hybrid learning systems to contact the tutor or lecturer.					
33	BI4	I would use hybrid learning systems to get help with studying for assignments and exams.					
34	BI5	I intend to continue using the hybrid learning environment in the future.					

End of the Questionnaire
Thank you for your participation.

Appendix 3.2: Reliability Test Result - Perceived Usefulness of Hybrid Learning System (Pilot Test)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.820	.822	5

Appendix 3.3: Reliability Test Result - Perceived Ease of Use (Pilot Test)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.820	.822	5

Appendix 3.4: Reliability Test Result - Internet Access (Pilot Test)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.833	.835	5

Appendix 3.5: Reliability Test Result - Self-efficacy (Pilot Test)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.786	.792	5

Appendix 3.6: Reliability Test Result - Teacher Support (Pilot Test)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.753	.765	4

Appendix 3.7: Reliability Test Result - Campus Support (Pilot Test)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.900	.902	5

Appendix 3.8: Reliability Test Result - Higher Education Students' Behavioural Intention Toward Hybrid Learning (Pilot Test)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.777	.790	5

Appendix 4.1: Reliability Test Result - Perceived Usefulness of Hybrid Learning System (500 respondents)

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	500	100.0
	Excluded[a]	0	.0
	Total	500	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.805	.807	5

Inter-Item Correlation Matrix

	Make it easier for me to learn	Help me to accomplish study tasks more quickly	Help me to obtain a better grade	Help me to improve the quality of my projects	Help me to increase my productivity
Make it easier for me to learn	1.000	.494	.480	.374	.557
Help me to accomplish study tasks more quickly	.494	1.000	.312	.414	.539
Help me to obtain a better grade	.480	.312	1.000	.481	.435
Help me to improve the quality of my projects	.374	.414	.481	1.000	.461
Help me to increase my productivity	.557	.539	.435	.461	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Make it easier for me to learn	16.8520	5.734	.625	.422	.759
Help me to accomplish study tasks more quickly	16.7120	5.729	.567	.370	.775
Help me to obtain a better grade	16.8340	5.594	.549	.348	.781
Help me to improve the quality of my projects	16.8800	5.569	.561	.337	.777
Help me to increase my productivity	16.8740	5.193	.656	.450	.746

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.0380	8.289	2.87909	5

Appendix 4.2: Reliability Test Result - Perceived Ease of Use (500 respondents)

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	499	99.8
	Excluded[a]	1	.2
	Total	500	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.702	.709	5

Inter-Item Correlation Matrix

	Expect that it will be easy for me to become skillful	Expect that I will find a hybrid learning system that is easy to use	To acquire knowledge by using hybrid learning systems to advance my studies	Interacting with hybrid learning system does not require a lot of mental effort	Easy to get hybrid learning system to do what I want to do
Expect that it will be easy for me to become skillful	1.000	.317	.355	.283	.373
Expect that I will find a hybrid learning system that is easy to use	.317	1.000	.389	.260	.355
To acquire knowledge by using hybrid learning systems to advance my studies	.355	.389	1.000	.314	.352
Interacting with hybrid learning system does not require a lot of mental effort	.283	.260	.314	1.000	.278
Easy to get hybrid learning system to do what I want to do	.373	.355	.352	.278	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Expect that it will be easy for me to become skillful	16.4709	4.483	.470	.227	.650
Expect that I will find a hybrid learning system that is easy to use	16.3827	4.537	.466	.230	.652
To acquire knowledge by using hybrid learning systems to advance my studies	16.4369	4.222	.504	.260	.634
Interacting with hybrid learning system does not require a lot of mental effort	16.5010	4.186	.395	.158	.689
Easy to get hybrid learning system to do what I want to do	16.4409	4.480	.480	.240	.646

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.5531	6.372	2.52432	5

Appendix 4.3: Reliability Test Result - Internet Access (500 respondents)

Case Processing Summary

		N	%
Cases	Valid	500	100.0
	Excluded[a]	0	.0
	Total	500	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.749	.747	5

Inter-Item Correlation Matrix

	High-speed connection to the Internet	Convenient access to the Internet	Easy access to the Internet to enter the web while on campus	Free Internet use on campus to enter the web	Access the Internet at any time on campus
High-speed connection to the Internet	1.000	.454	.363	.255	.307
Convenient access to the Internet	.454	1.000	.180	.264	.300
Easy access to the Internet to enter the web while on campus	.363	.180	1.000	.543	.521
Free Internet use on campus to enter the web	.255	.264	.543	1.000	.529
Access the Internet at any time on campus	.307	.300	.521	.529	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
High-speed connection to the Internet	16.4260	4.999	.461	.290	.723
Convenient access to the Internet	16.3220	5.509	.394	.252	.743
Easy access to the Internet to enter the web while on campus	16.5680	4.406	.568	.411	.684
Free Internet use on campus to enter the web	16.4960	4.840	.564	.388	.687
Access the Internet at any time on campus	16.5240	4.643	.587	.383	.677

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.5840	7.173	2.67830	5

Appendix 4.4: Reliability Test Result - Self-efficacy (500 respondents)

Case Processing Summary

		N	%
Cases	Valid	500	100.0
	Excluded[a]	0	.0
	Total	500	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.724	.730	5

Inter-Item Correlation Matrix

	First in my circle of friends to acquire modern technology	Have the technological knowledge and skills necessary to use hybrid learning	Convinced that I can successfully learn all relevant subject content	Confident that I can continue to learn well	Convinced that I can develop creative ways to cope with the stress that may occur
First in my circle of friends to acquire modern technology	1.000	.324	.314	.234	.233
Have the technological knowledge and skills necessary to use hybrid learning	.324	1.000	.379	.267	.276
Convinced that I can successfully learn all relevant subject content	.314	.379	1.000	.456	.465
Confident that I can continue to learn well	.234	.267	.456	1.000	.563
Convinced that I can develop creative ways to cope with the stress that may occur	.233	.276	.465	.563	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
First in my circle of friends to acquire modern technology	16.2940	5.094	.369	.156	.729
Have the technological knowledge and skills necessary to use hybrid learning	15.9920	5.419	.428	.201	.699
Convinced that I can successfully learn all relevant subject content	16.0280	4.885	.575	.340	.643
Confident that I can continue to learn well	15.9740	4.699	.529	.370	.659
Convinced that I can develop creative ways to cope with the stress that may occur	15.9520	5.036	.548	.377	.655

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.0600	7.347	2.71055	5

Appendix 4.5: Reliability Test Result - Teacher Support (500 respondents)

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	500	100.0
	Excluded[a]	0	.0
	Total	500	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.638	.649	4

Inter-Item Correlation Matrix

	The tutors or lecturers at campus are capable of handling online subjects	The tutors or lecturers are competent IT users	Tutors or lecturers at campus have a positive attitude	The tutors or lecturers at campus provide real time interaction tools
The tutors or lecturers at campus are capable of handling online subjects	1.000	.379	.350	.314
The tutors or lecturers are competent IT users	.379	1.000	.338	.166
Tutors or lecturers at campus have a positive attitude	.350	.338	1.000	.351
The tutors or lecturers at campus provide real time interaction tools	.314	.166	.351	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The tutors or lecturers at campus are capable of handling online subjects	12.1600	2.608	.484	.235	.538
The tutors or lecturers are competent IT users	12.2700	2.206	.388	.192	.603
Tutors or lecturers at campus have a positive attitude	12.1260	2.307	.478	.230	.525
The tutors or lecturers at campus provide real time interaction tools	12.1220	2.600	.355	.165	.611

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.2260	3.855	1.96332	4

Appendix 4.6: Reliability Test Result - Campus Support (500 respondents)

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	500	100.0
	Excluded[a]	0	.0
	Total	500	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.804	.804	5

Inter-Item Correlation Matrix

	The campus has IT technical support person(s)	Provide me with a prominent level of technical security	Provide me with data management advice and consultancy	The campus has IT technical support who can enable me to receive and exchange information and knowledge	The campus has IT technical support who can provide me with a wide range of facilities
The campus has IT technical support person (s)	1.000	.495	.460	.439	.383
Provide me with a prominent level of technical security	.495	1.000	.401	.500	.361
Provide me with data management advice and consultancy	.460	.401	1.000	.465	.465
The campus has IT technical support who can enable me to receive and exchange information and knowledge	.439	.500	.465	1.000	.543
The campus has IT technical support who can provide me with a wide range of facilities	.383	.361	.465	.543	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The campus has IT technical support person (s)	15.9680	5.145	.579	.350	.769
Provide me with a prominent level of technical security	15.9100	4.916	.569	.354	.772
Provide me with data management advice and consultancy	16.0900	4.884	.581	.346	.768
The campus has IT technical support who can enable me to receive and exchange information and knowledge	15.9860	4.803	.644	.433	.748
The campus has IT technical support who can provide me with a wide range of facilities	15.9500	5.142	.568	.361	.772

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.9760	7.414	2.72291	5

Appendix 4.7: Reliability Test Result - Higher Education Students' Behavioural Intention Toward Hybrid Learning (500 respondents)

Case Processing Summary

		N	%
Cases	Valid	500	100.0
	Excluded[a]	0	.0
	Total	500	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.743	.743	5

Inter-Item Correlation Matrix

	Intend to be a heavy user	Use hybrid learning systems to obtain class notes and lecture outlines	Use hybrid learning systems to contact the tutor or lecturer	Use hybrid learning systems to get help with studying for assignments and exams	Intend to continue using the hybrid learning environment
Intend to be a heavy user	1.000	.316	.340	.374	.539
Use hybrid learning systems to obtain class notes and lecture outlines	.316	1.000	.306	.330	.376
Use hybrid learning systems to contact the tutor or lecturer	.340	.306	1.000	.378	.253
Use hybrid learning systems to get help with studying for assignments and exams	.374	.330	.378	1.000	.449
Intend to continue using the hybrid learning environment	.539	.376	.253	.449	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Intend to be a heavy user	17.1960	3.685	.555	.347	.679
Use hybrid learning systems to obtain class notes and lecture outlines	17.1720	4.043	.452	.208	.718
Use hybrid learning systems to contact the tutor or lecturer	17.3040	4.068	.426	.212	.727
Use hybrid learning systems to get help with studying for assignments and exams	17.1620	3.916	.534	.295	.689
Intend to continue using the hybrid learning environment	17.1580	3.500	.570	.388	.673

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.4980	5.641	2.37514	5

Appendix 4.8: Central Tendency Measurement - Perceived Usefulness of Hybrid Learning System (500 respondents)

Statistics

		Make it easier for me to learn	Help me to accomplish study tasks more quickly	Help me to obtain a better grade	Help me to improve the quality of my projects	Help me to increase my productivity
N	Valid	500	500	500	500	500
	Missing	0	0	0	0	0
	Mean	4.1860	4.3260	4.2040	4.1580	4.1640
	Std. Deviation	.69308	.74082	.79476	.79138	.81390

Appendix 4.9: Central Tendency Measurement - Perceived Ease of Use (500 respondents)

Statistics

		Expect that it will be easy for me to become skillful	Expect that I will find a hybrid learning system that is easy to use	To acquire knowledge by using hybrid learning systems to advance my studies	Interacting with hybrid learning system does not require a lot of mental effort	Easy to get hybrid learning system to do what I want to do
N	Valid	500	500	500	500	500
	Missing	0	0	0	0	0
	Mean	4.0820	4.1920	4.1160	4.0500	4.1120
	Std. Deviation	.70161	.68708	.75875	.87695	.69312

Appendix 4.10: Central Tendency Measurement - Internet Access (500 respondents)

Statistics

		High-speed connection to the Internet	Convenient access to the Internet	Easy access to the Internet to enter the web while on campus	Free Internet use on campus to enter the web	Access the Internet at any time on campus
N	Valid	500	500	500	500	500
	Missing	0	0	0	0	0
	Mean	4.1580	4.2620	4.0160	4.0880	4.0600
	Std. Deviation	.76826	.66199	.85393	.72754	.76784

Appendix 4.11: Central Tendency Measurement - Self-efficacy (500 respondents)

Statistics

		First in my circle of friends to acquire modern technology	Have the technological knowledge and skills necessary to use hybrid learning	Convinced that I can successfully learn all relevant subject content	Confident that I can continue to learn well	Convinced that I can develop creative ways to cope with the stress that may occur
N	Valid	500	500	500	500	500
	Missing	0	0	0	0	0
	Mean	3.7660	4.0680	4.0320	4.0860	4.1080
	Std. Deviation	.88363	.71302	.74840	.84382	.72760

Appendix 4.12: Central Tendency Measurement - Teacher Support (500 respondents)

Statistics

		The tutors or lecturers at campus are capable of handling online subjects	The tutors or lecturers are competent IT users	Tutors or lecturers at campus have a positive attitude	The tutors or lecturers at campus provide real time interaction tools
N	Valid	500	500	500	500
	Missing	0	0	0	0
	Mean	4.0660	3.9560	4.1000	4.1040
	Std. Deviation	.58165	.83153	.71486	.68566

Appendix 4.13: Central Tendency Measurement - Campus Support (500 respondents)

Statistics

		The campus has IT technical support person(s)	Provide me with a prominent level of technical security	Provide me with data management advice and consultancy	The campus has IT technical support who can enable me to receive and exchange information and knowledge	The campus has IT technical support who can provide me with a wide range of facilities
N	Valid	500	500	500	500	500
	Missing	0	0	0	0	0
	Mean	4.0080	4.0660	3.8860	3.9900	4.0260
	Std. Deviation	.68474	.76079	.76037	.73415	.69447

Appendix 4.14: Central Tendency Measurement - Higher Education Students' Behavioural Intention Toward Hybrid Learning (500 respondents)

Statistics

		Intend to be a heavy user	Use hybrid learning systems to obtain class notes and lecture outlines	Use hybrid learning systems to contact the tutor or lecturer	Use hybrid learning systems to get help with studying for assignments and exams	Intend to continue using the hybrid learning environment
N	Valid	500	500	500	500	500
	Missing	0	0	0	0	0
	Mean	4.3020	4.3260	4.1940	4.3360	4.3400
	Std. Deviation	.69264	.64851	.66124	.62920	.74398

Appendix 4.15: Multiple Linear Regression

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	CS Average, IA Average, PE Average, PU Average, SE Average, TS Average[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: BI Average

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.664[a]	.441	.435	.35718	.441	64.932	6	493	.000

a. Predictors: (Constant), CS Average, IA Average, PE Average, PU Average, SE Average, TS Average

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	49.704	6	8.284	64.932	.000[a]
	Residual	62.896	493	.128		
	Total	112.600	499			

a. Predictors: (Constant), CS Average, IA Average, PE Average, PU Average, SE Average, TS Average

b. Dependent Variable: BI Average

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.276	.169		7.548	.000	.944	1.608
	PU Average	.284	.039	.345	7.228	.000	.207	.362
	PE Average	.203	.046	.215	4.423	.000	.113	.293
	IA Average	.070	.035	.079	2.028	.043	.002	.138
	SE Average	-.011	.042	-.013	-.264	.792	-.093	.071
	TS Average	.155	.048	.160	3.236	.001	.061	.249
	CS Average	.030	.042	.035	.718	.473	-.053	.113

a. Dependent Variable: BI Average