



# SWAPEN 4.0

## SEMINAR WACANA PENDIDIKAN 2024 PERINGKAT ANTARABANGSA

**Mengintegrasikan Teknologi Kecerdasan Buatan  
*Artificial Intelligence (AI)* Sebagai Solusi Pendidikan**

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**UNIT PENERBITAN DAN PENYELIDIKAN  
KOLEJ POLY-TECH MARA ALOR SETAR**

**RAKAN  
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# **SWAPEN 4.0**

**UNIT PENERBITAN DAN PENYELIDIKAN  
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**"Sustaining Quality Education: Challenges in Blended Learning for IPTS Students in Klang Valley"**

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**ABSTRACT**

This research focus on the problems that students face at private colleges (IPTS) in Malaysia when they mix face-to-face classes with online learning. This combined learning approach, known as blended learning, gives students with greater flexibility and self-directed study options. However, several issues have been identified. The main problems are not all students have adequate access to technology, they also have different skill level when it comes to problem solving and difficult to maintain motivation to focus on current structured learning environment. The focus is to analyse these challenges and design solution to assists IPTS students also to the lectures. By using set of survey by collecting data from IPTS students in Klang Valley. This data uses quantitative method for analysis. The result appear contrast among students group depending on factors such as program of study, year of study and economic background. Also, the statistic reveals a big challenge related to internet connection and technology barriers such as devices availability and some of the students struggles to use online learning platform. Conclusion, its advisable to improving access to technology in the classroom, this will enhance students' digital skills and boost their motivational level, leading to more effective learning experience and focusing on study.

**KEYWORDS:** Blended Learning, Technological Challenge, Digital Literacy, Student Motivation

**1 INTRODUCTION**

Blended learning, an educational approach that combines traditional face-to-face classroom methods with online digital media, has gained significant traction in recent years. This approach aims to provide a more flexible and personalized learning experience, leveraging the benefits of both online and offline learning environments (Samuel, 2023). In Malaysia, particularly among private institutions of higher learning (IPTS), blended learning has become an essential strategy for enhancing educational quality and accessibility.

The impetus for this study arises from the growing need to understand the challenges that IPTS students face in adapting to blended learning environments. While the blended learning model offers numerous advantages, such as increased accessibility and convenience, it also presents unique challenges that can affect the quality of education and

student outcomes. These challenges may include technological issues, lack of digital literacy, and difficulties in maintaining motivation and engagement. This research seeks to identify and analyze these challenges, providing insights into how IPTS can better support their students in navigating blended learning environments.

## **2 LITERATURE REVIEW**

Blended learning is a method of delivering learning that more or less combines face-to-face training with computer-based training. Interestingly, the concept of blended learning has received considerable interest in Malaysia's education system especially focusing on higher learning institutions where face-to-face teaching is augmented with online components. In addition, it helps in improving the learning experience as well as meet the needs of different students. The literature reveals that blended learning has received positive reception, and at the same time a set of obstacles in Malaysia, which is quite typical when it comes to the global advances in educational technologies. This approach enables a rich learning experience that is felt by both parties and felt to have a strength of both modalities as noted by Garrison and Vaughan (2008). The form of the blended learning can be significantly differed from courses that only have a small portion of face-to-face instruction with a large amount of online content to courses, which have significant portions of both face to face and online components. This allows the educators to help the students get what they need from the learning process since student needs vary. Hybrid or blended learning has turned out to be one of the important learning delivery modalities in higher education where face-to-face training is combined with online learning. This approach has been embraced because it can be adapted to accommodate different student needs and as a result increasing the students' interest as well as their achievements. This is according to Fionasari (2024), Jeffrey et al. (2014) and Kumar & Moral (2023).

A review by shows that, blended learning models can help overcome the shortcomings of traditional teaching environment, making it easier to teach the students in an interactive manner. This is supported by, Geng et al., (2019) who opine that the centre of the challenge when delivering blended learning courses is the effective combination of face to face and online based elements. In addition, affirm that the application of blended learning enriches teaching and learning experiences while at the same time empowering learners with the skills that will enable them meet the challenges of the twenty-first century and further argue that the value of blended learning is also founded on equity, in as much as it seeks to offer access to online learning to as many people as possible. The outbreak of the COVID-19 pandemic has made blended learning popular since it permitted flexibility to reduce the impact of the pandemic without condoning on the quality of learning. explore how blended learning has become as essential norm of education in times of continued learning (Mughtar et al., 2021).

### **2.1 Technological Barriers**

The primary challenges faced by students in blended learning environment is access to the technology. Some of the issues in implementing blended learning are time, effort and resources which are required in the design of the online part, and accessibility of technology and the internet (Almutairi, 2024). According to a recent survey among IPTS students by Ministry of Higher Education Malaysia (2019), many of them have limited to no access to adequate internet or to devices which would enable them to fully engage in the online aspects of their classes. As the Covid19 pandemic caused an unprecedented shift towards



hybrid learning, emergent technology challenges faced by the students have come to the forefront. As pointed out by Azhari and Ming (2021), a large number of students IPTS in Malaysian experience a lack of appropriate access to necessary digital devices and reliable Internet. This digital divide may further widen the gap of learning between the students from poor background and their counterparts with better stations.

In addition, other issues that Kamaruddin and Ismail (2022) identify include irregular internet connection and inadequate equipment that can hugely hamper the students' engagement in online classes. They state that such barriers do not only affect the learners' performance but their learning process as well. Some attempts to rectify these problems include; offering scholarships to buy electronic gadgets and increasing the connectivity facilities in the rural areas.

## **2.2      *Digital Literacy***

Another critical challenge is the varying levels of digital literacy among students. Digital literacy, defined as the ability to effectively use digital tools and technologies, is essential for success in blended learning environments. In a study by Hwa (2018), digital literacy can be defined as the ability of a student to interact with computers and the internet, use resources, and interact in virtual space. This can really be detrimental to their learning process and even affects their performance.

Another challenge related to use and creation of blended learning environment is the digital literacy. If we follow the Siddiq et al.'s (2019) definition of digital literacy it is evidently logical to define it as the set of skills and practices related to digital tools, platforms, and media use. This now entails orienting oneself to learning management systems (LMS), participating in the course discussion forums, and leveraging on-line tools. Research by Ali & Ahmad (2020) shows that, IPTS students have different levels of digital technology literacy, which influences their ability to interact well with the online parts of the course. Learners with less digital literacy face challenges on how to navigate through the online materials to which they are exposed to resulting to low performance and participation levels. The authors therefore propose that information technology training programs be designed to meet the necessary needs of students who are to participate in blended learning.

## **2.3      *Engagement and Motivation***

One of the earlier identified issues in blended learning context is how teachers and tutors have to keep their students enthralled. One of the notably detriments of online classes is that it is relatively flexible, and some students may drop off the wagon and stop focusing for extended periods. Smith and Hill (2019) found out that student self-regulation and time management are areas of concern when learning in blended mode. Such terms as lack of body contact and feedback also leads to factors such as isolation which reduces the amount of motivation that one has.

As a result of this, sustaining students' interest and attentiveness in blended learning environment is often a difficult task. The main disadvantage of online classes, which on the other hand is flexible is that students develop a tendency to procrastinate. Ismail and Abdulrahman (2021) establish that students have difficulties with self-regulatory and time while learning through blended learning environment, which affects learning motivation and achievement. In response to such problems, it is recommended that the use of relevant, and closely interactive web activities be encouraged, as pointed by Lim and Othman (2020).

Such changes emphasize the credit and support format concerning the development of community and belongingness based on group projects and constant feedback from an instructor. Other interactive features which can also be used to improve the students' interest and participation level include gamification.

## **2.4 Pedagogical Challenges**

Educators also face challenges in adapting their teaching methods to suit blended learning environments. As established by Lim and Wang (2016), a good integration of the online and face-to-face learning can be a complex process that entails good planning processes that may not be easy to accomplish in many circumstances. Further, there may occur lessons that require preservice teacher to enhance new skills and competencies including use of educational technologies and online communications (Almutaiti, 2024). Furthermore, design of an effective blended learning poses questions about the right blend for different learning outcomes (Sanders & Altman, 2023).

Teachers are presented with special difficulties related to education delivery when working in the blended learning setting. It is important to mention that they both come from the word 'Flex', which was used when defining blended learning courses because they combine online with face-to-face classes successfully when designed and implemented with proper consideration of the interaction between them. Based on Hassan and Zulkifli's (2023) content, practitioners fail to possess adequate knowledge and expertise on how they can integrate software and social media into instruction. This may lead to a situation where form online learning activities does not match that of offline or vice versa, and thereby minimizing the effectiveness of the blended learning approach. Furthermore, Yusof and Rahman (2022) draw attention to the importance of the provision of professional development experiences to the educators that will help them advance in their digital learning practice. They also call for courses that teach the competency model on instructional design of blended learning with special emphasis on both, how to capture the attention of the online students and how to assess the learning outcome of the students.

## **3 METHODOLOGY**

This study employs a quantitative research approach, collecting data from students enrolled at Klang Valley private higher education institutions (IPTs) through the use of a structured questionnaire. The purpose of the questionnaire is to investigate the difficulties these students encounter in adjusting to blended learning environments. It does this by concentrating on digital literacy, technological hurdles, motivation and engagement, and pedagogical difficulties.

To find significant differences across groups, quantitative data were evaluated using inferential statistics (t-tests, ANOVA) and descriptive statistics (mean, median, mode, and standard deviation). A pilot questionnaire, and input was utilized to improve the items. For internal consistency, Cronbach's alpha was computed; a value greater than 0.7 was deemed appropriate. The appropriate institutional review board granted ethical approval, and all respondents provided informed consent. Participation was entirely voluntary. Anonymity and confidentiality of the data were upheld during the entire investigation.

## **4 PROPOSED PRELIMINARY FINDINGS**

The study on the challenges faced by IPTS students in Klang Valley regarding blended learning reveals several critical findings that align with existing literature on the subject. These findings can be categorized into four main areas: technological barriers, digital literacy disparities, engagement and motivation issues, and pedagogical challenges.

### **4.1 Technological Barriers**

The study reveals major challenges affecting IPTS students, in terms of technology whereby most of them lack steady internet connection and access to technology gadgets. Research indicates that these barriers can significantly reduce the students' possibilities to engage with the online learning elements efficiently (Eslit 2023; Olumorin, 2023; Qassim, 2023). The need to foster equity through investment in a strong digital platform for the implementation of the blended learning resources in the education institutions cannot be over emphasized (Wang et al., 2023; Olumorin, 2023).

Furthermore, offering of technical support as well as offering trainings to both the students and faculty in an important way of addressing these challenges (Medina, 2018; Ramulumo, 2023). Students have indicated that while blended learning improves learner independence and self-mastery better technology support and training can hinder learning (Νικολοπούλου, 2023). This is supported by, where the tasking of developing multiple instructional methodologies such as ICT are perceived as complex by the students and this interferes with the process of learning (Naeem & Khan, 2019). The research done by Ali & Gt has found out that students may show reluctance when it comes to blended learning especially through the use of technology tools in this regard, low technology adoption rate is realized thus minimizing the impact of using blended learning tools (ALI&gt;, 2023).

### **4.2 Digital Literacy Disparities**

Another of the distinct results includes the digital divide among learners; this refers to the issue of variation in the extent of students' ability in using technology for learning purposes or in the context of online classes. Research has revealed that students who are not digitally savvy lose out in activities in the blended learning environment hence performing dismally (Fernández et al., 2021; Tahir et al., 2022). Thus, it is necessary to offer the students targeted digital literacy training programs to use the principles of a blended learning approach effectively (Suprabha & Subramonian, 2021). This corresponds with the conclusion made by Ali and Ahmad (2020) which encourages for the improvement of the students digital learning readiness through robust and thorough digital literacy programs in the college and university settings that support effective blended learning (Suprabha & Subramonian, 2021).

Blended learning which is a combination of both face to face and online instruction requires certain level of computer literacy in order to participate. states that students with technological skills face challenges to do the online class work and conclude that technological skill level is thus a significant predictor of success in mastering activities under blended learning environment (Wichadee, 2018). With regards to this assertion, agree with the fact that effective adoption of technology in education depends on digital literacy skills that would enhance the ability of students to search, find and use various forms of learning resources from different technological platforms (Mufidah et al., 2023).

### **4.3 Engagement and Motivation Challenges**

The research also proves the existence of issues to do with students' motivation and participation in the blended learning environment. The option of using the internet for learning may compromise the learners' productivity due to the risk of time wastage due to poor time management skills as seen with some students by Gqokonqana et al. (2022). On this regard, it is advisable to incorporate positive and adventurous online activities, such an activity will encourage the students, thus intending to make them feel that they belong to a particular community (Siripongdee et al., 2020; Hanum & Sari, 2022). Furthermore, use of gamification in learning activities seems to increase motivation and engagement in activities by users (Fernández-Martín et al., 2020).

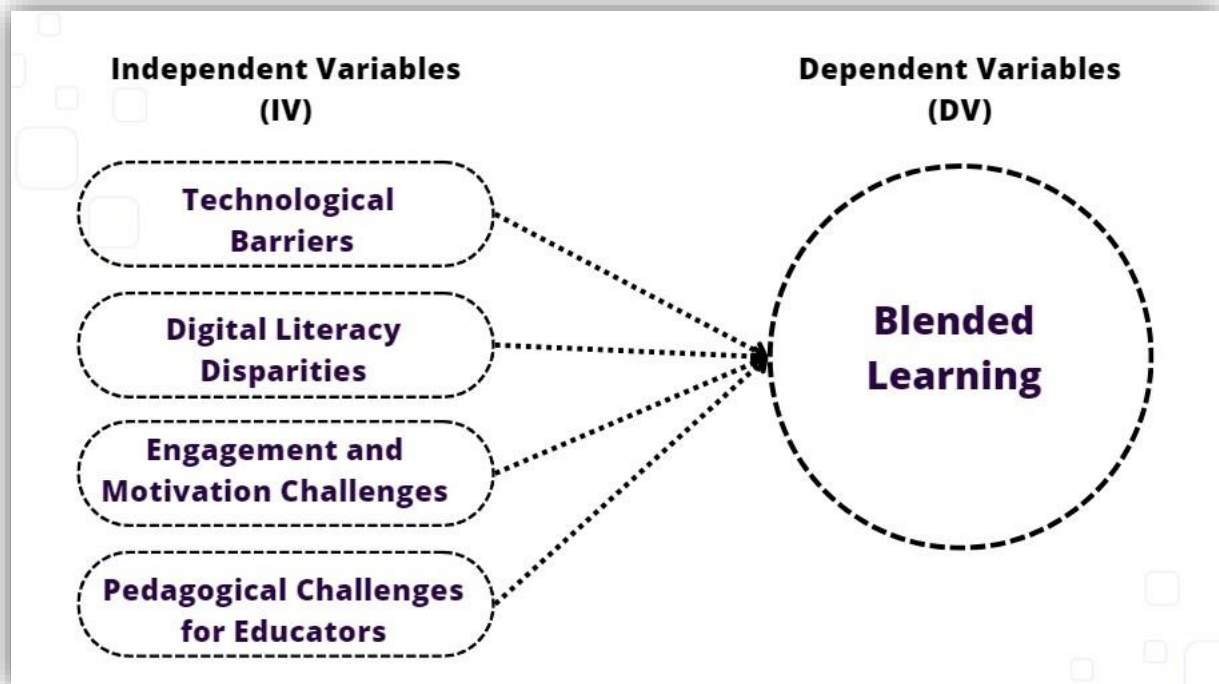
According to, student voice and student activity are critical aspects for adopting blended learning; therefore, instructors should work on behavioral dynamics to improve students' learning (Pachêco-Pereira et al., 2020). This is in concordance with what Salas-Pilco et al. established noting that shift to online learning during the COVID-19 pandemic has had an innominate impact on students with many finding it hard to stay alert for lessons that are mostly taken in online platforms (Salas-Pilco et al., 2022). The above difficulties have been heightened by the pandemic, since the student constantly feels alone from peers and instructors, which lowers their drive to engage in learning operations.

### **4.4 Pedagogical Challenges for Educators**

The research highlights the difficulties educators face in adapting their teaching methods to fit blended learning contexts. This aligns with the observations of Lim and Wang (O'Connor, 2023), who point out that many instructors lack the necessary training and experience to effectively integrate online and offline learning activities. Professional development opportunities focused on digital pedagogy are essential to equip educators with the skills needed to navigate these challenges (Seiradakis, 2024). The study suggests that institutions should prioritize training programs that enhance teachers' abilities to design and implement blended learning strategies effectively.

The lack of adequate training and support for educators is another critical challenge. Research indicates that many educators feel unprepared to implement blended learning effectively due to insufficient professional development opportunities (Kanwal, 2023). This lack of training can hinder their ability to utilize technology effectively and to design engaging learning experiences that leverage the strengths of blended learning. Further emphasize that educators need ongoing support and resources prompted by the COVID-19 pandemic (Liu et al., 2022)

Below is the proposed theoretical framework:



Item 1: Proposed Theoretical Framework: Challenges in Blended Learning for IPTS Students in Klang Valley.

## 5 CONCLUSIONS

The study's conclusions draw attention to the significant blended learning difficulties that IPTS students in the Klang Valley experience. Technological obstacles, disparities in digital literacy, challenges in sustaining motivation and engagement, and pedagogical issues are important considerations. Maintaining high standards of instruction in blended learning settings requires addressing these problems.

IPTS institutions should concentrate on enhancing digital infrastructure, providing thorough training in digital literacy, and creating more engaging and encouraging teaching methods in order to improve student experiences and outcomes. Subsequent studies ought to investigate enduring approaches to surmount these obstacles and scrutinize the efficacy of executed remedies. By doing this, educators and legislators can guarantee that blended learning in higher education continues to succeed while also providing improved support for students.

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