

Readiness in E-Learning: Challenges Faced by Post-Registration Nursing Students at Open University Malaysia

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Abstract

E-learning has emerged as a predominant and widely embraced instructional approach within various academic disciplines in higher education institutions, and nursing education stands out as a notable example of its extensive adoption. The integration of e-learning offers substantial and adaptable prospects for employed nurses, facilitating their educational progression and fostering continuous professional development conducive to lifelong learning. This investigation aims to scrutinize the obstacles confronted by nursing students enrolled at Open University Malaysia as they prepare for e-learning. The study encompasses a comprehensive cohort of 1332 nursing students who enrolled between January 2020 and the January 2022 semester, spread across nine learning centers offering the Bachelor of Nursing with Honors program. Employing a quantitative research framework, the study deploys a questionnaire comprising two segments: Section A compiles sociodemographic data, while Section B concentrates on challenges adapted from Mehmet et al. (2019). The results reveal that challenges related to employment were most frequently encountered by respondents, with institutional challenges assuming a comparatively lesser role. The findings underscore the necessity for the university to provide counseling services addressing study-related challenges. Concurrently, students are encouraged to prioritize effective time management strategies to surmount these impediments, emphasizing the pivotal role of proactive support services in enhancing the overall e-learning experience for nursing students.

Keywords: Challenges, eLearning, nursing students, post-registration, online learning, readiness

1. Introduction

Over the past decade, significant changes have occurred in colleges and universities due to advancements in internet and software technologies (Tayebnik & Puteh, 2012). Digital technology, playing an increasingly comprehensive role in education, has led to a shift from traditional to e-learning modes (Kashada et al., 2018; Sprenger & Schwanager, 2021), sparking numerous comparison studies between online and traditional classrooms (Northey et al., 2015; Southard, Meddaug, & Harris, 2015). The term "e-learning" is often used interchangeably with online learning and distance learning (Aldiab, Chowdhury, & Kootsookos, 2016). It encompasses various ideas and technologies like remote, digital, electronic, online, and mobile learning (Phillips et al., 2011; Rouleau et al., 2017; Li'cen, 2021).

E-learning, a consequence of integrating technology into education, facilitates the development of novel research and delivery systems, particularly evident in contemporary learning (Taha, 2014). Nursing education has witnessed an increased enrolment in bachelor's degree programs via e-learning, evolving from blended to fully online courses, providing students with access to a new educational platform (Rouleau et al., 2017; Hesham et al., 2022). Open University Malaysia (OUM) has been a pioneer in online programs, offering high-quality education for over 20 years. OUM's myINSPIRE learning management system allows students to access materials anytime, anywhere, promoting a self-paced learning approach. The nursing program at OUM, initiated in 2007, utilizes online discussion forums and digital resources to facilitate student-instructor and peer communication. Teaching methods in higher education are rapidly evolving to keep up with knowledge growth and online resource availability (Hetty, Kurniabudi, & Sharipuddin, 2015). In nursing education, the integration of e-learning and web-based learning continues to demonstrate benefits such as active learning, improved teaching quality, and flexibility in studying at one's own pace and location (Ali, 2016).

1.1. Problem Statement

Since May 2007, Open University Malaysia (OUM) has been offering a Bachelor of Nursing Sciences with Honours degree, initially enrolling 108 licensed nurses. Over the years, the program has witnessed significant growth, reaching a total of 7,945 students by May 2022. This degree caters to diploma-level registered nurses aspiring to pursue higher education, requiring face-to-face tutorials throughout the course. Recognized by the Malaysian Nursing Board and accredited by the Malaysian Qualifications Agency since its first cohort in 2008, the program initially utilized a blended learning approach.

In response to the challenges posed by the COVID-19 pandemic, OUM made a strategic shift to fully online learning after 21 years of employing the blended method. This transformation aligns with the evolving landscape of education, driven by increased enrolments, diverse teaching styles, and rapidly advancing technology. The nursing profession, in particular, demands continuous adaptation to new industry developments and effective utilization of information technologies. Data collected from the Program Management Unit at OUM between May 2007 and January 2022 indicates an attrition rate of around 22% and dormant cases accounting for 10.76% (825 nursing students). Approximately 11.23% of participants formally requested to leave the program, shedding light on the challenges faced by nursing students in continuing their studies despite the numerous advantages offered by online education.

While online learning presents a cost-effective and accessible alternative, it also brings forth challenges that warrant investigation for successful implementation. This study adopts a quantitative research design to delve into the challenges confronted by nursing students enrolled in bachelor programs at OUM. A Google form was distributed through email to participants, who, as adult learners with over two years of clinical experience, navigate greater responsibilities than recent nursing school graduates.

2. Literature Review

Many universities and colleges around the world have adopted the use of ICT (Information and Communication Technologies) as a standard practice for disseminating course materials and facilitating student learning (Latchem, 2018). As its influence grows, it helps to bring the quality, sustainability, accessibility, and delivery of education in developing countries up to the par of the developed nations. Promising and significantly positive results have been seen from ICT-based innovations and tools from higher education institutes in developing countries (Reddy et al., 2016, 2020c; Sharma & Reddy, 2015; Sharma et al., 2018b). Graham (2019) argues that the use of e-learning is particularly important for reaching students in geographically remote areas and improving the equity of education system delivery. However, there are still barriers to the use of ICT and e-learning to improve educational equity (Lim et al., 2020; Yang et al., 2018).

E-learning encounters several challenges, ranging from problems for students to problems for lecturers to problems with material concerns. According to Bhuasiri et al., (2012), technological factors are an essential part in a successful e-learning system; hence, the readiness of technological aspects must be

extensively investigated in order to examine entire e-learning readiness. Some technological elements, such as appropriate software and hardware or broadband, can have a significant impact on the results of e-learning (Keramati, Afshari, & Kamrani, 2011). E-learning deployment requires reliable internet access because the internet serves as the principal e-learning medium. The implementation of online education cannot be done properly and effectively without broad coverage of internet access. It is important for the students to have good internet access because this is a basis when enrolling in online education.

Another challenge they experienced in education is lack adequate support from their families and workplaces. As adult learners, they have multiple roles such as spouse, parent, colleague, and student, each of which means additional responsibilities and workload (Thompson & Porto, 2014). In OUM, the majority of the students are working adults with vast experiences in their field. With many roles, they need to play and without a proper support system, students might end up with stress and having problems continuing their study. Online learners also find it hard to stay motivated in an online course, which is another challenge. Students who do not have enough self-motivation and independence do not do as well as their peers (Sarkar, 2012). Learners who do not have self-control often do not give themselves enough time to finish assignments, so they turn in low-quality work or late assignment submissions. A study by Mehmet, Fatih, Mehmet, and Kursat (2019) on Challenges Faced by Adult Learners in Online Distance Education shows that, there are three themes for adult learners experiencing challenges in their study, namely internal, external, and programmed-related challenges. Their study finding was based on a systematic literature review from 36 key journals in distance education, instructional technology, adult, and lifelong education. The researchers used these themes to identify the challenges faced by respondents in this study. Figure 1 shows the seven types of challenges towards readiness of elearning.

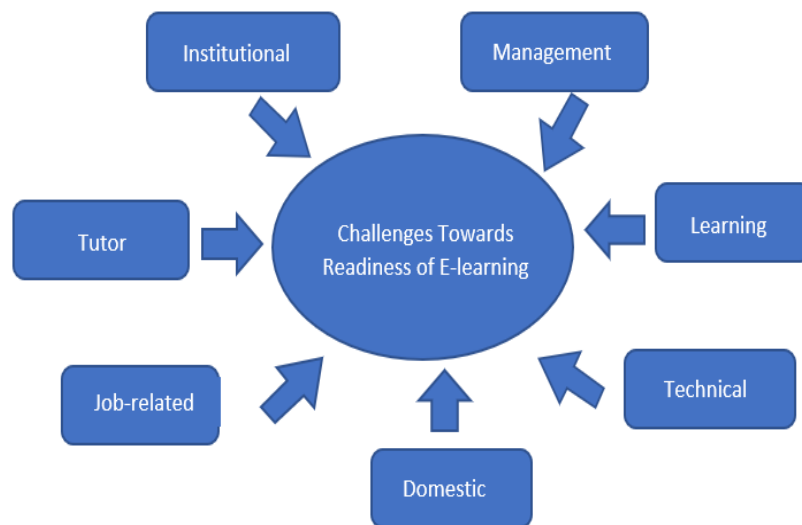


Figure 1. Challenges Towards Readiness of E-learning

Chung, Norlina, and Vloreen conducted a study in 2020 to explore the online readiness of UiTM Sarawak students. Ninety-one students from three different study programs were assessed using the 18-item Online Learning Readiness Scale (OLRS). The findings revealed that students exhibited high readiness in computer and internet self-efficacy, intermediate readiness in self-directed learning and desire for learning, and poor readiness in learner control. Gender was identified as a non-significant factor influencing online readiness. Notably, poor internet connectivity emerged as a significant challenge faced by students. Lau and Shaikh (2012) in a Malaysian context discovered that students' eLearning readiness was substantially influenced by computer and internet efficacy, as well as personal variables like gender, ethnicity, course year level, and financial assistance status.

Nayci's (2021) study on associate degree students' online learning readiness indicated high general readiness levels. The study, utilizing a sequential explanatory design, found moderate overall readiness levels, with self-directed learning scores higher in females and online communication self-efficacy higher in males. Fearnley and Malay's (2021) research involving 457 respondents in a Manila-based private higher education institution demonstrated that motivation in learning was the most prominent readiness factor. Additionally, Wagiran et al.'s (2022) study highlighted motivation as a mediator in the relationship between technological skills, equipment capabilities, user satisfaction, and eLearning readiness.

Moreover, critical success factors for implementing eLearning in higher education institutions were explored by Wotto et al. (2016). Their comprehensive review identified technical, institutional, pedagogical, management, ethical, evaluation, resource, and social interaction factors as crucial for successful eLearning implementation. Alias, Zakariah, Ismail, and Aziz (2012) found ten elements, including ease of use, appearance, linkage, structure and layout, information, reliability, efficiency, support, communication, and security, essential for ensuring the success of eLearning in Universiti Teknologi MARA Pahang. Additionally, Alina and Abdullah (2023) investigated nursing students' attitudes towards eLearning and identified a range of positive and negative attitudes. Factors such as motivation, personalities, backgrounds, and perceptions of control over the educational process must be considered in the application of eLearning for nursing students. Overall, these studies collectively shed light on the multifaceted aspects of online readiness, providing valuable insights for educators, institutions, and policymakers. The research objectives are to identify the specific challenges encountered by nursing students at Open University Malaysia in their readiness for e-learning.

3. Research Method

The study's population consisted of all registered nurses pursuing a post-registration degree in nursing science at OUM. The researchers had chosen a simple random sampling. Inclusion criteria is all nursing students who had enrolled in BNS program from January 2020 until January 2022. Whereas, exclusion criteria are: Nursing students who have deferred their study during the data collection, and nursing students who were on maternity leave or medical leave during data collection period. The Faculty of Technology and Applied Sciences (FTAS) (Nursing), Open University Malaysia has granted ethical approval for this study. The Google Form has been distributed to respondents after approval was granted.

The instrument used by the researcher consists of three sections: Section A was the sociodemographic characteristics of respondents. This section contains personal information of respondents such as age, sex, ethnicity, marital status, current semester, cumulative GPA, area of residency, monthly income, and financial funding. Section B discussed the OLRs, and Section C focused on the challengers' respondents encountered throughout their study. For this study, the Online Learning Readiness Scale (OLRS) by Hung, Chou, Chen, and Own (2010) has been utilised, with the primary author's consent.

The OLRs has 18 items in five different dimensions, namely computer/internet self-efficacy (3 items), self-directed learning (5 items), learner control (3 items), motivation for learning (4 items) and online communication self-efficacy (3 items). The students responded to a 5-point Likert-type scale ranging from "1-strongly disagree" to "5-strongly agree". Learner control refers to the students' ability to exercise discipline over the learning process; and online communication refers to the students' ability to communicate online. Self-directed learning focuses on the students' accountability for achieving their learning objectives; motivation for learning describes the students' attitude toward online course delivery; learner control refers to the students' ability to communicate online. Self-efficacy refers to the ability to use the internet as a medium for online learning.

This 18-items survey has been sent through a Google Form, along with other questions regarding respondents' socio-demographic information and a set of questions related to challenges to online learning. This Google Form was delivered through email to respondents. Even though the OLRs was a validated instrument with a composite reliability between 0.727 to 0.871 (Hung et al., 2010), many researchers examine its reliability in the Malaysia setting. Using the same questionnaire, Chung,

Subramaniam, and Dass (2020) and Chung, Mohamad Noor, and Mathew (2020) have examined university students' preparation for online learning in UiTM (2010). The values of composite dependability for the five dimensions were found to range between 0.781 and 0.883 and were confirmed to be between 0.841 and 0.911. For this study, researcher has explained the reliability test in the pilot study section.

In Section C, the questionnaires used were based on Mehmet et al., (2019) study regarding Challenges Faced by Adult Learners in Online Distance Education: A Literature Review. Their finding shows that there are three themes that could possibly be the challengers among adult learners, namely internal, external, and program-related challenges. The internal challenges include the unique problems that adult learners face due to their own characteristics. Management Challenges, Learning Challenges, and Technical Challenges are the categories for the internal challenges encountered by adult learners. External challenges include problems arising from professional and household situations, as well as duties of adult learners that are independent of their personal characteristics. These challenges were divided into two sub-themes: job-related and domestic challenges. The context of each program might be also a source of challenge itself for learners, which is known as program-related challenges. Within this theme, there are two sub-themes called tutor-related and institutional challenges. There were 27 statements that requires respondents to tick the suitable column related to their challenges and the answer could be more than one.

4. Findings

Table 1 displays the descriptive statistics for the challenges among the participants. Under Management challenges, the Mean was 1.15 with SD = 0.76. The skewness and kurtosis were within the acceptable range. Learning challenges showed a mean of 1.41 (SD = 0.84), Technical challenges showed a mean of 1.33 (SD = 0.62), and for Job-related challenges, the mean was 2.45 (SD=1.28). Among the dimensions, only Job-related challenges had a higher SD.

Table 1. Challenges descriptive data (n=254)

	n	Mean	Std. Deviation
Management Challenges	254	1.5551	.76155
Learning Challenges	254	1.4134	.83783
Technical Challenges	254	1.3386	.62517
Job- related Challenges	254	2.4528	1.28373
Domestic Challenges	254	1.2874	.50303
Tutor Challenges	254	1.4252	.67735
Institutional Challenges	254	1.1929	.46857

The primary aim of this study is to delve into the various challenges encountered by respondents during their academic journey at Open University Malaysia (OUM). Table 2 provides a comprehensive breakdown, presenting the frequency and percentage of specific challenges chosen by respondents. In this particular section of the questionnaires, participants were tasked with identifying, through ticking, the statements from a provided list that resonated with the challenges they personally faced. Given the nominal nature of this data, the presentation of findings involves creating a frequency table.

Examining Table 2, it becomes evident that work overload emerged as the most prevalent challenge, garnering a substantial 76.4% response rate. This outcome aligns with expectations, considering the part-time nature of the study and the fact that all respondents are gainfully employed adults. Following closely in the second position is the challenge of a limited environment for study, resonating with 68.1% of participants. This issue could be attributed to the likelihood that many respondents pursue their studies fully online, lacking a conducive home environment for academic endeavors. The occupational and familial challenges faced by working adult respondents surface prominently, particularly in relation to conflicts with colleagues due to work schedules, especially for nurses working in shifts. Compounding

these challenges is the scheduling conflict posed by mandatory e-tutorials scheduled every Saturday, making it impractical for respondents to take leave or adjust their shifts every week.

Ranked fourth is the struggle to strike a balance between education and work, affecting 59.4% of respondents. This predicament arises from the dual roles they play as employees and students, seeking certification for career advancement while managing additional commitments. Surprisingly, low interaction with tutors emerged as the fifth challenge (56.3%), pointing to a noteworthy aspect considering the non-compulsory nature of tutorial attendance at OUM. The platform for interaction, MyINSPIRE, is available, but the data indicates a lapse in utilizing it effectively.

The sixth most prevalent challenge, chosen by 55.1% of respondents, revolves around the perceived difficulty and demand of the academic program. The Level 6 qualification, coupled with the diverse educational backgrounds of respondents (mostly diploma or post-basic), contributes to their struggle with the academic workload. Additional complexities arise from the Malaysian Nursing Board's requirement of 120 credit hours for a bachelor's degree, the inclusion of MPU subjects, and a total of 145 credits, further challenging these post-registered level students over a three-year period. The seventh and eighth challenges, both at 52.8%, involve difficulties in accessing reliable information and facing technical issues. The former suggests gaps in leveraging available digital resources, including the digital library and learning centers. The latter encompasses technical problems related to MyINSPIRE, particularly during assignment submissions and Multi-Choice Question format examinations. These technical issues compound challenges faced by adult learners, leading to low concentration on study (51.2%).

The ninth challenge, time management difficulties (50.4%), underscores the struggle to balance work commitments, academic responsibilities, and family obligations. A noteworthy aspect is the higher percentage among married respondents (65.7%), potentially influenced by the predominance of female participants (91.3%). The interrelation between challenges persists, with difficulties in balancing education and family/social life (45.7%) emerging as the tenth challenge. Communication challenges through the internet (45.7%) and the limitation of study time (45.3%) are additional hurdles, highlighting the intricate juggling act faced by adult learners. The eleventh challenge, inability to understand course materials (38.2%), highlights the impact of non-compulsory attendance for Open and Distance Learning (ODL) students. Lack of interaction in forums potentially hinders their ability to seek clarification. Lack of institutional support (37.8%) emphasizes the reliance on the MyINSPIRE portal, revealing a need for heightened awareness among students regarding the support available. Insufficient computing skills (35.4%) further amplifies the technological challenges faced by these adult learners, particularly those with more than a decade of professional experiences.

Financial challenges emerge as the twelfth challenge (30.7%), affecting almost a third of respondents who are predominantly self-funded (85.8%). The ability to pay fees through monthly allocated salaries and installment options cushions the financial impact to some extent. Other challenges, such as less commitment to education and lack of employment organization's support (28.7%), lack of prerequisite knowledge (28.0%), and unsuitable learning materials (26.4%), reflect a myriad of obstacles faced by these respondents in their academic pursuit. Notably, low self-confidence (22.0%) and challenges related to course requirements (18.1%) present as areas that, while less prevalent, still impact a considerable proportion of respondents. Feeling of isolation (16.9%), lack of family support (9.4%), and disinterest in programs or materials (1.2%) round off the list, reflecting challenges faced by a smaller yet significant percentage of participants.

In conclusion, this thorough analysis of the challenges faced by respondents at OUM underscores the multifaceted nature of their struggles. From work-related burdens to technical issues and academic program complexities, the study sheds light on the intricate tapestry of challenges that working adult learners encounter during their educational journey.

Table 2. Frequency and percentage of challenges among respondents (n=254)

Challenges	Frequency	Percentage
Work overload	194	76.4
Limited environment to study	173	68.1
Schedule conflicts	163	64.2
Inability to create balance between education and work	151	59.4
Low interaction with tutors	143	56.3
Too difficult or demanding program	140	55.1
Difficulty in accessing reliable information	134	52.8
Low concentration on study	130	51.2
Technical problems	130	51.2
Low interaction with learners	130	51.2
Difficulty in time management	128	50.4
Inability to create balance between education and family or social life	116	45.7
Difficulty in communication through the internet	116	45.7
Limited time to study	115	45.3
Inability to understand course materials	97	38.2
Lack of institutional support	96	37.8
Insufficient computing skills	90	35.4
Financial problems	78	30.7
Less commitment to education	73	28.7
Lack of employing organisation's support	73	28.7
Lack of prerequisite knowledge	71	28.0
Unsuitable learning materials	67	26.4
Low self-confidence	56	22.0
Unsuitable course requirements	46	18.1
Feeling of isolation	43	16.9
Lack of family support	24	9.4
Lack of interest in program or materials	3	1.2

5. Discussion

This study aimed to explore and analyse the challenges faced by respondents during their study at Open University Malaysia, with a focus on the frequency and percentage distribution of each identified challenge. Table 2 presented the findings, revealing that work overload ranked as the highest challenge, affecting 76.4% of respondents. As the study primarily involved working adults engaged in part-time studies, the burden of work commitments significantly contributed to this challenge. The second most prevalent issue, affecting 68.1% of respondents, was the limited environment for study, attributed to the fully online nature of the program and the absence of a dedicated study space at home.

The challenges associated with job-related factors were of utmost concern, with issues such as work overload, lack of organizational support, schedule conflicts, financial problems, and limited study time dominating the respondents' experiences. The demanding nature of the nursing profession, particularly the role of Registered Nurses (RNs), was identified as a significant contributing factor to these challenges. RNs, responsible for personalized patient care, face difficulties in managing their schedules and obtaining leave for educational commitments due to the crucial nature of their roles.

Financial problems are another issue because salaries achieved were low in Malaysia compared to other countries. A person who works as a staff nurse in Malaysia (government and private) typically earns around 5,040 MYR per month with salaries range from MYR 2,570 to MYR7,770 (<http://www.salaryexplorer.com/salary>). This amount was based on their experiences, education level and title obtained in organisation. For this study, the majority of respondents (66.9%) have salaries between RM3001 to RM6000 only. Saedah and Yee (2019) conducted a study in OUM which revealed that a majority of their respondents, specifically 54.3%, concurred that financial constraint posed the most formidable obstacle for them. The present discovery is consistent with the findings of Ahmad (2018), who ascertained that a considerable number of nurses had experienced distress over the increasing expenses associated with pursuing higher education, which can be a hindrance for those who are unable to take time off from work to engage in academic pursuits.

The second-highest category of challenges identified was management-related issues, with a mean score of 1.55. Challenges such as creating a balance between education and work, education and family or social life, and time management were prevalent. The majority of respondents being working staff nurses aged between 25 to 41 years and married posed unique challenges. Younger nurses struggled with adjusting to their workload and educational demands, while older nurses faced challenges in adapting to new learning technologies. With the extension role as a student, some important events like wedding events, birthday parties or family gathering events cannot be attended. According to Chitra and Raj (2018), e-learning has been found to be a convenient method of education because it allows students to integrate education into their lifestyles, allowing even those with the busiest schedules to successfully pursue a career and obtain new qualifications. This is due to the fact that students enrolled in e-learning can access the course materials and utilise the resources whenever they choose. However, this study contradicted their finding. Mukasa et al., (2021) discovered a similar outcome in their study, with the majority of participants (64%) indicating poor time management and 46% believing they were not accountable for their learning.

Tutor-related challenges were the third category of issues, with a mean score of 1.43. Low interaction with tutors, learners, feelings of isolation, and unsuitable course requirements were the specific challenges identified. The study emphasized the importance of tutor roles in delivering the program, particularly the role of part-time tutors who facilitate communication and support through platforms like Google Meet and myINSPIRE. In OUM, the roles of tutor were important to ensure the program can be delivered. The majority of the classes were run by the part-tutors. Part-time tutors are employed by Open University Malaysia to serve as intermediaries between the university and its students. Each tutor is responsible for a group of approximately 100 to 150 students, giving content specific support for learning through Google Meet designed to encourage collaborative learning. The core subjects of the Bachelor of Nursing programme necessitated that tutors allocate 10 hours per subject for instructional purposes, with the pertinent materials being furnished via myINSPIRE. myINSPIRE serves as a platform for users to access subject-specific content for the semester in which they are enrolled. Additionally, users can engage in communication with their respective tutors and colleagues through the platform. In a comparable study, Kew, and Tasir (2021) used content analysis to assess students' cognitive involvement in e-learning discussion forums and discovered that the students had a low degree of cognitive engagement. One of the challenges that students encounter when taking an online course is the need to navigate complexity of thought and intellectual stimulation. Part time tutors must ensure that the learning outcomes are clearly specified so that students may take ownership of their learning, monitor their progress, and assess their achievement. Mariya et al. (2022) conducted a study which revealed that a significant proportion of students (75.9%) identified the lack of face-to-face interaction with teachers and classmates as the primary challenge associated with online classes.

Learning challenges were identified as the fourth major problem, with a mean score of 1.41. Respondents reported issues such as less commitment to education, lack of interest in program or materials, inability to understand course materials, lack of prerequisite knowledge, low concentration on study, and low self-confidence. The study suggested that the implementation of digital technology could enhance student accountability and enthusiasm for the learning process, aligning with the recommendations of previous researchers. According to Bennett et al. (2017) and Dhillon and Murray (2021), the implementation of digital technology has been proposed as a means to improve student accountability for their own learning processes and amplify their enthusiasm and involvement in the teaching-learning process.

Technical challenges were the fifth category of issues, with a mean score of 1.29. Difficulties in communication through the internet, insufficient computing skills, and challenges in accessing reliable information were reported. Despite the availability of a digital library, technological barriers persisted, affecting students' confidence in online communication and information retrieval. The study highlighted the crucial role of technological support for students lacking adequate digital literacy. Siemens et al., (2015) demonstrated that technological support for students is regarded crucial for individuals who lack the levels required for computer and information literacy, self-efficacy, and comprehending the underlying causes of student decline. By its very nature, online learning is entirely dependent on technological devices and the internet, so it is undeniable that technology is the greatest obstacle to online learning if those involved in the teaching and learning process lack digital competence due to lack of experience or inadequate training. A study done by Mukasa et al. (2021) regarding nursing students' readiness in UAE found that obstacles encountered in e-learning or teaching encompassed issues such as inadequate privacy, connectivity issues with the learning platform, and communication difficulties. It was discovered also that more than half of the participants lack of confidence in their ability to communicate in writing online. According to Ibrahim and AL-Khafaf (2013), most students lack of computer and internet abilities, which can be attributed to the fact that they do not utilise computers and the internet on a regular basis. In a study done in Seoul by Jamil et al. (2016), a few students felt that the usage of technology is not as wonderful as it is stated and that, to some extent, it has its own drawbacks such as making them slow in completing their duties and making them dependent on it. This claim is confirmed by Williamson and Muckle (2018), who proved that the usage of technology may pose a problem in terms of security threats, technological malfunction, and information retention.

Domestic challenges were identified as the sixth major problem, with a mean score of 1.29. Technical problems, a limited study environment, and lack of family support were specific challenges under this category. The study echoed previous research findings, indicating that reliability and connectivity issues were significant barriers to online learning, along with a lack of intrinsic motivation (Kumar et al., 2021). The study found that the most significant technological barriers to online learning were reliability and connectivity issues, with a mean score of 2.26 ± 0.534 . The second highest barrier was the lack of inherent motivation in the online learning environment, with a mean score of 2.20 ± 0.634 .

The last category of challenges identified was institutional challenges, with the lowest mean score of 1.19. Challenges such as unsuitable learning materials, demanding programs, and lack of institutional support were reported. While respondents perceived these challenges as less critical, they still contributed to the overall complexity of their learning experience.

Overall, the study provided a comprehensive overview of the challenges faced by respondents at Open University Malaysia. Job-related challenges, financial constraints, management-related issues, tutor-related challenges, learning challenges, technical barriers, domestic challenges, and institutional issues were identified as key factors affecting the respondents' ability to navigate their educational journey. Understanding these challenges is crucial for institutions and policymakers to design effective support mechanisms and interventions to enhance the overall learning experience for adult learners, particularly those engaged in part-time studies while managing demanding professional and personal responsibilities.

6. Conclusion

E-learning stands as a flexible avenue, offering working nurses the opportunity to enhance their education and engage in continuous professional development, fostering a commitment to lifelong learning. Despite the potential for acquiring advanced skills and knowledge, nurses in these programs face challenges that can hinder their progress in open and distance learning. The effective management of job-related and learning challenges becomes crucial, necessitating nursing students to adeptly balance their time between work and study commitments. Employers play a pivotal role in creating a supportive environment for nurses striving to elevate their professional and educational levels. To ensure the success of nursing students in open and distance learning, the educational provider must conduct a comprehensive assessment of its support services, coursework, and resources. This evaluation aims to ascertain whether

these components adequately meet the unique needs of nursing students and contribute to overcoming the challenges they face. The implementation of proactive engagement strategies, characterized by targeted interventions and continuous opportunities for connection, seeks to support nursing students throughout their entire educational journey. These efforts are designed to enhance persistence and success by providing comprehensive student support within and beyond the classroom settings, reinforcing the commitment to lifelong learning among working nurses.

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