Exploring Socio-Emotional Conflict and Challenges in Open Distance Learning for Post-Registration Nursing Students

Rosnida Abu Bakar[1] • Yee Bit-Lian[*2] • Aniszahura Abu Salim[3] • Raziana Che Aziz[4]

[1,2,3,4]Faculty of Technology and Applied Sciences, Open University Malaysia, Petaling Jaya, Malaysia.

*Corresponding author. Email: yeebl@oum.edu.my

Abstract

In the dynamic landscape of nursing education, continuous professional development is imperative for staying current and relevant. This study delves into the realm of open distance learning, specifically examining socio-emotional conflicts and challenges faced by post-registration nursing students at Open University Malaysia (OUM). Within integrated e-learning becoming a cornerstone in nursing education in Malaysia, this pilot study aimed to shed light on the intricate aspects of socio-emotional dynamics in this unique learning environment. Conducted as a qualitative, phenomenological study, the research engaged six participants through in-depth semi-structured interviews. Three overarching themes emerged from the data: the benefits of online classes, the delicate balance of managing workload, and the crucial role of peer support. The participants highlighted the flexibility and accessibility of online classes as advantageous, allowing working nurses to engage in ongoing professional development while navigating their demanding schedules. However, the study also unearthed challenges, including the intricate juggling act of managing academic responsibilities alongside professional commitments. The significance of robust peer support mechanisms surfaced as a key factor in mitigating the socio-emotional conflicts experienced by post-registration nursing students. This pilot study contributes valuable insights to the limited knowledge surrounding the socio-emotional conflicts and challenges faced by nursing students in open distance learning environments. By identifying key themes, the research opens avenues for understanding the unique dynamics at play within OUM. The findings have potential implications for the development of targeted interventions and support mechanisms tailored to the specific needs of post-registration nursing students engaged in open distance learning. Thereby, enhancing the overall educational experience and fostering lifelong learning in the nursing profession.

Keywords: challenges, nursing education, socio-emotional, Open and Distance Learning, post-registration.

1. Introduction

Digital technology's integration into education is on the rise, leading to the replacement of traditional learning with online alternatives (Kashada et al., 2018; Sprenger & Schwaninger, 2021; Ronzhina et al., 2021). The shift towards online learning, also known as e-learning, has significantly impacted the overall learning landscape, prompting numerous comparison studies between online and traditional classrooms at universities (Northey et al., 2015; Southard, Meddaug, & Harris, 2015). In nursing, professional development necessitates the acquisition of skills fostering continuous and lifelong learning, often in the absence of structured formal education program (Williams et al., 2013). The introduction of information

Exploring Socio-Emotional Conflict and Challenges
in Open Distance Learning for Post-Registration Nursing Students [draft]

ASEAN Journal of Open and Distance Learning
Vol. 15, No. 2, 2023, pp. 68 – 76

technologies and the internet has globally transformed the educational landscape, enabling rapid and widespread learning. The unprecedented revolution in institutions worldwide is driven by the rapid advancements in information, communication, and technology (ICT). Despite the numerous advantages of online education, a considerable number of students struggle to complete their studies, and the underlying reasons remain poorly understood. Statistics reveal the significant challenges faced by nursing students in pursuing their studies, emphasizing the need for further investigation into the challenges associated with the successful implementation of fully online courses. In Malaysia scenario, this is of important which allows more post-registration nursing students continue their lifelong learning alongside with their professional commitments.

Open University Malaysia (OUM), established over two decades ago as Malaysia's pioneer open and distance learning institution, has continually offered high-quality online curricula. Leveraging its proprietary learning management system, myINSPIRE, OUM stands as an educational technology trailblazer. Students can access e-learning resources, including modules, learning kits, video lectures, digital library materials, online activities (such as H5P) and quizzes, using various devices at their own pace. The asynchronous online environment enables continuous interaction with teachers and peers through supervised discussion forums available 24/7. Responding to the challenges posed by the Covid-19 outbreak, OUM, after two decades of utilizing a blended instructional approach, has transitioned entirely to online learning. This transition reflects the increasing enrollments, diverse teaching styles, and the rapid evolution of technology, surpassing our understanding of the factors driving technology acceptance and use. Given the ever-changing landscape of the nursing profession, nurses are now required to stay abreast of industry advancements, efficiently utilize essential information technologies, and demonstrate adaptability.

2. Literature Review

2.1. Theoretical Framework

The conceptual foundation of this study draws upon the Technology Acceptance Model (TAM), a framework built upon Ajzen and Fishbein's (1980), Theory of Reasoned Action (TRA). TRA posits that a person's inclination to undertake an action is contingent upon their attitude and social norms regarding the behaviour, with intentions predicting actual actions (Fathema, Shannon & Ross, 2015). The Theory of Planned Behavior, an extension of TRA, emphasizes individual intentions as crucial in determining behaviour, reflecting the motivational factors influencing an individual's effort and commitment to an action (Ajzen, 1991). It is crucial to note that behavioural intentions can only translate into actions if the behaviour is within the individual's volitional control. Fishbein and Ajzen's (1975) theory emphasizes the rational and systematic nature of human activity, suggesting that available information is judiciously employed in reaching behavioral decisions. The theory underscores the role of intentions, shaped by attitudes and subjective norms, in determining behavior. The researcher finds TRA suitable for this study, as readiness, conceptualized as behavioral intention, aligns with the theory's premise that behavior stems from intentionality.

TAM, frequently employed in empirical studies on technology adoption, is effective in predicting the acceptance of e-learning systems (Bove & Conklin, 2019). Developed to be applicable across various domains of human-computer interactions (Davis, Bagozzi, & Warshaw, 1989), TAM identifies Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) as fundamental determinants of technology acceptance. PEOU refers to the perceived effortlessness in using technology, while PU relates to the belief that technology enhances job performance. TAM posits that PU is influenced by PEOU, suggesting that when technology is perceived as easy to use, it is also deemed useful (Davis, 1989). Attitudes toward using and behavioral intention to use are additional constructs contributing to actual use. In TAM, perceived usefulness is tied to the belief that technology enhances job performance, while perceived ease of use relates to the perceived ease of utilizing the technology. Both factors influence the user's attitude toward technology, and perceived ease of use also impacts perceived usefulness. The user's attitude, in turn, determines the behavioral intention to use technology. Thus, the model's applicability to this study lies in its comprehensive consideration of factors influencing technology acceptance.

ASEAN Journal of Open and Distance Learning
Vol. 15, No. 2, 2023, pp. 68 – 76

Exploring Socio-Emotional Conflict and Challenges
in Open Distance Learning for Post-Registration Nursing Students [draft]

2.2.   e-Learning Challenges

e-Learning, a web-based system rooted in digital technologies, aims to provide students with an open, learner-centered, personalized, enjoyable, supportive, and interactive learning environment (Rodrigues et al., 2019). Adult learners in online distance education face challenges categorized as internal, external, and program-related, as identified in a systematic literature review encompassing 36 key journals in distance education (Mehmet et al., 2019). These challenges form the basis for investigating impediments faced by participants in this study.

2.3.   Technical Hurdles

Global adoption of Information and Communication Technologies (ICT) in universities has enhanced the quality, sustainability, accessibility, and delivery of education, particularly in developing countries (Latchem, 2017; Sharma et al., 2020; Wu, 2016). Despite the positive impact of ICT-based innovations, barriers persist, including limited access to necessary technology and resources, such as laptops, internet plans, and bandwidth, hindering the participation of students from remote areas (Chillemi et al., 2020). Technological factors, including suitable software and hardware, significantly influence e-learning outcomes, emphasizing the need for a thorough examination of technological readiness (Bhuasiri et al., 2012).

2.4.   Socio-emotional Challenges

Online learning, often perceived as less interactive than traditional methods, provides cost-effective and convenient education opportunities, but learners face challenges like insufficient support from families and workplaces (Bali & Liu, 2018). Working adult students at Open University Malaysia (OUM) with multiple roles may experience stress without proper support. Motivation is crucial, as learners lacking self-motivation and independence may struggle in online courses (Sarkar, 2012). Communication challenges, including inadequate interaction with instructors, the absence of face-to-face socialization, and the need for structured communication in virtual classrooms, contribute to the complexity of online learning (Zhong, 2020; Abaid et al., 2021). In OUM, forums in MyINSPIRE are designed to facilitate discussions and reduce feelings of isolation and loneliness. The objective of this pilot study is to explore the socio-emotional conflict and the challenges faced by nursing students in OUM.

3.   Research Method

3.1.   Study Design and Setting

This qualitative pilot study followed the phenomenological method outlined by Van Manen (2006). Our goal was to explore the socio-emotional conflict and the challenges among nursing students in OUM.

3.2.   Procedure and Participants

Our participants were post-registration nursing students from Bachelor of Nursing Science with honours (BNS). The inclusion criteria involved still active in BNS study, frontliners during Covid-19 pandemic and they were from semester January 2020 to January 2023. This group of nursing students were affected by the Covid-19 pandemic outbreak where nursing education shifted fully online. This pilot study was approved by Open University Malaysia Ethical Approval Committee. In our study, six post-registration nursing students from BNS program were included: one male and 5 females. A purposive sampling was used in our phenomenological study. Hence, in this study, our intention was to obtain in-depth information from each participant. The interviews were discontinued when we reached data saturation which accordance to Van Manen's methodology: abstractness, richness, relatedness, and depth of the data.

3.3. Data Collection

We used in-depth and semi-structured interviews to collect the information. The interview questions were asked based on the purpose of our study. Three main questions included: (1) Kindly share your online classes experiences during Covid-19. (2) How do you feel when OUM hybrid mode shifted to fully online? (3) What does the challenges of this online classes look like to you now? We asked additional questions based on the information provided by the nursing students in order to achieve in-depth interviews, such as "How so?", "Can you tell me more about ….?", "What do you mean when you said…?". Interviews were conducted by RAB, and checked by YBL. In order to assure our data validity and accuracy, the transcripts and the coding process were checked by both RAB and YBL. On average, each interview lasted between 30 to 90 min. Privacy and anonymous were maintain throughout the process. All participants were coded accordingly. All interviews were recorded and transcribed. We use Van Manen's 6-step analysis method in the data analysis. The steps are as follow: (1) Turning to the nature of lived experience; (2) investigating experience as we live it; (3) reflecting on the essentials themes that characterize the phenomenon; (4) describing the phenomenon in the art of writing and rewriting; (5) maintaining a strong and orientated relation to the phenomenon; and (6) balancing the research context by considering both the parts and the whole (Van Manen, 2006).

3.4. Trustworthiness of the Study

The trustworthiness of this study was based on Lincoln and Guba's method (Speziale et al., 2011) as follow: credibility, dependability, transferability, and confirmability. A trusted rapport and relationship were established with the participants in order to examine the validity of this pilot study. The quotes were reported verbatim. Both RAB and YBL's suggestions were checked throughout the research process. The interviews "thick description" and notes that included rich descriptive data drove our data credibility and transferability. Likewise, peer checking provided the dependability of the data.

4. Findings and Discussion

4.1. Demographic Information and Emergent Themes

Table 1 outlines the demographic details of the participants, while Table 2 presents three principal themes and nine subthemes derived from extensive interviews with the participants.

Table 1. Characteristics of the participants (n=6)

Characteristic	n (%)
Gender	
Male	1(16.67)
Female	5(83.33)
Marital Status	
Single	1(16.67)
Married	5(83.33)
Widowed	0
Shifts	
Yes	2(3.33)
No	4(6.67)

Table 2. Major themes and subthemes of nursing student's socio-emotional conflict and challenges in OUM

Major themes	Subthemes
Benefits of online classes	Flexibility
	Good platform: myINSPIRE
	Nurture young family
	Financial benefits
Juggling with life commitments	Juggling with workload
	Time management
	Coping
Good peer support	Friends outside the classroom cycle
	Good online peer interaction

4.2. Benefits of Online Classes

The positive aspects of online classes emerged as significant contributors to the socio-emotional challenges faced by post-registration nursing students at OUM. Notably, the benefits of asynchronous online classes were recognized even before the onset of the Covid-19 pandemic. However, the impact of synchronous online classes during the pandemic was particularly profound for the nursing students.

Participant F illustrated the convenience of weekly classes, especially for individuals with demanding work schedules and shift duties. This hallmark of online learning provided flexibility, enabling students to access recorded (asynchronous) sessions if they missed live synchronous ones. All six participants unanimously agreed that revisiting offline recordings significantly aided their studies, fostering a deeper understanding, as emphasized by Participant A.

"…because the classes only once a week…only on Saturday… got to work got to go for a meal again then want to rest again… can at home even that's why it's an ease for us … While eating can even go to class. No need to busy travelling… we work shift duty, very busy!" – Participant F

"by watching the recording again, and again, make me understand more." - Participant A
This sentiment was echoed by Participant C, who highlighted the opportunity to care for her daughter while listening to recorded sessions. OUM's innovative learning management system, myINSPIRE, further facilitated online classes. With the option to attend live synchronous sessions via Google Meet or access offline asynchronous recordings, students could tailor their participation to their schedules, saving on commuting and accommodation costs, as noted by Participant E.

"You can see the recording if you cannot attend the class. And, at the same time, I can take care of my little daughter…when listening, you know!" – Participant C
"You know…now, we no need to wake up so early anymore, to travel, to stuck in traffic jam, to find parking… Because nursing classes are only on Saturday… but now, save money so much already, to take class at home, I mean… Also, online examination is advantage to the student." – Participant E

Furthermore, online examinations were considered advantageous, providing time and cost savings. All participants, including Participant B, appreciated the flexibility of not having to worry about attire for online classes.

"Save time…I don't need to think what to wear because it is online classes." - – Participant B

All participants reported positive experiences with the myINSPIRE platform, praising its user-friendly interface, engaging features, and comprehensive e-learning resources. The forum within myINSPIRE served as a valuable tool for communication with tutors and peers, fostering understanding and continuous discussions throughout the semester.

"myINSPIRE is very good. New version, I like. Getting interesting, getting colorful…You can get everything there in myINSPIRE… good e-lesson…" – Participant D

"…forum has very close communication for us…" – Participant C

"myINSPIRE? You also can use this chatbox. Can talk with tutor… Also, when everybody discuss, more understanding…. The discussion can continuous until the end of semester… that is very good, for me... Now we have online participation. One more thing, the forum is good. If you cannot communicate with the tutor in the live class, you can ask in the forum…" – Participant E

"I guess we talk in the forum more we understand the assignment more." – Participant E

On the other hand, Participant A added:
"We can find new friends in the forum, too."

However, Participant B expressed a slightly negative experience with myINSPIRE, suggesting improvements in technical support and responsiveness.

"I think, you know? The University needs to improve a bit on the technical support… Sometime, not very friendly to use… Also, sometimes, no response in the forum when asked question. Anyway, I don't really rely on forum." – Participant B

4.3.   Juggling with Life Commitments

Under the subthemes of juggling commitments, including workload, time management, and coping, participants provided varied feedback on the socio-emotional aspects of online learning.

Participant A highlighted the challenges of a 5-hour time difference in Saudi Arabia but acknowledged managing due to shift duty. Conversely, Participant B found the classes manageable, given divided duty and minimal interference with work commitments.

"You know, we have 5-hour difference in Saudi, but is still okay for me… I am shift duty… Honestly it was very difficult at the time...juggling" -Participant A

"I am divided duty. So, it okay for me…The classes did not interfere with my work…You see, we are always running out of time to work. The workload. A bit juggling, sometimes." –Participant B

Some participants felt demoralized when dealing with time management challenges, with Participant C expressing saturation and stress during busy periods. Even single participants faced challenges, as noted by Participant E, who emphasized the importance of managing time for a better future.

"I probably not good any more in time management… It is quite saturated and stressful again…when time was busy, I mean. It is also time consuming when you want to scroll back…to check many forums posted. – Participant C

Even single and unmarried participant still juggling with life commitments, participant E expressed:
"Alright, challenges? I am single so I don't have challenges arrange the kids…but I try to manage my time. I want better future pathway…after this degree." - Participant E

Participants with health-related issues, such as Participant F, faced unique challenges in maintaining work-life balance during their studies. Financial coping was also emphasized by Participant F, who, without financial aid, relied solely on their salary, necessitating substantial savings.

"… alright, because I have congenital heart disease. Then, in 2019 I had open heart surgery, they discovered that I had pulmonary hemorrhage. So, I have to kept intubated. Hmm, how then I was going to recover with that situation? Pulmonary heamorrhage, you know, take long time to recover. It was very tired." -- Participant F

Financial coping is also part and parcel for one candidate. Participant F voiced out:
"Another challenge for me. Yeah, financial. Because I didn't take PTPTN. I only have my salary. I do not take loan. So, you see, I got to save a lot." -- Participant F

4.4. Good Peer Support

In our pilot study, effective peer support emerged as a constructive response to the socio-emotional challenges of online learning. Participants acknowledged the value of peer assistance beyond the virtual classroom, particularly from colleagues in the workplace. Seeking help in understanding assignments and rubrics was a common practice among participants, as illustrated by statements from Participant A, B, and F respectively:

"I read both Malay and English. I don't understand the rubric at all…at least when I asked some seniors, they are okay to explain to me." – Participant A
"I don't understand the rubric. At all. I was afraid to ask in online class… So, I asked other, then. After the class, of course… Another thing, APA style is difficult for me. I used lots and lots of apps to do it. But they make me understand now." — Participant B
"When we have colleagues in the ward we support each other. We discuss…on and on…during the working time… They make us understanding on how to do the assignment, especially." — Participant F

The impact of online peer support was evident in the positive experiences shared by participants. Participant F expressed satisfaction with online peer discussions, emphasizing their effectiveness in addressing various topics, including assignments. Participant E highlighted the social aspect of online peer discussions, emphasizing the opportunity to forge new connections and friendships.

"Online peer discussion? Good. We discuss lots of things…related to assignment, too." — Participant F
"The OCP [online peer discussion], we make new friends." – Participant E

5.   Discussion

In OUM's Bachelor of Nursing program, tutors are required to allocate 10 hours per subject for instructional purposes, and relevant materials are uploaded via myINSPIRE. This platform serves as a hub for accessing subject-specific content, allowing the users to engage with tutors and peers. However, Kew and Tasir's (2021) study using content analysis indicated low cognitive engagement in online discussion forums, and Mariya et al. (2022) found that 75.9% of students cited the absence in-person interactions as a major difficulty in online programs. The intricacy of thought and intellectual stimulation are challenges faced by students in online courses, highlighting the importance of clear learning objectives for part-time tutors to guide students in taking responsibility for their education. While Chitra and Raj (2018) assert that online learning is practical for incorporating education into daily life, Mukasa et al. (2021) reported poor time management among participants, contradicting the claim. Financial constraints are significant among adult learners in online tertiary education, with Saedah and Yee (2019) finding that 54.3% cited a lack of money as a major obstacle. This aligns with Ahmad's (2018) research, revealing nurses' distress over rising college costs as a barrier, especially for those unable to take time off work.

Amid the peak of the COVID-19 pandemic, our study discovered that post-registration nursing students at OUM remained motivated. Despite the challenges, they exhibited resilience, juggling multiple demands on their physical capabilities, personal resources, income, and time. Coping strategies were employed to achieve balance and personal equilibrium, emphasizing the importance of socio-emotions for successful learning and digital readiness (Naykki et al., 2014; Kamei & Harriott, 2020; Handel et al., 2020). While online learning offers benefits, Pranamana et al. (2022) reported negative perceptions in Indonesia, where participants preferred face-to-face classes. Similarly, Goodwin et al. (2022) noted a preference for physical learning in their qualitative study. Recommendations for optimizing online learning include emphasizing synchronous live sessions, incentivized learning, and ongoing formative informal assessment to maintain engagement.

This pilot study sheds light on socio-emotional aspects in post-registration nursing students at OUM, with online class benefits, life commitment juggling, and peer support as preliminary findings. The study emphasizes the need for enhanced support and attention to nursing workforce concerns globally,

Exploring Socio-Emotional Conflict and Challenges
in Open Distance Learning for Post-Registration Nursing Students [draft]

ASEAN Journal of Open and Distance Learning
Vol. 15, No. 2, 2023, pp. 68 – 76

especially in addressing workload challenges that impact time management. Chang et al.'s (2020) discussion on emotional intelligence among nurses underscores its significance, revealing a significant association with demographic variables like age and years of nursing experiences.

6. Conclusion

Our pilot qualitative study significantly contributes fresh perspectives to the current limited understanding of the socio-emotional conflicts and challenges confronted by nursing students at OUM. The outcomes of our investigation propose plausible implications for introducing targeted supportive interventions designed for post-registration nursing students enrolled in open distance learning. Furthermore, online education holds the potential to surmount the restrictions associated with conventional teaching approaches, empowering educators to impart their expertise to a substantial student population unhindered by temporal or spatial constraints. The insights gained from our pilot study not only enrich the comprehension of the intricate issues faced by nursing students but also underscore the importance of tailored interventions to enhance their learning experiences. Embracing online education can serve as a transformative tool, breaking free from traditional limitations and facilitating widespread access to quality education for students pursuing post-registration nursing programs at OUM.

References

Ahmad, Z. (2018). A Phenomenological analysis of the experience of nursing students' usage of various technologies within a hybrid degree program. *Canadian Journal of Nursing Informatics, 13*(2), 1-36.

Chang, A., Lai, Y. W., & Lim, S.G. (2020). Level of emotional intelligence among nurses. *International e-Journal of Science, Medicine & Education (IeJSME), 14*(3): 30-44.

Chitra, A.P. & Raj, M.A. (2018). E-Learning. *Journal of Applied and Advanced Research*, 3(Suppl. 1), 11−13.

Goodwin J, Kilty C, Kelly P, O'Donovan A, White S, & O'Malley M. (2022). Undergraduate student nurses' views of online learning. *Teach Learn Nurs,17*(4), 398-402. https://doi.org/10.1016/j.teln.2022.02.005

Kamei, A. & Harriott, W. (2021). Social emotional learning in virtual settings: Intervention strategies. *International Electronic Journal of Elementary Education, 13*(3), 365-371.

Kew, S. N., & Tasir, Z. (2021). Analysing students' cognitive engagement in e-learning discussion forums through content analysis. *Knowledge Management & E-Learning, 13*(1), 39–57. https://doi.org/10.34105/j.kmel.2021.13.0

Khasada, A., & Hongguang, L. (2018). Analysis approach to identify factors influence digital learning technology adoption and utilization in developing countries. *International Journal of Emerging Technologies in Learning (iJET), 13*(02):48

Mariya, K.M., Adnan, S., Tasneem, S., Hasan, R. N., Nasim, A., & Masood, A. S. (2022). Analysing the role of gender and place of residence in acceptability and satisfaction towards e-learning among university students' during COVID-19 pandemic in India. *SN Soc Sci, 2,*233. https://doi.org/10.1007/s43545-022-00544-z.

Mills, A., Ryden, J., & Knight, A. (2020). Juggling to find balance: hearing the voices of undergraduate student nurses, *BJN, 29*(15), 2052-2819. https://doi.org/10.12968/bjon.2020.29.15.897

ASEAN Journal of Open and Distance Learning
Vol. 15, No. 2, 2023, pp. 68 – 76

Exploring Socio-Emotional Conflict and Challenges
in Open Distance Learning for Post-Registration Nursing Students [draft]

Mukasa, J., Otim, M., Monaco, B., Al Marzouqi, A., Breinener, P., & Jawahar, L. (2021). Nursing Students' Perspectives and Readiness to Transition to E-Learning During COVID-19 in the UAE: A Cross-Sectional Study. *Advances in Medical Education and Practice.12*, 1505–1512.

Naykki, P., Jarvela, S., Kirschner, P.A., & Jarvenoja, H. (2014). Socio-emotional conflict in collaborative learning—A process-oriented case study in a higher education context. *International Journal of Educational Research, 68,* 1-14. http://dx.doi.org/10.1016/j.ijer.2014.07.001

Northey, G., Bucic, T., Chylinski, M., & Govind, R., (2015). Increasing student engagement using asynchronous learning. *Journal of Marketing Education, 37*(3), 171-180.

Pramana, C., Handayani, O. W. K., Raharjo, T. J., & Rahayu, S. R. (2022). Nursing students' perceptions and acceptance of online learning during the COVID-19 pandemic in Indonesia. *Open Access Macedonian Journal of Medical Sciences, 10*(G),183-188. https://doi.org/10.3889/oamjms.2022.8329

Ronzhina, N., Kondyurina, I., Voronina, A., Igishev, K., & Loginova, N., 2021. Digitalization of modern education: problems and solutions. *Int. J. Emerg. Technol. Learn, 16*(4), 122–135.

Saedah, M. & Yee, B.L. (2019). Perceived Challenges in open and distance learning among nursing students of open university malaysia: a descriptive analysis. International Conference on Education (ICE 2019).

Southard, S., Meddaugh, J., & France-Harris, A. (2015). Can SPOC (self-paced online course) live long and prosper? A comparison study of a new species of online course delivery. *Online Journal of Distance Learning Administration, 18*. http://www.westga.edu/~distance/ojdla/

Speziale, H. S., Streubert, H. J., & Carpenter, D. R. (2011). *Qualitative research in nursing: advancing the humanistic imperative.* Lippincott Williams & Wilkins.

Sprenger, D.A., & Schwaninger, A., (2021). Technology acceptance of four digital learning technologies (classroom response system, classroom chat, e-lectures, and mobile virtual reality) after three months' usage. *Int. J. Educ. Technol. Higher Educ, 18* (1), 1–17.

Van Manen, M. (2006). Writing qualitatively, or the demands of writing. *Qual Health Res,16*(5), 713-22. doi: 10.1177/1049732306286911.

Williamson, K.M. & Muckle, J. (2018). Students' perception of technology use in nursing education. CIN: Computers, *Informatics, Nursing, 36*(2), 70-76.