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Exploring Nursing Undergraduates' Experiences with a Redesigned Blended Learning Course: A Descriptive Qualitative Study

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Abstract

Aim: To explore the experience of nursing undergraduates with a blended course, that was redesigned using the Community of Inquiry framework.

Design: The Obstetrics and Gynaecology Nursing Course was redesigned using blended learning pedagogy, which starts from the creation of teaching presence, plays the intermediary role of social presence and aims at realizing cognitive presence.

Methods: After the course completion, we conducted a qualitative descriptive study and collected data using focus group interviews and field notes.

Results: The findings comprised three main themes including role promotion, passive and selective learning and recommendations. Teachers and peers reportedly played the supervisors, facilitators and coordinators in learning promotion. Some students experienced difficulties in adapting to the blended learning environment due to passive learning habits, character flaws and academic pressure. However, a majority of them supported the application of the model.

KEYWORDS
community of inquiry, nursing education, qualitative research, student, teaching methods

1 | INTRODUCTION

In recent times, teaching and learning processes have undergone many revolutionary changes mediated through computers. Blended learning is an example and refers to the confluence of traditional face-to-face learning systems with communication technologies to personalize education (Fletcher et al., 2007; Graham, 2006). This concept draws on the flexibility and availability of online learning and integrates it into classrooms to reduce online transactional distance and increase interaction between instructors and students (Jusoff & Khodabandelou, 2009). Due to the array of definitions and the flexibility of the educational model, teaching styles and technologies integrated into the blended learning approach have been presented in different structures with different strategies.

In China, most universities offer blended courses, as the method has been employed by faculty belonging to different subjects (Zhang, 2019). Moreover, blended learning has become the new standard in undergraduate nursing education (Leidl et al., 2020). However, concerns regarding the design of a blended course remain. Students are nurtured by complex interactions with their surroundings (Garrison & Akyol, 2015). Simply combining face-to-face learning with information technology cannot provide effective teaching and learning solutions. There is still no clear theoretical framework to guide the design of blended learning. We believe that the Community of Inquiry (CoI) framework can allow for a redesign of the blended learning model, while allowing for thorough reflection of the educational environment and promoting in-depth student learning.

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The CoI proposed by Garrison et al. (1999) was based on Dewey (1933) theoretical framing, and comprises instructor-student interactions. It aims to effectively promote the co-construction, discovery and cultivation of knowledge, competence and skills (Garrison et al., 1999). Garrison (2016) described the framework as a "generic and coherent structure of a transactional educational experience" (p. 24), and many researchers regard it as one of the most recognized and promising models to guide research and practice processes of blended or online learning (Heilporn & Lakhal, 2020; Redstone et al., 2018). The CoI assumes that learning occurs inside the community through the interaction of three indispensable elements: cognitive, social and teaching presence (Garrison et al., 1999). Cognitive presence refers to learners' ability to construct and confirm meaning through sustained reflection and discourse in a critical CoI; it is regarded as the most basic element for success in higher education (Garrison et al., 1999, 2001). Social presence refers to learners' use of media to fully present their personality characteristics in a trustful inquiry environment, while developing interpersonal relationships through interactive communication (Garrison & Arbaugh, 2007; Swan et al., 2009). Teaching presence refers to an educational experience design that supports and enhances the social and cognitive presence of those involved to accomplish educational outcomes (Anderson et al., 2001).

Our study focused on changes of blending learning structure in the Obstetrics and Gynaecology Nursing Course. Obstetrics and Gynaecology Nursing is a core required course, offered to third-year students during the second semester of their four-year nursing degree in Chongqing Medical University, China. The educational content is abstract and professional, hard to understand and focuses on the relationship between theoretical knowledge and clinical practice. Historically, this course has mainly adopted a way of learning based on teachers' explanations. This course was redesigned using blended learning pedagogy, which was based on the CoI framework. This method involves the creation of teaching presence, plays the intermediary role of social presence and aims at realizing cognitive presence. More specifically, the course concentrated on reflection and thematic discussion activities, which were triggered by the problems of teachers or students. Teachers reorganized teaching content and activities and created interactive conditions, conducive to inquiry and quality. Students achieved personal expression while acknowledging, appreciating and responding to the problems or contributions of their peers, and eventually reached a consensus to resolve the problems. Hence, this formed a learning environment based on mobile communication equipment, online learning and classroom discussion.

Critically, Garrison (2011) believes that even with great variability among individual learners, projects and tutors, every type of presence would manifest itself in an effective and collaborative CoI. Since the introduction of the CoI framework, several scholars worldwide have focused on its research and practice (Garrison et al., 2010). Empirical evidence substantiates that the CoI has a positive impact on students' satisfaction and retention rates (Boston et al., 2009; Hoskins, 2012). Moreover, critical inquiry into deep learning and meaningful learning is required, as the cultivation of students' critical thinking, reflective thinking and high-order thinking is the ultimate goal. While the CoI framework effectively promotes learning in video-streaming businesses, engineering drawing and online management education courses (Chen et al., 2017; Szeto, 2015; Weyant, 2013) research regarding CoI-based education in nursing is still limited (Mills et al., 2016; Phillips et al., 2012). Additionally, as most literature on the topic employed quantitative measures to assess the CoI (Arbaugh et al., 2008; Smadi et al., 2019), students' feelings towards CoI-based courses have yet to be explored.

Therefore, this study aimed to explore nursing undergraduates' perspectives of a blended course, which was redesigned based on the CoI framework.

2 | METHODS

2.1 | Study design

This study used a descriptive qualitative research design through focus group interviews on experiences of community of inquiry among nursing students at blended learning (Sandelowski, 2010; Shaha et al., 2011).

2.2 | Participants

The nursing undergraduates' inclusion criteria were as follows: (1) with comprehension and communication capability; (2) participate in the whole teaching process. The exclusion criteria were as follows: (1) with suspension, withdrawal and long-term sick leave for more than 1 month; (2) with mental and psychological diseases who are currently taking mental illness drugs. (3) unprepared to co-operate, or indeed to communicate. Based on a previous study (Patton, 2014), we used purposeful sampling to identify potential participants recruited from nursing undergraduates.

2.3 | Interview guide

We developed an interview guide based on the research aim comprising three main questions: (1) "How did you feel when participating in the course?"; (2) "What is the influence of others on you during the inquiry learning activities?"; (3) "Do you have any suggestions for the betterment of this learning model?"

2.4 | Ethics statement

The Ethical Review Board of the first affiliated hospital of Chongqing Medical University approved this study. An informed consent form was sent to all participants, which emphasized that participation would not affect the course grade. Prior to

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participation in the group interview, we explained to participants the study aims, methodology, their required involvement levels, and promised that only the interviewer knew the identities of the participants, while other researchers used anonymous data records. Students may decline to answer specific questions and were free to request a break or terminate the interview at any time. After the interview, no one outside the research team has access to all the data, which was stored on a password-protected hard drive only used in this study.

2.5 | Data collection

A purposive sampling method was used to recruit participants at the School of Nursing from Chongqing Medical University in China. The students were in their third years, and officially entered the Obstetrics and Gynaecology Nursing Course from March to July 2019, which was redesigned based on the CoI framework.

Three interviewers (included one host and two research assistants, all with the Master of Nursing) were trained to conduct qualitative research interviews that included focus group interviews and face-to-face data collection methods. The function of the host is to create a relaxed and safe environment, mobilize the atmosphere and encourage the respondents to actively participate in the discussion and interaction, intervene appropriately to give the initiative to the participants; do not easily express or interrupt, and try to observe and listen. The purpose of the Research Assistant is to record the content of the interview, including speaking order, rapid recognition of key language and non-verbal behaviours (mental state, facial expressions, gestures, body posture, etc.).

The focus groups were conducted in a quiet meeting room at the university in August 2019. After obtaining informed consent from participants, the interviews were audio-recorded and written notes on the points. Each interview lasted approximately 75 min. After four focus groups (with six students in each interview, for a total of 24 students), we identified patterns and preliminary themes across the interviews and therefore considered the data to be saturated. Participants were identified as N1–N24 for description in the Results.

2.6 | Data analysis

The recorded interviews were transcribed verbatim in 24 hr of the completion of each interview and used NVivo 12.0 Plus software for Windows (QRS International) to analyse the data. All reflections have been collated into Chinese and translated into English by an interviewer (with Professional English Translation Certificate) to ensure the authenticity and accuracy of the raw data. The transcribed interviews with the study participants were checked for authenticity. We used a qualitative content analysis methodology, consisting of three main stages: preparation, organization and reporting (Elo & Kyngäs, 2008). We immersed ourselves in the data by thoroughly reading the transcripts several times, and openly coded them, created categories and abstracted them.

TABLE 1 Characteristics of the participates

Variable	*N*	*F* (%)
Household registration		
Village	8	33.3
City	16	66.7
Family child status		
Only-child	11	45.8
Non-only-child	13	54.2
Hold a position in the class		
Yes	7	29.2
No	17	70.8
Number of extracurricular activities per week		
0	6	25.0
1–2	15	62.5
≥3	3	12.5

2.7 | Trustworthiness

In qualitative research, the concepts of credibility, dependability and transferability have been used to describe various aspects of trustworthiness (Graneheim & Lundman, 2004). To assure credibility, we described representative quotations from the transcribed text, and sought agreement among co-researchers, experts and participants. To assure dependability, each participant responded to the same topics during data collection. To assure transferability, we endeavoured to describe data collection and analysis, study procedures and participants' maximum variability, as clearly and distinctly as possible.

3 | RESULTS

3.1 | Participant recruitment and characteristics

A total of 24 participants were included, 1 (4.2%) were male and 23 (95.8%) were female, the ages were ranged from 20 to 22, with an average age of 21.07 ($SD = 0.85$). Their characteristics are shown in Table 1.

3.2 | Qualitative results

The themes emerging from the analysis of the nursing undergraduates' perceptions included role promotion, passive and selective learning and recommendations.

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3.2.1 | Theme 1: Role promotion

In the CoI framework (Garrison et al., 1999), each participant played an important role towards knowledge construction. Most nursing undergraduates reported that teachers were supposed to be their supervisors, facilitators and coordinators; here are two excerpts to exemplify these topics:

> She [The teacher] makes us not confine ourselves to books, instead [she encourages us to] imagine problem scenarios based on our common understanding. She pointed out our mistakes, widened our thinking, and made our own ideas clearer.
>
> (N4)

> I prefer stressful learning states that come from the teacher. Only mandatory assignments can urge me to further learn and master [specific knowledge] …Completing the task gives me a sensation of achievement.
>
> (N16)

In addition, peer motivation also added a unique colour to inquiry learning activities. One participant was excited to discuss how peer motivation positively influenced her learning process in later situations:

> I feel that I have learned a lot through my peers, and I admired her attitude toward learning activities and her thinking toward resolving queries…I think it's fantastic… I didn't know why I was so nervous… I recalled her behavior and language, and that helped me approach her performance in a later discussion.
>
> (N18)

For another participant stated that peers could deepen the memory of knowledge:

> Some students can think of the answers to questions [about which] I have no idea. When we discuss together, my memory will be more profound, because I feel closer and more relaxed with my classmates than my teachers.
>
> (N5)

3.2.2 | Theme 2: Passive and selective learning

Undeniably, some participants admitted that they were unable to adapt to the blended learning environment. One participant said:

> In the [face-to-face] class, I was used to waiting for others to lead.
>
> (N19)

Another participant agreed saying,

> I was afraid that I was not able to clearly illustrate the problem in discussions. It would be embarrassing. So, I would rather remain silent.
>
> (N2)

Some students indicated that, as many learning tasks from various courses were assigned simultaneously, there was insufficient time to prepare for the different classes. Moreover, group leaders were both organizers and observers during the entirety of the inquiry learning activities; one participant, who was a group leader, stated:

> I think that the enthusiasm of the students was not high. It may be that everyone was a bit tired at this stage of learning, and we were used to waiting for the teacher to assign tasks.
>
> (N13)

Another participant added:

> Occasionally, they learned only a small number of chapters before the beginning of the class and did not pay attention to the extra content.
>
> (N13)

Overall, some students reported that if they had more time between classes, they would have been able to study more by themselves before the start of the class.

3.2.3 | Theme 3: Recommendations

In our data, most students reported that they recognized and supported the blended course because it helped them master specialized knowledge and form a greater sense of learning expectation. One participant detailed her learning experience in this way:

> The learning process was very smooth and clear, especially compared with other courses. It was easier to review before the exam.
>
> (N15)

One student indicated his fondness for the learning atmosphere of online discussions after class:

> Everybody was really positive in the online discussion; not only teachers but also students put questions forward… Reviewing and expanding knowledge can deepen learning.
>
> (N19)

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Furthermore, most students showed support towards using this teaching model in other core courses of the nursing curriculum, while proposing a new learning method that could be occasionally adopted in physical classrooms:

> When the course gets to a certain point, the teacher could organize a class to discuss one comprehensive case that linked previous knowledge [acquired in the previous classes], with the aim to construct upon a [previously learned] original knowledge framework, rather than learning new knowledge. This can be more beneficial to obtain [students'] focus toward learning [content].
>
> (N20)

Finally, some students thought the online discussion method was applicable even in clinical practice, as a participant suggested:

> Work confusion can be analyzed through the same online discussion. Only when the problem cannot be solved, or the analysis is wrong, should the teacher directly guide [the discussion].
>
> (N1)

4 | DISCUSSION

Our study introduced a descriptive analysis of nursing undergraduates' perceptions of a redesigned blended course. An emerging theme in this study was that teachers and students appeared to play an important role in learning promotion. Several studies have also reported that each participant in a CoI is responsible for collaborative construction learning (Garrison, 2011; Smyth et al., 2012). The instructor simultaneously performed multiple roles as moderator, facilitator and coordinator. An excellent teacher needs to be flexible as well as create more interactive discussions (Szeto, 2015). Moreover, students may consider imitating or competing with their peers who perform better in the course, instead of yielding to peer pressure (Beran, 2015; Demir & Ercan, 2018). Peer learning in this study might assist them in expressing their real feelings and personality characteristics, which may subsequently allow for the construction of a more comfortable and safe inquiry learning environment (Vuckovic et al., 2019).

Nevertheless, this study found that some students experienced difficulties in adapting to the blended learning environment due to passive learning habits, some deeply entrenched character flaws and academic pressure. In China, indoctrination has an impact on the educational system. In most medical education programs in the past, some teachers often provided students with ready-made knowledge and required them to stay and remember, which has seriously disregarded students' cognitive process. It makes students get used to listening without thinking actively. Therefore, students will be easily lost, unable to form their own line of thought, and unable to follow the project process when immersed in the self-serving learning environment of community of inquiry. If the wrong phenomenon continues, as most students reported, they lacked confidence during the learning activities and their desire to get involved had already begun to fade, which is not similar to earlier studies (Markett et al., 2006; Shorey et al., 2018). Facilitating open communication and group cohesion helps address this situation (Vaughan et al., 2013). Specifically, setting collaborative guidelines for classroom and online discussion helps create and sustain a supportive learning environment with higher levels of trust and a sense of belonging in the group (Carragher & McGaughey, 2016; Vaughan et al., 2013).

A noteworthy finding that was rarely mentioned in previous research was that our study discovered that students who experienced learning fatigue in the third academic year also experienced difficulties in adapting to the blended learning environment, while resulted in decreased engagement in learning activities. This finding is supported by evidence that confirms that it may be related to inappropriate time management of students (Liu et al., 2014), as most educational institutions focused on time-based performance measures of student progress (Piper, 2010). We suggest that universities need to re-evaluate the proportion of time between physical classroom and online courses. Appropriate reallocation of teaching components to the Internet and reducing classroom contact hours can effectively relieve learning stress by allowing students to have more time to complete study tasks.

In general, results from this study showed that most students agreed to the teaching model and suggested that it should be applied to other core nursing courses and clinical practice. Moreover, they believed that the blended learning format could deepen learning, thus concurring with studies revealing that blended learning helped to increase student knowledge (Gallagher, 2007; Smyth et al., 2012). Hence, to provide such blended courses, institutions need to update their policies, criteria and processes, while providing incentives (e.g., financial compensations), professional preparation and material rewards to staff for the performance of blended courses. This will provoke the interests of other staff that envision such methodologies. Moreover, since nurses periodically need additional knowledge and refresher courses (Sung et al., 2008), new registered nurses should spontaneously organize an online CoI and form a new protocol for clinical work discussions. We sincerely hope that hospitals will convene a task force to support it.

5 | LIMITATIONS

This study only used a Chinese sample and our results will be limited, as they are only applicable to this specific cultural setting. Future studies should address the feelings of students in different regions and cultures, when designing a blended course through the CoI framework. A larger sample size using a mixed-method approach involving both quantitative and qualitative methodology would be beneficial.

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6 | CONCLUSIONS

Our results added to the existing literature on the application of CoI, while proposing more student-centred improvement measures. We suggest that Chinese nursing educators should focus on teaching presence in a CoI to design blended courses and increase peer motivation. When students recognize the power of tutoring, feedback and support of their peers, they may be able to enhance learning outcomes further. Moreover, educational institutions should provide strategic support for blended courses, which can be applied throughout the entire nursing curriculum. Additionally, policy makers in higher education should promote the inclusion of blended courses in nursing curricula.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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REFERENCES

Anderson, T., Rourke, L., Archer, W., & Garrison, R. (2001). Assessing teaching presence in computer conferencing transcripts. *Journal of the Asynchronous Learning Network*, *5*, 1–17.

Arbaugh, J. B., Cleveland-Innes, M., Diaz, S. R., Garrison, D. R., Ice, P., Richardson, J. C., & Swan, K. P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *The Internet and Higher Education*, *11*, 133–136. https://doi.org/10.1016/j.iheduc.2008.06.003

Beran, T. (2015). Research advances in conformity to peer pressure: A negative side effect of medical education. *Health Professions Education*, *1*, 19–23. https://doi.org/10.1016/j.hpe.2015.11.004

Boston, W., Diaz, S. R., Gibson, A. M., Ice, P., Richardson, J., & Swan, K. (2009). An exploration of the relationship between indicators of the community of inquiry framework and retention in online programs. *Journal of Asynchronous Learning Networks*, *13*, 67–83. https://doi.org/10.2307/801607

Carragher, J., & McGaughey, J. (2016). The effectiveness of peer mentoring in promoting a positive transition to higher education for first-year undergraduate students: A mixed methods systematic review protocol. *Systematic Reviews*, *5*, 68. https://doi.org/10.1186/s13643-016-0245-1

Chen, B., de Noyelles, A., Patton, K., & Zydney, J. (2017). Creating a community of inquiry in large-enrollment online courses: An exploratory study on the effect of protocols within online discussions. *Online Learning*, *21*, 165–188. https://doi.org/10.24059/olj.v21i1.816

Demir, S., & Ercan, F. (2018). The first clinical practice experiences of psychiatric nursing students: A phenomenological study. *Nurse Education Today*, *61*, 146–152. https://doi.org/10.1016/j.nedt.2017.11.019

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. DC Heath and Company.

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, *62*, 107–115. https://doi.org/10.1111/j.1365-2648.2007.04569.xx

Fletcher, J., Tobias, S., & Wisher, R. A. (2007). Learning anytime, anywhere: Advanced distributed learning and the changing face of education. *Educational Researcher*, *36*, 96–102. https://doi.org/10.3102/0013189X07300034

Gallagher, L. (2007). Continuing education in nursing: A concept analysis. *Nurse Education Today*, *27*, 466–473. https://doi.org/10.1016/j.nedt.2006.08.007

Garrison, D. R. (2011). *E-learning in the 21st century: A framework for research and practice* (2nd ed.). Routledge.

Garrison, D. R. (2016). *E-learning in the 21st century: A Community of Inquiry framework for research and practice* (3rd ed.). Routledge.

Garrison, D. R., & Akyol, Z. (2015). Thinking collaboratively in educational environments: Shared metacognition and co-regulation in communities of inquiry. In J. Lock, P. Redmond, & P. A. Danaher (Eds.), *Educational developments, practices and effectiveness* (pp. 39–52). Palgrave Macmillan. https://doi.org/10.1057/9781137469939_3

Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, *2*, 87–105. https://doi.org/10.1016/S1096-7516(00)00016-6

Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education*, *15*, 7–23. https://doi.org/10.1080/08923640109527071

Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *The Internet and Higher Education*, *13*, 5–9. https://doi.org/10.1016/j.iheduc.2009.10.003

Garrison, D. R., & Arbaugh, J. B. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *The Internet and Higher Education*, *10*, 157–172. https://doi.org/10.1016/j.iheduc.2007.04.001

Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs* (pp. 3–18). Pfeiffer Publishing.

Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, *24*, 105–112. https://doi.org/10.1016/j.nedt.2003.10.001

Heilporn, G., & Lakhal, S. (2020). Investigating the reliability and validity of the community of inquiry framework: An analysis of categories within each presence. *Computers and Education*, *145*, 103712. https://doi.org/10.1016/j.compedu.2019.103712

Hoskins, B. J. (2012). Connections, engagement, and presence. *The Journal of Continuing Higher Education*, *60*, 51–53. https://doi.org/10.1080/07377363.2012.650573

Jusoff, K., & Khodabandelou, R. (2009). Preliminary study on the role of social presence in blended learning environment in higher

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education. *International Education Studies*, *2*, 79–86. https://doi.org/10.5539/ies.v2n4p79

Leidl, D. M., Ritchie, L., & Moslemi, N. (2020). Blended learning in undergraduate nursing education–A scoping review. *Nurse Education Today*, *86*, 104318. https://doi.org/10.1016/j.nedt.2019.104318

Liu, J. Y., Liu, Y. H., & Yang, J. P. (2014). Impact of learning adaptability and time management disposition on study engagement among Chinese baccalaureate nursing students. *Journal of Professional Nursing*, *30*, 502–510. https://doi.org/10.1016/j.profnurs.2014.05.002

Markett, C., Sa'nchez, I. A., Weber, S., & Tangney, B. (2006). Using short message service to encourage interactivity in the classroom. *Computers & Education*, *46*, 280–293. https://doi.org/10.1016/j.compedu.2005.11.014

Mills, J., Yates, K., Harrison, H., Woods, C., Chamberlain-Salaun, J., Trueman, S., & Hitchins, M. (2016). Using a community of inquiry framework to teach a nursing and midwifery research subject: An evaluative study. *Nurse Education Today*, *43*, 34–39. https://doi.org/10.1016/j.nedt.2016.04.016

Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Sage.

Phillips, D., Forbes, H., & Duke, M. (2012). Teaching and learning innovations for postgraduate education in nursing. *Collegian*, *20*, 145–151. https://doi.org/10.1016/j.colegn.2012.05.003

Piper, T. H. (2010). *What policy changes do experts recommend K-12 instructional leaders enact to support the implementation of online instruction and learning?* University of La Verne.

Redstone, A. E., Stefaniak, J. E., & Luo, T. (2018). Measuring presence: A review of research using the community of inquiry instrument. *The Quarterly Review of Distance Education*, *19*, 27–36.

Sandelowski, M. (2010). What's in a name? Qualitative description revisited. *Research in Nursing & Health*, *33*, 77–84. https://doi.org/10.1002/nur.20362

Shaha, M., Wenzel, J., & Hill, E. E. (2011). Planning and conducting focus group research with nurses. *Nurse Researcher*, *18*, 77–87. https://doi.org/10.7748/nr2011.01.18.2.77.c8286

Shorey, S., Siew, A. L., & Ang, E. (2018). Experiences of nursing undergraduates on a redesigned blended communication module: A descriptive qualitative study. *Nurse Education Today*, *61*, 77–82. https://doi.org/10.1016/j.nedt.2017.11.012

Smadi, O., Parker, S., Gillham, D., & Müller, A. (2019). The applicability of community of inquiry framework to online nursing education: A cross-sectional study. *Nurse Education in Practice*, *34*, 17–24. https://doi.org/10.1016/j.nepr.2018.10.003

Smyth, S., Houghton, C., Cooney, A., & Casey, D. (2012). Students' experiences of blended learning across a range of postgraduate programmes. *Nurse Education Today*, *32*, 464–468. https://doi.org/10.1016/j.nedt.2011.05.014

Sung, Y. H., Kwon, I. G., & Ryu, E. (2008). Blended learning on medication administration for new nurses: Integration of e-learning and face-to-face instruction in the classroom. *Nurse Education Today*, *28*, 943–952. https://doi.org/10.1016/j.nedt.2008.05.007

Swan, K., Garrison, D., & Richardson, J. C. (2009). A constructivist approach to online learning: The community of inquiry framework. In C. R. Payne (Ed.), *Information technology and constructivism in higher education: Progressive learning frameworks* (pp. 43–57). IGI Global. https://doi.org/10.4018/978-1-60566-654-9.ch004

Szeto, E. (2015). Community of Inquiry as an instructional approach: What effects of teaching, social and cognitive presences are there in blended synchronous learning and teaching? *Computers & Education*, *81*, 191–201. https://doi.org/10.1016/j.compedu.2014.10.015

Vaughan, N. D., Cleveland-Innes, M., & Garrison, D. R. (2013). *Teaching in blended learning environments: Creating and sustaining communities of inquiry*. Athabasca University Press.

Vuckovic, V., Karlsson, K., & Sunnqvist, C. (2019). Preceptors' and nursing students' experiences of peer learning in a psychiatric context: A qualitative study. *Nurse Education in Practice*, *41*, 102627. https://doi.org/10.1016/j.nepr.2019.102627

Weyant, L. E. (2013). Designing online management education courses using the community of inquiry framework. *Journal of Instructional Pedagogies*, *12*, 250–252. https://doi.org/10.1080/09500693.2012.689434

Zhang, H. (2019). Research status and development trend of blended learning in China. *China Medical Education Technology*, *33*, 2–18. https://doi.org/10.13566/j.cnki.cmet.cn61-1317/g4.201901003

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