



Clinical education

Using blackboard collaborate, a digital web conference tool, to support nursing students placement learning: A pilot study exploring its impact

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A B S T R A C T

Ensuring student nurses, when in clinical placement areas, receive good quality Higher Education Institution (HEI) lecturer support is challenging. This is because conventional HEI placement support, is resource intensive and arguably infeasible with growing student numbers.

Evidence suggests, however, that online collaborative learning solutions (e.g., virtual classrooms, web conferencing tools) have the potential to ameliorate resource pressures. To test this idea, an online learning solution called Blackboard Collaborate was piloted. It virtually connected, students and their preceptors to a university lecturer. Its usefulness was explored by obtaining qualitative, focus group data, from the students and preceptor participants. The findings were thematically analysed.

Collaborate ensured all three parties were connected. It was a time efficient, easy to use technology. Despite technical glitches, i.e. occasional time delay and audio echo, participants concluded Collaborate was an efficient medium when placement needs were routine. Face-to-face was preferable when more intensive support was required.

In today's busy times, HEI's must explore time effective methods of placement collaboration. Online collaborative tools are one solution. Students will, however, need to develop their digital literacy in using this technology. The benefit being when qualified they are more likely to embrace this form of technology to promote their efficiency.

1. Introduction

Much of a student nurse's pre-qualification learning is spent acquiring skills and knowledge in the clinical environment. Many best practice nurse-training guidelines recommend that students in practice settings are overseen and supported by a more experienced, qualified healthcare professional; also, their HEI staff provide them and their preceptors with additional support (i.e. [NMC \(UK Nursing and Midwifery Council\), 2010](#); [ANMAC, 2017](#)). The terminology for the practice learning overseer varies globally. To date the term 'mentor' has been used in the UK; however, with the introduction of new 2018 NMC *Standards of proficiency for registered nurses (Nursing and Midwifery Council, 2018a)*, this term will be phased out and students enrolled on newly validated [Nursing and Midwifery Council, 2018a](#) programmes will be supported by teams of practice professionals, working in different capacities, to support the students practice learning. The terms for these individuals will be 'Practice Supervisors' and 'Practice Assessors' and the HEI lecturer supporting the student is the 'Academic Assessor' ([Nursing and Midwifery Council, 2018b](#)). Due to the varied global terminology and to prevent confusion using historical and modern terms interchangeably, this paper will use the term 'preceptor'

when referring to the person overseeing the students learning in practice. The rationale for this being that preceptor is globally preferred terminology, used to describe somebody who offers holistic, one-to-one learning support, when either orientating a registered nurse into their healthcare organisation, or holistically supporting the learning of a nursing student ([Ward and McComb, 2018](#)).

When it comes to assuring the quality of nursing students' practice learning, many nations have placed an emphasis on HEI academic staff providing support to the student and their preceptor (i.e. [NMC \(UK Nursing and Midwifery Council\), 2010](#); [ANMAC, 2017](#)). i.e USA, Australia. Traditionally, however, academics have struggled to support students in practice because of their academic work commitments. Notably, in the UK it is unlikely these issues will be relieved by the new [Nursing and Midwifery Council \(2018a\)](#) standards that aim to promote creativity and innovation when supporting practice learning because of a lack of guidelines suggesting how, in challenging times and with constrained resources, this can happen. The central problem, therefore, is that HEI staff will need to support an increasing number of students and preceptors, in more geographically dispersed, non-traditional, practice-based learning environments.

Complicating things further is the pressures of the present political

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agenda to support the qualification of more nurses, who are needed to care for a growing global population presenting with more complex health conditions (NHS, 2017; ANMAC, 2017; US Dept. of and Human Services, 2014). Individual nations will face their own challenges when it comes to ensuring that a sufficient number of nurses are clinically prepared for their future roles. To illustrate the complexity of assuring the quality of practice learning, we may consider the following example from the UK. The government has set a target to train an extra 10,000 student nurses, midwives and allied health professionals by 2020. However, statistics show that in 2017 there was a 21% reduction in nurse training applications (UCAS, 2017), which might be partly due to changes in funding; from state bursary funding to self-funding student loans, which has meant students are understandably more critical of their tuition. UK statistics also show that in 2017 more nurses were leaving the profession than joining it, with many of those leaving being experienced clinicians and practice preceptors (NHS, 2017). Australia, Canada and USA face similar situations (Health Work Force Australia, 2014; Nowrouzi et al., 2016). Evidence suggests students if preceptors are not properly supported by their HEI's they can begin to feel isolated and dissatisfied with their education (Morley, 2013), and it is placement dissatisfaction that has been shown to be a substantial cause of student nurse attrition (Eick et al., 2012).

Practice nurse educators recognise the importance of good HEI/practice provider teamwork and state very clearly that the divide between practice and academia must be bridged via good quality communication and collaboration, scheduled at relevant points in the programme and at student progression (Nursing and Midwifery Council, 2018b). Plus, all those working in preceptor roles must receive opportunities to engage with practice and academic assessors to share observations of their students' conduct, proficiency and achievement (Nursing and Midwifery Council, 2018b). HEI's in many nations will therefore have to think creatively and act in innovative ways to support more students (Duffy and Gillies, 2018). What is undoubtable is that standards will only be assured if HEI's, preceptors and students maintain and strengthen their communication.

Digital innovation may be a possible solution which could circumnavigate many of the logistical problems hindering good HEI placement links and support (Morley, 2013). This is because although a student nurse might be geographically remote from their university, they are rarely digitally remote. A technological tool allowing for a more time efficient communication has the potential for HE lecturers to have more frequent contact with more students and placement preceptors. This paper reports the findings from a pilot study which trialled the use of Blackboard Collaborate, to connect students, preceptors and their HEI lecturers.

Blackboard Collaborate (henceforth simply 'Collaborate') is a virtual classroom tool in which students and academics interact synchronously with one another in an online learning environment. The academic leading the session can upload pre-prepared content (e.g., PowerPoint presentations, image files, documents), stream live video content from a webcam, and share their screen with participants (e.g., for the purpose of software training). Along with such visual information, the academic also shares the audio from his or her microphone. In addition, the academic can make use of a digital whiteboard, run polls and quizzes with participants, set a countdown timer, and make use of break-out rooms for group work activity. The participants can interact with the academic and with each other in various ways. For example, they can raise their (virtual) hand if they want to ask a question, can share information about their current state of mind (I agree/disagree, I am happy/sad/surprised/confused, can you go faster/slower) and can use the instant message functionality to ask questions. If the academic wishes, the participants can also share their audio and webcam feeds during the session, and individual participants can become presenters and share their screens and present content during the session. Collaborate was chosen for this pilot study because of the various synchronous tools available (e.g., Adobe Connect, BigBlueButton,

Collaborate, FaceTime, Webex, Skype), it offered us the best blend of functionality, device agnosticism, and ease-of-use, and did not require users to install additional software on their computers over and above the web browser which was already installed.

2. Background

Technological advances have been revolutionising and improving global healthcare (Ferguson, 2013) as well as making care safer (Van de Castle et al., 2004). Technology is also playing a pivotal role in improving presently overstretched health care systems by ensuring resources are used more efficiently and costs are reduced (Honeyman et al., 2016). It is argued that the digital technology that is having the most dramatic impact on the working landscape is the technology which aims to improve how we communicate at work (Skills Commission, 2014). In healthcare there is now an emphasis being placed on Telehealth or Telecare which uses digital communications, such as the Internet, telephone, email, texts, smartphone technology, etc., to bridge the divide between, for instance, patients and healthcare workers. The WHO definition of Telehealth being:

“The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies, for the exchange of valid information for diagnosis, treatment, and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, in all the interests of advancing the health of individuals and their communities”.

(World Health Organization, 2010)

To date there have been thousands of global Telehealth research studies conducted (Totten et al., 2016). The systematic reviews evaluating the impact of this technology often conclude this form of communication can reduce geographical divides and in doing so often improve the care of remote patients with chronic illness (Totten et al., 2016). Research also suggests this form of contact can enhance care by promoting more diverse educational and networking opportunities (Khanum et al., 2016). Plus, it can successfully lower healthcare costs, improve communication, decrease travel time and promote efficiency (Kruse et al., 2017).

Research carried out in this field often highlights how video conferencing is a superior technological medium to other non-visual Telehealth technology, such as telephone or email, because it promotes patient satisfaction (Bolte et al., 2009). There are many exciting working examples of how web technology in this form is being utilised to improve patient satisfaction. For instance, hospitals such as the UCSF Medical Center are using secure Skype web platforms to help connect patients, visually, to absent family members unable to support them at the hospital. The act of giving people the ability to see also promotes Goldstar treatment (Chittoria, 2012). One good example being how web conference software is being used to cross vast geographical divides in Australia to assist a number of professionals to collaboratively undertake a skin condition diagnosis (Alexander et al., 2014). Nurse educators are also successfully adopting virtual classroom tools to promote learning (e.g., Agrawal, et al, 2016; Daly and Dalsgaard, 2019; Iwasiv et al., 2000; O'Flaherty and Laws, 2014; Taylor and Nicol, 2011; Zalon and Meehan, 2005). However, despite the stated benefits of such technologies in healthcare practice and nurse education, published studies exploring the potential of using a virtual classroom tools to help HEI staff better support and connect with students and preceptors in practice is not evident.

3. Methods

The impact of Collaborate was explored qualitatively using a thematic design. The underpinning theoretical framework was macro social constructionist, which takes the stance that human beings make

sense of their world by influences such as cultural, historical, political, economic and linguistic influences (Grubriun and Holstein, 2008).

Student participants were recruited via an email sent out to a cohort of second year mental health nursing students. Second year students were purposefully selected because first year students often require more personalised contact in order to settle down into university life, whereas third year students often feel under academic pressure to complete their studies. Eight students, three males and five females, gave their informed consent to participate in this study. Their assigned preceptors, all of whom were female and trained mental health nurses, were then approached and asked for their consent to participate in the study.

It is important to state that prior to conducting the pilot some practicalities needed addressing. It was necessary to ensure the privacy and security of conversations, therefore students were not encouraged to use their own personal mobile devices to access Collaborate, but instead to use computers in the placement setting. Next was to ensure clinically based computer systems were able to access Collaborate. This required the University's Learning Technology Team to liaise with the supporting clinical organisation to ensure Collaborate was not blocked by the clinical organisation's firewall. In some locations the computers did not have the webcams and microphones, so these had to be provided prior to the pilot commencement. It was also important to ensure students and lecturers were introduced to Collaborate prior to the commencement of the pilot. All eight students and the three supporting lecturers therefore attended a 45 min Collaborate training workshop. Preceptors did not receive this training because the students were given the technical responsibility of managing the technical aspects of the Collaborate session. Prior to the training workshop, participants were asked if they had any concerns about using Collaborate. This was so the workshop facilitator could address any worries or misconceptions during the workshop. No participants had any concerns.

The students and their preceptors were supported by an HEI nursing lecturer via Collaborate over an eleven-week placement period. A virtual Collaborate meeting between HEI lecturer, preceptor and student was scheduled at the beginning, midway and at the end of this placement experience. Of note is that this amount of contact was a considerable improvement on routine HEI placement support, whereby students would only be seen once during their placement. Students and preceptors could also request a face to face meeting if they felt the need; however, during this pilot no additional face-to-face support was requested.

The student focus group was facilitated by the first named author of this paper and co-facilitated by the third named author, both of whom had no influence over the practice learning experience or grades of the students. During the 60-min focus group students were asked broad questions: What did they perceive the strengths and benefits of Collaborate to be? What were the disadvantages and constraints compared with conventional HEI practice learning support. And, how did they perceive that these constraints could be overcome, and if not, why, and if so, how? Due to the practicalities of preceptors not having the time to be released ethical approval was sought for practitioners to provide their feedback via a written questionnaire asking the focus group open-ended questions. Due to work pressures three preceptors declined to feedback their views.

The focus group was audio recorded and the raw data transcribed. Boyatzis coding framework was used to analyse both the focus group and questionnaire data (Boyatzis, 1998). Intercoder reliability was assured by the project team separately using the coding frame and then undertaking a joint thematic networking exercise, which is recommended by Attride-Stirling (2001, p.388). This exercise allowed the raw data to be rechecked, ensuring that it had been interpreted correctly and that any minor themes not related to the practical application of Collaborate were confirmed and put aside (e.g., preceptor personality and peer support). Thirteen second order codes were then revealed, which collapsed into four themes (see Fig. 1 illustrating the

thematic map).

It is important to point out that this project was carried out before the General Data Protection Regulation (GDPR) and Data Protection Act (2018) came into effect in May 2018. The data collected during this study was therefore treated in accordance with the Data Protection Act (1998). Similar studies will, of course, be required to manage their data in accordance with the GDPR and DPA 2018. This applies to participant information, focus group recordings and transcriptions, but what should be borne in mind is that Collaborate, and other similar technologies, are capable of recording the online collaborative sessions. This was not done as part of this study, but if it is done as part of further studies or simply as part of the general day-to-day practice of colleagues using this technology in practice, these recordings will constitute personal data and must be treated as such. Colleagues implementing the findings from this study, but choosing to record the collaborative online sessions between academic, preceptor and student, will need to have a robust data management plan in place which ensures that the recorded sessions are dealt with according to the GDPR and DPA 2018. In particular, this means that any recordings made of the online collaborative sessions are “used in a way that is adequate, relevant and limited to only what is necessary ... kept for no longer than is necessary ... [and] handled in a way that ensures appropriate security, including protection against unlawful or unauthorised processing, access, loss, destruction or damage” (GOV.UK, 2018).

3.1. Ethical issues

Ethical approval was obtained from the University Ethical Review Board and permission granted by the clinical placement stakeholder (17/1/17). Informed consent was given by all student and preceptor participants and transcripts were made anonymous and purposefully coded to prevent deductive disclosure.

4. Results

This paper reports the data which relates to the practical use of Collaborate in the practice setting; from its ability to promote efficiency and its ease of use, to its technical and social limitations.

4.1. Theme 1: collaborate promotes efficiency

The majority of students (n = 6) and participating preceptors (n = 5) perceived the biggest advantage of Collaborate was that it ensured time was used more efficiently. The added benefit of this being that it saved HEI travel costs. Students and preceptors reported that it was easier arranging a virtual meeting than organising face-to-face meetings.

“It's wasting people's time to come all the way out for five minutes to say, actually, things are wonderful. Things are great. So just to add that into the time efficiency thing, really”.

(Student participant)

Similarly, all the participants agreed that the virtual meetings significantly reduced the time the HEI representative needed for travelling. Other students and preceptors spoke about the flexibility of the timing of Collaborate meetings compared to conventional face-to-face meetings, as illustrated by the following statements:

“Flexibility, you know. I knew I'd still be able to get [Names lecturer] even if I was five or ten minutes late”

(Student participant)

“So easy and efficient just makes the whole process of communication between the professionals really smooth and really fits round your patient”.

(Student Participant)

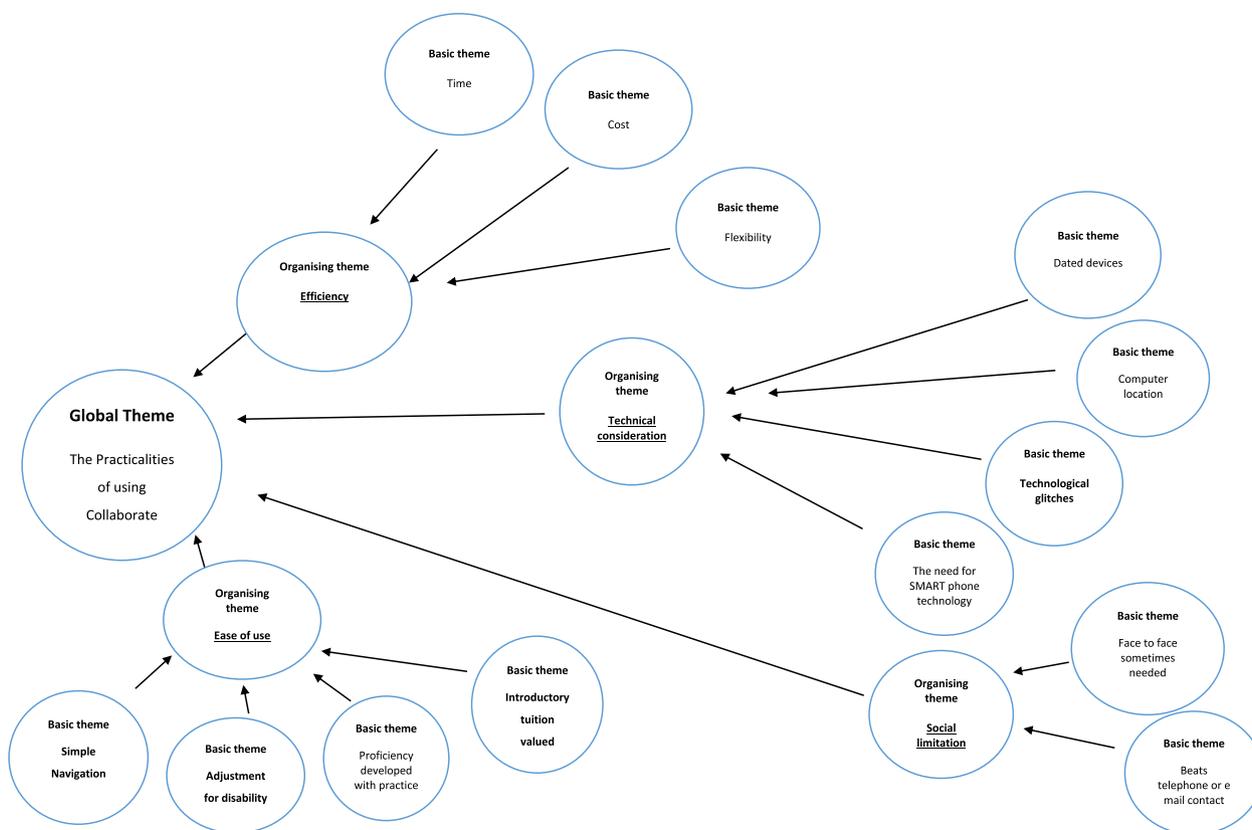


Fig. 1. Thematic Map

“It is also an efficient way in terms of time (e.g. travelling time) and time away from the ward”.

(Student participant)

Students and preceptors describe the business of practice and how flexibility was important because it allowed them to give more time with their patients. This concurs with the literature written in the field which suggests technological systems must adapt to the nurse workflow and not the nurse adapt to the workflow of the IT system (Risling, 2017).

4.2. Theme 2: collaborate is easy to use

All the students (n = 8) found the Collaborate virtual classroom easy to navigate and use. One student highlighted the need to consider the individual needs of those with hearing or visual impairment and therefore, for instance, ensure these students are provided with headphones and private space. Despite some students’ initial reservations about their ability to use the software they quickly developed proficiency and confidence in using it, as highlighted by the below excerpts:

“I don’t think I was overly keen maybe. I just thought it was going to be a lot more complicated. So yeah, it turned out to be quite surprising. I think now ... I have built my confidence with the technological skill”.

(Student participant)

“I came away from that first initial training session knowing what to do”

(Student participant)

“I just pressed the link and waited for a picture of [Names lecturer] to pop up”.

(Student participant)

The statements above highlight the importance of following

recommendations and ensuring that students are adequately digitally prepared (Killen, 2015). Noteworthy is that lecturers and students were introduced to Collaborate at the same workshop. This was purposeful in that this acted on recommendations that educators need to increase student comfort and knowledge of technology by role modelling the critical importance of embracing any technological change (Beetham and White, 2013). Furthermore, the short practical computer workshop coupled with the ability to practice newly learnt skills in a beneficial way appeared to sufficiently introduce students to Collaborate despite any initial resistance in embracing the technology.

4.3. Theme 3: collaborate and its technical considerations

All the Students (n = 8), and preceptors (n = 5) highlighted that the main disadvantage of the Collaborate software was the technical glitches that they sometimes experienced, as described by all of the below statements:

“It would whirr and whirr and whirr and whirr”.

(Student participant)

“Our signal was very poor and the system was freezing continuously throughout the contact”.

(Student participant)

All the focus group participants described occasional technical glitches as described above. This was possibly because browsers were not fully up to date, Internet connection speeds were slow, or WiFi signals were poor, resulting in the picture fragmenting or the sound freezing. Nevertheless, a total loss of connection did not occur during any of the Collaborate sessions. The only other technical problem was when a student tried to use a computer that had not been specially set up for the pilot, so did not have a webcam or microphone. The majority of the participants did, however, feel these technical glitches when resolved would make Collaborate a very effective communication

medium, as articulated by this preceptor:

“My opinion is that if there are any improvements with the current equipment, it would outweigh the cons”.

(Preceptor participant)

Focus group participants discussed how at present many NHS computers are dated and it is likely that in time they will be replaced. Participants therefore hoped that some of these technical issues would be resolved as new, better equipped computers replaced dated machines. Their perceptions are likely to be correct if the NHS Digital Business Plan (2017/18), investing in smart technologies, is implemented. Accessing office space in which Collaborate compatible computers were situated was, however, highlighted as a problem.

“Also trying to find an appropriate place to have the conversation about your placement was sometimes a problem”.

(Student participant)

It was suggested by the participants that if they had been allowed to access Collaborate via their own personal mobile or tablet devices, perhaps the software would work better. They also felt this would ensure they did not rely on computers in shared office space. This was because the pilot highlighted potential privacy issues, as when students used Collaborate in busy workspaces, routine ward activity could be seen and heard. This risked a data breach and highlighted the importance of using Collaborate sensitively by ensuring that sessions were conducted in privacy both by the HEI lecturer and student in practice.

4.4. Theme 4: collaborate and social limitation

All the students (n = 8) and preceptors (n = 5) felt that Collaborate should not replace face-to-face support when the student or preceptor voiced a need for person-to-person contact. As stated by this preceptor:

“I would prefer person-to-person meetings if there are any concerns with students”.

(Preceptor participant)

USA survey data investigating the implementation of web conference software in healthcare concur that at present virtual communication is good, but that it cannot totally take the place of face-to-face contact when there is a voiced need (Hedges, 2017). This is an ethical consideration that should always be considered when introducing any new communication protocols. Interestingly, however, some students highlighted how Collaborate contact with a lecturer helped them when under pressure in placement. They perceived Collaborate contact to be better than other forms of remote contact such as emails or telephone calls, and although it cannot completely replace face-to-face contact it can be an important conduit between university and placement as highlighted below:

“I do feel that it has a place in maintaining contact with the uni for the student during the placement”

(Preceptor participant)

“Like the phones, when I was thinking ... people, you can't see people's faces you don't know if they actually mean what they say. But he was actually ... he was like, ‘No, you've obviously done the right things in the situation. The ward's clearly chaotic right now. You've done everything right.’ That happened to fall on that day where I needed to talk really”

(Student participant)

The student's statement demonstrates how her lecturer helped her, via Collaborate, when the ward she was placed on became very quickly challenging. She suggested that seeing her lecturer's face via Collaborate allowed her to assess his sincerity, which she felt was important when conveying difficult feelings, clearly showing that Collaborate visual support was superior to telephone support. Her

statement also highlighted how important it is for students to receive immediate help when facing difficulty in practice. Collaborate therefore provides a flexible conduit between the university and practice which also allows fast access to students by their HEI lecturer.

5. Discussion

This small pilot's findings concur with much of the literature (e.g., Kruse,

2017; Totten et al., 2016), which highlights similar benefits of using online visual technologies in the health care setting, in that Collaborate can improve the efficacy and quality of support, successfully bridge geographical divides, save all parties time and HEI's travel costs. It may also be noted that secure systems like Collaborate which are accessible via an institutional learning management system, can successfully circumnavigate the ethical issues, often constraining this type of contact (Ferguson, 2013) i.e. issues, pertaining to privacy and data protection. It must however be highlighted that once connected there was a potential for accidental data breaches if Collaborate was used in busy communal areas. It is therefore recommended that students prior to using the software are given a Collaborate privacy protocol instructing them on ethical protocol and GDPR. This would include, for example, drawing students' attention to the importance of participating in the online sessions in privacy, away from busy clinical areas, and ensuring that should the sessions be recorded, they do not contain any confidential patient information, and that a rigorous data management plan is in place to prevent any unauthorised access to the recordings, and to ensure that the recordings are securely erased after a suitable period.

It cannot be forgotten that nurses in 2025 and beyond are likely to inhabit a very different practice environment than today, and it will be communication technology that will be key to transforming care, maintaining quality and safeguarding against harm (Honeyman et al., 2016). Such technology will be especially important against a backdrop of nursing dealing with an increase in patient numbers and managing, with reduced staff, more complex treatments. It is therefore important, as Jaimet (2016) highlights, that nurses play a pivotal part in leading any digital change and become early adopters of digital communications in its many forms.

There are some barriers to nurses embracing new communication technologies, not least many individuals' wariness of technology, which is likely exacerbated by a lack of digital literacy. This is further compounded by practice education being varied between organisations, which can lead to a haphazard approach to the introduction of technological change (Khanum et al., 2016). The challenge is assisting nurses to move from adopting purely face-to-face communication, to embracing digital forms of communication and embedding it into their everyday professional practices (Ferguson, 2013; Honeyman et al., 2016). This pilot showed that if students were introduced to virtual classroom technology via an active, practically-focused workshop, they very soon built their proficiency and confidence in using the technology in their placement settings. They also perceived it to have many more benefits than limitations.

It was therefore concluded that nurse educators must develop pre-registration nursing curriculums that promote digital literacy around the use of online communication tools (including virtual classrooms and Telehealth) to remain ahead of the times. The theory being that students are more likely to embrace its use and then more likely post-qualification to embed it in their everyday nursing practice. This hypothesis would however need to be proved by a longitudinal study investigating the impact of pre-registration digital web conferencing training on nurses' post qualification. Additionally, it cannot be ignored that HEI's are likely to benefit from students being more proficient in the use of virtual classroom tools; therefore the findings of this pilot need to be generalised to a wider population of students. Tools like Collaborate have many advantages and can play an important part in

promoting the quality of the student experience, such as allowing lecturer-student connection promoting academic tutorial support or research supervision. Most importantly for the supporting HEI, if adopted it can be smarter than conventional clinical practice support saving money and allowing lecturer time to be spent more efficiently. This can simultaneously improve the student practice experience by increasing the number of times a student can be contacted on placement.

6. Summary

There is no doubt that when it comes to preparing larger numbers of nursing professionals globally, HEI's and practice providers face many challenges. It is also obvious that to ensure the quality of each-and-every student's practice learning experience, the partnership between HEI's and practice providers must be strengthened. Supporting students in partnership is more likely to promote the quality of placement education, prevent student attrition and promote preceptor wellbeing. Time is, however, a constraint that often hinders HEI's efforts to communicate and collaborate, assuring standards are met and to rise to the challenge of thinking creatively and innovatively when it comes to promoting placement capacity and improving the placement learning experience for both students and preceptors. Different ways of communicating and collaborating must therefore be embraced. This study found agreement with much of the literature suggesting that online learning technologies such as virtual classrooms do have the potential to circumnavigate complex barriers and strengthen partnerships. This is because when Collaborate was piloted students and preceptors found it to be a helpful, time efficient technology that successfully connected university staff to students and preceptors in clinical placement areas.

This pilot did, however, identify that a chief barrier hindering staff from implementing this form of technology was people's initial feelings of wariness about using this form of technology. This is despite the evidence that suggests Telehealth in clinical practice and virtual classrooms in education can be advantageous. This pilot found that what makes staff less wary of technologies such as Collaborate is good training and the opportunity to practice newly learnt skills as soon as possible after training. A recommendation deriving from this study is that HEI's should promote student digital literacy in using Ensuring student nurses, when in clinical placement areas, receive good quality Higher Education Institution (HEI) lecturer support is challenging. This is because conventional HEI placement support, is resource intensive and arguably infeasible with growing student numbers.

Evidence suggests, however, that online collaborative learning solutions (e.g., virtual classrooms, web conferencing tools) have the potential to ameliorate resource pressures. To test this idea, an online learning solution called Blackboard Collaborate was piloted. It virtually connected, students and their preceptors to a university lecturer. Its usefulness was explored by obtaining qualitative, focus group data, from the students and preceptor participants. The findings were thematically analysed.

Collaborate ensured all three parties were connected. It was a time efficient, easy to use technology. Despite technical glitches, i.e. occasional time delay and audio echo, participants concluded Collaborate was an efficient medium when placement needs were routine. Face-to-face was preferable when more intensive support was required.

In today's busy times, HEI's must explore time effective methods of placement collaboration. Online collaborative tools are one solution. Students will, however, need to develop their digital literacy in using this technology. The benefit being when qualified they are more likely to embrace this form of technology to promote their efficiency.

Virtual classrooms and allow students to practice using them to strengthen their practice support. Online support will not, and probably should not, completely replace face-to-face support, but when technical confidence is developed it is more likely that these students, when qualified, will embrace this technology and use it to support their future clinical and preceptorship practices.

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A very special acknowledgment goes to our co-author, Dr David Bird who passed away suddenly in 2018. This is a salutary reminder that if during your career you are lucky enough to come across the rare work colleague, like David, who acts as a friendly mentor, supervisor, critic and motivator you have indeed been privileged.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.nepr.2019.05.009>.

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