Networked Learning for Life-Long Learning in Swedish Health Care. A Pilot Study

Marie Häggström, *Mid Sweden University*, *Institution of Health Sciences. marie.haggstrom@miun.se*

Malin Rising Holmström, *Mid Sweden University, Institution of Health Sciences. Malin.rising-holmström@miun.se*

Abstract

A healthy work environment in health care requires that staff feel in control and are provided with self-development opportunities, information and adequate resources, all of which lead to job satisfaction. Lifelong learning for health care staff has received increasing attention as a step towards an attractive workplace and safer care. However, people in working life demand conditions that enable them to participate in educational activities. The aim of this paper is to describe experiences of creating and distributing short, flexible and networked courses in higher education, for health care personnel's lifelong learning. Following research questions are included: what challenges have been identified by higher education staff when creating flexible courses for lifelong learning based on networked learning? and what, in the course design, was essential for the students networked learning? The project was built on the assumption that knowledge is empowering for staff and patients, and that organizational learning and behaviour is central for quality. The sociocultural theory of learning, which claims that all humans are willing and able to learn, and that people learn when they realize that the knowledge is relevant and important to them, has inspired. One pilot course was developed, and this paper focuses on the preliminary findings for the course "Peer learning". E-mail, memos and notes were used as data and examined with thematic analysis. The findings showed four themes that answered the aim: identifying courses in collaboration; recruiting and maintaining the participants; learning activities in the course design and improving the course. It was important to have flexibility along with some structure in the course. The three components in networked learning contributed to learning and motivation during the course: relationship between educators, gatekeepers and students, the technology in the digital classroom, and a collaborative engagement. It seems successful working together and networking between the two organizations (university and health care) for a common purpose. The conclusion focuses further on the importance of building a robust network as well as bringing new ideas and needs for lifelong learning from the health care to the university. Further data collection is needed to get additional and deeper insights of health care managers along with workforce experiences and wishes for lifelong learning.

Keywords

Health care, lifelong learning, networked learning, nursing competence development, peer learning

Introduction

Healthcare organizations today have a requirement to provide safe, person-centred care and cost-effective care, which requires staff with a broad competence, who can work at a high pace. For several years, employers have reported difficulties in recruiting registered nurses (RNs), and the global shortage of RNs is recognized (Drennan & Ross, 2019). Lifelong learning for health care staff has received increasing attention as a step towards an attractive workplace. The factors that contribute to work motivation include working independently, working with colleagues from the same profession, being integrated with learning, achieving visible progress and receiving feedback (Ahlstedt, Eriksson Lindvall, Holmström, & Muntlin Athlin, 2019). Historically, health care organizations have been challenged to maintain a supply of qualified and satisfied nurses, with shortages occurring periodically (Buerhaus, Auerbach, & Staiger, 2009). A healthy and attractive workplace based on a learning organization is, therefore, crucial for staff well-being and for patient safety (Sammer, Lykens, Singh, Mains, & Lackan, 2010). However, people in working life demand conditions that enable them to participate in

educational activities. New forms of lifelong learning must be developed to suit the workforce and their needs. To facilitate the implementation of lifelong learning, the internal organization and structures also need to be flexible and able to adapt to various needs and situations (Jaldemark & Bång, 2020).

Background

Learning organization and networked learning

A learning organization can be summarized by following characteristics: strategies, to look within the company, structures, outward-looking and learning opportunities (Pedler, Burgoyne, & Boydell, 1996). The definition of networked learning goes beyond merely denoting 'online learning' or 'e-learning', as it encompasses theoretical assumptions about learning and how to design for learning. The definition stresses the connections between people and between people and resources; it also points to a certain level of social organization between learners, tutors and resources (i.e., a learning community) (Dirckinck-Holmfeld, 2012). A broader definition of networking is suggested by Muijs et al. (2010), who claim that networking is "at least two organizations working together for a common purpose for at least some of the time." The educational networks may consist of a school and one or more organizations, rather than two or more schools, and collaboration can then be described as "joint activities between actors from different organizations within the network". Networked learning is characterised from connections with interactions between humans and learning resources; according to Goodyear et al. (2004), interactions with materials alone are not sufficient for learning. Jones and Dirckinck-Holmfeld (2009) state that the nature of the networked learning environment is socially and physically networked and is distributed over time and space. The author suggests that networked learning is mediated by technologies, and ideally technology tools are utilized to support the creation of connections in the networked learning environment. Altogether, networked learning cannot separate human/interpersonal relationship, technology and collaborative engagement; even if focus can shift for a specific education, the other two must cannot be ignored (NLEC, 2021).

Lifelong learning and flexible courses in higher education

Lifelong learning has been defined by several researchers. A Delphi study of (Davis, Taylor, & Reyes, 2014)) aimed to conceptualise lifelong learning from the perspective of nursing and to identify characteristics and essential elements of lifelong learning. Their result showed that lifelong learning in nursing can be defined as a dynamic process, which encompasses both personal and professional life, and this learning process is formal and informal. The most essential characteristics of a lifelong learner were reflection, questioning, enjoying learning, understanding the dynamic nature of knowledge and engaging in learning by actively seeking learning opportunities.

Higher education institutions are involved in professional development through lifelong learning activities and continuous education (Jaldemark et al., 2019). Configurations in networked educational settings need to be flexible to suit the conditions of practices in both settings and should include the possibility for learners to seamlessly link content from working life to their studies, and vice versa (Ang et al., 2018; Blaschke, 2018). Peters et al. (2021) state that many learners are motivated to advance their career through professional development. At the graduate level, online students often choose to combine academic work with professional commitments and family life. Therefore, fully online graduate programs attract the students who need to update their skills and competences as lifelong learners. Peters et al. (2021) further mean that an individual's learning ecology can be considered a dynamic entity characterised by the depth and diversity of learner activities, agentic practices and resources shaped by formal instruction and social support. Hence, the course design seems essential for the students learning.

Nursing

Nursing is an autonomous area of knowledge for which nurses are responsible. Nurses play a key role in improving quality of care and safety in health care. As a practical profession, nursing covers various areas that summarise a nurse's function and responsibility. These are to promote health, treat illness, alleviate suffering, rehabilitate, teach and supervise, organize, manage, lead and develop the profession, thus ensuring quality (Meleis, 2018). Nursing science as a scientific subject aims to make care better, safer and equal for both individual patients and groups of patients.

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Patient outcome and person-centred care are central in all nursing. In nursing research, the term clinical judgment is synonymous with critical thinking, decision making and clinical reasoning (Tanner, 2006). In situations where nurses must make clinical decisions, it is important for them to carefully consider the issue or problem they are facing, as it influences what research evidence should be used to make the decision. Evidence-based nursing is one of the core competences in nursing, and it means the application of valid, relevant and research-based information in nurse decision-making. However, research is one of four considerations in making a clinical decision. The others are patient references and circumstances, available resources and nurse's judgement and expertise (Aitken et al., 2015). Altogether, RNs face different pedagogical challenges. First, the RNs must adapt to new knowledge, with formal and informal lifelong learning, and develop their own and nursing students' competencies. Secondly, they also have an important pedagogical challenge in educating patients and their relatives about tasks that concerns procedures, health and self-management (Pilhammar, 2019). This challenge is seen in a study of Häggström and Bäckström (2014), where RNs had a pedagogical task to succeed with their interaction with the families and inform them several times about the progress, care plans and goals for the sick patients. Additionally, at the same time, they must be competent in caring for sick patients that were transferred in the health care chain (Haggstrom & Backstrom, 2014).

Training clinical skills is a crucial part of the nursing curriculum. Lack of training may lead to anxiety, worry and speculation about professional nursing competence (Reid-Searl et al., 2012). In the nursing curricula, a lot of practice must be included. This is regulated in the EU-directive; a minimum half of the education should be clinical practice (2005/36/EG). One of the most important issues to solve for the future is the opportunity for nursing students to have their mandatory practical training. This is, unfortunately, a complex issue to solve, due to the shortage of RNs who can act as supervisors, combined with the downsizing of patient beds in the health care section. A new model for supervision "peer learning", has been implemented and studied in many contexts. Peer learning is a structured educational model with learning activities that aim to develop students' independence by learning from and with each other (Topping, 2005). The "peer learning model" means that one RN is responsible for the supervision for two nursing students instead of the ordinary one-to-one, and the peer shall actively seek solutions and answers. The core elements of the model are a close collaboration with a peer, reflection, communication, self- and peer assessment (Boud, Cohen & Sampson, 2016). The findings of Sandvik, Karlsson, Zetterman, and Eskilsson (2020) indicate that the model can enhance learning. Strong cooperation and feelings of safety were found to boost learning and encourage the students to challenge themselves and to work independently increased their ethical orientation, knowledge, self-esteem and self-confidence. Implementing peer learning in health care requires well educated supervisors with knowledge about the model's challenges. A recent systematic review showed that peer learning is beneficial in supporting nursing students' development and competence, especially it benefits their confidence and team working skills. It was concluded that any form of collaborative placement model requires careful planning and continuous preparation for staff and students (Markowski, et al 2021).

Aim and research questions

The aim of this paper was to describe experiences of creating and distributing short, flexible and networked courses in higher education, for health care personnel's lifelong learning.

- What challenges have been identified by higher education staff when creating flexible courses for lifelong learning based on networked learning?
- What, in the course design, was essential for the students networked learning?

The research context – health care

We know today that well-organized, efficient care units with a learning environment result in better patient safety and continuity. Informal and formal education in health care that supports nurses' competencies is essential. Education contributes to increased patient safety, and these skills should be available throughout the entire continuum of care. Research indicates that a healthy work environment in health care requires that staff feel in control and are provided with self-development opportunities, information and adequate resources, all of which lead to job satisfaction (Upenieks, 2003). In the United States, hospitals can apply to receive a *Magnetic Recognition*, a certification for those hospitals that meet specific quality criteria and are attractive employers. These hospitals are characterised by dedicated leaders and employees, and nursing science permeates the entire organization. Such hospitals are characterised by staff experiences, empowerment, competence development, good leaders and promotion of nursing expertise and professional nursing. Studies show magnet hospitals do

have higher percentages of satisfied RNs, lower RN turnover and vacancy, improved clinical outcomes, greater nurse autonomy and improved patient satisfaction. This is in concordance with the result of a study by Häggström et al. (2009), who conclude that a learning organization with professional development, continuing education and organizational support provides enhanced capabilities for better inter-hospital cooperation and increased patient safety.

Leaders and managers in hospitals strive to create an attractive workplace with staff continuity. In a study by Upenieks (2003), magnet hospitals were compared with other "regular" hospitals. At magnet hospitals, nurses experienced autonomy, control and empowerment. They stated that they had formal and informal continuous education and training, and that the resources available were sufficient to enable them to do a good job. On the other hand, the nurses in the non-magnet hospitals expressed significantly less satisfaction and had a higher turnover. Managers at magnet hospitals described their workplace as a dynamic organisation in constant development, with a wide range of training opportunities for nurses. Hence, it is important to create a learning environment where staff can feel their own control and security through their own competence. Research indicates that executives and leaders involved in the process have positive effects even before designation was achieved (Ulrich et al., 2007). The journey to magnet excellence is described as important as the destination; it builds visionary, inspiring nurse leaders at all levels, enculturates excellent nursing science and establishes innovative ways to achieve new heights of quality, efficiency and effectiveness (Drenkard, 2010).

A large European study (12 countries) from 2013 showed that one in five nurses (11–56%) were dissatisfied with their jobs in most countries, and dissatisfaction was pronounced with respect to wages, educational opportunities and opportunities for advancement. Many nurses intended to leave their jobs (19–49%) (Aiken, 2013). A Swedish inquiry about the future specialist nurse education in 2018 also emphasised the need of lifelong learning for staff in health care students along with the knowledge and ability required to independently work as a specialist nurse. Specialist nurses are responsible for providing advanced nursing within health and medical care; they are necessary for equal and safe care to be provided based on science and proven experience. The purpose of the inquiry was to ensure future education should meet the changing needs of health care. This resulted in the report, *The specialist nurse of the future – new role, new opportunities* (SOU, 2018, p. 77). It suggested that key factors for achieving this include providing employers with tools for planning the skills in a sustainable manner and introducing further training requirements in accordance with EU legislative requirements, thereby improving patient safety. Taken together, the proposals in this report focus on improving both the conditions for lifelong learning and the attractiveness of the specialist nurses' profession.

Method and design

The overall larger project aimed to network with health care organisations, to strengthen professional competencies and stimulating lifelong learning by delivering short, flexible courses for staff in Swedish health care. We assumed that knowledge is empowering for staff and patients and that organisational learning and behaviour is central for quality, inspired by the sociocultural theory of learning, which claims that all humans are willing and able to learn (Säljö, 2000), and that people learn when they realise that information is relevant and important to them (Knowles, 1980). The course developer and two more lecturers were involved in the course. Two different pilot courses were developed that were provided two times each, and this short paper focuses on the preliminary findings for one of these courses: "Peer learning". The course developer's E-mail from gatekeepers and participants in the courses was used as data along with the course evaluation (EvaSys) and the memos and notes taken before, during, and after the course. The data illustrated ideas, challenges, and needs for the course development, and were analysed and clustered through a qualitative thematic analysis by the researchers, answering the research questions. This thematic analysis is a flexible and suitable method for identifying, analysing and reporting patterns (themes) within data. An inductive analysis, following the six steps as described by Braun and Clark (2006), was conducted. The first step, "familiarizing yourself with your data", included reading and re-reading the data, and noting down ideas about the findings. The second step included generating initial codes, which meant systematically coding the data across the entire data collection and collating data relevant to each code. In the third step, we searched for themes, which meant collating codes into preliminary themes and gathering all data relevant to each potential theme. This step was followed by the fourth step, reviewing the theme, which meant checking if the themes worked in relation to the coded extracts and the entire data set, which also involved generating a thematic 'map' of the analysis. In the fifth step, an ongoing analysis to refine the specifics of each theme was the focus as well as defining and naming themes and the overall story the analysis tells, and generating definitions and proper names for each theme. The last step, producing the report, meant the final opportunity for the analysis. Through a selection of examples and final

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analysis of the selected extracts, all relating back of the analysis to the research question and literature, a scholarly report of the analysis was produced. Four themes were at last identified: all captured patterns and something important about the data in relation to the research question, representing some level of meaning within the data set.

Findings

The analysis of the E-mail, memos and notes resulted in four themes that illustrate experiences and challenges in creating and distributing short, flexible and networked courses in higher education, for health care personnel's lifelong learning. These themes were identifying courses in collaboration, recruiting and maintaining the participants, learning activities in the course design, and improving the course.
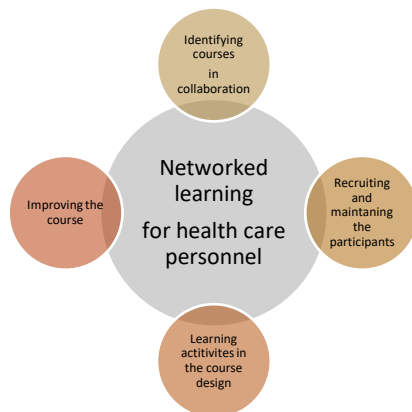

Figure 1. An overview over the themes

Identifying courses in collaboration

The importance of a natural, reliable network to interact, discuss and capture relevant ideas for new courses was perceived as essential. The connections and the relationship between the people in health care, and between the educational resources, were crucial. The course developer collaborated with two gatekeepers from the participating and collaborative organization health care sections. Many suggestions were discussed as a possible first pilot course; there was a broad interest for an amount of different lifelong learning courses.

> *Text from e-mail from a gate keeper:*

> Thank you for offering new courses! The managers in our hospital suggested a course in one of the below mentioned areas:

> - Peer learning /Implementation of evidence-based care /Advanced urology nursing practice / Advanced assessment of the abdomen and gastrointestinal problems.

However, the need for higher competence and knowledge related to new supervision models in health care was identified as a matter of interest for both organizations and the idea of the making of the course "peer learning". The pilot courses were, from the start, planned to be free of charge and 100% digital. This course was identified as important for both the university and for the health care, as supervision and preceptors for student nurses' practice are restrained and a problem; hence, new ways to solve these issues are requested.

Recruiting and maintaining the participants

One challenge was how to recruit the participants. Recruiting and maintaining participants in the course required networking and health care leaders who were willing to let their staff study at work. In this course, the

participants were recruited in two regions and two hospitals, in Sweden. The gatekeepers distributed information about the course to managers, who helped recruiting interested participants. The participants came from different but similar working context, which led to social activities and networking with others. The participants differed in age and their knowledge about digital tools. The students showed motivation for the course. This was seen in the memos written from the seminaries. Additionally, many fulfilled the course; in the first course, there were 11 participants (10 fulfilled), and in the second course, there were 18 (18 fulfilled). To maintain the participants, it was essential that the course and the teachers had sensitivity and flexibility to different needs and a problem-solution attitude. One example is that the participants said that they did not want full flexibility; instead, they asked for more scheduled meetings so that they could claim for time to study at work. Initial support in the start of the course was also important; therefore, the students were guided into the digital classroom by an assistant from the university. The final time for submitting written examinations was also flexible, to suit the participants.

Learning activities in the course design

The learning objective for the course were directed to suit the implementation of the new model at their workplace (Table 1).

Table 1. The peer learning course´s learning objective

The course's learning objective is that the student should:
1. describe, analyse and reflect on how structured peer learning can develop the student's learning
2. reflect on students and supervisors' pedagogical roles and responsibilities related to peer learning
3. evaluate strengths and challenges in connection with peer learning and conclude on how this can be handled to achieve good quality in the supervision process
4. develop proposals for implementation and describe how peer learning can be implemented during practice for nursing students

The data showed that the learning activities that worked well in the course to achieve the learning objective were influenced by pragmatism. Text from one memo illuminated this: The students told me today that they *really appreciated that the modules and the final examination were something that they "for real" could use in their unit.*

The online activities that worked well were flexible but with structure – the students used the digital classroom combined with own studies. Some notes also indicated that students appreciated the opportunity to meet and discuss in the Zoom-rooms, which also included "most-unclear discussions-seminary" (MUD), where the student could ask questions and interact with teachers and other students.

The course was designed with module-based activities, a combination of individual and collaborative activities where students were mutually dependent on each other but could also have a high degree of learner freedom. The two first modules were formed to provide the students with theoretical knowledge and understanding of the pedagogical assumptions that formed peer learning as a model. Pre-recorded lectures were included in the modules. The last and largest module was formed around the students' own enquiry into a social problem: overcoming different identified problems implementing peer learning as a model. Thus, the learning activities emphasised students' motivation and freedom when it came to defining and working with their problem. In this module, the students had to plan the implementation of peer learning, as a new model for supervision, according to Deming's plan-do-study-act process. They were also asked to identify eventual obstacles at their own unit, and plan for overcoming them.

The design also included interaction between students in a group and between the groups in the class; the last examination included to take part of others' planned implementation and discuss and reflect upon it.

Improving the course

The E-mail and the memos illuminated that short courses for health care staff's lifelong learning should be constantly improved, a process that was also benefited by networking. The standard evaluation forms the university was using were not suitable for capturing the needs of lifelong learning. Instead, broad evaluation was important to capture the students, the teachers from higher education and the organisation's needs. The evaluations from the first peer learning course showed that students wanted opportunity to be well prepared when starting the course. They wanted to have fixed dates so that they could schedule for planned lessons and a study guide early so that they could by the literature. This was changed in the second course. The gatekeepers were also shown to be valuable resources to validate the content and design of the course.

> I want to give you information that we get very good feedback on the peer-learning education that you offer this semester, with a request that we continue to be offered places. We will soon also initiate a project where we use the knowledge that these employees bring back to introduce peer learning in a couple of pilot units. Hope you see it as possible to continue to offer this education and that we can continue to get a couple of places.
>
> *– E-mail from one of the gate keepers*

Conclusion and further directions

The three components in networked learning (NLEC, 2021) contributed to learning and motivation during the course: relationship with educators, gatekeepers and between students; the technology in the digital classroom and a collaborative engagement. The findings also indicate that networking with shared projects for health care staff's lifelong learning is an essential need. Therefore, building a robust network seems to be central for identifying real educational needs in health care, which also benefit the university, as the staff in the higher education are being updated. Health care organisations should have strategies for their lifelong learning and networking with the university, which could be a solution. A learning organisation requires strategies, to look within the company, structures, outward-looking, and learning opportunities. We also know that informal and formal education in health care that supports nurses' competence is essential for retaining RNs. Health care staff should feel in control and be provided with self-development opportunities, information and adequate resources, all of which lead to job satisfaction (Upenieks, 2003). We also conclude that working together and networking between the two organizations (university and health care) for a common purpose could lead to success. More research is needed to get a deeper knowledge about leaders' and the workforce (the health care staff) perceptions about prerequisites for life-long learning.

References

Ahlstedt, C., Eriksson Lindvall, C., Holmström, I. K., & Muntlin Athlin, Å. (2019). What makes registered nurses remain in work? An ethnographic study. *International Journal of Nursing Studies, 89*, 32–38.

Ang, S. S., Orozco, M., Gijbels, D., &Van den Bossche, P. (2018). Learning in the context of work in a digital age: The use of digital media in informal and formal learning contexts. In C. Harteis (ed.), *The impact of digitalization in the workplace* (Vol. 21, Professional and Practice-based Learning, pp. 87–101). Cham, Switzerland: Springer.

Aiken, L.H., et al., (2013). Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *International Journal of Nursing Studies, 50*(2), 143–153.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.

Blaschke, L. M. (2018). Self-determined learning (heutagogy) and digital media creating integrated educational environments for developing lifelong learning skills. In D. Kergel, B. Heidkamp, P. K.Telléus,T. Rachwal, & S. Nowakowski (eds.), *The digital turn in higher education: International perspectives on learning and teaching in a changing world* (pp. 129–137).Wiesbaden, Germany: Springer.

Boud, D., Cohen, R., & Sampson J. (2016). *Peer learning in higher education: Learning from and with each other.* Abingdon: Routledge

Buerhaus, P. I., Auerbach, D. I., & Staiger, D. O. (2009). The recent surge in nurse employment: Causes and implications. *Health Affairs, 28*(4), w657–668.

Buerhaus, P. I., Auerbach, D. I., & Staiger, D. O. (2009). The recent surge in nurse employment: Causes and implications: Recession effects that have eased the shortage of hospital nurses must be viewed as temporary, lest they distract policymakers from continuing to address longer-term indicators. *Health Affairs, 28*, w657–668.

Davis, L., Taylor, H., & Reyes, H. (2014). Lifelong learning in nursing: A Delphi study. *Nurse Education Today, 34*(3), 441–445.

Dirckinck-Holmfeld, L. et al. (eds.) (2012). *Exploring the theory, pedagogy and practice of networked learning.* Springer.

Drennan, V. M., & Ross, F. (2019). Global nurse shortages: The facts, the impact and action for change. *British Medical Bulletin, 130*(1), 25–37.

Goodyear, P., Banks, S., Hodgson, V., & McConnell, D. (2004). Research on networked learning: An overview. In P. Goodyear, S. Banks, V. Hodgson, & D. McConnell (Eds.), *Advances in research on networked learning* (pp. 1–9). London: Springer.

Häggström, M., & Backström, B. (2014). Organizing safe transitions from intensive care. *Nursing Research Practice, 175314.*

Jaldemark, J., & Bång, Å. (2020). Reaching for a hybrid and networked university through lifelong learning initiatives. In M. de Laat, T. Ryberg, N. Bonderup Dohn, S. Børsen Hansen, & J. J. Hansen (Eds.), *Proceedings for the 12th International Conference on Networked Learning* (Vol. 12, pp. 51–54). Aalborg university.

Jaldemark J., Lindqvist M. H., & Mozelius P. (2019). Teachers' beliefs about professional development: Supporting emerging networked practices in higher education. In: Littlejohn A., Jaldemark J., Vrieling-Teunter E., Nijland F. (Eds.), *Networked professional Learning.* Springer, Cham.

Jones, C., & Dirckinck-Holmfield, L. (2009). Analysing networked learning practices: An introduction. In L. Dirckinck-Holmfield, C. Jones, & B. Lindström (Eds.), *Analysing networked learning practices in higher education and continuing professional development* (pp. 1–27). Bedfordshire, UK: Sense.

Knowles, M. (1980). *The modern practice of adult education: Andragogy versus pedagogy.* Rev. and updated ed. Englewood Cliffs, NJ: Cambridge Adult Education.

Markowski, M., Bower, H., Essex, R. and Yearley, C. (2021), Peer learning and collaborative placement models in health care: A systematic review and qualitative synthesis of the literature. *Journal of Clinical Nursing, 30*, 1519–1541.

Muijs, D., West, M., & Ainscow, M. (2010) Why network? Theoretical perspectives on networking, School Effectiveness and School Improvement, 21:1, 5–26, DOI: 10.1080/09243450903569692

Meleis, A. (2018). *Theoretical nursing, development and progress* (6th Ed.). Wolter Kluwer.

NLEC; Networked Learning Editorial Collective (2021). Networked learning: Inviting redefinition. *Postdigital Science and Education, 3*(2), 312–325. https://doi.org/10.1007/s42438-020-00167-8

Pedler, M., Burgoyne, J., & Boydell, T. (1991). *The learning company: A strategy for sustainable development.* London, McGraw-Hill.

Pilhammar, E. (2012). *Pedagogik inom vård och handledning.* Lund: Studentlitteratur.

Reid-Searl, K., Happell, B., Vieth, L., & Eaton, A. (2012). High fidelity patient silicone simulation: A qualitative evaluation of nursing students' experiences. *Collegian, 19*(2), 77–83. https://doi.org/10.1016/j.colegn.2011.09.003

Sammer, C. E., Lykens, K., Singh, K. P., Mains, D. A., & Lackan, N. A. (2010). What is patient safety culture? A review of the literature. *Journal of Nursing Scholarship, 42*(2), 156–165. doi:10.1111/j.1547-5069.2009.01330.x

Sandvik, A-H., Karlsson,P., Zetterman, A., & Eskilsson, C.(2020). Nursing students experience of peerlearning in a dedicated dedicated educational unit in municipal home healthcare: A phenomenological study. *Nordic Journal of Nursing Research, 41*(4) 224–232.

SOU 2018:77. Statens offentliga utredningar. (2018). *Framtidens specialistsjuksköterska – ny roll, nya möjligheter.The specialist nurse of the future - new role, new opportunities.*

Säljö, R. (2014). *Lärande i praktiken. Ett sociokulturellt perspektiv.* Lund: Studentlitteratur.

Tanner,C.A (2006). Thinking like a nurse: a research-based model of clinical judgment in nursing. *Journal of Nursing Education, 45*(6), 204–211. doi:10.3928/01484834-20060601-04

Topping, K. J. (2005). Trends in peer learning. *Educational Psychology 25*(6), 631–645.

Ulrich, B. T., Buerhaus, P. I. , Donelan, K. , Norman, L. & Dittus, R. (2007). Magnet status and registered nurse views of the work environment and nursing as a career. *JONA: The Journal of Nursing Administration, 37*(5), 212–220. doi: 10.1097/01.NNA.0000269745.24889.c6.

Upenieks, V.V. & Sitterding, M. (2008). Achieving magnet redesignation: a framework for cultural change. *The Journal of Nursing Administration*, 38(10), 419–428.

Upenieks, V.V., (2003). The interrelationship of organizational characteristics of magnet hospitals, nursing leadership, and nursing job satisfaction. *Health Care Managing, 22*(2), 83–98.

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