International Nursing Students'

Experiences of Electronic Learning

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With the growing need for distance education, most universities and universities of applied sciences (UAS) are singling out e-learning as an important area of development. The purpose of this thesis was to describe the kind of experiences international nursing students' had of e-learning. The research question was, "What kind of experiences do international nursing students have regarding electronic learning?"

This thesis was based on technology acceptance model (TAM) and online collaborative theory (OLC) that explained the factors determining e-learning experiences. The participants in this thesis were international nursing students (nationalities other than Finnish) who started their studies in fall, 2015. This thesis used qualitative research with semi-structured interviews for data collection. The findings were connected to the two existing theories (TAM and OLC) using deductive content analysis of data.

The findings of this thesis indicated that students preferred face-to-face learning to e-learning. Moreover, e-learning was preferred for being convenient while challenges included inadequate materials, poor support from tutors and some courses being unsuited for e-learning. In addition, number of courses running simultaneously overwhelmed the participants.

Based on the findings, recommendations were made, which included e-learning materials improvement; e-learning supplemented with a few contact lessons to reinforce the learning attained from the online courses; scheduling of courses to ensure that many courses do not run concurrently; and prompt support for students using the electronic workspace.

Since this thesis had limited participants, further research was suggested in assessing e-learning which would consider a wider population. This would provide an insight into the aspects of e-learning so that there can be a holistic improvement in the entire e-learning value chain.

Abbreviations

E-learning	Electronic Learning
FVU	Finnish Virtual University
ICT	Information and communication technologies
ID	Identification
OCL	Online collaborative learning
OECD	The Organization for Economic Co-operation and Development
PEOU	perceived ease of use
PU	perceived usefulness
TAM	Technology acceptance model
UAS	Universities of Applied Sciences
UNESCO	United Nations Educational, Scientific and Cultural Organization

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1. Introduction

Institutions of higher learning globally are offering electronic-learning (e-learning) also referred to as online learning. This is due to the rapid development of internet technology enabling connectivity globally. E-learning is defined as "educational processes that utilize information and communication technology to mediate synchronous as well as asynchronous learning and teaching activities," (Sangrä, Vlachopoulos & Cabrera 2012).

In Finland, due to the growing need for distance education, most universities and universities of applied sciences (UAS) are singling out e-learning as an important area of development (Orava 2014). The country has a long history of distance learning which started in 1986 and e-learning which started in 1998. As such, Finland is one of the global leaders in using information and communication technologies (ICT) in the learning environment (Constantin 2014).

Moreover, the Finnish Virtual University (FVU) that was created in 2001 as a consortium of all universities in Finland plays critical role as an academic network, education provider and as a research center for development of e-learning tools and systems. Moreover, the FVU is instrumental in integrating e-learning in the education system of Finland. The FVU have enabled multidisciplinary and multi-university research teams to develop e-learning resources and tools while addressing quality issues. (Orava 2014).

Chyung & Vachon (2013) stated that, the increasing use of web technologies has changed the way learning in higher education institutions are conducted. The fast-changing learning environment calls for responsiveness to e-learning, and many studies are motivated to establish an effective e-learning platform that meet students' needs (Chyung & Vachon 2013). Moreover, e-learning is established in higher education institutions to attract students from all over the globe. To ensure the institution's competitiveness in offering learning resources to diverse clientele, it needs to develop an effective e-learning platform. Masoumi & Lindström 2012).

Furthermore, e-learning has changed the prerequisites of learning environment. Learners are expected to change their attitudes about learning environment, develop new learning skills, self-discipline, and understand their need and motives for the learning (Bader & Köttstorfer 2013). All these prerequisites determine the gratification of the users and their level of acceptance of the new learning environment (Kim, Pederson & Baldwin, 2012; Alharbi & Drew 2014; & Davis 1989). Therefore, this thesis was motivated to gather information on experience of the international nursing students and factors affecting these experiences, which will help the institution to develop appropriate learning platform for future.

2. Electronic learning theories

2.1 Technology acceptance model in electronic learning

Technology acceptance model (TAM) was developed by Davis (1989) to explain the factors that determined adoption of any technology enabled practice. This theory explained the reason behind a person applying technology and the determinants of technology adaptation (Davis 1989). In this thesis, TAM was applied to explain the factors that were considered important by the participants, which could eventually establish whether the participants would accept the technology or not.

The factors considered by TAM were: perceived ease of use (PEOU), self-efficacy, perceived usefulness (PU) and attitude towards use (Davis 1989). In any e-learning process, these factors would lead to a student's decision to engage in e-learning (Alharbi & Drew 2014). In addition, Amirkhanpour, Ruediger-Kaufmann & Garcia-Gallego (2014) noted that the design and availability of e-learning resources were also expected to be key factors in determining whether the students would be content with e-learning. In this thesis, TAM theory was applicable as it informed the key factors that were considered in assessing the acceptance, attitude, self-efficiency and perceived ease of use by the students.

Nevertheless, the TAM model has been criticized by Taylor & Todd (1995) since it provided limited guidance in regard to the factors that determine technology adoption and continued use. Therefore, TAM model has been modified to TAM2 and TAM3. However, in this thesis, TAM was used in its original form to explain the factors that may have determine experiences of participants with the e-learning.

2.2 Online collaborative learning theory in electronic learning

The other theory that was used in the thesis was online collaborative learning theory. While advancing the constructivism school of thought, Rogers (1969) posited that the means through which learning takes place is multi-faceted and complex. It involves the continuous pursuit of new information, personal reflection and testing new ideas. The constructivist approach combined with internet development offered to what Harasim (2012) referred to as online collaborative learning theory (OCL).

In the learning process, Rogers (1969) indicates that socialization is very important. In the education setting, students tested ideas and hypothesis not just with their instructors but also with their friends and fellow students. In the electronic learning, an avenue should be created to enable continuous criticism and probing of the knowledge that has been received (Schunk 2011). Hence, this theory was costumed in this thesis to explain how socialization

among students, communication with tutors and relationship with tutors within the e-learning environment influence experience of these participants.

This theory emanated from the constructivism theory of learning which depicted learning as a process influenced by free will, social factors and consciousness. The basis of the theory was that students were provided with a collaborative and integrated environment that would enable them to create knowledge. The e-learning hence would provide students with the opportunity to support, explore and invest enabling them to solve problems. This indicated that e-learning resources would not aim at allowing students to just recite what was thought to be right. (Harasim 2012).

This however, did not mean constructing new knowledge would be done totally disregarding prior knowledge. It meant that prior knowledge would be respected and considered in driving towards new knowledge (Knapper 2010 in Hughes & Mighty 2010). OCL theory therefore encouraged participation, interaction and engagement of learners and instructors in the learning. Moreover, the instructors played a pivotal role in linking the learners to knowledge community (Harasim 2012).

In addition, Schunk (2011) stated that e-learning should not aim at replacing the instructor but aim at collaborative learning, where the communication between learner and instructor was improved through social discourse. The instructor through technology was expected to guide learning within the boundaries of the particular discipline. This meant that for e-learning to be adequate to learners it needed to establish and improve means of communication between learner and instructor. (Schunk 2011). Thus, this thesis tried to explore if support from tutors/instructors affected the participants experience with e-learning.

3. Concept of electronic learning in nursing studies

3.1 Prerequisites of electronic learning in nursing studies

E-learning brought about efficiency where the cost of administration and acquiring knowledge had gone down after introduction of e-learning (Anilkumar & Lihitkar 2014). E-learning had however, changed the prerequisites for learning. Learners are called upon to have new skills and competencies to be able to learn that were not required in the traditional classroom learning (Bader et al. 2013).

The most critical change in learning environment that e-learning brought was the social part. While e-learning had made learning flexible, it had brought with it challenges, including how to give and receive feedback, issues of role models, recognition, human aspect of training,

and bringing together the community of learners. This had created need for higher learning institutions to design e-learning that made the learning environment effective in imparting the required skills and competences, while at the same time appealing to the social part of learning. (Bader et al. 2013).

Design and level of support provided had an impact on experience of students with e-learning. Anilkumar et al. (2014), observed that student support services provided by institutions including academic advice, career counselling and technical support were critical on determining experiences. In addition, Kim et al. (2012) noted that designing an e-learning environment for adult learners needed to consider their needs and motives. Furthermore, Kim et al. (2012) stated that adult learners who had specific learning goals were inclined towards interactive and supportive environment using real cases, rather than sequential and less flexible e-learning environment.

In Malaysian higher learning institutions, Hussin, Bunyarit and Hussein (2009) posited that students had positive perceptions of e-learning. As perceived by the students, their involvement and course contents were among the most important factors determining experiences with e-learning in Malaysian universities. This was also true for those international students who usually had different cultural and social backgrounds than the mainstream Malaysian students. Hussin and colleagues (2009), in addition, noted that knowledge of satisfaction of e-learning as perceived by students was critical to assist instructors and e-learning implementers. Moreover, it was also influential in designing course materials that would be more effective for e-learning at the tertiary level of education.

Various reasons inspired the implementation of e-learning by higher education institutions. These included need to broaden the base for the participation of new groups of students, need to incorporate foreign students who sought education in their home countries and need to improve access for students living in remote and far off places (Teo, Luan, Thammetar & Chattiwat 2011). Additionally, Headar, Elaref and Yacout (2013) stated that e-learning was one of the major directions for reform of the higher education system to increase access and reach.

Further, in designing courses for international students, factors that were found to be critical included global equity, social inclusion, multiculturalism and globalization (Masoumi et al. 2012). Moreover, in designing e-learning resources and tools for international students, Masoumi et al. (2012) advised that higher education institutions could consider the diversity in the international students that the institution were targeting.

Additionally, interactivity was another prerequisite for the e-learning portal to provide real time connectivity from one point to another. There were three types of interactions that were considered important to students in e-learning environments. These included interactions between the learner and the instructor, between the learner and the content and between the learner and other learners (Marshall 2012).

Learner-content interaction happened when the learner used different forms of media to gain knowledge. Interaction between the learner and the instructor happened when the instructor conveyed understanding, clarified issues to student, and intensified student incentive towards knowledge through e-learning. Interaction between learners were important as learners who were geographically dispersed, and could interact with one another through the e-learning portals to achieve objectives related to their education. (Headar et al. 2013).

Hence, in this thesis, the authors are exploring how interaction, socialization, accessibility, and flexibility affected the experiences of international students with e-learning and use the finding to encourage improvements for future.

3.2 Factors effecting electronic learning in nursing studies

Technology is one of the greatest advancement of 21st century. Technology comes with ways to make life simpler and easier in every aspect alike in education. With progress in technology, learning has become accessible and flexible. Technology has advanced to supplement education through e-learning to enhance access to education. E-learning uses the information technology to provide learner the opportunity to learn with learner centered approach. (Organization for Economic Co-operation and Development 2005).

Farrell (2006) stated e-learning as learner centered where the participants took control of their own education based on their individual learning skills. Yet, for some participants depending on their own learning skills, e-learning proved to be of disadvantage as they needed more training to be familiar with the environment. McCutcheon, Lohan, Traynor & Martin (2014), suggested however, that both traditional learning and electronic learning were effective in clinical teaching skills, and mode of learning had no effect on outcome of students' knowledge.

In contrast, face-to-face learning was teacher centered in approach. In this approach of teaching, learner had to come to the teacher at given time whereas with e-learning time and place was determined by learner (Davies, Amewonye, & Gross 2015). Though, lack of technologies knowledge and computer education acted as a barrier in e-learning process. Correspondingly, some users had difficult learning with electronic methods as users found it hard to adapt to electronic learning (Davies et al. 2015).

In a situation where there is lack of human resources, e-learning is gaining momentum with its flexibility and accessibility. Nurses as well considered e-learning to be relevant in learning and useful for advancement for future career and developing. In addition, e-learning had the advantage of ability to train higher number of students in short amount of time (Davies et al. 2015). Furthermore, research conducted in United Kingdom suggested that there was surge of interest in e-learning as method of teaching in healthcare education (Farrell 2006).

Nevertheless, it suggested that the learning culture needed to change and willingness to learn differently was essential for it to prove beneficial (Farrell 2006). Additionally, it also supported the idea that more to being cost effective and flexible, e-learning remained capable of providing quality assured programs for large number of participants.

In Middle Eastern universities, Shaltoni, Khraim, Abuhamad and Amer (2015) noted that ICT technologies and mostly those related to the internet, have improved the way services were delivered in higher education. With the advancement of web applications, students were exposed to new features that supported interactivity and personalization. Understanding what students anticipated from a university portal increased their satisfaction and consequently have a positive impact on performance and reputation of the university (Chyung et al. 2013).

Though, Farrell (2006) expressed that, if e-learning was to be introduced, participants had to be prepared as it required change in learning culture. In addition, participants required to develop new sets of skills to be able to keep up with the change. Further, Lakbala (2016) purposed that if e-learning was used to supplement the traditional method of learning or in near future replace it, the learning style had to be justified for different cultures.

Another study by Phelan (2005), about e-learning for social work studies pointed that the challenge was how to translate the e-learning in practice. Same applies for not only social work but other field of studies such as nursing (Phelan 2015). Additional factor to affect e-learning was culture as pointed by other studies as well (Farrell 2006; Phelan 2015). In addition, gender also had influence on the preference of mode of learning as female students preferred traditional method of learning. In spite of the preference, teaching and its effectiveness had to be the priority rather than mode. Phelan (2015).

J. Robson (2012) in his study stated that e-learning help people living in different countries learn the same skills across international borders without investing in new technology. In traditional method of learning, the learner had to be in the learning site which was limitation for those who could not attend. However, with e-learning there was no physical boundaries as the technology brought learning to students. Though, it had made learner isolated in their own room with no personal contact and no peer group learning. (C. Robson 2012).

Further study about the experiences in different modes of learning suggested that the students preferred blended learning (which combines e-learning and traditional learning) rather than face to face learning. The reason was that with e-learning students had large amount of information to process individually and independently, which some students found difficult adjusting. Whereas, with other students the reason was the lack of human interaction. They preferred some amount of human interaction combined with e-learning. (Martínez-Caro & Campuzano-Bolarn 2011).

On the other hand, despite the fact that students were satisfied with e-learning, they were against the idea of eliminating traditional teaching methods (Solberg 2012). Besides, students were keen to have face-to-face interaction for their questions rather than using online resources as they considered personal support more important in their studies (Bond, Fevyer & Pitt 2006).

Nursing students had their own perspective regarding e-learning from being excited to purely negative towards it. All the perspective depended upon the program, its structure, individual ability and skills, style and extent as well as students' approach to learning. The study among nursing students showed that most of the students had positive attitude towards e-learning in nursing (Creedy, Mitchell, Seaton-Sykes, Cooke, Patterson, Purcell & Weeks 2007).

Additional, research among nurses to evaluate if it improved their knowledge by using e-learning concluded that it had positive effect. Moreover, these nurses showed willingness to participate in future e-learning. (Steeg, IJkema, Wagner & Langelaan (2015). Even in low income countries, e-learning was proven to be effective as it provided platform to learn virtually from international experts (Frehywot, Vovides, Talib, Mikhail, Ross, Wohltjen, Bedada, Korhumel, Koumare & Scott 2013).

Moreover, students' negative experiences with e-learning was because of lack of interaction encountered in e-learning. Students reported face-to-face teaching more interactive and higher quality. Likewise, students' negative reaction came from lecturers' time to react to their questions and doubts. The study suggested that instructors had to be responsible to create an environment which provided better culture of interaction. (Hussin et al. 2009).

Another factor that influenced students' experiences about e-learning was students perceived ease of use with it. Self-efficacy about ICT made students feel at ease with e-learning. Students who were conversant with using internet were more at ease in using e- learning and were more likely to be satisfied than students who were poor in ICT skills. This informed e-learning portal designers to enhance the usability of the portal to ensure that it made students feel comfortable. (Marshall 2012).

In conclusion, most of the studies mentioned above suggested that the experiences for e-learning depended based on personal preference, learning culture, and availability of the resources. This study tried to describe kind of experiences of the nursing students and the factors those were influenced these experiences.

4. Research question and purpose of study

The research question of this thesis was, "What kind of experiences do international nursing students have of electronic learning?"

The purpose of this thesis was to describe the kind of experiences international nursing students had of e-learning. The aim of this thesis was to produce information for developing e-learning for international nursing students.

5. Methodology

This thesis used qualitative research with themed semi structured interview for data collection. Deductive content analysis was used for data analysis.

5.1 Qualitative research

In this thesis, qualitative research was used to determine the outcomes. Qualitative research is used for purposes where standard statistical procedures are not used for producing results (Harris, Gleason, Sheean, Boushey, Beto. & Bruemmer 2009). Rather this thesis used audiotapes and transcribes to describe experiences for using direct quotations from the participants (Harris et al. 2009).

Qualitative research is used to determine the meanings behind people experiences where it is important to understand the perspective of participants (Harris et al. 2009). The purpose of qualitative research is to understand social phenomena in its original state by placing importance on the meaning, experiences, attitudes and views of participants (Honiville, Jowell & et al. 1978; Mays & Pope 1995 in Meadows 2003). This thesis was based on nursing students' experiences and therefore qualitative research was used where participants could expound on their experiences with their own words.

However, one of the challenges of qualitative research data analysis is that the statements made by participants are not quantified and not displayed in the table (Sofaer 2002). This research method is inclusive in nature, and most of the results are suggestive rather than conclusive as well as findings are extracted straight from the data (Sofaer 2002 & Meadows

2003). The data collected is used to determine patterns and themes based on the answers provided by the participants (Sofaer 2002). In this thesis, themes were derived (Appendix 1) from the literature reviewed and used as categories for findings.

5.2 Description of the participants

Merriam-Webster's Learner's Dictionary (2016a) define international as group of people of two or more countries in simple terms. World Health Organization (2016) define nursing as, "encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. It includes the promotion of health, the prevention of illness, and the care of ill, disabled and dying people."

A student is defined as someone who attends a school, college or university or a person who is studying something (Merriam-Webster's Learner's Dictionary 2016b). Hence, international nursing students are students who are from two or more nations, coming together to learn how to provide care to sick, disabled and dying people, promote health and prevent illness.

The participants in this thesis were international nursing students who started their studies in fall, 2015. These students were from other nationalities than Finnish. At the beginning of studies, total number of enrolled students in this group were 22 whereas currently there are 29 students enrolled. Among the 29 students currently enrolled, 11 are transferred students (6 from other Universities of applied sciences and 5 from other units of same institution). This group of international students was chosen because this group was introduced to the new curriculum with mainly e-learning courses.

5.3 Data collection

For this thesis, semi structured interview was used for interviewing the participants. Six different themes were prepared by the authors based on previous studies about electronic learning and were used as the guidelines for interviewing considering the purpose of this thesis.

5.3.1   Semi – structured interview

According to Saunders, Lewis. & Thornhill (2016), structured interviews use predetermined identical sets of questions, whereas semi structured interviews have themes. In contrast, in - depth or unstructured interviews are those where there are no predetermined sets of questions, however, the researcher should have clear ideas on the area to explore. Semi structured interviews though cover few key points but the questions may vary depending on the flow of conversation. (Saunders et al. 2016).

In addition, semi structured interview does not follow order in which questions should be asked and provide flexibility for the interviewer to direct the questions and themes based interview flow (Saunders et al. 2016). In this thesis, semi structured interview was chosen as it guided the flow of the interview, but still providing the interviewee to express his/her own view without limitation.

Saunders et al. (2016) added that semi structured interviews are comparatively more useful than structured or unstructured interviews for studies which are based on experiences. Furthermore, the book added that studies where the researcher intend to understand the thoughts behind the participants' decision, recognize their attitudes and opinions, semi structured interviews are recommended. This form of interview, provided additional opportunities to ask for explanation from the interviewees as well as flexibility to guide discussion to areas as per the themes. (Saunders et al. 2016).

Hiller & DiLuzio (2004) in Damm (2012) stated that semi structured interview improves the process of data collection providing interviewer to be thoughtful and observant to ideas, views and outlook of participants. Likewise, Galletta (2013) as well considered semi structure interview as a popular method as it is flexible according to research goals, reflecting in variety of questions from being open ended to being more theoretical in nature. In this thesis, semi structured interview helped in describing new themes, that arose which were not previous considered by the authors.

5.3.2   Data Collection Process

The data collection process began by preparing the paperwork in March, 2017 when an information session was held with the target participants. During this session, the participants were informed about this thesis, its purpose and the mode of data collection. 'Invitation for interview participation', (Appendix 2) were also distributed to the all the targeted participants during this session.

During this session, interested participants were requested to provide contact details for further communication. Later the authors contacted the interested participants individually and scheduled the interviews as per participants' convenience. A total of eight students agreed to participate. The participants were given the 3 options on modes of interview. Among eight participants, two chose face-to-face interview whereas three chose phone interview and remaining three chose skype interview. The interviews were conducted and recorded between April and May, 2017. Once all the interviews were conducted, the audiotapes were transcribed by the authors and the recording were deleted.

Before the interview, the participants were re-informed about the purpose of the interview and duration of the interview as well. They were also assured about the confidentiality of the interview and asked to sign consent form (Appendix 3) before interview. For those participants who were interviewed on phone, consent form was sent to their home address in advance, together with return envelope for them to sign and return it to the authors. For those who chose skype, consent form was send via email. The interview process is demonstrated in Figure 1.

CALL FOR INTERVIEW

- via group information session

- Inform about the thesis

THOSE WHO RESPONDED

- individual interview scheduled

- Information about the thesis given

CONSENT FOR INTERVIEW

- For face-face Interview, consent signed before interviews
- For phone interview, consent form send via post, with return envelope in advance
- For skype interview, send via email

THEMES FOR INTERVIEW

- experience of e-learning

- electronic Learning vs face-to-face learning

- advantages and disadvantages of e-learning

- online resources

- supervisor during e-courses

- suggestion for improvement

INTERVIEW CONDUCTED

- According to pre-agreed time

- Audio recorder used

RAW DATA

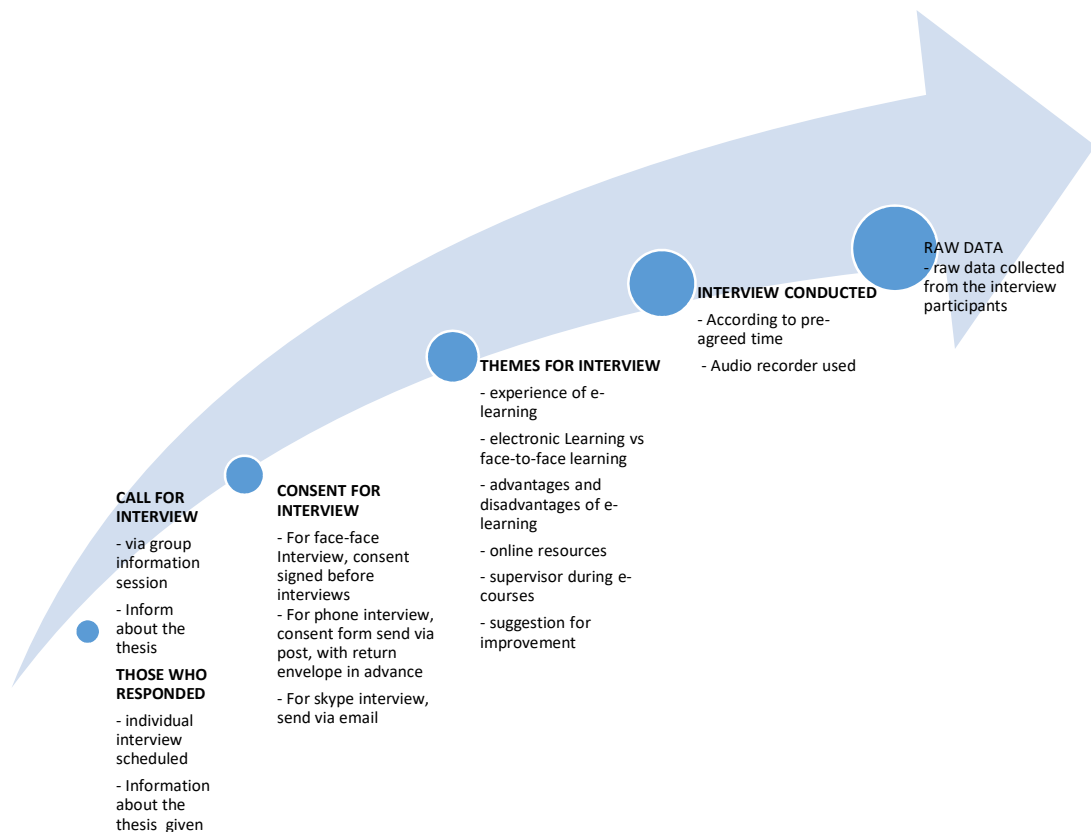- raw data collected from the interview participants

Figure 1. Raw data collection process

The first theme discussed was about the participants' view of e-learning. In addition, participants were also asked to compare between e-learning and face-to-face learning to find out about their preferred method of learning. The interview as well tried to understand the participants' thoughts on the knowledge gained after participating in e-learning. This was done in order to find out how participants could relate to the learning after participating in e-learning. Further, the participants were asked to discuss about the advantages and disadvantages of e-learning.

The following theme was about the supervision provided during the e-learning. The participants were asked to share their experiences about the communication with e-learning supervisor as well as with e-learning resources provided. During the interview, participants also discussed about courses prefer face to face rather than online. Further, the participants were asked to provide their views on future improvement for the betterment of e-learning. The themes used to guide the interview is in appendix (Appendix 1).

5.4 Deductive content analysis of the data

Content analysis is explained as analysis that includes 'organizing, classifying, and summarizing qualitative data; writing a cohesive description of the setting, context, and people; discovering patterns and themes; determining the meaning of phenomena to participants; summarizing tentative answers to the research questions; conceptualizing hypotheses and theories; and deciding what to report to others' (Harris et al. 2009).

Content analysis aim to provide summary of knowledge and understanding of subject being studied and at times research questions are refined or altered based on the data. This analysis process connect data with existing theories, or provide information to modify existing as well providing new theories. In addition, it provides the ability to generalize the findings to same setting and populations. (Harris et al. 2009).

Content analysis was selected for the study since it is inexpensive, readily-understood, unobtrusive and it related well with the type of data that will be collected which will be in note from and quotations from personal experiences. Moreover, by using this method in of analysis in this thesis, the findings could be replicated for further similar studies as well (Harris et al. 2009).

Content analysis can use deductive or inductive approach for analysis. Deductive approach is focused on reasoning a hypothesis or a theory whereas in inductive approach the develops a new idea or theory based on study (Saunders et al. 2016). More, Yin (2003) in Saunders et al. (2016), proposed that deductive analysis uses existing theory to develop own hypothesis, purpose, objective and research question.

In deductive content analysis, data is collected for the purpose for confirming or refuting the claim made by existing theory. In addition, deductive content analysis aim at verifying knowledge, ideas and attitudes. In this thesis, the authors connected the findings to the two existing theories (TAM and OLC) using deductive content analysis of data (Ellis & Standing 2013).

According to Ellis & Standing (2013),' deductive content analysis is more about describing and understanding human experiences from the point of view of the people who have had, or are having the experience.' Since the purpose of this thesis was to describe participants experiences, this analysis method was thus selected.

In this thesis, the data was collected through interviews which were recorded on audiotapes. These interviews were transcribed into raw data. Once obtained the raw data was analyzed and was used to connect the findings to the theories and the themes. Figure 2. demonstrate an example of process of data analysis.
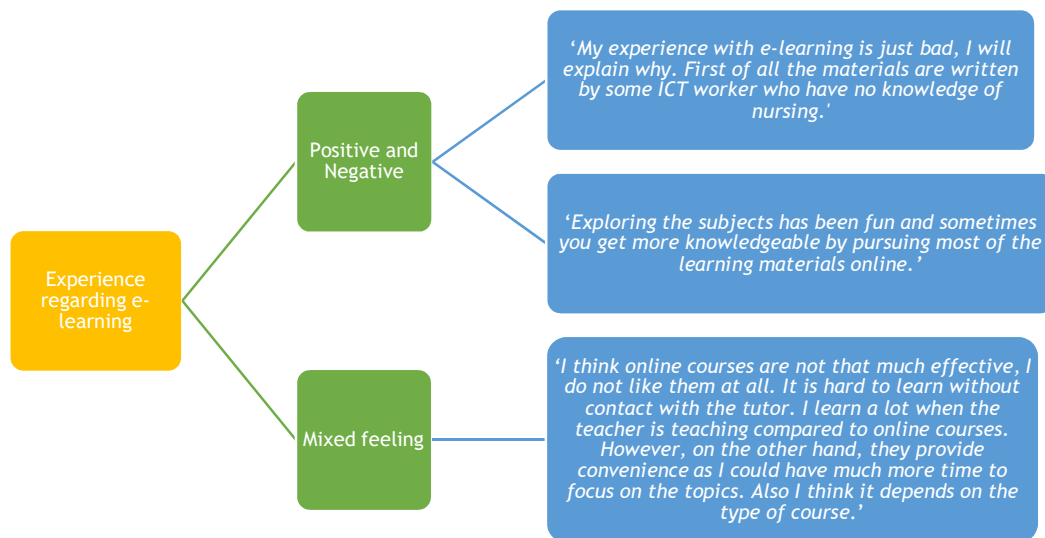

Figure 2: Example of the data analysis from raw data

6. Findings on nursing students' experiences

Deductive content analysis was used for the eight interviews that were successfully conducted. The participants were code named Interviewee 1 through Interviewee 8. The themes centered on experience with e-learning (Martínez-Caro & Campuzano-Bolarn 2011), e-learning vs face to face learning (Davies, Amewonye, & Gross 2015), advantages and disadvantages of e-learning (Farrell 2006), supervision during e-learning (Headar et al. 2013), support materials provided for e-learning (Anilkumar et al. 2014) and suggestions for future improvement. Figure 3 demonstrates the summary of the findings.
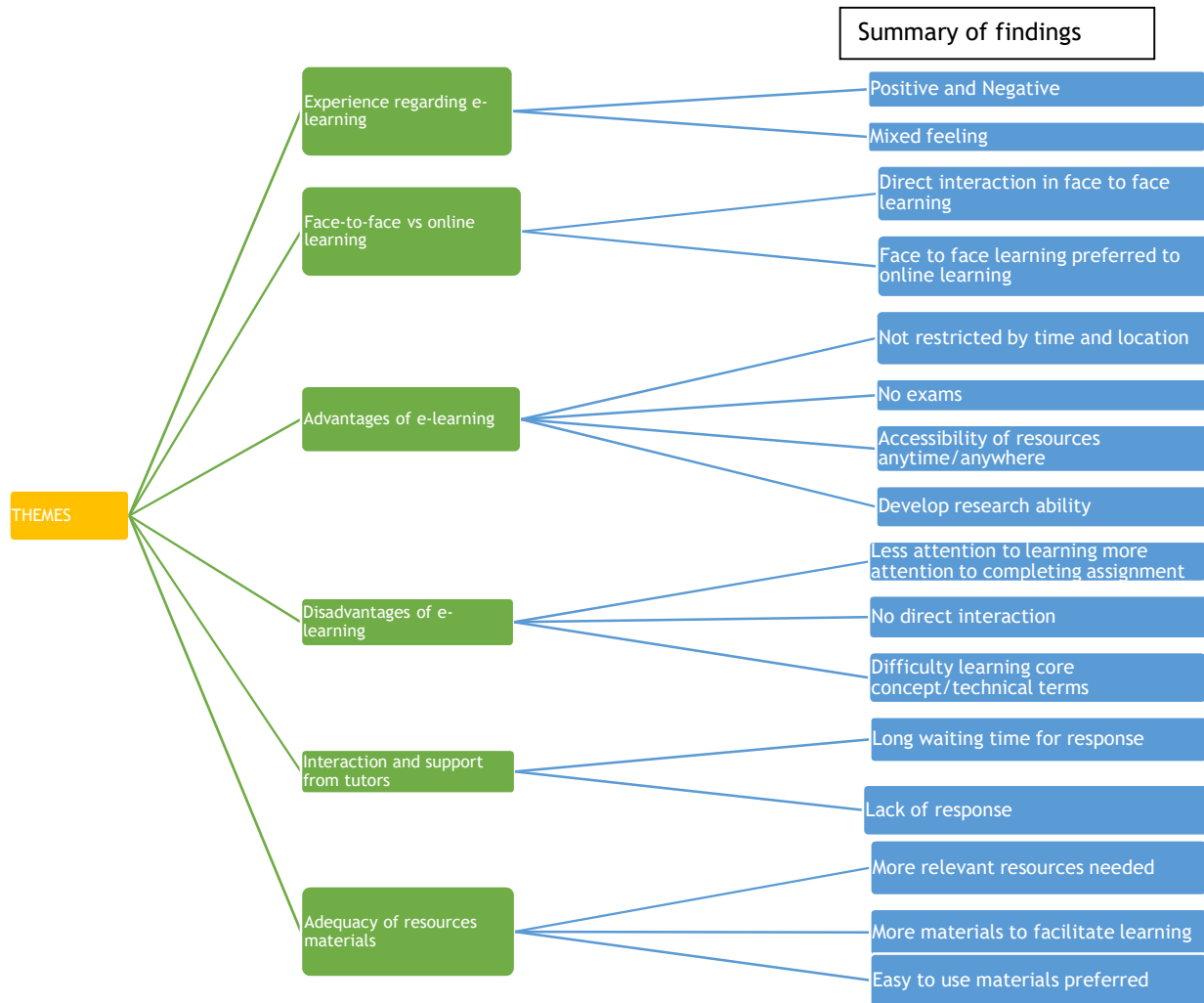
Summary of findings

THEMES

- Experience regarding e-learning
  - Positive and Negative
  - Mixed feeling

- Face-to-face vs online learning
  - Direct interaction in face to face learning
  - Face to face learning preferred to online learning

- Advantages of e-learning
  - Not restricted by time and location
  - No exams
  - Accessibility of resources anytime/anywhere
  - Develop research ability

- Disadvantages of e-learning
  - Less attention to learning more attention to completing assignment
  - No direct interaction
  - Difficulty learning core concept/technical terms

- Interaction and support from tutors
  - Long waiting time for response
  - Lack of response

- Adequacy of resources materials
  - More relevant resources needed
  - More materials to facilitate learning
  - Easy to use materials preferred

Figure 3: Summary of the findings

6.1 Experiences with electronic learning

The participants had mixed experience about e-learning. For instance, one of the participants indicated that,

> *'I think online courses are not that much effective, I do not like them at all. It is hard to learn without contact with the tutor. I learn a lot when the teacher is teaching compared to online courses. However, on the other hand, they provide convenience as I could have much more time to focus on the topics. Also, I think it depends on the type of course.'*

This participant had reservation about e-learning. The participant did not enjoy the lack of face to face contact with the tutor. This lack of face to face contact with the tutor made this participant learn less. In addition, for this participant, effectiveness of e-learning was dependent on the course. Most of the participants singled out pharmacology and internal medicine courses as unsuited for e-learning but indicated other courses such as psychiatry suited for e-learning.

In addition, another participant had overall a negative experience.
> *'My experience with e-learning is just bad, I will explain why. First of all, the materials are written by some ICT worker who have no knowledge of nursing. Moreover, some of the learning materials are not presented the way they should be presented.'*

The reservation from this participant was that the materials offered for e-learning were not well prepared and presented since the participant perceived that this was done by ICT workers who lacked nursing knowledge.

Participants observed that e-learning had less knowledge retention capacity. E-learning was also indicated to be a poor mode of learning as compared to face to face learning. The participants noted that in e-learning, the student was left to learn most of the course units on his or her own as if he/she was doing some research online. Though some participants found this helpful, others indicated that this led to knowledge attained not being retained for long. For instance,

> *'Nothing is retained in our minds. I think if we had one contact lesson or two for each online course, it would be really nice. But that is not the case at least for most of the online courses and most of the students in our class have similar opinions.'*

Similar views were shared by few other participants as well.

> *'On online courses I did not learn anything. Even though I learn something it does not stay in my mind because we just write and then that is it.'*

This participant indicated that the lack of direct contact with the tutor was not good for learning as knowledge gained was not retained for long.

Ease of use was another issue mentioned during the interviews that made e-learning cumbersome. The participants stated that the links and websites provided to them were sometimes not easy to use and other times they were inaccessible.

> *'It takes a long time to understand the websites given to us. It is also hard sometimes to understand the questions being asked after learning and how to respond to them.'*

E-Learning was however lauded by the participants for being convenient and enabling one to learn more through own research. The participants also indicated that online learning provided a greater chance for the learners to have self-discipline and self-directions. For instance,

> *'Exploring the subjects has been fun and sometimes you get more knowledgeable by pursuing most of the learning materials online.'*

Another participant stated that his/her experience with e-learning was good as it was convenience and helped develop independent study skills. The sentiment of the participant was that,

> *'Online courses provide us some kind of independent study skills and I personally found them much more appealing than studying for exam since exams are mostly related to testing memory but online learning felt different and it was much more like a research and being able to find information by your own and self-educate. Furthermore, the courses offered online were interesting.'*

E-learning according to this participant enabled the student to explore more materials thus self-educating themselves more than when the course was class room based. Besides, this participant preferred e-learning as it was more about activities and assignments which he/she considered better mode of learning. He/she was of the view that classroom lectures evaluated based on exams which mostly testing memory rather than attained learning outcomes.

6.2 Advantages/disadvantages of e-learning

This thesis in addition, studied about the advantages and disadvantages of e-learning. The first quoted advantage by the most of the participants was convenience. Aspect of convenience elucidated was in regard to time. The participants indicated that accessibility of e-learning resources any time of the day regardless of the time zones in the different regions was an advantage. This offered e-learning a distinct benefit compared to face to face teaching.

One of the participant reiterated that;

> *'In case of e-learning, you do not need to come to school, physically you do not need to be at school, you can access e-learning wherever, you can travel and still be attending your classes.'*

Moreover, another participant supported the convenience advantage by indicating that;

> *'I can independently plan my study schedule; I can spend as much time as I personally need to revise and understand the material; I can choose myself the resources I prefer to work with; I can access the course from anywhere on any device.'*

Another advantage of e-learning mentioned by the participants was the inclination to provide an environment of knowledge attainment rather than testing of memory. Moreover, some participants pointed to doing activities in groups as a way to enhance the learning process. For example,

> *'E-learning is not related to testing memory and therefore is a real education for me. We are learning for lifetime purposes not only for exam day. With online course, it proves that you are doing those little researches and that you remember better what you learn during your research.'*

However, the downside of e-learning was that some participants could not engage in learning but only responding to the assignments. This was done by only reproducing the notes and resources provided online. There was hence a sentiment among the participants that little learning took place during e-learning. Supporting this view, one of the participant said;

'*In this day and age, I feel e-learning is not something we will avoid. However, it will just destroy the traditional learning ways. The students are more or less copying and pasting answers straight from the internet. It appears though that the teachers do not care because they continue to accept such assignments.*'

Another disadvantage of e-learning included participants having challenges in learning some difficult lessons. The participants acknowledged that there were some subjects which were hard to grasp online and such lessons required face to face interaction, which was absent in e-learning. The lack of face to face interaction hence was observed to present a distinct disadvantage for e-learning.

'*E-learning has a disadvantage in case where a teacher is needed to specifically explain the core concepts since some of the subjects are hard to understand without face to face teaching. Moreover, researching such courses online makes it also hard to learn and understand.*'

Participants pointed out some courses which were better suited for classroom learning.

'*Pharmacology was one of the courses that I felt was way too complicated to study online. Other courses were fine to be online courses.*'

'*I would definitely never prefer pharmacology as an online course. It is a very complex subject and it needs a lot of explanations. Moreover, it is the most important aspect of nursing.*'

Even though participants liked the idea of flexibility of time and location as the major advantage of e-learning, difficulty learning core concepts, difficulty understanding technical terms were the major disadvantages mentioned.

6.3 E-learning vs face-to-face learning

During the interview, participants were asked to compare and contrast e-learning with face-to-face learning. Most of the participants wanted contact lessons where they could get direct answers to things they did not understand. As one of the participant expressed,

'*Face-to-face traditional learning is in my opinion better way of study as it gives me an opportunity to ask questions and get answers right away from the teacher.*'

The possibility of immediate feedback was this participant's reason for choosing face-to-face learning. Similarly, sentiments were expressed by other participants as well.

'I like the contact lessons because when I don't understand at the same time ask the person who is teaching us and contact lesson is like easier to understand because they explain about the views, real views.'

'I would still go for contact lessons because its immediate, if you are having some trouble you can ask your teacher, it's there, it's now.'

Most participants specified that lack of question and answer sessions in addition to lack of student-teacher interaction were bothersome for them.

'The disadvantage of e-learning is that the student may not study the way they should and would not be able to understand the assignment in question due to the lack of contact lessons. For instance, if I am doing an assignment and I do not understand the question clearly, I will ask the teacher a question and it might be a week before I get any answer from the teacher.'

During face-to-face learning, participants indicated that they understood and learnt more. They could concentrate and listen attentively to what the teacher said and hence make them understand better. This was contrary to e-learning where the student read through the various online materials which could make it hard to remember.

In terms of delivery of knowledge, most participants opted for contact lessons but in terms of convenience, they preferred e-learning. For instance,

'Face-to-face learning in my opinion a better way of studying as it gives me the opportunity to ask questions and get answers right away from the teacher. Also, our lecturers like to share stories from personal nursing experiences which I find entertaining and illustrative. They are helpful in understanding and also memorizing the material.'

The study findings hence indicated that classroom learning offered more learning and illustrative opportunities than e-learning. Their main arguments were that face to face learning provided more opportunities to interact and dialogue with tutors. However, some participants indicated that e-learning provided very important basic understanding of the course before the contact lessons.

'In some cases, I find e-learning mode beneficial. For example, before autumn 2016 semester starting we had surgery and anaesthesiology course which

helped me a lot before going to the lectures. I got basics from my online study and could benefit more from contact lessons afterwards.'

6.4 Support materials for e-learning

The materials offered and the links provided were useful most of the times according to the participants. However, there was the case of language barrier which made access to some links difficult to some students who lacked good Finnish language skills or English language skills. However, the quality of the online resources left wanting more according to most participants. Most advocated for the improvement in quality and content of the materials.

> *'I think for the quality of online courses, I would prefer to be given more resources than what we are given now, like a little bit more detail or little bit simpler, like a website, like a little bit more explained stuff, so you don't have to, sometime you know then you don't have to copy and then you still don't understand what you just answered, may be simpler form of questions and answers and resources.'*

Ease of use of the e-learning materials was questioned by most of the participants in terms of navigability and ease of accessing the online links. The quality of some of the learning materials and their relevance to the course were also questioned by some participants.

> *'Some of the learning materials are not clear while some of them are. I mostly did my own research since some of the provided material felt like not related to the questions; so that area needs some improvement.'*

There were participants who found the support materials provided inadequate. They indicated that based on the learning outcomes envisaged, the materials were not enough to adequately respond to the activities and assignments.

> *'To be honest I did not use a single resource that was provided by the teachers. Often the page had limited information in order to answer the questions asked.'*

> *'There is free reading material and to be honest in most cases the material is not even that useful, so we have to look for other material. As well as for answers to the questions asked, most of time I have to also look for the information myself because the ones provided are not just good enough.'*

6.5 Supervision during e-learning

Most of the participants were not satisfied with the tutoring provided for e-learning. There were concerns about responsiveness from tutors. Though some tutors were responsive, there were mentions of various other tutors who were less responsive to participants which led to frustrations.

One of the participant voiced that;

> '*There is a chat box available on the online course but unfortunately it hasn't been so efficient. Some of the student's questions has remained unanswered.*'

Another participant posited that;

> '*From my personal experience, I would say there is no support. I had to send an e-mail to ask whether my assignment was going to be assessed or not let alone supervision.*'

Most of the participants indicated that when they had issues and asked for solutions through the online portal, the offered solutions were mostly late, inadequate or none at all. In support of this finding, one of the participant indicated that;

> '*We get feedback when, for example, we do something incorrect or when our answers are not in-depth. However, when you have a question about something that is not clear or you do not understand well, we don't get reply quickly or sometimes you get no reply.*'

However, there were some tutors who were able to provide solutions to issues pointed by students sooner. These tutors attended to the students concerns most of the time according to the participants;

> '*Some of the teachers take their time to go through and guide the students better with their learning which is a very nice thing to see that an experienced person's point of view on one's research. However, some of the teachers have very little input.*'

6.6 Suggestions for future improvement of e-learning

Most of the participants suggested for better scheduling of e-learning courses. They felt overwhelmed by the number of courses running simultaneously.

> *'Yes, there should be online course but there should be few I think not like five online courses like we have psychiatric online courses, we have pharmacology too, we have advance life support, and surgical and medical imaging, you know I did but I did not learn anything.'*

> *'Only timing felt like an issue for me since the nursing program is tight enough and adding many online courses were causing some meltdown for some students and many proved that they can't follow according to the timetable. That certainly causes stress and falling behind schedule as well as gaining credits.'*

Almost all the participants stated the need for more contact lessons.

> *'It's very important like 3 to 4 contact lessons and also for example like meeting up every two weeks with the supervisors. During the meeting, they could check up on us and see how we are doing with the online courses.'*

> *'And some contact lesson in between that would be nice, some feedback lessons not just online but contact lessons.'*

One of the participant also suggested for improved electronic workspace. For example,

> '*You can't open your assignment and support links at the same time, like you know, you are doing the assignment and you have to click save, then open the material, you can't open them together, that is a waste of student time. I think they could improve that and done it in a way that the material opens in a separate page at same time with assignment.*'

7.   Discussion of findings and Recommendations

7.1 Discussion of findings

The participants had diverse experiences about e-learning. Most of them preferred face-to-face learning to e-learning. This thesis recognized the factors that led to this assertion. These factors were materials being less useful, some courses being too technical to be offered online and inadequate support from tutors. The materials offered were usually not well prepared and presented since the participants perceived that this was usually done by ICT workers who had little knowledge of nursing. The participants, hence perceived the materials offered to be of insufficient.

The thesis also revealed that participants were of the view that e-learning had less knowledge retention capacity. E-learning was also indicated to be a poor mode of learning as compared

to face-to-face learning. The participants noted that in e-learning, they were left to learn on their own. Though some participants found this helpful, others indicated that this led to knowledge attained not being retained for long. As proposed by the TAM, people are more likely to adopt technology when it has perceived ease of use and usefulness. In this thesis, most participants found the e-learning to be less useful and this could explain their negative attitude towards e-learning (Alharbi & Drew 2014).

Another aspect of e-learning that participants found unappealing was the lack of direct contact with the tutor (Headar et al. 2013). This was not considered good for learning as face-to-face interaction with the tutor made learning to remembered for long. Participants compared online learning to a monologue rather than dialogue and in most cases, learning on a dialogue environment has a high retention capacity. The participants also indicated that creating relationships with online classmates and tutors usually required more time and effort on the part of the student which affected the learning process negatively (Headar et al. 2013) in their study.

In addition, this finding related with the OLC theory by Harasim (2012) which posited that, in the learning process, socialization is very important. In the education setting, students test ideas and hypothesis not just with their instructors but also with their friends and fellow students. Schunk (2011) also argued that in the learning environment, an avenue should be created to enable continuous criticism and probing of the knowledge that has been received. This was found lacking for e-learning according the participants, as interaction between tutors and participants was very limited.

However, e-learning provided participants with an environment of knowledge attainment rather than testing of memory. Further, e-learning was mostly based on individual and group activities to assess the learning outcomes during or at the end of the course. This provided the learners with the impetus to conduct deep research to attain the learning outcomes, and thereby, encouraging knowledge gathering and critiquing of various materials and assertions. Moreover, some participants pointed to doing activities in groups as a way to enhance the learning process (UNESCO international bureau of education 2015).

This thesis finding also supported the idea by Schunk (2011) that e-learning did not aim at replacing the teacher. Though, it aimed at establishing an environment of collaborative learning, where the communication between learners and instructors was improved through social discourse. Therefore, this meant that for an e-learning platform to be satisfying, it needed to establish and improve means of communication between learners and instructors and also between learners themselves (Marshall 2012). According to the participants in this thesis, communication between participants and tutors was lacking.

Another downside of e-learning considered by the participants was that some of them did not engage in learning and only responded to the assignments. This was done by only reproducing the notes and resources provided online. There were hence sentiments among the participants that little learning took place in e-learning. There is hence need for such students to change their perspective and attitude towards the new learning environment (Farrell 2006). This relates to the observation by Bader et al. (2013) that e-learning has changed the prerequisites for learning. Bader et al. (2013) indicated that learners are called upon to have new skills and competencies to be able to learn that were not required in the traditional classroom learning.

In this thesis, the participants found it challenging to translate knowledge acquired from some courses to practice (Phelan 2015). The participants also indicated that there were some subjects which were hard to grasp online and such lessons required face-to-face interaction which was absent in e-learning. The lack of physical and face to face interaction was observed to present a distinct disadvantage for e-learning. This resonates with the observation of Bader et al. (2013) that the most critical change that e-learning has brought is the social part.

This thesis also found that there was poor support offered to the participants by the tutors. Most of the participants said that when they had issues and asked for solutions through the online portal, the offered solutions were mostly late, inadequate or none at all. Moreover, the lack of direct and immediate response from the tutors provided the e-learning a clear disadvantage. These findings agreed with findings by Marshall (2012) that interactivity was a key prerequisite for the e-learning portal to provide real time connectivity from one point to another.

This thesis in addition, found that most participants preferred face-to-face learning to e-learning. This was mostly because they believed that they learned and understood better during face-to-face learning as compared to e-learning. They indicated that some courses such as pharmacology, internal medicine were better delivered in a classroom rather than online. This was a contrast to the findings by McCutcheon et al. (2014) that both traditional learning and e-learning were effective in clinical teaching skills and mode of learning had no effect on outcome of students' knowledge. The findings from the thesis however, agree with findings by Moule, Ward & Lockyer (2010) that students still preferred teacher centered learning.

However, the self-efficacy factor mentioned by TAM was not brought up by the participants which could be due to the fact that they were technology savvy. In addition, another factor

considered by TAM, attitude towards use, was also not discussed. This might have been influenced by the fact that they did not have any prejudice towards e-learning.

7.2 Ethical considerations

Saunders, Lewis, and Thornhill (2016) indicates that ethical considerations in any research study is critical. Ethical standards enable the researcher to distinguish between wrong and right when preparing, during and even after the research has been conducted. Observing ethical standards in research is critical as it promotes the pursuit of truth and knowledge without manipulation which is the primary purpose of any credible research.

Secondly, ethical behaviour enables the researcher and other stakeholders in the research, including participants, to cultivate an environment of accountability, trust and mutual respect thus enabling the study to effectively attain its objectives (Coolican, 2014). While writing this thesis, there were various ethical considerations made. The thesis considered various ethical standards including informed and voluntary consent, beneficence, avoiding deception, confidentiality, avoiding bias and accuracy in presenting the findings.

First, the authors ensured that before gaining consent from the participants, they were provided with information, a cover letter (Appendix 2), regarding the purpose of the study, how their responses would be handled, how the findings would be applied and the confidentiality accompanied. This enabled them to make informed decisions on whether to participate or not in the thesis. The participants were also informed of their right to decline at any stage in the process. Interviews were only conducted with those participants who gave written consent.

Beneficence was observed in every stage of this thesis writing and more so where their participation was required. According to Robson (a) (2012), beneficence is the ethical value of considering the welfare of the research at all times during a research study. In this thesis, beneficence was observed and the participants were requested to participate in the interview at their convenience. The participants were not pressed to respond and participate for the interview.

The authors also observed confidentiality of the research participants through enabling them to make anonymous responses (Saunders et al., 2016). Moreover, the fact that they had participated in the study also remained anonymous. This gave the participants confidence in providing objective responses during the interview. For participants who wanted to do phone interview and skype interview, their phone number and online ID were only collected after the consent from participants. In addition, the interview audio-recording was not shared with anyone other than the authors and once the transcribes was obtained, the interview recording was destroyed.

Further, the authors also adhered to the guidelines set by the university. The thesis was started after getting research permission from the university. Moreover, the authors ensured that the data that collected were used to form the basis of the findings. There was no misrepresentation of the data and the findings were as received from the participants. Further the data were destroyed once the writing process was completed.

7.3 Trustworthiness of the thesis

In writing this thesis, the authors documented every step in the process, so that readers are able to establish the procedures followed in writing this thesis, hence establishing its trustworthiness. The thesis has in detail documented the research purpose, research methodology and how participants were interviewed. Moreover, the thesis has included direct quotes from the participants to enable the reader to have a clear view on the kinds of experiences participants had of e-learning.

The thesis findings were written solely from the responses received from the participants and there was no manipulation of the responses or findings. Therefore, the thesis and its findings are based on objectivity and honesty depicted by the authors and the participants. The authors were open as to the purpose of the study which enabled the participants to make informed decisions to participate in the thesis. The assurance of confidentiality also enabled the participants to get motivated in providing effective and objective responses to the interview (Babbie, 2011).

The authors prepared well in advance and provided a conducive environment for the interviews. This enabled the research to collect adequate and important information which enabled the thesis to achieve its objectives and provide adequate answers to the research question. Similarly, another key point that enabled the success of this thesis was the effective team work that was depicted by the authors. The authors worked effectively as a team while sharing duties and responsibilities according to the strengths and weaknesses of each of them. This enabled the team to work efficiently ensuring that every duty was assigned to the partner who was more competent in such duty.

The tutors who were supervising the whole thesis provided guidance and direction in coming up with the thesis. The positive criticism provided, enabled the authors to improve on the methodology, analysis and findings and thus writing a thesis that is credible and trustworthy. The thesis followed all the policies and guidelines on research by the university while also acknowledging other authors who have made contribution to the similar subject area.

Further, the authors avoided any bias during the writing process of this thesis by working together during each phase of the thesis. In addition, to avoid bias while interviewing, the authors

did not give their opinions of their experiences of e-learning. Moreover, during data analysis, the authors focused only on transcribes of interviews and did not add their own views. However, the authors acknowledged that by offering three interview options (face-to-face, phone or skype), there might have been some inconsistency with data collected.

7.4 Recommendations and suggestions

Based on the findings of the thesis, following recommendations are made. First, the e-learning materials should be improved to ensure that they relate to the need of the learners considering the diversity in the student population. The developers should ensure that the materials provided to students are adequate and up-to-date. In addition, while preparing e-learning material the developers should include member with nursing background to better develop the materials.

Secondly, e-learning should be complemented with a few contact lessons to reinforce the learning attained. Once in a while contact lessons should be arranged so that the tutor can understand where the students are facing challenges and adapt teaching accordingly. Moreover, there are some technical aspects of any learning that are difficult to grasp without the physical assistance of the tutor. For instance, contact lessons should be arranged for courses such as surgery, pharmacology and medicine to enhance the students' grasp the technicality of these courses.

Third, scheduling of courses should be streamlined to ensure that not many courses run concurrently, which could cause stress and burnout to learners. To ensure that students do not fall behind schedule, the courses should be well distributed and ensure that there is no overloading. Lastly, there should be prompt support for students using the electronic workspace.

Since this thesis had limited participants, further research is suggested in assessing e-learning which will consider a wider population including tutors, school administrators, ICT developers and students. This would provide a wider insight into the aspects of e-learning so that there can be a holistic improvement in the entire e-learning value chain. Moreover, any future study on satisfaction with e-learning should consider having focus group discussions which would enable the participants to hold discussions on the benefits and challenges of e-learning.

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Appendices

Appendix 1: Thesis themes

Thesis topic –International Nursing Students' experience with e-learning
Themes:

- Experience with e-learning
- E-learning vs face to face learning
- Advantages and disadvantages of e-learning
- Supervision during online courses
- Support material provided for the courses
- Suggestions for future improvement

Appendix 2: Invitation for interview participation

<u>Invitation for interview participation</u>

Dear International Nursing Degree Students,

We are final year nursing degree students currently working on our Bachelors thesis 'INTERNATIONAL NURSING STUDENTS' EXPERIENCES OF ELECTRONIC LEARNING'.

Due to the increase of online courses in the nursing degree program and we decided to write a thesis to find out what kinds of experiences you have with electronic learning. Our aim is to learn about experiences of international nursing students' with e-learning and use the findings for future improvements of the courses offered online.

Our target group is international nursing students, who have started their studies in 2015. This group was the first group to have been introduced to more online courses than the previous years, hence this group was decided as our target group.

The planned data collection is via semi structured interview. The interviews will be conducted either individually or in a group depending on number of participants and time arrangement. The interview will be held face to face, on phone or by skype depending on participant's convenience. The estimate time is 1 hour but can vary as per the flow of the interview.
The target number of participants for this thesis is 10.

Your participation will be highly valued and will be held in confidence. For participation please contact us and we will schedule as suitable time as per your convenience.

Contacts -
Maureen Bett: email: …………………………. / phone : 04…………..
Rashmi Shakya: email: ………………………/phone : 04…………..

Best Regards,
Maureen and Rashmi

Appendix 3: Consent Form

Consent for Participation in Interview

I, hereby, agree to participate in this individual interview. I understand that the interview is part of bachelors' thesis, "International Nursing Students' kinds of experiences of e-learning" by Rashmi Shakya and Maureen Bett.

- I understand that I am participating in the thesis project for bachelor's degree.
- I understand that no payment will be made for the participation.
- I understand that I can withdraw anytime if I do not want to continue with the interview.
- I understand that I have right to decline answering any questions that I am not comfortable with.
- I understand that the interview can take up to 60 minutes.
- I understand that the interview will be recorded.
- I give permission to record my thoughts that I put during the interview.
- I understand that my name will not be mentioned in the thesis and any report made based on this interview.
- I understand that this thesis project has been reviewed and approved officially.

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I agree to participate in this study.

My Signature,

 _____

Date   _____