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Nursing Students' Perspective on Virtual Studies in JAMK University of Applied Sciences

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Abstract

The study was conducted in order to produce information about nursing students' experiences with virtual education with the aim of enabling teachers to better take into account the students' perspective when creating virtual courses. The study was commissioned by the School of Health and Social Studies in JAMK University of Applied Sciences.

The study was qualitative. It was conducted as an oral focus group interview. There were three participants all of whom were 2nd or 3rd year nursing students studying in English, each of whom had considerable experience with virtual courses. The interview was recorded, transcribed, classified and analysed. Seven phenomena arose from the data: teacher support, virtual work environment, virtual study module structure, virtual study module content, ethics in virtual studies, professional development as well as structure of nursing studies.

While the students' experiences with web-based courses have been mostly unsatisfactory, there have been positive events. The main development recommendations are to introduce Problem Based Learning into virtual courses, education about virtual studying should be provided, introductions to virtual courses should be arranged in the form of contact meetings, additional support for students should be provided as well as the virtual work environment should be improved.

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Työn nimi **'Googleta sitä, googleta tätä'** Sairaanhoidon opiskelijoiden kokemuksia virtuaaliopinnoista Jyväskylän ammattikorkeakoulussa.
Koulutusohjelma Hoitotyön koulutusohjelma
Työn ohjaaja(t) Marjo Palovaara & Katja Raitio
Toimeksiantaja(t) Jyväskylän ammattikorkeakoulun hyvinvointilaitos

Tiivistelmä

Tutkimuksen tarkoituksena oli tuottaa tietoa sairaanhoitajaopiskelijoiden kokemuksista virtuaaliopetuksesta. Taivoitteena oli auttaa opettajia ottamaan paremmin huomioon opiskelijoiden näkökulma verkkokurssien suunnittelussa. Tutkimuksen toimeksiantaja oli Jyväskylän ammattikorkeakoulun hyvinvointilaitos.

Tutkimus oli kvalitatiivinen. Se suoritettiin suullisena ryhmähaastatteluna. Haastateltavia oli kolme. Kaikki olivat joko toisen tai kolmannen vuoden englanninkielisen linjan sairaanhoitajaopiskelijoita. Jokaisella heistä oli huomattavasti kokemusta virtuaalikursseista. Haastattelu nauhoitettiin, litteroitiin, luokiteltiin ja analysoitiin. Seuraavat seitsemän ilmiötä oli havaittavissa tutkimustuloksista: opettajan tuki, verkko-oppimisymparistö, verkko-opintojakson rakenne, verkko-opintojakson sisältö, virtuaaliopintojen etiikka, ammattitaidon kehittyminen sekä sairaanhoitajaopintojen rakenne.

Vaikka opiskeljoiden kokemukset verkkokursseista olivat enimmäkseen negatiivisia, löytyi niistä hyvääkin. Tärkeimmät viisi kehittämisehdotusta tutkimuksen perusteella olivat: PBL-opintoja pitäisi sisällyttää virtuaalikursseihin, opiskelijoille olisi hyvä järjestää opetusta virtuaaliopiskelemisesta, virtuaalikurssehin saisi sisältyä opastusta kontaktiopetuksena jokaisen kurssin alussa, opiskelijoille pitäisi järjestää lisää tukea sekä verkko-oppimisympäristöä tulisi kehittää.

Avainsanat (asiasanat) virtuaaliopinnot, verkko-opetus, virtuaalikurssi, verkkokurssi, haastattelututkimus, sairaanhoidon opetus, verkko-oppiminen, opiskelijanäkökulma, oppimistyytyväisyys
Muut tiedot

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1 Introduction

The evolution of using virtual learning in nursing education began approximately a hundred years ago when nurse educators started looking for new ways of meeting the needs of students who were unable to attend on-campus classes (O'Brien 2006, xii). In modern times the term *'virtual education'* is not easy to define but broadly speaking a course can be called virtual if the internet has even a minor role in the learning process (Kalliala 2002, 12). According to O'Brien (2006), unlike in the past, virtual courses are no longer offered only for those who are unable to attend on-campus classes but also for those who prefer them. O'Brien sees virtual education as a possibility which encourages people to pursue lifelong learning. (p. xii.)

Previous research on the perceived student satisfaction of virtual learning environments has generated varying results. Some research has found that students prefer traditional face-to-face teaching to web-based learning environments (Irons, Jung & Keel 2002, 183). In other studies students are described as having high levels of satisfaction with virtual education (Hong, Lai & Holton 2003, 117). When conducting this type of research it is important to first know what aspects of virtual learning environments contribute to successful web-based learning. Dwivedi, Khurana and Saxena (2012, 245-246) note that the usefulness and high quality of the virtual learning environment contribute to students' motives to utilise web-based education in the future.

Nursing studies are meant to prepare nursing students for working life (Curriculum for Degree Programme in Nursing 2013, 1). Being a competent nurse means committing to lifelong learning and developing one's own expertise continuously. A nurse needs multidimensional skills ranging from ethical considerations to practical clinical skills. Nursing students are responsible for their own learning during school as well as after graduation. Competent nurses are able to apply their knowledge to new and different working conditions and places. (Ruuskanen 2011, 88-90.) According to the pedagogical principles of JAMK University of Applied Sciences (2013, 6) an obligation of teachers is to support students' professional growth.

As virtual learning has established itself as a part of higher education it has become necessary to develop this new model of learning (Irons et al. 2002, 175; Quinsee & Hurst 2005, 1). Thus the purpose of this thesis is to produce information about students' experiences of web-based learning with the aim of helping teachers to take into account the students' perspective when creating web-based courses. This thesis was commissioned by the School of Health and Social Studies in JAMK University of Applied Sciences.

2 Basic theory about virtual studies

The United States Distance Learning Association (1998) defines distance education as 'the acquisition of knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance' (O'Brien 2006, xi). At first glance the term *'distance education'* would appear to be straightforward but upon closer examination it becomes multifaceted (Koli 2008, 5). Broadly speaking the term can be used if the internet has even a minor role in the learning process. It can be, for example, the provider of information, a publication channel for one's own work or a place for interaction. (Kalliala 2002, 12.)

Though the term distance education or e-learning came into use in the mid-1990's along with the developments in the World Wide Web, the evolution of distance education in nursing started about a hundred years ago, when nurse educators began seeking new ways to meet the changing needs of those students who were unable to attend on-campus classes (O'Brien 2006, xii; Garrison 2011, 2). Nowadays online courses are no longer only for those who are unable to attend on-campus classes but are also offered for those who prefer them (O'Brien 2006, xii). According to Garrison (2011, 2) the goal of e-learning is 'to create a community of inquiry independent of time and location through the use of information and communication technology'. O'Brien (2006, xii) states that distance education should not be considered as a threat to traditional learning but as a possibility on a list of ever-expanding choices which encourages students to pursue lifelong learning.

Novotny and Wyatt (2006) divided distance education into two basic models: synchronous and asynchronous models of interactivity. The synchronous model of interactivity occurs when the teacher and the student interact in real time. This model is similar to the traditional classroom setting but it also decreases flexibility because all the students are required to be online at the same time, either in a videoconference or in a virtual classroom. The other model of interactivity is asynchronous learning which takes place when students have access to learning materials independently, at times and places of their own choosing. Asynchronous learning allows students to use as much time as they need to familiarise themselves with the materials and compose responses or messages. It also allows time for reflection and may result in more thoughtful discussions. (p. 5.)

Kalliala (2002), on the other hand, divides distance education into three sub-categories: web-supported education, blended education and web-based education. Borderlines between these sub-categories are indistinct and thus other kind of divisions can be made as well. However with the help of these distance education categories, classification of the varying requirements of distance education - for teachers, students, technical support, teaching materials and interaction - is made possible. (p. 20.)

Web-supported courses are not unlike traditional courses, but they have been essentially enhanced by use of the internet (McHugh 2006, 22). Use of the internet can be combined with contact education thus creating a setting in which traditional and virtual education methods are operating side by side. Generally, web-supported courses have the same advantages and disadvantages as traditional courses. In web-supported courses the internet is used as an additional learning opportunity and it may, at best, greatly increase communication between the faculty and the students. It especially supports the participation of shy students, who are more likely to participate through the internet, because shyness often manifests itself as reticence in the physical presence of others. Using the web may also ease some of the problems with obtaining printed materials as most schools have strict rules about the number of handouts that may be distributed. It can also be cheaper for students to have access to materials online. (McHugh 2006, 22-23.)

Blended education is an attempt to offer all the advantages of both the traditional classroom and web-based courses (McHugh 2006, 18). Teaching can be transferred into a network in part or as a whole. This type of education includes contact classes, distance education and independent studying. As such, the number of contact lessons is reduced and contact meetings can be transformed into occasions for checking assignments, getting information, asking questions or giving feedback. If the students are physically far apart, these meetings can be organised in the form of video discussions. Transference of teaching into a network requires efficient opportunities for network interaction, such as email, discussion or chat groups as well as possibilities for video discussions. (Kalliala 2002, 23-24.)

The web-based course is a relatively new approach. It does not offer anything essentially new to the educational process, yet properly utilised it may combine the advantages of several methods. (McHugh 2006, 24.) This model of learning is defined as 'planned learning that occurs in a different place from teaching, requiring interactive technology in realtime or delayed, and a course design supportive of distance education' (Escoffery et al. 2003, as cited in Novotny & Wyatt 2006, 5). This redefines the teachers' role as a distributor of teaching materials and refocuses the teachers' part in education to the time before a course begins. The student's whole learning process can be recorded into a database, from which it is possible to produce a certificate of study. (Kalliala 2002, 27.)

As in any other format, personal communication between the teacher and the students is a huge strength of web-based courses. Although the contact is remote, it should be frequent. Even though the teacher and students are not physically in the same place or may not be together simultaneously, they are still able to communicate effectively. Many people believe that they are able to communicate better through the computer than in person. This is because they feel that there is less miscommunication due to the possibility of considering and editing the message prior to sending. One great advantage of web-based courses is prominent with people who have physical disabilities (e.g. speech or hearing), strong accents, or who are quiet or shy by nature. Even though these characteristics have nothing to do with a person's intelligence, these kinds of barriers may interfere with a student's ability or willingness to participate. (McHugh 2006, 24.)

Other advantages include the ability for students to work at their own convenience. Though students need internet access in order to do their school work, web-based courses allow them to work almost anywhere at any time where access to the internet is available. Web-based courses are also convenient for people who lead busy lives and have difficulties arranging their schedules. With web-based courses studying when holding a job is possible because school work may be done at times most suitable for the student. Attending classes when living far away from the school facility is also an inconvenience. With virtual studying these above-mentioned problems are no longer an issue. (McHugh 2006, 25; Kalliala 2002, 12.)

3 Nursing competencies and virtual studies in nursing education in JAMK University of Applied Sciences

Registered nurses are expected to have multidimensional skills. Nurses implement and develop nursing care, by improving and maintaining health as well as preventing and healing illnesses. Nurses carry out the medical care ordered by physicians, but still work independently while taking care of the patient. (Opiskelu sairaanhoitajaksi 2014.)

Nurses' professional expertise is based on the following skills and responsibilities:

1. Acting according to professional ethics and taking responsibility for patients' rights
2. Promoting health
3. Evidence based nursing
4. Guidance and teaching
5. Co-operation
6. Research, development and leadership
7. Multi-cultural nursing
8. Sociological work
9. Clinical nursing
10. Pharmacology.

This list is used as a core for nursing studies in training programmes. (Ruuskanen 2011, 89.)

Nursing requires knowledge of many different fields of science such as nursing, medicine and pharmacology as well as health education, social and behavioural sciences. Knowledge of these disciplines needs to be applied in everyday situations and working life. In addition, nursing should be based on strong ethical decision making. (Opiskelu sairaanhoitajaksi 2014.)

Ruuskanen (2011,88-89) and Hildén (2002, 44-45) emphasize the importance of independent information retrieval as a part of health care education. Universities of Applied Sciences are emphasising evidence based nursing, which is closely linked to independent information seeking. Expertise in nursing requires the ability to apply associated knowledge to everyday working life. Competent nurses are able to implement their knowledge to new and different working conditions and places. (Ruuskanen 2011, 88-90.)

Many national and international laws, statutes and directives together with ethical considerations define nursing. Nursing is well regulated and monitored at many different levels. All graduating nurses should be aware of their professional rights and responsibilities. It is the schools' obligation to provide a favourable atmosphere for learning these rules. Ethical consideration and social skills are necessities for nurses. They are a part of the education provided, but are also intrinsic skills. (Ruuskanen 2011, 91-95.)

Universities of Applied Sciences must adhere to a specific structure of studies determined by law. In Finland it customarily takes three to four years to complete a degree and the scope of bachelor's degree is either 210, 240 or 270 academic credits. All degrees are comprised of basic studies, professional studies, elective studies, practice periods and a thesis. (Ammattikorkeakoulututkinto ja koulutusohjelmat n.d.) The JAMK University of Applied Sciences has three core pedagogical principles: firstly, the student is to be the main actor in the learning process, secondly, study plans and curricula are based on the needs of working life, and finally, the study structure is to be flexible (2010, 8).

According to the curriculum of JAMK University of Applied Sciences nursing studies include transferable skills, client oriented nursing, health and function promoting nursing, family oriented nursing, health promoting clinical nursing, developing nursing expertise, research and development, a thesis and elective studies. Nursing studies are to prepare students for work in various settings in the field of nursing. (Curriculum for degree programme in nursing 2013, 1.)

The key learning outcomes of the Degree Programme in Nursing are listed in the curriculum. At the end of studies students should be able to handle critical thinking and apply evidence-based knowledge to changing working environments. Students should possess the ability to develop themselves and have basic entrepreneurship and leadership skills. After graduation students should have the competence for implementing basic nursing interventions and be able to promote the health of a population in a culturally sensitive manner in different healthcare settings. (Curriculum for degree programme in nursing 2013.)

The pedagogical principles of JAMK University of Applied Sciences define what the school considers important concerning teaching. These principles are a part of the JAMK University of Applied Sciences' 2010-2015 strategy. They are based on the logic that students are responsible for their own learning. The obligation of the teacher and the school is to guide and support students throughout their studies. Teachers are no longer at the centre of learning; pouring knowledge into students' heads. Students need to be able to actively seek answers and acquire theoretical knowledge and practical skills. (Pedagogical principles 2010, 6.)

Education is meant to provide students with the skills to match the expectations of the nursing expertise culture. Self-regulatory knowledge enables lifelong learning. Students are taught to find solutions by themselves during their studies and these skills should be applied to working life. Novice nursing students need support and guidance. The process of becoming a professional in the nursing field does not happen overnight, it is a long road. Expertise demands theoretical and practical knowledge. Managing self-regulatory knowledge enables self-assessment of professional skills. The school's responsibility is to support this professional growth. (Pedagogical principles 2010, 6.)

The students of JAMK University of Applied Sciences each follow a unique study path. Students should exercise self-determination as much as possible and they are encouraged to take an entrepreneurial approach towards their studies. (Pedagogical principles 2010, 7.) The curriculum of the Nursing Degree Programme refers to virtual studies as a flexible learning method. Another new approach to teaching is the utilisation of social media. Flexibility helps students to plan their own study paths to suit their needs and life situations. (Curriculum of degree programme in nursing 2013, 3.)

4 Perceptions and success of web-based learning environments

As virtual learning becomes increasingly a part of higher education teaching (Irons, Jung & Keel 2002, 175), the question to ask is how web-based courses and learning environments meet the students' needs and expectations. Ward, Peters and Shelley (2010) suggest that many faculty members might be reluctant to teach virtual courses because they are afraid that the quality of education will suffer. Teachers are not sure whether online courses can bring about the same learning outcomes as face-to-face education. (pp. 58 & 72.) A big part of evaluating the success or failure of any form of teaching is finding out how students have perceived it (Irons et al. 2002, 176).

Biggs (2006, 49) states that teachers should have an understanding of students' predilections and expectations and try to meet these needs. Sometimes meeting those needs online can prove difficult as Salmon and Jones (2004, 112) describe teaching staff having problems transforming their traditional courses into virtual ones. Irons et al. (2002, 176) clarify the problem as achieving the same type of interactive learning environment in the virtual format as in the face-to-face course. In addition, Quinsee and Hurst (2005, 2) quote Palloff and Pratt (2001) who point out that trying to virtually create a face-to-face environment can lead to failure.

Studies conducted on student satisfaction of virtual courses have yielded varying results. Irons et al. (2002, 183) state that students' overall satisfaction with virtual education is lower than with traditional education. Whereas, Hong, Lai and Holton (2003, 117) describe students having high levels of satisfaction with virtual education.

According to Biggs (2006, 47-49) there are several aspects to consider when evaluating student satisfaction with education: instructor support, student interaction and collaboration, personal relevance, authentic learning, active learning, student autonomy and satisfaction. In Biggs' study, comparing traditional, virtual and hybrid courses, the traditional education method scored the highest in five of the criteria described above, the hybrid course scored highest in two of the criteria and in one criteria the traditional and hybrid courses had equal scores. The virtual education method was ranked the lowest in six of the criteria. On the other hand, Ward et al. (2010, 73) describe higher satisfaction levels for virtual learning rather than traditional learning with respect to ease of access and minimising costs.

There is also a link between student satisfaction and their motives to use web-based education to learn effectively, as demonstrated by Dwivedi, Khurana & Saxena (2012). They state that the perceived high quality and usefulness of web-based resources have a positive correlation with students' future intentions to capitalise on web education. (pp. 245, 255.)

As defined by Dwivedi et al. (2012) the usefulness and quality of virtual learning environments contribute to how well it is perceived by students. Usefulness is characterised by contents variety, presentation of information, storage capacity, real-time feedback and use of multimedia. Quality is the characteristic used to describe how well students' needs and expectations are met. Quality can be enhanced by flexibility, interactivity and direct contact between the teacher and the students. (p.245-246.)

For a web learning environment to be successful, several factors need to be incorporated. Flexibility is described as a key aspect of virtual learning environments by Quinsee and Hurst (2005, 1). In order for flexibility to be an asset it needs to include sufficient student autonomy but still maintain structure through deadlines and checkpoints (Quinsee & Hurst 2005, 3). Adequate support is also crucial for flexibility to be advantageous as it may become a barrier to learning if students do not feel encouraged and reassured (Quinsee & Hurst 2005, 5).

A successful virtual environment also requires adequate feedback, responsibility for learning from both teachers and students, interactivity through communication and multimedia, relevant content as well as a structured and coherent learning environment (Childs, Blenkinsopp, Hallt & Walton 2005, 27-30; Quinsee & Hurst 2005, 4, 7). Childs et al. (2005, 30) also iterate that examples of practice need to be included. In addition, Quinsee and Hurst (2005, 6) suggest that teaching students how to use virtual learning environments, could also be beneficial to their learning.

5 The purpose and aims of this thesis

The purpose of this thesis is to produce information about nursing students' experiences with web-based learning. The aim of this thesis is to help teachers take into account the nursing students' perspective whilst creating web-based courses.

Specifically the items researched were:

1. How have nursing students experienced the web-based courses they have participated in?

2. How to better enable teachers to take into account the nursing students' perspective when planning future web-based courses?

6 Implementation of the study

This study was conducted as a qualitative research. The method utilised was a focused group interview and the participants were all volunteers. The interview was recorded and transcribed. The transcription data was then coded and categorised according to emerging themes. The categories were then analysed, quotes were selected and conclusions were drawn based upon the theoretical background of this thesis as well as the interpretations of the data collected.

6.1 Research methodology

The research conducted in this thesis is qualitative. The qualitative approach was chosen in order to better investigate the phenomenon under study. The researchers' objective was to identify nursing students' opinions about what aspects of virtual courses are deemed helpful, what are perceived as lacking as well as what nursing students would like for virtual courses to contain. This approach often leads to questions beginning with the words how, why and what, words that are often used in qualitative research (Hesse-Biber & Leavy 2011, 3).

Qualitative research is about finding the meaning people apply to and associate with their experiences and situations. The focus of qualitative research is customarily words and texts rather than the statistics of quantitative research. (Hesse-Biber & Leavy 2011, 4.) It focuses on providing a comprehensive view of the research subject (Laadullinen tutkimus n.d.). Qualitative research is descriptive and focuses on finding out the why and the how instead of merely looking for the quantifiable explanation quantitative research provides (Hesse-Biber & Leavy 2011, 3; Silverman 2006, 43).

6.2 Participants and data collection

The participants in the interview were 2nd and 3rd year nursing students studying in English in JAMK University of Applied Sciences, who have previously participated in at least one virtual course. After the research permits were obtained an invitation for the interview, found in appendix 2, was sent via email to the target group and the three fastest respondents were chosen.

The data collection method for this thesis was a focused group interview. The purpose of this type of interview is to find out the opinions and attitudes of the participants on a subject or situation in which they have been involved (Valtonen 2005, 226; Gray 2009, 373). The objective of a focused group interview is to produce an open exchange in a controlled environment where the moderator can bring the conversation back to the point if the topic of discussion drifts (Valtonen 2005, 223; Gray 2009, 373-374). In this thesis, to enable the moderators to keep the conversation on track, reference questions, found in appendix 1, were used. These questions were formulated by the researchers from the basis of the literature review as well as the purpose and aims of this thesis. The questions were made in order to provide support for the moderators and a frame of reference for the interview.

The interview took place on May 27th at midday and was held at the school facility in a conference room. At the beginning of the interview the purpose and aims of the research were again explained to the participants. The students were also guaranteed anonymity and reminded that they are allowed to revoke consent at any time during the research. The interview itself lasted for one hour eighteen minutes and twenty two seconds.

6.3 Data analysis

The interview was recorded and transcribed. Recording an interview is useful because it enables multiple reviews. The recording acts as a memory aid as well as makes it possible to examine and analyse the data and verify the interpretations drawn from the material. (Tiittula & Ruusuvuori 2005, 14-15.)

Even though transcribing the material can be arduous and time consuming it helps to comprehend the conversation as well as perceive details in the speech (Gray 2009, 496; Ruusuvuori 2010, 427). In addition, transcribing the interview helps the researchers to familiarise themselves with the material (Gray 2009, 496).

The data must be narrowed down in a justifiable and coherent manner. The chosen data can be rationalised through the research questions, aims and purpose of the study. All of the respondents opinions on a specific theme must be taken into account. (Ruusuvuori, Nikander, Hyvärinen 2010, 15.) After the transcription of the interview the data for this study was selected based on the research questions, purpose and aims set forth in this thesis.

In order to analyse the data it must be coded and broken down into smaller units or categories. This classification is done by identifying links and patterns in the speech. This is a creative process in which the analysts experiment with different ways to interpret the data, some interpretations arising from the material itself and others imposed from the basis of the theoretical background. (Gray 2009, 499-500; Roulston 2010, 153.) This classification and interpretation then leads to conclusions being drawn based on the categories. These conclusions and interpretations can then be presented through discussion. (Marshall & Rossman 2011, 209.)

Three nursing students from three different groups and two different grades took part in the interview. The hour and a half long interview was recorded. The recording of the interview was then divided into three approximately equal parts and each researcher transcribed one part. The recording was transcribed onto 37 A4 sized pages. Times New Roman was used as the font, and the font size was 12 with a spacing of 1,5.

The interview was conducted by asking questions and introducing topics after which the interviewees discussed openly amongst themselves about the subject. At times, each of the students spoke at great length with the others indicating their approval. The conversation was mostly lively without significant pauses. Questions were used to bring the discussion back to the topic when the exchange became tangential or the dialogue was waning.

The researchers listened to their own part of the recording several times and already at this point any identifying markers of the interviewees were left out. No names were used in the transcription, rather the interviewees were identified by letter codes. After transcribing the recordings each researcher went through their own data and began classifying emerging themes. These themes were in accordance with the research questions.

The transcriptions were then exchanged between the researchers in order for everyone to be able to analyse the whole interview. Each researcher went through the others' transcriptions and made their own notes. All notes were shared. The researchers then had a meeting where the notes were discussed. From this iterative process seven themes emerged from the analysis of the data. Within these themes quotes were chosen and specific words were coded to answer the research questions. The quotes and codes were analysed and are summarised in the discussion of this thesis.
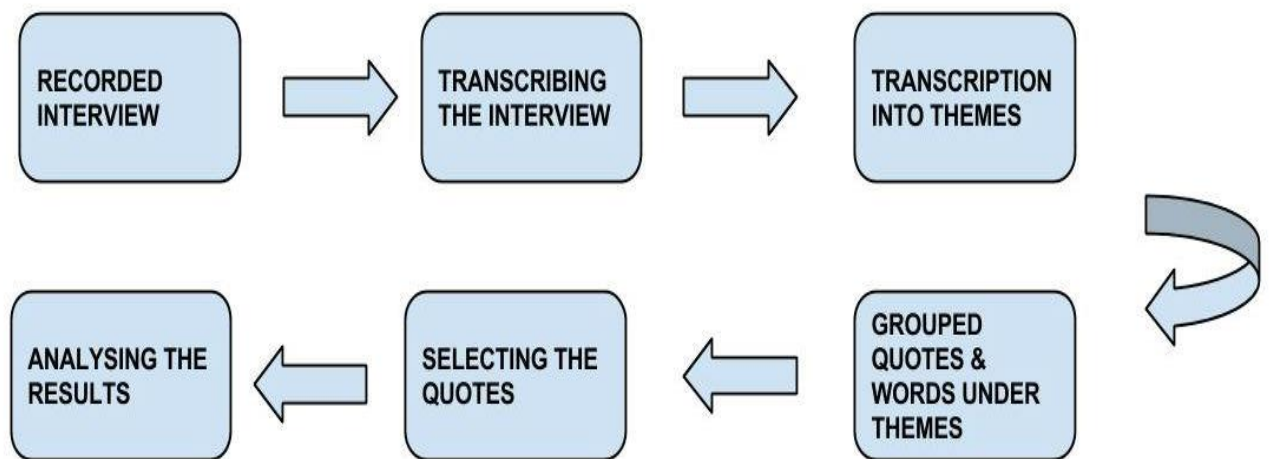
Figure 1 Graphic representation of the analysis process.

7 Results

Seven phenomena came to light from the interview data: teacher support, virtual work environment, virtual study module structure, virtual study module content, ethics in virtual studies, professional development and structure of nursing studies.
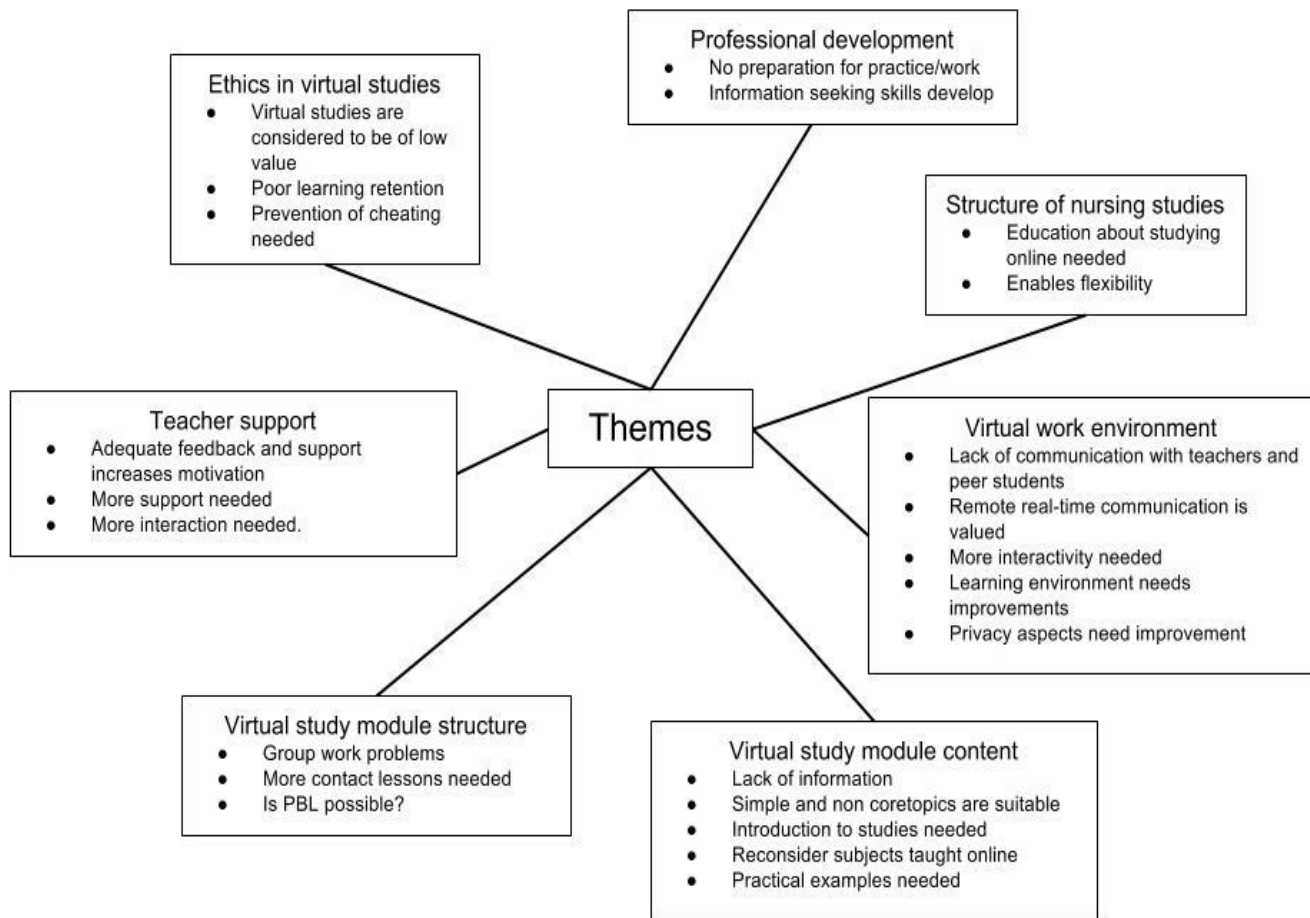

Figure 2 Graphic representation of the results.

Teacher support

Teacher support was a prominent topic of discussion during the interview. The students expressed dissatisfaction with the support they had received in the virtual courses they had participated in. They also disclosed negative feelings towards virtual studies especially when they did not know what was expected of them. The students felt that they had not received enough assistance, encouragement, feedback or possibilities to communicate with the teachers during virtual courses.

'... it makes the students feel bad because nobody has time to sit down and teach you…'

'...it (support) was very limited...'

The students also seemed desperate to interact with teachers and with other students. A lack of interaction was brought up frequently during the interview. Students were feeling that they had received inadequate support from teachers. The students also expressed a need for more personal and straightforward interaction with the teachers.

'... virtual studying really doesn't allow much interaction.'

Students would also have liked to receive more support from teachers during group works in online courses. Students felt that the teachers were not monitoring the work that was being done by the group, or by individuals in the group. Also, feedback for the content of group assignments was considered to be minimal.

'...you would think that the teachers see through your communication who has done what, and then check the grades accordingly.'

'Very minimal (feedback)...get a brief comment about how you did...'

On the other hand, feelings towards virtual courses were more positive when the teacher was familiar to the students. Clear guidelines and additional support seemed to have had a beneficial effect on the experience of virtual studies. The interviewees had had positive experiences during an online course where the teacher had provided adequate support by thoroughly commenting on returned assignments.

'Every time you had an assignment the teacher would read it and comment on it...Which I thought was good, 'cause it made us feel like OK, the teacher is reading it, we're not just wasting our time here.'

Students would like to know how they are expected to study, where they can get support when needed and how to stay in contact with the teachers. Proper feedback during virtual courses seemed to have had an increase in the students' motivation towards online learning.

Virtual work environment

The virtual learning environment aroused spirited discussion. The students felt that the virtual work environment employed by JAMK University of Applied Sciences is difficult to use and that it takes a long time to find assignments and exams. The students felt that the virtual learning environment is not user friendly and that it is not a suitable environment for exclusively virtual courses. The interviewees were frustrated that instead of supporting their learning, the virtual learning environment, was making it more difficult to study.

'The virtual learning environment is a mess. It takes you half an hour to find an exam.'

The interviewees felt that the software used in JAMK University of Applied Sciences suited well to support courses with contact lessons. They saw the software as a useful tool to get access to their assignments and notes related to contact lessons. On the other hand, they felt that although the virtual working environment supports contact lessons well it is not applicable as such for studies that are conducted exclusively online.

'Why on earth they do give us the very same environment for real life learning as the virtual learning? Why do they not create software that is designed especially for virtual learning?'

The virtual work environment was deemed as not enough *'fun'* and that it does not allow enough interaction opportunities. The interviewed students wished for more communication with the teachers and other students through instant messaging. Although none of the students had previously participated in a remote real-time discussion with a teacher they felt that it could be a good communication opportunity.

'...that would be the best, if it's like in actual real real-time.'

The public discussion forum system, which is used in the JAMK University of Applied Sciences' virtual learning environment was considered to be too ponderous. It was also considered to be lacking in privacy between the student and the teacher. To improve the virtual studying experience for students the virtual working environment should be more interactive and functional.

'Like I said: improve the software, bright new software … Make it more interactive, make it more fun, get rid of the forum system ... make instant messaging or private messaging with the teacher possible, no other students should be able to read your personal messages to the teachers. You should actually be able to get to learn the other students on the course somehow... '

The students had also realised that the current virtual learning environment used by JAMK University of Applied Sciences presents opportunities for other students to take advantage of finished assignments, as they can see the output of others before returning their own.

'They left it open so the lazy ones in my group could read everyone else's work and then just copy the references.'

Virtual study module structure

The interviewees were generally dissatisfied with the way that virtual courses have been structured. Group work was seen as one of the major issues in online courses; students consider it difficult to work online with people they have never seen and do not know. There were also problems with some students being excluded from groups and some students not doing their share of the work.

'...you never have seen the person and then two days before the assignment has to be returned they are like "What can I do?" '

'If you didn't know somebody in person you were excluded from groups.'

The subject of group work raised discussion about the Problem-Based-Learning (PBL) method. The students concurred that studies based on PBL, where students work individually in a group, have some group meetings and some contact lessons, were very educational. The interviewed group was suggesting as a possibility that virtual studies would develop into resembling PBL studies, rather than consisting solely of solitary studying.

'I remember all the details of my PBL case. The way it's done is so so so good.'

The PBL method enables students to find answers by themselves, but it also facilitates peer support and provides guidance from teachers in person. The lack of guidance and support from teachers during virtual courses had made the interviewees feel insecure about whether they had learned what they were expected to. PBL studies were also deemed as a fair method of conducting group work as everyone does individual tasks within the group and thus no one is able to take credit for someone elses work.

'But then you have the discussion afterwards, which is really good since you have different answers. And it's fun and interactive.'

Also, the students reacted positively to the rare contact lessons they had had during virtual courses. One interviewee commented that their class had had contact seminar presentations where none existed the previous year and considered this to be a step in the right direction.

'...I think they made improvements from the year before.'

Virtual study module content

The content of virtual courses also aroused discussion. The students felt that some of the topics taught online required them to learn practical skills and thus were unsuitable for virtual studies. They felt that the school should take responsibility for the competency level of the professional nurses they are sending out. As an improvement they suggested that the school should consider anew the subjects that are taught exclusively online. The interviewed students were questioning the school's reasoning for the subjects chosen for virtual studies. They would have liked to know who is in charge of these decisions and the basis for the decisions.

'... when what you are learning on the course has nothing to do with your practice, then it's applicable for virtual studies but if it actually translates to your work, to practice then it shouldn't be online…'

The interviewees also agreed that simple, straightforward and impersonal topics work well as virtual courses. By impersonal the students meant subjects that are peripheral to the fundamentals of nurse training. The interviewees mentioned a course where the content had been clearly defined. They felt that this made it easier for students to delve into the subject without the fear of getting side tracked.

'...it's just read a book, do a few assignments and be done with it. It so, it's such an impersonal…topic.'

'...that (the virtual course) worked fine because...the course was clearly defined'

The students had also experienced a lack of information in the virtual courses. The lack of information problem had been twofold. In the first case the lack of information may be complete such that the virtual course contains nothing more than questions or essay assignments together with the expectation that the student is to research the topic unassisted. In the second case there may be some core information and or links provided and the problem in this case is that there is no guidance given on questions arising from this core information.

'...if you don't get good information you don't even know what to ask or how...'

In addition, the students were craving for information about virtual studies in general. They felt that they had not received guidance for studying online. The interviewees would have liked to receive clear instructions about the demands for any given course. They wished to know better what was expected of them. The students also mentioned one specific course where an introduction meeting had taken place. This was regarded as very positive.

'... I don't remember anything on telling us what was gonna be in the virtual course.'

'...I think that (virtual course) worked fine because we had a meeting with the teacher beforehand, where the teacher clearly explained what the portion of the course would be about, the teacher went through the assignments, we saw the teacher's face, the teacher gave us instructions how to stay in contact...'

There were either little or no practical examples used in the virtual courses. The interviewed nursing students were desperate to hear about the real work nurses do and to learn from the real-life cases. All of the interviewees agreed that practical examples are not only the most interesting but also the most educating tool used in nursing education.

'The real-life cases. They (virtual courses) should have that...'

Ethics in virtual studies

The prevailing opinion amongst the interviewees was that neither the students nor the teachers value online courses as much as on-campus classes. This was causing the students' motivation towards using virtual courses to decrease. In addition, online courses do not seem to lead to the same level of learning and knowledge as on-campus classes; students are simply googling the information they need for assignments and exams. Unfortunately, as the students admitted, this type of studying does not lead to as good long term retention of information.

'...if the school does not value enough...why should you?'

'... but when returning the last folder of assignments I didn't remember anything about the course.'

The interviewees also confessed that online courses tempt students to cheat during the online exams, which causes ethical ambiguity. Even though the students agreed that cheating is not acceptable, they admitted that the temptation for cheating was very palpable when doing online exams. The students said that moral and ethical lines tend to waver when working online alone.

'Google this, google that.'

'...you're so much more anonymous in front of the computer, you can feel so much more uninhibited to opening google.'

In addition, the students have had problems in dealing with peer-students who have no intention of making an effort during virtual courses and who are only taking credit for someone else's work. The students also seemed to be frustrated with the grading of group works in virtual courses where everyone gets the same grade in a group, no matter the different contributions the students make to the work.

'Virtual studies are just a get out of jail free card for many students. They don't have to work. They don't have to study.'

Professional development

During the interview the students expressed their concerns about virtual courses not preparing them properly for practice periods or work. They felt that virtual studies focused too much on the academic side of education and the students were afraid that the knowledge learned online would not be of use in the practice of nursing.

'...is that the most important thing that we can learn in here, to do our thesis, correctly put the references, because I don't think that's the main point of these studies...'

'...in practice...you don't know anything and they (nurse mentors) are like "Haven't you been taught these things?"...'

On the other hand, the online courses seemed to have had a beneficial effect on information processing. The students commented on being able to find information quickly and effectively. Efficient information seeking and processing skills are paramount in the nursing profession.

'I became very good at...googling...answers.'

Structure of nursing studies

Even though this generation of students has grown up using computers and the internet, the interviewees expressed interest in receiving education about how to study online before virtual courses begin. Currently there seems to be a lack of information both about and an introduction, to the administration of the studies.

'...I don't remember anything on telling us how to use the (virtual course environment)...'

The flexibility of virtual studies that allows students to plan their study programme to suit different life situations was also discussed. The students agreed that virtual courses can be useful in helping to plan a unique study path. The flexibility, though, is limited to the elective studies as the nursing degree programme curriculum was otherwise perceived as rigid.

'It helps me sneak in some courses if I've been too busy to take a real-life class.'

8 Discussion

Nursing demands a wide range of skills. Competent nurses are expected to be able to implement their knowledge in changing working environments and conditions. (Ruuskanen 2011, 88-90; Opiskelu sairaanhoitajaksi 2014.) The Interviewees were second and third year nursing students and aware of these demands. They had already been practicing or even worked in the field of nursing. Negative feelings towards virtual studies arose mostly from a fear of not being competent enough to enter working life after studying subjects deemed to be too important and complex for virtual studies online.

One of JAMK University of Applied Science's Core Pedagogical Principles (2010, 8) is underlining the student's own responsibility as a learner. The Interviewed students were aware of their own responsibilities as nursing students, but they experienced the responsibility in virtual courses as excessive. The Principles (2010, 8) define, the teacher as a facilitator and supporter of learning. The feedback from the interviewees showed, that in virtual courses the teacher was experienced as absent.

JAMK University of Applied Sciences defines the abilities that students should possess at the end of their studies. After graduation students should be able to implement basic nursing interventions and be able to promote health in a culturally sensitive manner in different healthcare settings. (Curriculum for degree programme in nursing 2013.) As one of the improvement suggestions the interviewees proposed that subjects that require practical knowledge of nursing should not be implemented as virtual studies. On the other hand students had no problem with virtual studies as long as the topic was impersonal.

The overall attitude towards virtual learning among the interviewees was quite negative. The students pointed out that they had become effective in *'googling'* answers very quickly. This, though, was seen as a negative consequence of virtual courses, even though these information seeking skills could also be seen as providing the means for lifelong learning. In JAMK University of Applied Science's Pedagogical Principles (2010) lifelong learning goes hand in hand with the development of working life (p. 8). Learning continues at work where information seeking skills are essential.

Virtual studying contributes to the flexibility of the curriculum according to JAMK University of Applied Sciences. A flexible structure of studies is mentioned in both the Curriculum of the Degree Programme in Nursing 2013 (2013) as well as the Pedagogical Principles (2010, 8). Flexibility allows students to plan their own study paths to suit their needs and life situations. (Curriculum of degree programme in nursing 2013, 3.) The interviewees agreed that having elective studies as virtual courses had helped them plan their schedules to be more suitable, but otherwise the curriculum for nursing studies was seen as quite rigid.

As virtual learning is becoming an increasingly bigger part of teaching in higher education (Irons, Jung & Keel 2002, 175), it is important to find out what are the needs and expectations of students, and how virtual courses would meet them. Some of the teachers might be reluctant to teach virtual courses, because they are afraid that it could negatively affect the learning of a student. Teachers do not seem to be completely sure if virtual education will yield the same learning outcomes as traditional education. (Peters & Shelley 2010, 58 & 72.) These same concerns were present in the interview. The students seemed not to value virtual education as highly as traditional education. This seemed to be a direct consequence of the students' understanding that the school does not value the subjects taught online. This may possibly contribute to the students feelings that virtual education does not prepare them for the future. Providing teachers with more education about how to administer online courses could prove beneficial.

Biggs (2006, 47-49) sets forth various aspects to consider when evaluating students' satisfaction with education: instructor support, student interaction and collaboration, personal relevance, authentic learning, active learning, student autonomy and satisfaction. In general the interviewed students felt that virtual courses lacked information, support and contact. The students were keen to know how they were expected to study, where they could get the needed support and how to best stay in contact with teachers. A surprising shortcoming was that the students did not seem to have received a proper introduction to virtual studying before the virtual courses began.

Another important aspect of virtual courses is the usefulness and quality of the virtual learning environment. Usefulness is defined by variety of content, presentation of information, storage capacity, real-time feedback and use of multimedia. Quality is the characteristic used to describe to which extent the needs and expectations of students' are fulfilled. Quality can be enhanced by flexibility, interactivity and direct contact between the teacher and the students. (Dwivedi et al. 2012, 245-246.) The interview revealed a dissatisfaction with the virtual learning environment. The students felt that the virtual work environment makes their studying unnecessarily difficult and that it does not support their learning. They were of the opinion that the virtual learning environment should be more interactive, fun, and easier to use. The students also declared the lack of a proper route of communication between the teacher and the students as one of the great insufficiencies of the virtual learning environment.

Another oversight that the students brought up during the interview, was the lack of practical examples in the virtual courses. The students felt that the courses were relying too much on the theoretical background only and that the theory alone had not been enough to make the subjects pragmatic. All of the interviewees were keen to hear about the real-life situations and problems that nurses face at work. The students agreed that practical examples are not only the most interesting but also the most educative teaching tool used in nursing education.

9 Ethics, reliability and validity

The main ethical issues in qualitative research are informed consent, confidentiality and trust. Informed consent means that the participants of the qualitative study know that they are being researched, they have been informed about the research and they have the right to revoke consent at any time. (Ryen 2011, 418.) In this study the invitation for the interview sent to students via email detailed the nature of this study, explaining that the data collected during the interview is only to be used for research purposes. By responding to the invitation the participants gave their consent.

Confidentiality is ensuring participant anonymity (Ryen 2011, 419). In this thesis anonymity is protected by leaving out the names and possible identifying markers of the participants when discussing and using quotes from the interview. In the invitation to participate in the interview the researchers guaranteed participants anonymity throughout the research process.

Trust is about being able to guarantee informed consent and confidentiality. It is the practice of honesty to establish a good working relationship between the researchers and the participants. (Ryen 2011, 419.) In this study the researchers made their intentions towards the participants clear in the email invitation. The researchers ensured the participants that anonymity will be preserved throughout the process as well as guaranteed that the data will only be used for research purposes.

Reliability is generally described as the repeatability of research. In qualitative research, however, reliability has a different interpretation. (Miller 2008a, 753) Reliability in qualitative research refers to the transparency of the research and the theory behind it. By thoroughly describing the research process and data analysis as well as how the theoretical background directed the data analysis, it is possible to bring reliability to qualitative research. (Silverman 2006, 282.)

Validity refers to the degree to which a study measures what it is suppose to measure. In qualitative research, however, the concept is not so straightforward. In qualitative research validity has been interpreted to mean trustworthiness and authenticity. To increase trustworthiness researchers can engage in self reflection and theoretical thinking. (Miller 2008b, 909.) Qualitative validity is about earning the confidence of the reader by providing strong and logical arguments based on sound and well researched theory (Hesse-Biber & Leavy 2011, 48).

Qualitative research can be done even with a sample size of one, for example, in case study analysis. In this study there were only three participants but all of those participants had completed four, or more, virtual courses. Thus the sample group had considerable experience of virtual studies in JAMK University of Applied Sciences. It should also be noted that because the participants were all volunteers and not randomly selected, that the interviewees enlisted for the interview because they may have been more committed to express their opinions about virtual courses. However, the aim of this study was to help teachers consider the students' perspective when creating virtual courses. The interview provided a great deal of information about how students have felt about online education. This data was then analysed in order to produce practical development suggestions.

The researchers' conduct during the interview is also an ethical concern. It should be recognised that the moderator of the interview has great influence over the situation and thus has an impact on the discussion and group dynamic (Hesse-Biber & Leavy 2011, 181). The researchers need to have a balance between encouraging and restraining the conversation. They also need to be able to manage the participants in such a way that everyone has a chance to voice their opinions - to make sure that no one person dominates the conversation either by being too vocal or by being silent. (Valtonen 2005, 235-236.) It is also important that the researchers remain neutral so that the participants do not feel judged (Kuula & Tiitinen 2010, 448). During the interview the researchers aspired to remain as silent as possible whilst keeping the conversation to the point. Even though the discussion drifted a few times the researchers were able to steer the conversation back to the topic by utilising the reference questions. In addition, all of the participants received ample opportunities to voice their opinions without intervention from the moderators.

An additional ethical concern in this thesis is a concept called committed action. This view suggests that people with passionate attitudes may be more committed to take action on behalf of what they believe (Schuman & Presser 1981, 231, 240, 245). Based on this theory it is possible to envision that students with stronger feelings or opinions on the subject matter are more likely to dominate the discussion. During the interview the group dynamic was good and no one student dominated the conversation; instead it was a lively balanced discussion.

10 Conclusion and recommendations

This study concludes that:

1. While the students' experiences with web-based courses have been mostly unsatisfactory, there have been a few positive events.

2. The main development recommendations are to introduce PBL into virtual courses, education about virtual studying should be provided, introductions to virtual courses should be arranged in the form of contact meetings, additional support for students should be provided and the virtual work environment should be improved.

The interview brought up general dissatisfaction among students towards virtual studying. The problem seems to be not with the virtual studying itself but with the way the online courses are organised. A general opinion seems to be that virtual courses lack information, support and contact. As a whole it seems that students are not particularly satisfied with the current virtual courses. They feel that neither the education nor their own expertise is reaching the standards set forth by JAMK University of Applied Sciences.

The results of the interview as well as previous research both point to the same needs in order to guarantee student satisfaction with online education. Firstly, the virtual work environment needs to be engaging and easy to use, both aspects which the interviewed students found to be lacking in the current environment used by JAMK University of Applied Sciences. Secondly, teachers need to be easily and privately reachable as well as provide adequate support. The interviewed students all felt that there had been a lack of support and contact with the teachers during their virtual courses. Thirdly, the content of the virtual course should be well defined, informative and practical. The interviewed students felt that some of the subjects taught online were too broad and that the content of the courses has been too theoretical. In addition, educating students about how to use virtual courses has been shown to increase student satisfaction with online education, a feature that none of the interviewed students had received.

In order to increase student satisfaction with virtual courses these shortcomings should be addressed. The students themselves suggested that the form of virtual education could be transformed into PBL. This would narrow down the subjects taught online as well as adding a practical perspective. In addition PBL would increase the amount of contact with the teachers, an aspect that the interviewed students wished for. This would lead to blended education. Instead of solely concentrating on either web-based education or the traditional classroom setting courses could benefit from the advantages of both approaches.

The interviewed students also felt that education about virtual studies would be useful. There should be some instruction about how to use the the virtual work environment and how to study online before any virtual courses begin. In addition, at the beginning of a virtual course there should be a meeting with the teacher where the course, the assignments and the timetable would be explained as well as how to best stay in touch with the teacher during the course. This would also be a good opportunity for the students to form groups if indicated for the course.

The students also suggested that a better virtual work environment is needed. This could possibly be a good topic for a future thesis. Information and Communication Technology students and nursing students could collaborate in order to create a virtual work environment designed especially for virtual nursing courses. A full list of recommendations can be found in appendix 3.

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Appendices

Appendix 1. Reference questions

- Please tell about the information and guidance you received about virtual learning before your virtual studies began.
- What kind of support did you receive from the teacher during your virtual studies?
- How did you stay in contact with the teacher during your virtual studies?
- Please tell about the feedback you received from the teacher during your virtual studies.
- Please tell about the virtual studies' real-time discussion opportunities.
- How did you experience the virtual learning environment?
- Were you able to utilise virtual studies in planning your own study path?
- How did you experience the responsibility you had over your own learning during your virtual studies?
- Please tell about the practical examples utilised in your virtual studies.
- How have virtual studies prepared you for practical work?
- How do you feel that your information seeking and -processing skills have developed during your virtual studies?
- How have your professional ethics developed during your virtual studies?
- Please tell about how your virtual studies have enabled you to connect theory with practice (Evidence Based Practice).

Appendix 2. Interview invitation e-mail

Hello

We are three nursing students from JAMK University of Applied Sciences and we are writing our thesis about virtual studies in nursing education. The purpose of this thesis is to produce information about students' experiences with web-based learning an the aim is to help teachers take into account the students' perspective whilst creating web-based courses. We are inviting you to participate in a group discussion/interview. If you belong to either SNP11 or SNP12, have completed at least one virtual course and are interested in participating, please respond to this email - the three fastest respondents will be chosen. The interview itself will take place during week 22 and will take from one to two hours during which coffee will be served.

We guarantee that:
- all identity information will be kept private
- no names or identifying markers will be included in the thesis
- the data obtained from the interview will be used for research purposes only
- you have the right to revoke consent at any time during this study

The participants will be notified personally and details about the time and place of the interview will be arranged in co-operation with all parties involved.

If you have any questions about the interview please contact us.

Erika Huhtala   Jenna Lakaniem
          Tiina Harju
G1405@student.jamk.fi   G1226@student.jamk.fi
          G1291@student.jamk.fi

Appendix 3. Recommendations to improve virtual courses

- There should be an introduction to virtual studies. A meeting with the teacher before every virtual course where the expectations, assignments and the timetable for the course are explained. In addition, how to best stay in contact with the teacher should be discussed and groups, if necessary, could be formed.

- More contact lessons during the virtual course where students can interact with the teacher as well as the other students. Teachers should provide more support and encouragement for the students by way of contact lessons and feedback for assignments.

- The software should be improved for it to become engaging, more interactive and easier to use.

- In addition to the public forum there should be a channel for instant and private communication from pupils to teachers.

- The subjects taught online should be reconsidered: topics that require practical work related knowledge should not be virtual.

- Virtual courses should contain practical examples in order to make the theoretical knowledge more pragmatic.

- At least group works, if not the entire courses themselves, should be transformed into Problem Based Learning (PBL).

- The virtual courses should offer more core information as well as more opportunities to follow up with questions arising from the core information.

- The content of the course should be well defined and not too broad.

- Virtual courses should not solely consist of topics and assignments with the expectation that the students independently research the topic without further guidance from the teacher. Courses should contain a bare minimum of factual information.

- The software that enables finished assignments to be publicly viewed is open to abuse; some students use this in order to minimise their own workload by copying the work of others. This shortcoming needs to be rectified.

- Lessons about how to study online and use the virtual work environment should be provided for the students before any virtual courses begin.
- Teachers should receive additional education about how to administer online courses.