Mix research methods: teaching and learning in 2nd year bachelor nursing program

Samantha Ismaile [1]*, Haya Alsahli [1], Samina A. Khan [2], Hanan H. Alshehri [1]

[1] The College of Nursing, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia
[2] Medical Education Department, College of Medicine, King Saud University, Riyadh, Saudi Arabia
*Corresponding author E-mail: Samantha.ismaile@ymail.com

Abstract

Background: Nursing profession and its development, no doubt plays a crucial role in healthcare sectors. Students' learning approaches are now being recognized across higher education as having a considerable effect on student achievement' and their learning outcomes. The learning process in nursing education has always been a challenge to find pedagogical instructional methods that can engage learners actively and help the students to understand concepts for new applications in theoretical and practical situation.
Purpose: The aim of this research study is to compare the effect of sequencing theory via classroom lecturing before practical clinical skill taught in laboratories and visa versa on students learning readiness and approaches.
Methods: The research method of this study employed a mixed research methods by the implication of both quantitative and qualitative methods. The quantitative research method was conducted by means of two validated questionnaires. The first questionnaire used is the Self- Directed Learning Readiness Scale for Nursing Education (SDLRSNE). This is a self-reporting instrument designed to assess students' attitudes, abilities, and personality characteristics necessary for self- directed learning. The second questionnaire is the Revised two-factor version of the Study Process (R-SPQ-2F) in order to assess students' deep or surface learning approaches. The qualitative research was conducted via students reflection on their learning experience via the use of free text comments in Blackboard□ Learning Management System (LMS) environment. The study sample included 97 nursing students. Students were divided into two groups A and B. Each group consisted of 47 nursing students.
Results: Significant differences between group 'A' and group 'B' were found for SDLRSNE self-management, desire for learning and self-control, suggesting that self-management in group 'A' managed their learning better than group 'B'. There were no significant differences in terms of learning approaches between group 'A' and B.
Conclusion: This study highlights that students teaching and learning experiences are sensitive to learning environments. This was done through sequencing theoretical and clinical teaching and visa versa in a nursing course. Proper design of the learning environment and the availability of supportive learning tools encourage students learning and teaching experience.

Keywords: *Learning Approaches; Nurse Education; Self-Directed Learning; Learning Environments; Saudi Arabia.*

1. Introduction

The concepts of how adult students learn are of fundamental importance in understanding how they approach their learning (Scouller & Prosser, 1994). One of the most important findings of educational research is that adult students approach their learning in different ways. Students' learning approaches are now being recognized across higher education as having a considerable effect on student achievement' and their learning outcomes (Scouller & Prosser, 1994). It must be noted, however, that limited attention has been given to the research of medical and nursing study programs (Federico, 2000; Reid, 2007). In most educational institutions, the process of improving students' learning is usually made by arranging the curriculum, changing assessment methods, and improving the training of teachers (Farnan et al., 2016; Mackintosh-Franklin, 2016). The learning process in nursing education faces a challenge in finding pedagogical instructional methods that engage learners actively and help students to understand concepts for new applications in theoretical and practical situations (Feingold et al., 2008). Studies suggests two broad adaptations in higher education knowingly "the teacher-directed ap-

proach (i.e. the transfer of information from expert to novice)", and the "student-centered approach", where the students are taught to authorize their learning experiences (Falk, Falk, & Ung, 2015). The aim of this research study is to compare the effect of sequencing theory via lecturing in classrooms before practical clinical skill in laboratories and visa versa. Also, this research will explore students' experiences on learning approaches and students' readiness among 2nd year undergraduate students of a five-year nursing program at Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia.

2. Literature review

The nursing profession and its development no doubt plays a crucial role in healthcare sectors (Ismaile, 2014). Professional nurses have many roles such as advocating health promotion, educating patients and prevention of illness (McGill, 2016). Also, nurses participates in providing care and rehabilitation as well as patient safety (McGill, 2016; Ismaile, 2014). Nurses not only provide physical help to patients and their families, they also tend to understand the range of emotional, psychological, and cultural expe-

riences that patients encounter with their health and during time of illness (McGill, 2016). Therefore, it is essential to note the importance of designing a proper learning environment with the availability of supportive learning tools in any nursing program in order to produce professional, knowledgeable, and competent nurses for the future.

Studies suggested that students' exposure to the same learning environment, referred to as a teacher-centered learning technique (Lasiter, 2014; Scully, 2011; Stoddart, 2012), were knowledge is delivered mainly by the teacher . This learning technique is considered as a passive and a one source of knowledges information and results in a poor teaching and learning experience for students (Lasiter, 2014). On the other hand, a student-centered learning approach, raises the student's skills of planning, implementation, and assessment (Lasiter, 2014; Scully, 2011; Stoddart, 2012). A research study stated that, nursing students traditional learning style was to receive didactic instruction within a classroom settings, this enable them to develop their clinical practical skills, and aided in building up critical thinking, and the practice of nursing in a clinical environment (Hayden at el., 2014). For example, when teaching occurs within the clinical environment, students are assigned patients first and are required to provide care under the supervision of a clinical instructor (Hayden et al., 2014). Traditional clinical experiences offer a boarder span of learning opportunities, by allowing students to practice skills; increase clinical judgment and critical thinking. Moreover, it also allow nursing students to interact with patients, families, and members of the health care team; apply didactic knowledge to actual experience; and prepare the students for an entry into practical environment (Hayden et al., 2014).

In conclusion, the relationships between knowledge and student learning styles must be addressed in any teaching environment (Wellard at el., 2007). Thus, the core of nursing education is not only delivering knowledge but also to strengthening the ability of nurses to integrate theoretical knowledge with clinical skills, e.g. managerial decision making and utilization of best evidence practice (Falk et al., 2015).

2.1. Aim of the study

The aim of this research study is to compare the effect of sequencing theory via lecturing in classrooms before practical clinical skill in laboratories and visa versa. Also, this research will explore students' experiences on learning approaches and students' readiness.

## 3. Research design and methodology

3.1. Methodology

The research method of this study employed mixed research methods by the implication of both quantitative and qualitative methods. The quantitative research method was conducted by means of validated questionnaire. While, the qualitative research was conducted via Blackboard® Learning Management System (LMS) environment in form of free text comments box.

Data collection took place after completing assessment and diagnosis in nursing course by comparing students' feedback on theory and clinical practical skills learning outcomes. The course specification of assessment and diagnosis in the nursing course was designed with a fifteen weeks' period in one academic term. This included three hours of face-to-face lectures and ten hours of clinical practical skills in the laboratories per week. Quantitative design by means of a validated questionnaire was used to measure students "self-directed learning, learning readiness, and assessment of learning outcomes" (Fisher at el., 2001; Fisher, 2010). The qualitative method was designed to explore students' feelings, intentions, and their reflection on the learning process including their learning readiness.

3.2. Setting and sample

Data collection took place in the nursing college at Princess Nourah Bint Abdulrahman University (PNU), Riyadh, in Saudi Arabia. The PNU is the largest female University in the world and is exclusively for female students. The nursing program is a five-year nursing program. This consist of 4 years nursing program and a the 5th year is an internship nursing program. The successful completion of the nursing program allows nursing students to obtain their nursing license from the Saudi Ministry of Health (MOH) and to be eligible to practice as a Registered Nurses (RN) in the Kingdom. The sample of the study included 94 of undergraduate nursing students in their 2nd year. Due to the large number of undergraduate students' cohort n=94 and considering the lack of faculty staff in the nursing college, it was necessary that the cohort of students to be divided into two groups namely; group 'A' and 'B'. The first cohort of students group 'A' began with the traditional way of teaching, were they started with the theory part, while, group 'B' started with clinical practical skills in laboratories of assessment and diagnosis in nursing course. The complete cohort of students was examined on both clinical practical skills via Objective Structured Clinical Examination (OSCE) and theory via written exam in week 8 and 9 respectively (see Figure 1). The final assessment for both domains took place in week 15. The complete cohort of year two nursing students was invited to take part in the research study. Hence, all students were females.

Figure 1: Flowchart of group A and B sequencing of both the theory and practical clinical skills teaching
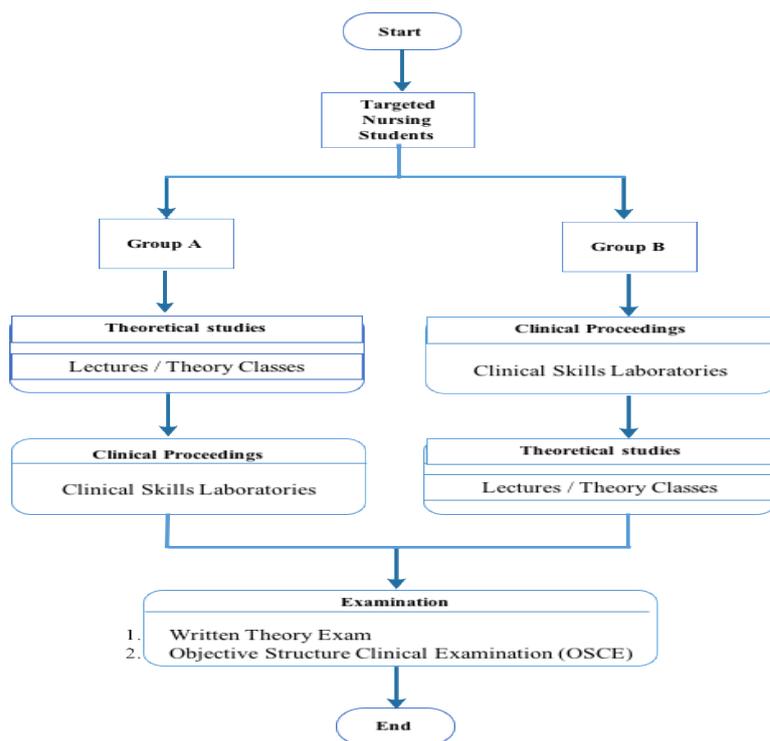
3.3. Data collection

An explanation of the research concepts was given to all nursing students and clinical tutors. Also, this included the intended course specification in the course and its learning outcomes. Clinical tutors were also informed about their responsibilities in aligning the learning outcomes and teaching within safe learning environment. The complete cohort of students n=94 were divided into two groups A (n=47 started with theory part) and B (n=47 started with clinical skills). Data collection took place between April and May 2016 in the spring academic semester. Course specification of assessment and diagnosis in nursing were explained and given to tutors and students at the start of the academic semester. Moreover,

course specifications were uploaded into the Blackboard® LMS environment and any changes were reported to tutors and students verbally and confirmed electronically via Blackboard®. All participants gave their consent before taking part in this study. Ethical approval from the college of nursing at PNU was also obtained before commencing the study.

The research involved the use of mixed research methodologies via quantitative and qualitative research. Questionnaires were adapted form (Fisher et al., 2001; Kember et al., 2004). Questionnaires are widely regarded as a convenient way to gather information (Boynton, 2004). Prior to data collection, student nurses had an induction session on the research aims, objectives and methodologies. The main researcher conducted a question and answer session to all students given a full explanation of the research study.

For the qualitative part of the study, the researcher encouraged students to reflect on their feelings, intentions and experience of learning after completing the assessment and diagnosis in nursing course.

3.4. Research tools

Self-directed learning readiness was measured using the Self-Directed Learning Readiness Scale for Nursing Education (SDLRSNE), a self-reporting instrument designed to assess the attitudes, abilities and personality characteristics of the students considered necessary for self- directed learning (Fisher et al., 2001; Fisher, 2010). This tool consists of 3 main domains namely; self-management (12 questions), desire for learning (13 questions) and self-control (15 questions). This tool is designed with a five-point Likert scale, ranging from the lowest grade at strongly disagree (1 score) to the highest score at strongly agree (5 scores) (Fisher et al., 2001; Fisher, 2010). The second tool the researchers employed was the "revised two-factor version of the Study Process Questionnaire (R-SPQ-2F)" (Biggs at el., 2001; Kember at el., 2004) designed to assess students learning approaches. This tool assesses whether or not a students learning approaches is deep or a surface learning approach. The R-SPQ-2F scale tool consists of two parts. The first part measures the deep approach of learning and consists of (10 questions), and the second part measures the surface approach of learning and also consists of (10 questions) (Biggs et al., 2001; Pichardo at el., 2008; Kember et al., 2004). The R-SPQ-2F scale consist of a five-point Likert scale, with the lowest rank of never (1 score) and the highest to almost always (5 scores).

3.5. Consent

All participants that took part in this study were given a consent forms before taking part in the study. Participant had the opportunity to withdraw from the study at any time if they were experiencing discomfort. All participants were advised to contact the nursing ethics committee if they had any ethical concerns about the study. Hence, no cases were reported.

4. Data analysis

4.1. Qualitative data analysis

Students' self-reflections were analyzed using an inductive, qualitative content analysis (Elo & Kyngas, 2008) according to the following analytical steps (Falk et al., 2015). Firstly, students' reflections were analyzed as a whole to gain an overview of its content message. The analytical question was: "What does the data tell us about the students' learning experiences?" (Falk et al., 2015). Secondly to compare the differences between group 'A' and B on learning (Falk et al., 2015) a method of text analysis was used. Extracting the meaning units from the "text, coded, and divided into four analytical sets" carried out the approach of text analysis. Again, the main focus was on students learning styles during theoretical in lectures and clinical skills in laboratories in

group 'A' and B respectively (Falk et al., 2015). After this stage, there were continuous checking and matching of the students statements in each group regarding how theory and clinical practical skills learning styles emerged were considered for approval or rejection before confirming data and finalizing the data validation (Falk et al., 2015).

4.2. Quantitative data analysis

Statistical Package for the Social Sciences (SPSS) version 10.0 was employed for data analysis using mean, median, and standard deviation statistics. In order to compare the differences between group 'A' and B the researchers used mean, standard deviation, and differences of P-Value.

5. Results

5.1. Qualitative data results

The qualitative results of nursing students' feelings, intentions and reflection on the learning process included their readiness for learning indicated that nursing undergraduates in group 'A' and B both agreed that the lectures and theory part of assessment and diagnosis in nursing course should come prior to the clinical practical skills taught in the laboratories. Moreover, both groups agreed on the types of learning resources that should be available such as lecture material, books and clinical practical skills competencies.

Group 'A': Learning approaches during Theory via lecturing

During classroom lectures students described the way in which they studied the theoretical aspect of their course and how they could improve their information and subject knowledge. Accordingly, students reported that they were more focused on their course evaluation, schedules of study time, and learning outcomes of the course. Students' achievements in learning were not mentioned. Group 'A' expressed their abilities in connecting theory taught in class rooms with clinical practices taught in laboratories.

Group 'B': Learning approaches during Theory via lecturing

Students in group 'B' reported how their knowledge in clinical practical skills were connected to the theoretical aspect of class room teaching. Student s' experience of being given responsibility improved their comprehensive understanding, acquired knowledge, and the needing to know more about certain the topic. Nursing students reported using different learning theoretical resources rather than only lectures such as discussion with their teachers, colleagues which helped them to gain a greater understanding of a topic.

Group 'A': Learning approaches during Practical skills in nursing skills laboratories

Nursing student's in-group 'A' mentioned the importance of relating the knowledge they learn in the theory classes with the knowledge they learn during the clinical practice skills taught in the laboratories. Also, student's stated that their learning resources during clinical practical skills came from both the clinical tutor and themselves. This involved using different learning recourses for example video, taking notes, and reviewing the clinical practical skills handbook. Also, they highlighted that the clinical tutor was an important source of information and knowledge during their clinical practical skills. Additionally, students do not consider any other source of learning unless they felt that the clinical tutor was incompetent.

Group 'B': Learning approaches during Practical skills in nursing skills laboratories

Group 'B' described how they used clinical practical skills competency handbook and the clinical instructor model of teaching as their learning resources in clinical practices. The students stressed the importance of learning through interaction with clinical tutors. Moreover, students reported that the most vital knowledge they obtained was through demonstrating the competency clinical skills in the laboratories. During practice students stated that the clinical

practical handbook assignment helped reinforce their understanding and learning during clinical practice in laboratories.

5.2. Quantitative data results

Group 'A' and group 'B' demographic data
According to Table 1, the mean age for group 'A' is 3.79 and the standard deviation (SD) is 0.746 while for group 'B' it is 1.87 and the SD is 0.824, showing that, there is no significant difference at the level of 0.05 between the two groups relating to Age. It also appears that there is no significant difference at the level of 0.05 between 'A' and 'B' groups relating to students over all grade as the mean of group 'A' is 3.79 and SD is 0.549, while the mean of group 'B' is 3.53 and SD is 0.687. Additionally, the mean of the total number of completed courses is 2.17 with a SD of 0.963, while the mean of group 'B' is 1.85 and SD is 1.215. Again there is no significant difference at the level of 0.05 between the two groups relating to the total number of completed courses.
In summery, there were no demographic data differences observed between group 'A' and 'B' regarding students overall grade, total number of completed courses and age. Hence, all participants were females and in the 2nd year of their nursing program.

Table 1: Students Nursing Demographic Data

	Group A (n =47)	Group B (n=47)	Diff P-value
Age Mean (SD)	1.45 (0.746)	1.87 (0.824)	0.010
Students Over all Grade Mean	3.79 (0.549)	3.53 (0.687)	0.050
Total number of completed courses	2.17 (0.963)	1.85 (1.215)	0.162

Differences between group 'A' and B in SDLRSNE and R-SPQ-2F tools
Differences between group 'A' and B in SDLRSNE and R-SPQ-2F measurements were tested by calculating the means, standard deviation (SD) and P-value differences between the two groups in Table 2.
According to Table 2, the SDLRSNE Mean of group 'A' is 4.08 with a SD of 0.290 while the mean of group 'B' is 3.61 with a SD of 0.748. The P-value is 0.000, which means that there is a significant difference at the level of 0.05 between the two groups. It also shows that the mean of group 'A' in the self-management subscale is 3.83 and the SD is 0.359, while in group 'B' the mean is 3.43 and the SD is 0.578 and there is also a significant difference at the level of 0.05 between groups A and B. It also shows that the P-value between the two groups in the Desire for learning subscale is 0.000, which means that there is a significant difference at the level of 0.05 related to the desire for learning subscale. The table also shows that the self-control subscale mean of group 'A' is 4.18 and the SD is 0.394, while the mean of group 'B' is 3.75 and the SD is 0.969. A significant difference at the level of 0.05 between the two groups related to self-control subscale is shown.
According to Table 2 the R-SPQ-2F scale shows that there is no significant difference at the level of 0.05 between group 'A' and 'B'. The mean of R-SPQ-2F of group 'A' is 2.86 and the SD is 0.385 and the mean of group 'B' is 2.82 and the SD is 0.464. It also shows that in both deep and surface approaches, there is no significant difference at the level of 0.05.
In summery, significant differences were found between group 'A' and group 'B' for SDLRSNE self-management, desire for learning and self-control, suggesting that self-management in group 'A' who started with theory followed by then clinical practical skills managed their learning better than group 'B'. There were no significant differences in terms of learning approaches between group 'A' and B.

Table 2: The Mean (SD) of Self-Directed Learning Readiness (SDLRSNE) and Approaches to Learning (R-SPQ-2F) N=47 for Each Groups

	Group A (n =47)	Group B (n=47)	Diff P-value
SDLRSNE e Mean (SD) Self-management subscale	4.08 (0.290)	3.61 (0.748)	0.000
	3.83 (0.359)	3.43 (0.578)	0.000
Desire for learning sub-scale	4.21 (0.346)	3.63 (0.899)	0.000
Self-control subscale	4.18 (0.394)	3.75 (0.969)	0.005
R-SPQ-2F e Mean (SD)	2.86 (0.385)	2.82 (0.464)	0.726
Deep approach to learning subscale	2.58 (0.673)	2.58 (0.623)	0.987
Surface approach to learning subscale	3.13 (0.587)	3.07 (0.609)	0.606

6. Discussion

The aim of this research study was to compare the effect of sequencing theory via lecturing before practical clinical skill via laboratories and vice versa on students learning approaches and students' readiness. The study sample included female students in their 2nd year of a five-year nursing program in Saudi Arabia. The research was conducted using both qualitative and quantitative research methodologies.
There were no differences in students' demographics. As both group 'A' and group 'B' shared the same age range, overall grades distribution and all took the same course modules.
Interestingly, group 'A' reported that, sequencing theory then clinical practical skills in laboratories were an effective method of teaching and learning comparing them to group 'B'. One explanation for this could be the fact that, 2nd year nursing students have had no previous exposure to specialized nursing courses. Assessment and diagnosis in nursing course is considered as the first specialized course for 2nd year nursing students. Therefore, students may prefer to begin with theory part of their teaching to gain all the knowledge and theories behind nursing skills before starting practical nursing skills in the laboratories. This was confirmed by Falk et al. in 2015 as they reported, that students learning approach are sensitive to the learning environments and influenced by the sequencing of teaching environments (Falk et al., 2015). Indeed, designing a learning environment by starting with teaching theory in classroom or clinical teaching in a hospitals or laboratories will affect students' teaching and learning experience. Therefore, it is important to take into account the learning environments and the sequencing of theory vs clinical teaching in the development of nursing courses (Falk et al., 2015). Nursing students in group 'B' reported that they faced challenges when exposed to clinical laboratories to practice clinical skills without any theoretical background. Again, sequencing of teaching and the learning environment has a major impact on students' behaviour (Falk et al., 2015). Hence, if the learning environment is conducive to learning, and allows students to interact with the teaching process, then this might encourage students to adopt a deep learning approach and group 'B' did not experience this. This is also supported in constructivism collaborative learning and the social learning theory (Bandura, 1977; Weller, 2002). Students' perceptions of learning were firstly mentioned by Matron in 1981 when he introduced his 'Phenomenography theory of learning' theory (Marton, 1981).
Students adopting a surface learning approach mainly depend on memorization of information without associating it to the learning context. Group 'B' students tends to memorise information without having theoretical backgrounds. Indeed, it is students' 'perception' of learning that will reflect on their behaviour towards a learning environment and thus on their learning outcome (Entwistle, 1991).
In summery, sequencing the teaching by starting with theory taught in the class room and progressing to clinical skills taught in laboratories for 2nd year nursing students while teaching students together with supportive learning methods and learning environ-

ments are effective in encouraging students learning and teaching experience. However, this might not be applicable to other nursing courses where students might have previous knowledge and a theory base which they can relate their experiences to their clinical practice.

It is important to highlight that, the most effective method of promoting critical thinking, changing students' attitudes and teaching them new behavioral skills is taking into consideration teaching and learning environments. Yet other teaching environments have to be considered in order to overcome the limitations associated with students learning. One such alternative is taking into account the nature of the subject, teaching methods and curriculum design. There is no significant difference in surface and deep learning approaches between group 'A' and B. This could be to the fact that this research was done in one period of time without having it compered over two time periods.

It is recommended to take into account the methods of assessment used in any learning environment. Methods of assessment are one of the factors influencing students' choice of learning approach and must be aligned with the learning environments and learning outcomes. Indeed, learning approaches can be influenced by appropriate assessment methods.

7. Conclusion

This study highlights that students teaching and learning experiences are sensitive to learning environments. This was done through sequencing theoretical and clinical teaching and visa versa in a nursing course. Proper design of the learning environment and the availability of supportive learning tools encourage students learning and teaching experience. Other key factors, like the nature of the subject and curriculum design, are also vital in promoting and enhancing the quality of learning. A good learning environment determines the quality of the learning outcomes encourages and supports communication, interaction, and collaboration. It is recommended to carry out more research on the relationship of the results of methods of assessment and the sequencing of knowledge and clinical teaching methods.

Acknowledgement

References

[1] Bandura, A. (1977). *Social learning Theory* (1st ed.): Prentice-Hall.

[2] Biggs, J., Kember, D., & Leung, D. Y. (2001). The revised two-factor Study Process Questionnaire: R-SPQ-2F. *British Journal of Educational Psychology, 71*(Pt 1), 133-149. http://dx.doi.org/10.1348/000709901158433.

[3] Boynton, P. M. (2004). Administering, analysing, and reporting your questionnaire. *BMJ, 328*(7452), 1372-1375. http://dx.doi.org/10.1136/bmj.328.7452.1372.

[4] Elo, S., & Kyngas, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing, 62*(1), 107-115. http://dx.doi.org/10.1111/j.1365-2648.2007.04569.x.

[5] Entwistle, N. J. (1991). Approaches to learning and perceptions of the learning environment. Introduction to the Special Issue. *Higher Education, 22*(3), 201-204. http://dx.doi.org/10.1007/BF00132287.

[6] Falk, K., Falk, H., & Ung, E. J. (2015). When practice precedes theory e A mixed methods evaluation of students' learning experiences in an undergraduate study program in nursing. *Nurse Education in Practice, 16*, 14-19. http://dx.doi.org/10.1016/j.nepr.2015.05.010.

[7] Farnan, J. M., Gaffney, S., Poston, J. T., Slawinski, K., Cappaert, M., Kamin, B., & Arora, V. M. (2016). Patient safety room of horrors: a novel method to assess medical students and entering residents' ability to identify hazards of hospitalisation. *BMJ Qual Saf, 25*(3), 153-158. http://dx.doi.org/10.1136/bmjqs-2015-004621.

[8] Federico, PA. (2000). Learning styles and student attitudes toward various aspects of network-based instruction. *Computers in Human Behavior, 16*(4), 359–379. http://dx.doi.org/10.1016/S0747-5632(00)00021-2.

[9] Feingold, C. E., Cobb, M. D., Givens, R. H., Arnold, J., Keller, J. L., & Joslin, S. (2008). Student Perceptions of Team Learning in Nursing Education. *Journal of Nursing Education, 47*(5), 214-222. http://dx.doi.org/10.3928/01484834-20080501-03.

[10] Fisher, M., King, J., & Tague, G. (2001). Development of a self-directed learning readiness scale for nursing education. *Nurse Education Today, 21*(7), 516-525. http://dx.doi.org/10.1054/nedt.2001.0589.

[11] Fisher MJ (2010). The Self-Directed Learning Readiness Scale for nursing education revisited: a confirmatory factor analysis. *Nurse Education Today, 30*(1). http://dx.doi.org/10.1016/j.nedt.2009.05.020.

[12] Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & R. Je ries, P. (2014). The NCSBN National Simulation Study: A Longitudinal, Randomized, Controlled Study Replacing Clinical Hours with Simulation in Prelicensure Nursing Education. *JOURNAL OF NURSING REGULATION, 5(2).*

[13] Justicia, F., Pichardo, M. C., Cano, F., Berbén, A. B. G., & Fuente, J. D. l. (2008). The Revised Two-Factor Study Process Questionnaire (R-SPQ-2F): Exploratory and confirmatory factor analyses at item level. *European Journal of Psychology of Education, 23*(3), 355-372. http://dx.doi.org/10.1007/BF03173004.

[14] Kember, D., Biggs, J., & Leung, D. Y. P. (2004). Examining the multidimensionality of approaches to learning through the development of a revised version of the Learning Process Questionnaire. *British Journal of Educational Psychology*, 74, 261-279. http://dx.doi.org/10.1348/000709904773839879.

[15] Lasiter, S. (2014). "The button": initiating the patient-nurse interaction. *Clinical Nursing Research, 23*(2), 188-200. http://dx.doi.org/10.1177/1054773813479794.

[16] Mackintosh-Franklin, C. (2016). Pedagogical principles underpinning undergraduate Nurse Education in the UK: A review. *Nurse Education Today, 40*, 118–122. http://dx.doi.org/10.1016/j.nedt.2016.02.015.

[17] Marton, F. (1981). Phenomenography — describing conceptions of the world around us. *Instructional Science, 10*(2), 177-200. http://dx.doi.org/10.1007/BF00132516.

[18] McGill.CA. (2016). Nursing in today's society. *Ingram School of Nursing.* Retrieved from https://www.mcgill.ca/nursing/outreach/today

[19] Reid, W. A., Duvall, E., & Evans, P. (2007). Relationship between assessment results and approaches to learning and studying in Year Two medical students. *Medical Education, 41*(8), 754-762. http://dx.doi.org/10.1111/j.1365-2923.2007.02801.x.

[20] Ismaile, S. (2014). *Nursing Studies: Promoters and Barriers for Adherence to Clinical Practice Guidelines among Nurses.* (Ph.D. Dissertation Doctoral), Medicine, Pharmacy and Health School, Durham University, UK, UK. Retrieved from http://etheses.dur.ac.uk/10893/

[21] Scouller, K. M., & Prosser, M. (1994). Students' Experiences in Studying for Multiple Choice Question Examinations. *Studies in Higher Education, 19*(3), 267-279. http://dx.doi.org/10.1080/03075079412331381870.

[22] Scully, N. J. (2011). The theory-practice gap and skill acquisition: an issue for nursing education. *Collegian, 18*(2), 93-98. http://dx.doi.org/10.1016/j.colegn.2010.04.002.

[23] Stoddart, K. M. (2012). Social meanings and understandings in patient-nurse interaction in the community practice setting: a grounded theory study. *BMC Nursing, 11*, 14. http://dx.doi.org/10.1186/1472-6955-11-14.

[24] Wellard, S. J., Bethune, E., & Heggen, K. (2007). Assessment of learning in contemporary nurse education: Do we need standardised examination for nurse registration? *Nurse Education Today, 27*(1), 68-72. http://dx.doi.org/10.1016/j.nedt.2006.04.002.

[25] Weller, M. (2002). Delivering Learning on the Net: *The Why, What and How of Online Education*: Kogan Page Limited.