

Perception of Nursing Students regarding Blended Learning Method at The University of Lahore, Pakistan

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Abstract

Introduction: Blended learning (BL) is positive development in education. This method provokes the learner's critical thinking and enables them to integrate their knowledge in real life. In the developed countries in 1990s and so on researchers had evaluated qualitative characteristics of blended learning effectiveness in education whereas in Pakistan this concept and in nursing this methodology is in its infancy stage hence based on the gap in the literature this study has explored the perception of the undergraduate nursing students enrolled in blended learning teaching strategy semesters.

Methodology: To answer the research objective phenomenological study design was deployed. 12 in depth interviews were conducted of the undergraduate students who have learned in both blended learning and traditional lecture-based semesters in Lahore School of Nursing, The University of Lahore. Sampling strategy was purposive.

Results: Analysis of 12 students' interview was conducted with the major themes of Awareness, Learning Strategies, Learning Activities, Evaluation, and Interpersonal Skills. Participants shared a lot of experiences regarding the effectiveness of blended teaching environment comparatively to lecture based teaching semester. Blended learning fosters the nursing students learning and is beneficial to students' learning in a tertiary environment.

Conclusion: This study adds to the unrevealed area of nursing education related to quality teaching strategy for undergraduate nursing students in order to enable them fully for provision of quality care to the individuals in hospitals and community environment. Thereafter, institutions, policy makers and regulatory bodies should incorporate this strategy in the nursing curriculum in Pakistan.

Introduction

One of the basic purposes of an education program is learning of the student's criteria for the students to be professional and skillful in their profession (Metzler, 2017). According to Jaggars (2014) lecture based teaching environment in the first priority of the students since ages. lecture based teaching which is also known as traditional learning through lecture is utilization of multimedia for the display of images and key information relating to the content (Stetzik et al., 2015).

With the emergence of information technology another learning approach is developed which is known as blended learning (Wang et al., 2015). This teaching and learning strategy are a combination of distance learning and direct class lectures methods termed as blended learning (Clark et al., 2016). In some studies, with the aim of enhancing students' knowledge, lecture method was better than active and learner-centered methods (Ramnanan et al., 2017). Result of the study regarding lecture and problem-based learning showed that learning score and retention rate was higher in lecture-based method among nursing students (Chen et al., 2017). Moreover, the lecture method was more effective in nursing students learning as compare to problem-based method (Jovanović et al., 2017). Thai et al., (2017) defined the blended learning as traditional face-to-face learning and e-learning.

Need of the study

Blended learning is suitable approach for health education because it has advantages of both traditional learning and e-learning (Sannino, & Engeström, 2017). Blended learning is highly appreciable and acceptable approach in health education (Collins, & Halverson, 2018). In the 1990s researchers were evaluating quantitative characteristics of blended learning effectiveness rather than

quality of education (Mangione et al., 1991; Van Rensburg, 1996) and then many were published after 2000 (Cho, & Shin, 2014; Fleetwood et al., 2000; Algaidi et al., 2013). Quantitative research approach could inform educators and students regarding influencing factors of blended learning and its effectiveness in students teaching (Kurt, 2017). Rowe et al., (2012) highlighted important potentials of blended learning to improve clinical competencies among health students through systematic review report. Other systematic review report emphasized the lack of interest of nursing students in blended learning approach (McCutcheon et al., 2015). Simultaneously some studies result appreciated blended teaching methods as compare to lecture-based method (Heravi et al., 2004; Karimi et al., 2017). Therefore, the current study had explored the perception of the undergraduate nursing students enrolled in blended learning teaching strategy semester at Private Sector University.

Methodology

A phenomenological study design was used to answer the research question. Qualitative research is the best method in order to explore the perceptions, ideas, values and experiences of the different individuals in the society. The population was consisted of both male and female and BSc Nursing groups (Generic BSc Nursing and Post RN BSc Nursing) of Fall-2016 and Fall-2017 who were enrolled into the blended learning teaching semester. The inclusion criteria were willingness of the participants to study participate in study. Participants were selected through purposive sampling. The reason for purposive sampling was to maintain richness of the data for data collection. From each group of students' one topper and one low scorer student was approached. Moreover, males, females, married and unmarried students were approached to collect the in-depth data regarding the understudying phenomenon. Altogether 12 in-depth interviews were recorded with the time length varying from 30-50 minutes. The interview guide was adopted from the work of Ranney et al., (2015). Table 1 represents the main themes of the stages in the qualitative interview.

Table 1. Outline of an interview guide for semi-structured interviews (Ranney, et al., 2015)

Section	Purpose
Introduction	Introduction regarding interviewer, purpose of the study and rules for discussion.
Main Topics Opening questions	Keep questions simple, straightforward and help participant to overcome awkwardness and to be "narrative" (vs survey) with the style of inquiry
Main ("grand tour") questions	Introduce the major objectives and place the sensitive objectives on the later part of the interview.
Follow up questions ("prompts")	Ask more exploratory questions to gain insight of the phenomenon of the main questions.
Probes	Use probing questions to further invite discussion for elaboration.
Summary	Summarize interview in the end with the key points which allow opportunity to the participants to clarify key points or add additional pertinent data.
Debrief	Interviewer will record impressions of the participants, clarifies ambiguous data, and records data not captured in notes/recordings

In addition to the recording of the interview's notes were taken by the researcher to full the complexities of a discussion. For instance, facial expressions, hand gestures etc. Data from recordings were transcribed. The researcher transcribed all the data himself. In understanding the data and coding, the researcher conducted the investigation through applying the pre-determined codes, iteratively expanding on, and refining, the coding structure and taking notes about the data during the coding process. Based on the codes of the data subthemes were emerged and then based on the collective opinion of the study researchers.

Results

Thematic analysis of 12 students' interview was analyzed under the following themes and subthemes.

Awareness: The main sub-themes in the awareness were 'ability to identify best method', 'enables to maintain motivation', 'experience with new information'. In awareness the participants interviewed majorly regarding facilitation and available resources and motivation. Many of the respondents revealed that they are very motivated with blended learning e.g., "I feel that through blended learning...I was able to learn a lot...as the online material offered and the discussion forums were remarkably stimulating". One another responded said that "...the engagement through blended learning was enhanced..." Another participant responded to the same question as "...blended learning is good comparatively to the previous traditional experience because objectives were covered through different resources and in-depth". In addition to this blended learning was considered as "helping" and "guided". Responded also revealed that in lecture-based study they feel more committed and time bound whereas for blended learning two responded replied that: "...it was too overwhelming and lengthy...", and "...it's hard to feel relaxed during this semester as many things were jittering in ...".

Learning Strategies: The main sub-themes in the learning strategies were 'encourages you to participate in group discussion', 'select my own learning strategy', and 'effective teaching and learning methods'. Liberty to choose own learning style is most important for student learning and all the participants said that blended learning provided them with the "optimal opportunity to choose their own learning strategy however with the few classroom-based strategies like re- demonstration". Moreover, one participant shared that "blended learning's beauty lies in the power of the decision making to the student to choose learning strategy according to the objective or personal preference". Lecture based learning student said that it is quite "conventional" and "strict" therefore choosing for their own learning style was not easy. Interviewee shared that in lecture-based learning group discussion was predominantly "not allowed a lot". In blended learning method group discussions are "encouraged" and "promoted". Concept mapping is a useful strategy especially in brain storming and in clinical assignments. Student following the blended learning responded that "it was easy to formulate the concept map but because of the less guidance by the faculty it was not worthy enough". Another student notifies that "... In blended learning making concept map in the clinical setting was really worthy because of the teacher guidance and different resources consultation..."

Learning Activities: The main sub-themes in the learning activities were 'enable to rehearse and revise lessons', effective use of information technology', 'relate knowledge with practice'. On inquiry related to revision of new lesson one of the participants responded that "the teacher in the end of every class uses to revise the lecture which is helpful in memorizing". In addition to this, another student said that "...the best thing about my teacher is she used to revise the previous lecture before starting the new one..." perhaps its subthemes elaborate that face to face lecture system provides good revision. In response to blended learning one participant said that "... I used to make notes of the learnt material and this is my habit to revise the previous one on and off...", although this apparently shows that learning style of individual but it also provides clue that in blended revision is at the participant's verge.

Another contributor to the knowledge pointed out was that in blended learning "... the good things were the activities in this course which enable me to do in-depth study related to objectives..." This theme provides the information that blended learning enable students more to do in-depth study in relation to lectures provided in class and then planned activities to engage students in learning process. In the 21st century information technology has overwhelmed the almost every sphere of life and one of the participants from blended learning respond that "... websites surfing is time wasting usually, ... advertisements distract me... I ended up in visiting irrelevant websites...". One of the participants showed exhaustion by saying that "in this course (blended learning) I was always running short of time in searching the relevant things because the online discussion topics were unique and majorly not find authentic articles..."

In blended learning many participants give the themes regarding explore information beyond the prescribed course as "very much", "in-depth" and in amplification one of the participant said that "...the course assignment were designed for theory and clinical integration, ...to explore new clinical application and to search for new modalities I have learnt many of the concepts beyond course objectives". Pakistan follows the traditional teaching and learning methodologies in main stream hence

the day to day evaluation in semester system is great change for many and therefore one of the participant responded that "...I was very happy after my first power point presentation which was appreciated by all class....." In lecture base one of the participants shared very painful experience that "... aah being patient of polycystic kidneys and have the knee problem I was unable to hold my urine for hours but because there were back to back lectures I feel shame full to ask permission from the teacher and then during semester I fell sick....."

Evaluation: The main sub-themes in the evaluation were 'self-assess before getting feedback', 'enable to identify area for further development', 'monitoring learning process'. From the blended learning program one of the participants shared that "I like the online feedback by the teacher in this semester.... previously I feel really insulted when teacher used to rectify me in front of the class". Similarly, another participant from the blended learning responded that online feedback is very individualized and therefore I like to continue blended learning only". In response to the self-assessment before getting feedback one participants showed that "In the lecture-based learning I was able to work on the pace of the other students whereas, in this semester (blended learning) I was very confused in making project... following deadlines is another important issue". Although criticism is a negative act but one of the participants shared that I "in this semester (lecture-based learning) teachers' open feedback on assignment made us learn more. Another student shared that "I have good relationship with sir, therefore on daily basis I used to ask for feedback and therefore able to score highest GPA in class". Monitoring the learning progress is important during the semester, thereafter unlike the lecture method one of the participants in blended learning shared that "the quizzes were very helpful and provided the critical feed on the progress in learning." Another student shared that "in finding the new learning challenges I think blended learning helps me to track the path with the international level".

Interpersonal skills: The main sub-themes in the interpersonal skills were 'identify your role within a group', 'enables you to enhance your interaction', 'identify inter-disciplinary links'. In the interpersonal skills the participants were asked regarding 'role within group', 'developing further plans', 'use of opportunity', 'sharing information', 'maintain good inter-personal relationship', 'collaboration', 'successful in verbal communication', 'interdisciplinary links', and 'express ideas freely'.

Among the most interpersonal skills many of the participants said that they have learnt "responsibility". In blended learning one of the participants said that "within the group after role identification". On the other side of the fence, one of the participants shared that "In blended learning I feel really relaxed because the other group members work on my part majorly". Student studied in blended learning pointed out that "... regarding identification of my role in group I was cleared but was not able to work on that properly because of other responsibilities but in end all goes well". Collaboration in the group is the most important skills and for that participants taking blended learning course responded as "very less", and "not at all". One of the participants responded that "within the group the collaboration was very less because of less availability.

The thematic analysis of 12 students' interviews were analyzed in the above section. This section had gathered the great in-depth information regarding the behaviors to the purpose of the study which was to find the factors affecting students' response regarding their learning Style, and to assess lecture based learning or blended learning foster the nursing students learning and how blended learning is beneficial to students' learning in a tertiary environment.

Discussion

The aim of the study is to assess whether there are significant differences between different learning methods or not. Study was conducted on nursing students. Results depict that students felt that blended learning method was helpful in learning in number of ways. As significant finding obtained from students undergoing blended learning than lecture-based learning. Similar results were obtained from the study of Sadeghi et al., (2014) the results showed that there was significant ($p \leq 0.01$) change in the knowledge of the students learning through blended leaning. Every new learning is always the result of previous experiences and this study shows that blended learning helps to relate newly learnt information with already learnt materials. Study conducted by Meguid and Collins (2017) reveal that blended learning encourages students as it promotes students' critical thinking (95%) and learning abilities

(81.7%). Beside this, it is observed that blended learning enhances students' skills and satisfaction level than other types of learning. Also, blended learning is beneficial to get remarkable outcomes. In comparison to this study, blended learning fosters positive outcomes ($r = +0.8$) as students get more scores through blended learning (Kouti, et al., 2018). As a learning strategy, study findings depict that blended learning promotes group discussion among students than lecture-based learning. Similar results were obtained from the study of Yeh, Huang, and Yeh, (2011) that blended learning is more helpful for students as it leads to group discussion and accentuate students' learning.

Blended learning is also useful as it leads to a two-way communication process as compared to lecture-based learning. Students can express their own feelings and concepts when engaged in blended learning. Through case study, problem solving and concept mapping modern interactive techniques, blended learning enhance learning process among students. The findings are also consistent with the study of Woltering et al., (2009) results of their study showed that blended learning play more significant role to enhance students' problem-solving skills ($p \leq 0.02$) and promote different learning techniques among students. Blended learning is effective strategy for students.

Blended learning increases the nursing students' knowledge so blended learning is found better than lecture method. As Namnabati et al., (2011) conducted research on comparison of lecture and blended learning methods in nursing students which had shown positive effect ($r = +0.6$) of blended learning on knowledge acquisition. The result of this study show that retention of new lessons, enhanced focus on important learning points and comprehension of diversified information were more effective in nursing students in blended learning methods compare to lectured-based learning method; another study showed that students learn more quickly (75%) through blended learning was more than the lecture based learning method (Sadeghi et al., 2014).

The study reveal that blended learning helps to learn about monitoring the goals accomplishment activity during evaluation and finding new learning challenges by appreciating peer feedback. Moreover, in another study by Hasanpour et al., (2006) who compared blended learning and lecture - based learning on nursing students. The results showed that blended learning had a more impact on students' learning and behaviour outcome ($\beta = 16.2$; $p \leq 0.001$). The importance of blended learning in students' knowledge acquisition highlighted in the study of Bahadorani and Changiz (2006) which described that blended learning help students to relate the knowledge with practice.

The current study findings reveal that blended learning intensifies student concentration, satisfaction and help to analyse new ideas, information and learning experiences. This enable the students to openly listen others point of view. Evidence collectively also proposes that pupil is more satisfied with blended teaching methodology (Chen, Lui, & Martinelli, 2017; Yilmaz, 2017). Moreover, blended learning provides the opportunity to inducement, professionalism, contribution, encouragement satisfaction, competency, attention span among students, additionally polish their skills (Jovanović et al., 2017; Sadeghi et al., 2014).

This study has few of the Strengths and Limitations. The strengths of the study were that the universal nature of an experience had provided a deeper understanding of the impact of blended learning on participants. This study was up to the best knowledge of researcher the first study in Pakistan exploring the experiences of students regarding blended learning. Results of this study have exposed the misconceptions regarding blended learning and lecture-based methods. However, this study has few limitations including that it is anticipated that may be participants find difficulty in articulating their thoughts and feelings about the experience being studied as English is their second language.

In the conclusion, blended learning significantly improves the learning of the students and provides the space for better skills in the clinical setting simultaneously. As in Pakistan blended learning is a new concept whereas in nursing only few programs among hundreds of the institutions are using this technique hence based on the study findings following are the recommendations for adoption of the blended learning as a teaching strategy in the institutional and on the national level. The regularities should formulate the interventions and evaluation criteria regarding blended learning for the improvement of the learning environment. Ideally, evaluation should take account of, learning outcomes, participants' learning styles, and motivation, clarity of goals content, interaction, perceived value and satisfaction. Where possible, standardized, reliable and valid measures should be employed to facilitate replication and appropriate comparison. Necessary training of the teachers is required for

the implementation of the strategies of blended learning. Evidence-based instructional design concepts should underpin the learning. The learning should be adult-centred. If a course is to be re-designed from scratch it should not be assumed that the pedagogy underlying the original course is automatically best for a blended learning approach. Thereafter, institutions, policy makers and regulatory bodies should incorporate this strategy in the nursing curriculum in Pakistan.

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