Competition-Based Learning (CBL) in Nursing Education

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Background

Competition-Based Learning (CBL) is a new innovative and promising method of learning. Researchers with an information technology background defined CBL, based on project-based learning, as “a constructivist approach to learning in which competition is used as stimulus for the maximization of the Indented Learning Outcomes (ILOs) specified in a given course or curriculum, while team members participate in a project under a controlled environment” (Issa, Hussain, & Al-Bahadili, 2015, p.5). Similarly, researchers with an engineering background described CBL as project-based learning that involves teams of students in an open-ended assignment who are accounted for the performance of the resulting case during final project testing (Carroll, 2013). The two definitions are based on project-based learning, which is a method of learning that allows learners to acquire knowledge through the application of projects that are real and pertinent to the topic being studied (Dehdashti, Mehralizadeh, & Kashani, 2013).

CBL has not been defined in nursing or medical education. However, the competition concept has been tested in multiple medical education studies, and the results were promising. Lei et al. (2016) found that the addition of a competition component in a problem/case-based learning (PCBL) was an effective learning approach in teaching about the course of severe infection to medical students. They reported that students in the team-based competition group compared to a control group were more active in the case discussion, in referring to case-related articles, attending clinical group-consultation, and performing better in the case analysis final examination (Lei et al., 2016). Another study indicated that introducing collaboration and structured competition in a hematology/oncology fellowship program resulted in improvement in attendance, participation, and engagement in learning (Makhoul et al., 2016). Also, a randomized controlled trial indicated that team-based competition had increased resident physicians level of engagement and participation in an online educational course (Scales et al., 2016). Therefore, adding a competition component in the medical education learning process was a successful strategy in promoting learning outcomes through enhancing students’ motivation and active learning.

Problem-based learning in the nursing education, parallel to project-based learning in information technology and engineering education, is shown to be an effective method of learning. It enhances collaborative, active, and self-directed learning (Mayner, Gillham, & Sansoni, 2013; Spiers et al., 2014). Some researchers consider it as a synonym to project-based learning (Pilcher, 2014). Problem-based learning is a student-centered learning approach where students define the problem and establish learning objectives required to develop their understanding of the problem (Bassir, Sadr-Eshkevari, Amirikhorheh, & Karimbux, 2014). Therefore, CBL definition in the nursing education could potentially be based on problem-based learning.

It is important to consider only symbolic and non-significant rewards to winning a classroom competition. Meaningful rewards to winning a competition such as grades or monetary prizes would result in negative consequences such as shifting the outcome value from learning to winning and failing the learning process (Shindler, 2008; Sternberg & Baalsrud-Hauge, 2015).

Significance

Competition-based learning that involves a group of teams would promote collaborative learning and enhance students’ motivation and active learning (Lei et al., 2016; Makhoul et al., 2016). In collaborative
learning, teams of students work together in a self-directed manner to achieve a common goal and create a sense of responsibility toward the team (Makhoul et al., 2016). The collaborative learning combined with enhanced motivation to learn enforce team-work spirit among students, promote engagement and self-directed learning, emphasize share of knowledge among the group members, and stimulate students’ creativity and innovation to achieve better learning outcomes. These outcomes ultimately result in an effective learning process and potentially sustained learning outcomes.

**Applying Competition-Based Learning in the Nursing Education**

Application of CBL in the nursing education is unclear. The following is a suggested approach of applying the CBL in the nursing courses.

**Context.** Since grades should not be involved in a winning outcome, CBL may be applied in tutorials, where students are prepared for real course exams. Students may earn grades for participation or attendance in the tutorials but not for winning.

**Group formation.** The instructor asks the students to divide themselves into groups. The instructor may determine the size of the group according to what he or she thinks is better serving the competition success. The number of students in each group should be even. Giving the students the autonomy to form their teams promotes satisfaction, self-confidence, decision-making skills, and harmony among the team members, which eventually maximize the collaborative and innovative learning. If lower achieving students remain to form a group and discrepancies in the academic level were noted among the teams, there should be no worries as CBL aims to promote learning motivation and desire to improve the academic level.

**Competition.** The competition is done during the course tutorials classes. Multiple competitions will be conducted according to the determined course tutorials classes. The competition should cover the course contents taught in the preceding period. During the contest, all teams are asked to analyze a specific problem or case and answer some related questions. Alternatively, simulation cases could be asked, and the whole group participates in solving the case through simulation.

**Evaluation.** At the end of each competition, points are accumulated toward the team according to the questions answered right and instructor’s evaluation. There is no elimination of any members or groups. Final points are announced at the end of all course tutorials, and the winning team is the one that accumulates the larger number of points. No grades should be involved.

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**Title:**
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Abstract Summary:
Competition-Based Learning (CBL) is a new innovative method of learning. It enhances students learning through fostering collaborative learning and motivation to learn. An approach of applying CBL in the nursing education based on Problem-Based Learning (PBL) is suggested.

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