PROBLEM-BASED LEARNING FOR INTEGRATION OF NURSING THEORY AND PRACTICE

Kelebogile Precious Matshane, RN, BNS.
School of Nursing
University of Botswana
E-mail: liyahmaths@yahoo.com
Cell. 73488933/72971382

Abstract

Problem-based learning (PBL) was pioneered in medical school in McMaster University, Canada in the late 1960s but has now spread to other disciplines around the world. PBL is a learning-teaching approach in which learners direct their own learning and co-construct knowledge through research and peer dialogues. In this paper, I reflect on my first-time experience of PBL. I have found that through team work, critical reflections, and feedback from peers and the learning facilitator, PBL cultivates a spirit of accountability and collaboration among learners. It prepares learners to tackle problems systematically, encourages multidisciplinary approach to problem solving, and stimulates curiosity. Through team analysis of scenarios and constructive feedback among learners, PBL nurtures the development of collaborative skills; an attribute critical to nursing practice which frequently presents with problems requiring critical analysis and inter-professional dialogues for safe and ethically responsible decisions. I would therefore recommend PBL for nursing education.

Background and Introduction

Problem-based learning (PBL) was pioneered in medical school in McMaster University, Canada in the late 1960s. However, it has now spread to other disciplines around the world (Neville, 2009). The main difference between PBL curricula and lecturing curricula lies in the learning environment of the former, which generally makes use of small group discussions, learning scenarios, and intensive students' engagement in independent study (Vernon, & Blake, 1993; Hmelo-Silver, 2004). It reflects an epistemology that asserts that students learn best by reflecting on critical questions, being responsible for their own learning, and engaging actively with their peers in the learning process (Von Bergmann, Walker, Dalrymple & Shuler, 2017). Through collaborative group work, students analyze ill structured scenarios, determining what they know and what they need to know in order to be able to solve problems presented in the scenarios (Hmelo-Silver, 2004).

I had my first encounter with PBL in a health promotion graduate level course. I was nervous about the unknown that I was about to go through. However, the fact that in PBL, students do not

work as individuals but in groups gave me some degree of calmness. Of course I was aware that group work can also be challenging. Learning mainly involved small group work and class discussions. In this paper, I reflect on my experience of PBL and I focus on the learning scenarios, the learning team, and learning facilitation. The paper ends with conclusion and recommendations.

My experience of the PBL to learning and teaching

Learning Scenarios

As our health promotion course was for populations across the age spectra, we had scenarios that spanned from childhood through adolescence and adulthood to old adulthood. In addition, the scenarios depicted a diversity of settings at which nurses engage with individuals, families, groups, and communities for health promotion. Settings included urban, rural, semi-rural and semi-urban localities. Hmelo-Silver (2000) noted that PBL scenarios must be structured in such a way that they address the entire curriculum.

Working on the scenarios was very challenging in that one needed to be thorough in searching for information as each team member'sassigned task was needed to complete the puzzle or to reach a solution to a presenting problem. At a glance, one would think that the presented problems would be easily solved. However, when we started analyzing the scenarios, we realized that the problems were complex and had no single right solution. Solutions to problems were to be generated from evidence supported dialogues and arguments.

The complexity of the first scenario was aligned to our level as beginners in PBL. Coupled with the facilitator's guidance, it helped me appreciate what PBL is actually about. It was also an enriching experience to look up policies that relate to the learning goals developed from the scenario. Subsequent scenarios were more advanced than the first one; and they required that we use a theoretical framework to guide achieving the learning goals. In addition, we were required to consider the policy, cultural, and ethical implications of whatever action we were bringing to problem solution. Besides internet search, we visited various offices in search of information that we obtained through document review and interviewing of officers.

Learning Team

Problem solving in PBL was mainly done through small team meetings. Our class consisted of only five students and we therefore had only one group. Initially, working in a learning team challenged my strongly held principles. My personal coping skills were tested and I had to modify them if I had to survive PBL. Team members were assigned roles for each scenario on a

rotating basis; and each member had her (we were all females) turn for each of the roles. One could be a team leader, a secretary, or a presenter of the team's work to the class. A code of conduct for the team was established. Team meetings served not only to share information, discuss and debate issues, but they also attended to emerging matters including group dynamics. Barron (2003) noted that group members must agree on working rules, take it upon them to resolve any conflicts, negotiate how to move forward, and reach a consensus.

The first meeting for a given scenario involved brainstorming on prior knowledge about what was presented in the scenario and the knowledge required to solve the problem. Knowledge gaps were then used to construct learning goals that subsequently determined information to be sought and activities to be carried out (learning tasks). Learning tasks were fairly distributed among team members and each would go out to carryout the assignment and report to the team in subsequent meetings. It was in subsequent meetings that comprehensive clarification of the problem and integration of newly acquired information to the scenario were done. The number of team meetings for individual scenarios varied depending on the complexity of the scenario and individuals' commitment in carrying out assigned tasks.

As much as it has its advantages, working in groups had its challenges too. Setting up meetings, being punctual for meetings, attending set meetings and meeting deadlines were some of the challenges we faced in our learning. To address the identified challenges, we agreed that the team leader took the responsibility to ensure that set meeting task schedules were honored, that the secretary ensured that schedules for assignment write-ups completion and submission for grading were honored, and that the presenter ensured that preparation for presentation was on target. Assigned responsibilities notwithstanding, members assisted one another when and where necessary.

As noted earlier on, the first step in our problem solving journey was to identify prior knowledge and what was not known, then simplify and define terms, identify learning goals, come up with learning tasks for meeting the learning goals, identify a theoretical or conceptual framework for organizing the learning goals, go out to explore the tasks and generate new knowledge, and pool together gathered information and organize it by the framework. All these steps made us achieve an advanced level of reasoning and enhanced our critical thinking skills as it has been argued PBL strengthens clinical reasoning and critical thinking (Shuler & Fincham, 1998).

Fruchter and Lewis (2003) posited that acquiring knowledge must not be an end in itself; that rather, acquired knowledge must be put to use in practical situations. The last assignment for the class was the design and implementation of a program on breast and cervical cancer awareness and prevention for a group of women in a community based organization. The program provided us with an opportunity to apply knowledge that we had acquired in scenario analysis to a practical health promotion situation. For instance, we selected a theory to guide our program, as

we had done for the learning goals emanating from the scenarios that we had been working on. The assignment also gave me confidence that what I had learned could be transferred to real-life problem solving.

I have come to appreciate PBL as an approach that cultivates the learner's critical thinking skills and responsibility for own learning. Through exploring assigned tasks, discussions, reflections, and constructive feedback from peers and the facilitator, individual development and collaborative skills are nurtured. It has been noted that noted that PBL scenarios serve as stimulus for learning (Barrows, 2000; Torp & Sage, 2002) and a focus for a search for knowledge and application of reasoning (Brown & Manogue, 2001). I was able to learn through analyzing scenarios and by gathering more information on the matter at hand as well as by consulting with peers and the facilitator throughout the course. It has also been argued that giving students' control over their learning, valuing their contribution, and helping them to reflect on their contribution to learning empowers them for personal and professional development (Vittup & Davey, 2010).

Hmelo-Silver (2004) argued that in PBL, students do not only learn the content but also learn to think critically. Tools for monitoring learning were reflections, class presentations, self and peer assessments and peer and tutor feedback. One thing I have realized is that PBL fulfills both individual and group learning objectives. This is so because as we research on a problem, engage in a discussion with team members, get feedback from peers and the tutor, we reflect better on the scenario and gain new insights that enhance our personal and professional development.

Learning Facilitation

During the introductory phase of the course, the facilitator (or tutor) focused mostly on making us acquainted to PBL as a learning approach. It was a worthwhile experience to be orientated to the PBL curricula by a person passionate about the learning approach. The tutor also helped the class to integrate existing and new knowledge and encouraged interaction among group members. She helped me gain more confidence in what I could do. She underscored the importance of contextualizing scenarios, especially through finding the impact of policy, ethics and culture on the problem presented. The tutor provided timely constructive feedback to learners. Fink (2003) noted that optimal instructor feedback is that which is timely and caring. Neville (2009) also noted that it is important that the learning facilitator is able to provide adequate feedback to support learning.

Individual learners' reflective diaries for each scenario were submitted to the tutor upon completion of the scenario. Reflection covered one's participation in team meetings, class meetings, completion of assigned learning tasks, and suggestions for improvement or any gaps

identified. The reflections seemed easy at first as I did not understand how they were supposed to be completed; I simply answered the guiding questions.However, I was amazed later to learn that reflections could even be corroborated with existing literature, and that they could make the final integrated essay that we had to write later on easier. Reflection is said to help learners to appreciate the learning process and that it is best when guided rather than being left to take any form (Hendrix, O'Malley, Sullivian, & Carmon, 2012).

When we were informed that we would assess ourselves, I thought it was bread-on the-platter as I would get free marks. However, as I became more acquainted with self-assessment, I realized that it challenged my responsibility and discipline as it gave me responsibility over my learning. Assessing my peers was one thing that I found challenging until such time that I realized I had to separate social relationships from professional ones. The more we participated in peer-assessment, the more we became comfortable with feedback from peers and appreciated its role in nurturing our professional development. There was breach of confidentiality within my team following the completion of our first peer-assessment as some information about the proceedings of the assessment reached those who were being assessed. However, we were able to resolve the matter within the team.

Conclusion and Recommendations

PBL is a self-directed, learner-oriented learning approach that cultivates leadership skills and responsibility for own learning. It was a new approach to me and the rest of the class members but I would definitely recommend it for other learners. I have found it to cultivate the spirit of accountability and collaboration among learners because of its use of small groups work, learners' reflection on their learning, and feedback from peers and the facilitator. The learner's contribution to the construction of knowledge and skills development is critical to the success of the learning process. PBL prepares learners for systematically tackling difficult problems and enhances the development of critical problem solving skills. I would recommend PBL for nursing education.

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