

EVALUATION OF PROBLEM BASED LEARNING METHOD IMPLEMENTATION

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Abstract

Since 2008, Nutrition Study Program in Faculty of Public Health University of Indonesia has started to implement the Problem Based Learning (PBL) as the method of learning. In order to explore the students' opinions on that kind of learning method, we were conducting evaluation study in 2010. We distributed questionnaires to all students from the 2008 class (103 students), and the response rate was 84,4% (87 questionnaires). The study was conducted in cross sectional design and analysis was done descriptively. Approximately 77% respondents enrolled into Nutrition Study Program from one university's entrance exam. After attending the first year university, 90% respondents decided to stay in this study program, while in fact 70% of them were choosing Nutrition as their second option. This PBL method would be implemented starting from the third semester (second year). This method was used in order to accustom the students with real problems in the working fields, as well as to sharpen their soft-skills (Arends, 2012). Approximately 71,3% respondents also mentioned they have known Nutrition Study Program have applied this Problem Based Learning in the third semester. After attending 1 year of study with PBL method, approximately 80% respondents stated that information or knowledge in PBL method depends on themselves, relating to how eager they gain and read literatures. Overall, 96,6% respondents mentioned that they gained benefits from PBL method implementation in study, which in details consisted of the abilities to analyze, do presentations, leadership communications, and team works (94%, 94%, 97.6%, 82.1%, 97.6% respectively). Approximately 90% respondents stated that the learning situation in Nutrition Study Program was very conducive since it was supported by the limited number of students of 10-14 students in a class (82,8%), and also because the good relationship between the lecturers and students (83,9%). Overall, the students were satisfied with PBL method implementation in Nutrition Study Program and recommended some feedbacks, which are better schedule management of lecturing (64%), adding facilities for practical works following with improving the literatures' accessibilities' and variabilities (29,3%). Based on our findings, we concluded that PBL method fits to be implemented as learning method and deserves to continually be used in Nutrition Study Program of Public Health University of Indonesia.

Keywords: Problem Based Learning, evaluation, soft skills, nutrition education

1. INTRODUCTION

Problem Based Learning (PBL) method first conducted in medical education in the mid 1960s and further it has spread to many different field of education e.g. nursing and engineering (Matheson & Haas, 2010). It begins with the assumption that learning is an active, integrated and constructive process influenced by social and contextual factors (White, 2001). With PBL, students get structured problem to work through a method of learning where centered more to the students rather than to the lecturer (Matheson & Haas, 2010). Thus learning is more effective. Many researchers showed that PBL give the students greater long term benefits such as developing critical and creative thinking, increasing motivation, improving communication and networking skills as well as to accustom the students with real problem in the working field (Ribeiro, 2011; Baharom & Palaniandy, 2013; Arends, 2012). PBL then was defined as a based on collaborative, constructivist and contextualized learning and teaching approach that uses real life problems to initiate, motivate and focus knowledge construction (Ribeiro, 2011).

Today higher education curriculum in Indonesia has shifted from content based curriculum to competency based curriculum with student centered learning approach in order to match the needs of working fields. Since 2008, Nutrition Study Program in Faculty of Public Health, University of Indonesia has started to implement the Problem Based Learning as the learning method. The PBL method was implemented starting from the third semester (second year of education). In order to explore the student's opinion about PBL as a learning method, we conducted this study.

2. METHOD

This research was conducted in 2010 with the study design cross sectional. The quality control unit of Nutrition Study Program has developed questionnaires to gain students' opinion regarding to Problem Based Learning method as their learning method. These questionnaires were spreaded to all nutrition students year 2008 (103 students). This questionnaires were filled by each student, and only 87 questionnaires were submitted back (84.4%). This collected data is analysed descriptively to gain the description of students' opinion.

3. RESULT

From 103 freshmen students, approximately 77% succeed to enter Nutrition Study Program in University of Indonesia by only one entrance exam to the university. After completing the first year, all students decided not to transfer or move to another study program, although approximately 70% of them choose Nutrition as their second option (from 2-3 available options) in the university's entrance exam. About 71.3% students stated that they already found out that Nutrition Study Program was implementing Problem Based Learning method.

After 1 year of studying with PBL method, approximately 80% of students stated that how much and how deep they gain the knowledge depended on their willing to search and learn the literature. Beside the provided literature in the library, the accessibility to access digital literature via internet also helped students to find new information.

Beside receiving the benefits to gain new theories and information, generally around 96.6% of students mentioned they gain the benefits in soft skills due to PBL method implementation in the lecture. Approximately 94%% of students stated that PBL method increased their capability to analyse problems and presentation in classes. Most of the students (97.6%) also stated that PBL method increased their leadership competence and team-work. However, 82.1% of students also said that PBL method increased their capabilities and competencies in communicating to the team.

4. DISCUSSION

Based on our findings, the socialization of PBL method in Nutrition Study Program of Public Health University of Indonesia has been succeed shown by 71.3% respondents already knew this method from their first year. The implementation of PBL method which was started to be implemented in third semester (second year of university) also was one of the method implemented in medicines, which were called *hybrid* model. In this model, students were given the basic lecture subject with conventional method (Ribeiro, 2011).

Opinions from 80% respondents stated that the more and deeper knowledge they gain depended on their willing is correlated with Arends (2012) and Ribeiro (2011). In PBL method, students were encouraged to be independent and self-regulated learners whom expected to be highly responsible in learning process and gaining information based on the guidance of lecturers. The lecturers didn't have to supervise directly by

dictation of the knowledge and science, and also evaluating the knowledge they gained, being discussed by the students in PBL method process, but by giving them questions to trigger them to have deeper understanding and finding solutions (Arends, 2012; Ribiero, 2011). The deeper understanding of the concept is one of the indicator of the PBL academic process, while conventional method emphasizes on memorizing and reproducing the given knowledge (Vernon & Blake, 1993; Norman & Schmidt, 1992). The rising of internet usage and online journal searching due to finding information in respondents is also correlating with Vernon and Blake's research result (1993).

Beside the habituation to face problems and facts in working fields, PBL method could also sharpen the soft skills competency (Ribeiro, 2011; Baharom & Palaniandy, 2013; Arends, 2012). This is proved by respondents' answers where 90% respondents stated they gain more soft skills, especially in problem analyzing competency, doing presentation in front of the class, leadership and teamwork. On the other hand, 80% respondents also felt the increasing of communication skills within the team. PBL method also sharpen students' skill to identify and appreciate opinions and discussion diversity (Baharom & Palaniandy, 2013).

Beside gaining benefits, approximately 90% of students stated that learning situation in Nutrition Study Program of Public Health University of Indonesia was very conducive. The reason was because in every class, they were divided into small group discussions which included 10-14 students in each group. This condition made a good interaction between students, and also a more intense interaction between students and teachers. In PBL learning process, the role of lecturers is very important. Although this method is focusing on students, lecturers as tutors are still involving and taking roles in the discussion. The tutors are expected to encourage students to do cognitive activities, such as connecting the concepts, giving feedbacks and help monitoring students' activities (Turan et al, 2009). This is also relating to Ates & Eryilmaz (2010) research' result which stated that tutor must also guide the discussion, but not too much intervening the discussion.

Students also contributed in giving advices to improve PBL method implementation in Nutrition Study Program of Public Health University of Indonesia, which included the more neat and organized class schedules (64%), adding more laboratorium facilities to increase practices, and more various and accessible literatures and journals (29.3%).

5. CONCLUSION

Overall students were satisfied with PBL method implementation in Nutrition Study Program and recommended some feedbacks, which were better schedule management of lecturing (64%), adding facilities for practical works following with improving the literatures' accessibilities' and variabilities (29,3%). Based on our findings, we concluded that PBL method fits to be implemented as learning method and deserves to continually be used in Nutrition Study Program of Public Health University of Indonesia.

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