Teaching College Students Social Issues through Problem-Based Learning

Lee, Haw-Kyoung*
Huh, Chang-Deog**

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【Abstract】

There is never enough emphasis on the importance of instructional method. Problem-based learning is one effective instructional method that motivates students to participate in the learning experience. This method was used in many educational channels, such as mathematics, chemistry, medicine, etc. However, no previous study has utilized PBL in a college course that teaches social issues.

* Department of Early Childhood, Southern Illinois University.
** Department of Sociology, Yeungnam University.

The participants of the study were college students who enrolled in the course called “Social Problem.” After the students were given a current social problem, they were divided into group of 9 or 10. Unlike the traditional classroom, the students in this class cooperated and collaborated with one another to solve the problem. This study found that using PBL was not only effective in teaching the social issues but also increased students’ research skills, cooperation, and presentation skills. In particular, the students in this study had to demonstrate their understanding of the social issue though role playing in a mock trial. The significance of the study is adopting the mock trial as an assessment tool to evaluate the student’s understanding of the social issue.

Key words: Problem-Base learning, Social issue, Instructional method, Evaluation, Mock trial

1. Introduction

It is conceived that an educator’s knowledge does not guarantee student’s learning. Problem-Based Learning (PBL) has been recognized as an effective teaching method (Kang, Jung, & Jung, 2007). Unlike the traditional teacher-oriented lectures, PBL is student-oriented learning method. The structure of PBL begins with a problem. In PBL classrooms, students help each other to solve the problem. As students solve the problem, they build ownership on their learning: they understand the problem within a context, devise plans to solve the problem, and assess their learning as they share their solution with others. Therefore, students’ participation on their problem solving is critical.

PBL has been utilized in some educational settings with various subjects such as such as architecture, business, economics, chemical engineering, law, leadership, nursing, teacher education, mathematics, and medical school (Hung, Jonassen, & Lie, 2008). PBL also has been utilized in elementary schools in teaching environmental issues (Kang, Jung, & Jung, 2007). Nevertheless, it is hard to find its effectiveness in teaching social issues for college students.

In fact, many sociology courses are offered theory-based lectures. It is because both teachers and students are familiar with traditional method of lecturing-listening way of class. Allotted time for a course in a semester is another factor contributing to the teacher-oriented lectures. Therefore, most university courses follow traditional teacher-oriented lectures. However, a question arises whether this traditional method is effective in every subject, especially for teaching social issues. Furthermore, students' applicability of theory for practical use is doubtful with traditional teaching method.

The current study explored effectiveness of PBL in teaching college students contemporary social issues. As a part of PBL, the current study adopted mock trial as an assessment of their learning the social issue. At the end of the in-depth investigation of the current social issue, each student took role of trial to argue their position regarding the two opposing parties. This mock trial demonstrated the students' understanding of the contents. Participants' feedback about PBL in learning the current social issue was used in suggesting how PBL can be adopted in university classes regardless of the subject.

2. Literature Review

This chapter defines and introduces characteristics of Problem-Based Learning and reviews difficulties of PBL in educational settings. According to Kang et al (2007), Problem-Based Learning is defined as self-directed and collaborative learning. Problem-Based Learning is originated from constructivism (Kang et al, 2007). Underlying premise of the constructivism is that knowledge become meaningful when a student actively involves in his/her learning. Students in a constructive classroom involved in their own learning planned by individual objectives. They construct their knowledge through multiple methods such as experiments, literature reviews, interviews, etc. Therefore, students in the PBL have ownership of their learning. They not only gain intellectual knowledge but also improve collaboration through solving problem with peers (Kang et al., 2007).

Researchers find that many teachers face difficulty in understanding what PBL is. It is often confused with traditional project approach, presentation learning, or problem-solving learning (Choi, 2004; Jang, 2005). PBL is based on the problem that students are asked to solve. It is never enough to stress the importance of the problem as it plays as a critical component of the success of the PBL.

Nevertheless, many scholars point out difficulty of formulating the problem (Hung, 2006; Torp & Sage, 2002; Weiss, 2003). Torp and Sage (2002) point out that many teachers formulate the problem without considering students' interests, previous knowledge, and context. Suggestions are made by Kang et al (2007). They recommend that the problems should be something the students; can challenge: should think hard; should use variety of data; should be multi-disciplinary contents; and should be able to produce creative outcomes. Although teachers are

aware of what it should be, it seems that they need a detailed guide on how to formulate the problems (Na, 2010). With increasing interests of PBL among the practitioners, an extensive study and workshops for the teachers to develop good problems is in great demand (Choi, 2004; Jang, 2006; Kang et al., 2007).

In addition to the formulating the problems, teachers also find difficult to develop an assessment tool. In PBL class, the assessment should be able to check not only the comprehension of the contents but also the process of learning (Kang et al, 2007). Some scholars point out that the effectiveness of PBL relies on appropriate assessment that evaluates students' process and outcomes (Hung et al., 2008).

Variety of assessment was developed in constructive classrooms. For example, Reggio Emilia, Italy is well known early childhood education setting which demonstrates examples of various forms of assessment. Young children's learning is displayed by their drawings, paintings, and clay sculptures (Giudici, Rinaldi, & Krechevsky, 2001). Teachers record the students' progress as well as the product of their hands-on activity.

Unlike the traditional assessment, the assessment in the school evaluates individual student's learning that is intertwined from many domains of learning. Assessment of Problem Based Learning in a higher education is divided into two, process and outcome. Kang et al (2007) proposes various assessment tools. For assessing the process of learning, they suggest using portfolio, self-assessment, peer review, and observation. For assessing outcome of the learning, they utilized quiz, concept mapping, essay, checklist of presentation, and reflective journals (Kang et al., 2007). Although many other forms of assessment were developed, they argue that innovative assessment tools that assess the process and

outcome are need to be developed.

3. Method

1) Participants

The participants of the study consisted of fifty-six college students who enrolled in the class, Social Problems. This course is one of the electives for sociology majors. There were forty-three students from sociology major and thirteen from other majors. There were 32 females and 24 males. The students were divided into small groups and each group had 9 or 10 members.

2) Procedures

This study was conducted for six weeks during spring of 2009; it proceeded with two weeks for planning, two weeks for practicing, and two weeks for presentation.

3) Planning

Kang et al. (2007) point out that motivating the learners is a critical component of PBL. In order to motivate the learners, these researchers suggest that a problem should be relevant to the learners' previous knowledge and experience. In the current study, the researchers chose the multimedia law that passed in 2009. The law caused nationwide controversial opinions among civil groups, political parties, and

individuals. The following excerpt is the problem that the researchers consider as an interesting issue for college students.

> "Towards the end of 2008, the Korean ruling party attempted to pass a 'media-related law' which aimed in advancing the Korean media industry. However, the law was postponed by opposing parties and brought up a national controversy. Disagreement among parties and civilians lasted almost a year. Nevertheless, on June 22, 2009 the ruling part passed the law without agreement, leading to the accusation of the law being a violation of the Korean Constitution."

The researchers' objectives for the class were, by the end of the PBL class, the students will be able to; 1) recognize current social problems, 2) analyze the impacts of the issues, and 3) suggest alternative solutions to the issues. Eventually, the students will be able to apply PBL to analyze their changing society.

Although it was expected for the students to know the issue, not all of them understood it. The researchers, therefore, formulated sub-questions regarding the social issue. The questions were: 1) What is the content of the media-related law that the Korean ruling party passed? ; 2) Why did opposing parties and civil social activists criticize and accuse the law of a Constitutional violation? ; and 3) What are your suggestions to advance the Korean media industry?

4) Practicing

These questions became a guide for designing learning plans. The members of the group made a plan together in order to answer the questions. The researchers suggested using a worksheet that is designed

to identify the facts, learning issues, and their roles. From the proposed excerpt, the students analyzed the problem, made lists of learning issues that they need to research about, and assigned parts for a further research. This cooperation includes not only individual work but also group work; the students utilized small and large group discussion, on-line research, literature review, and so on. The students created a short report that compiles all members' work.

5) Presentation

The students' comprehension of the issue was demonstrated through a mock trial. During the mock trial, each group member took roles to play judge, prosecutor, lawyer, defendant, plaintiff, and audience. To maximize the effects of judicial case, the students dressed up and made name plates according to their positions. To help the students defend their positions, the following questions were given to each representative such as judge, defendant, and plaintiff.

- If you and your peers are member of the Constitutional Court of Korea, how would you pass judgment upon the accusations that the law violated the Constitution?
- If you were the defendant, how would you protect and maintain your status/position?
- If you were the plaintiff during the trial, what information would you have to justify?

This mock trial lasted two class sessions and all the processes were video-taped.

6) Assessment

The students' outcome of the learning was evaluated through mock-trial and a documentation of their research. While this evaluation reflects the teachers' perception, each group member also evaluated his/her peers' participation of the group work and performance of the mock trial.

A short survey was conducted at the end of the class to examine how the students perceived PBL as a learning method. The survey consists of questions that ask the students' satisfactory of class with 5 point Likert scale and the effects of using PBL on their learning through open-ended questions.

4. Results

The effectiveness of the PBL was evaluated through the student's feedback of the survey questions. The following section includes the results of the students' responses.

1) Students' satisfaction of the PBL

The students' satisfactory of the PBL was evaluated through three questions. Following questions were asked to check on 5 likert scale, 1 being disagree and 5 being very much agree.

(1) How much are you satisfied the PBL class in general?

(2) How much did you enjoy the process of solving the problem?

(3) Do you want to recommend this course to your friends?

The following table indicates the results of the students' responses.

In general, the students' average satisfaction was rated 4.08 out of 5 which means that 81.6% of students were satisfied with the PBL class. In the same vein, 82% of the students enjoyed the learning process. More than 80.8% of the students responded that they would recommend this course to their friends.

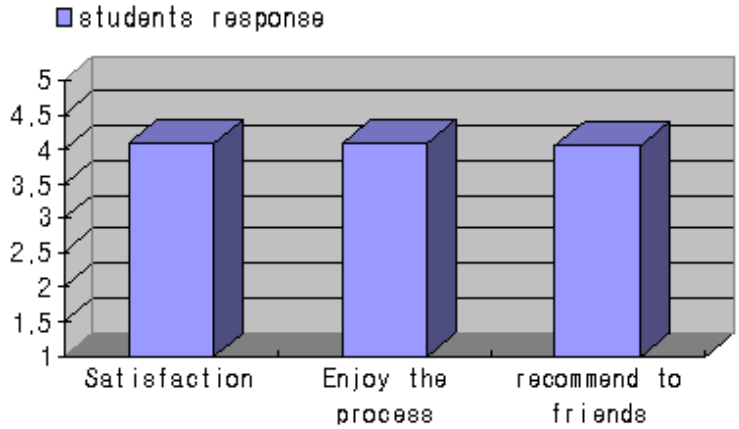

Figure 1. Students' response of satisfactory of the Problem-Based Learning

2) Students' feedback of the PBL as a learning method

Specific aspects of the PBL on the students' learning were examined through the following five questions.

Q1) How much have you understood the contents of the problem?

Q2) How much have you realized the importance of the cooperation?

Q3) How much the PBL process was helpful in learning the contents?

Q4) How much have you improved the research method?

Q5) How much have you improved your presentation skills?

As indicated in the Table 2, more than 70% of the students responded that the PBL was effective in the five aspects. In specific, 86% of the students responded that PBL was effective in understanding the content of the course; 86% of them responded that they realized the importance of the cooperation during PBL class; 88% of them responded that they gained knowledge when they tried to solve the problem through active participation of the research, discussion, and presentation; 82% of them stated that they improved research skills; and 73% of them stated that they improved presentation skills through this PBL.

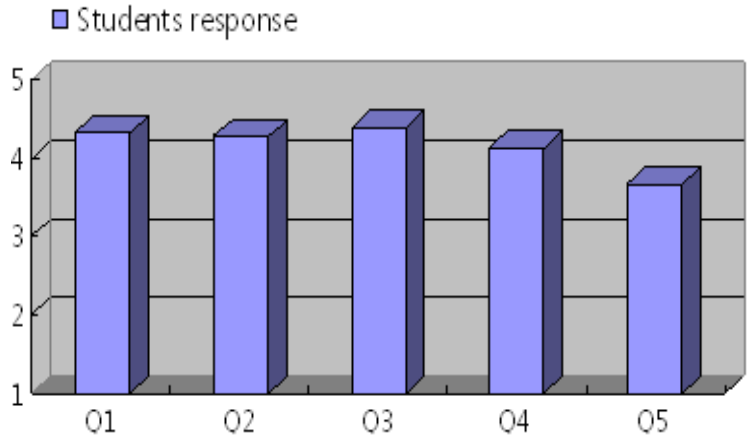

Figure2. Students'responsesofeffectivenessofthePBL

Open-Ended questions were asked for the students to answer regarding the PBL class. The questions were intended to supplement the students' responses that were not available from 5 point scale checklist. Students' feedback from open-ended question was found to be supporting the results.

Many of the students commented the benefits of the PBL during

learning the current social issue. They commented that they like the way of learning; they said that they like to study independently and corporately rather than listening to the lectures. They liked being the owner of their learning which means that they set the objectives of their learning, follow their own learning plan, discuss their opinion with the group members, and check their learning through different way of presentation. In summary, they enjoyed these processes of the learning. They also stated that the problem was very interesting and practical because it was hot issue at the time the study was conducted and it would influence to their daily life.

Meanwhile, it is valuable to review the students' suggestions. The students expressed that group work was hard. It was due to lack of experience working together, scheduling problem, and limited time. Time seemed to be the most challenge of implementing PBL. Lepper and colleagues (1997) lists the characteristics of exemplary teachers. According to them exemplary teachers are intellectual, nurturing, Socratic, progressive, indirect, reflective; and encouraging. While these qualities are often observed with experienced teachers, inexperienced teachers face difficulties due to lack of those quality characteristics. Moreover, inexperienced teacher need more time in preparing class, especially PBL classes. Having said that, the teachers tend to avoid PBL given a fixed time in a semester (Choi & Lee, 2008).

Some of the feedback was valuable to improve the course in conjunction of PBL and the mock trial. Since the PBL was new to most students, many students commented that they needed more time to understand the structure of PBL and to prepare the mock trial. Many students expressed that they could do better if they had more time to prepare.

One student stated her uncomfortable feeling toward student-centered learning. For example, one student requested the teacher's authority to control chaotic situations. PBL classroom may look chaotic due to self-reliant learning. In PBL classroom, because teacher plays a role of facilitator rather than a lecturer or leader of the students' learning, it is natural phenomenon to be chaotic in the beginning. These two limitations could be relieved with enough time to prepare and to get familiar with the process of PBL.

5. Discussion

This study provided practical evidence that PBL effectively helped college students learning social issues. A goal of teaching social problems, as a curriculum, was to help students understand theories and improve applicability into contemporary social issues. In the sense, PBL was an effective instructional method; to connect theory and practice; help students become active learners; to enhance students' knowledge; and to build their own perspective to analyze social issues.

Following students' comments support how PBL changed his attitude toward learning:

> "Unlike lecture-based classes, PBL class required group discussions and cooperation between members. It differs from traditional classes a great deal. It gave me a whole new experience." (Kim, Male, Jr,)

Selecting the problem is critical component for success of the PBL. Although one problem was selected through the PBL class, the students

learned intertwined relationship among political and private entities. This is well documented from the following comments:

> "Connected learning from PBL was more effective and interesting than separate several studies. I liked the content of the study that was closely related to current Korean issues." (Min, Male, Jr.)

The researchers found that applying mock trial to the PBL was innovative. The students' confidence about the issue has increased through participation of the mock trial. It was impossible to defend their opinion and persuade their classmates without full understanding of the issue. Moreover, fear of judicial process most students used to have has decreased. Following excerpt is one of the students' feedbacks:

> "If I had seen about the media-related law in the newspaper, I wouldn't have read it. But after having the mock trial, I could explain the content of the law and the surrounding issues to anyone. Also, the experience of the mock trial seemed to be difficult at first but found it useful later." (Lee, Female, Jr.)

6. Limitation

Given the fixed amount of time during one semester, only 6 weeks were allowed for the PBL. If 15 weeks were assigned for the PBL in a semester, the course could have been more effective. For example, many students pointed out that they needed more time to research, discuss, and present their learning. The researchers agree with the students' comments; they believed that the course could have been better if

they had time to provide informational orientation to the students who were not familiar to PBL.

To maximize the effectiveness of the PBL, it is suggested to minimize the number of the students for the course. Students pointed out that not everyone had chance to speak their opinions. Therefore, the researchers suggest utilizing PBL with small number of students. It seems to be difficult applying PBL with freshman or sophomore. Rather, this PBL can be more effective with senior and small number of students.

This study explored the effectiveness of using PBL in teaching social issues in one of the university class. The effectiveness was examined through the perception of the students who experienced the PBL. It would be a better research design if this study compared with the students who did not have PBL in learning the same social problems.

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문제기반학습(PBL)을 통한 대학생들의 사회문제 교수법

이화경 · 허창덕

학생들에게 지식을 잘 전달하기 위한 교수법은 시대의 변화를 반영하는 방향으로 항상 발전을 거듭해 왔다. 지난 몇 십 년 동안 지나친 취업 경쟁률로 인해 대학생들에 대한 기대치는 증가되었고 따라서 대학에서 제공하는 수업은 전문적 지식뿐만이 아닌 지식을 어떻게 실생활에 적용할 수 있는가에 대한 문제해결능력까지도 포함하게 되었다. 특히 인문 사회과학 분야의 대학 수업들은 다양한 이론적 기반을 제공하여 학생들의 분석적인 사고력을 증진시키려 제공되어 왔었다.

본 연구는 이러한 노력중 하나로서 현 한국사회에서 일어나고 있는 사회문제들을 이용하여 대학생들에게 어떻게 효과적으로 교수할 것인가에 대한 사례연구이다. 많은 교수법 중 본 연구는 '문제기반학습(Problem-Based Learning)'을 이용하여 학생들의 사회문제를 보는 철학 및 관점을 발전시키고자 하였다. 자칫 이론에 그칠 수 있는 수업에 현재 한국에서 발생한 '문제'를 던짐으로써 수업은 시작이 되었다. 학생들은 이 문제를 소그룹으로 나뉘어 자체적으로 문제해결 방법과 역할을 정하여 계획된 바대로 진행함으로써 진정 학습의 주체자는 자신임을 깨닫게 되었다. 이외에도 문제중심학습을 대학수업에서 적용할 때의 장점 및 개선점들이 논의되었다. 이 연구의 가장 큰 의미는 학생들의 학습결과 및 과정을 '모의 재판'이라는 형태로 표현하게 하여 기존의 시험과는 다른 평가도구를 사용하였다는 데 있다.

주제어 : 문제기반학습, 사회문제, 교수방법, 교수평가, 모의재판

이화경
소속: Department of Curriculum and Instruction, Southern Illinois University at Carbondale.
주소: Carbondale, IL 62901-6899
전화번호: +1-618-453-3886
전자우편: jolee@siu.edu

허창덕
소속: 영남대학교 사회학과
주소: 경북 경산시 대학로 280
전화번호: (053)810-2250
전자우편: cdpoet@hanmail.net

이 논문은 2012년 10월 31일 투고하여
2012년 11월 14일까지 심사 완료하여
2012년 11월 24일 게재 확정함.