

PROBLEM BASED LEARNING AS AN APPROACH TO INCREASE STUDENTS' SOFT SKILLS: CASE STUDY AT ECONOMICS FACULTY, WIDYATAMA UNIVERSITY, BANDUNG, INDONESIA

Islahuzzaman & Sri Astuti Pratminingsih

Widyatama University

ABSTRACT. Problem Based Learning is an instructional approach that has been used successfully implemented over the years and will continue to gain acceptance in multiple disciplines. Problem Based Learning is a student-centered learning that empowers students to conduct active learning. Skills such as cooperation, communication, and problem solving which are valued by the employer hopefully can be gained through this approach. The purpose of this paper is to analyze students' response to Problem Based Learning in Auditing class. The respondents are 25 Auditing class students. The methodology employed during the study enhanced a student centered learning, problem oriented learning approach. The teaching strategy was designed in 4 phases: (1) Theory Presentation: Developing students' auditing skills, (2) Small group discussion on a case study: Developing students' problem solving skill (3) Presentation of the paper: Developing students communication skills, and (4) Home group: Developing students interpersonal and self directed learning. The study found that problem based learning employed in Auditing class increased the students' communication, problem-solving, team work skills. These results were positive and the students were in favor of problem based learning approach compared to teacher-centered approach. Conclusion: The PBL employed in Auditing class proved to be effective and was perceived by the students as a valuable and appropriate strategy.

INTRODUCTION

Human capital development has always been an important issue in Indonesian government. Brojonegoro (2003) indicates that the quality of Indonesia's human resources falls short sufficient compared to other countries. In ASEAN, Indonesia is the lowest in rank compared to Singapore, Malaysia, Thailand, and the Philippines. In this respect, higher education institution as a place of exploring and developing knowledge has the responsibility of human development. Therefore, the Directorate General of Higher Education developed a strategy that focuses on improving relevance and national competitiveness through promoting the quality of higher education not only providing hard skill but also soft skill as the central theme in its Higher Education Long Term Strategy.

Putra & Ariyati (2005) argues that soft skills are required not only to gain employment, but also to progress within organization so as to achieve one's potential and to contribute successfully in the organization. The Directorate General of Higher Education (2006) states that the term soft skills include: communication skill, team work, problem solving skill, initiative and creativity skill, self management, learning skill and technology skills.

In line with this strategy, Widyatama University as one of private universities in Indonesia has determined its direction and policy to improve its graduates. One of its programs is to reorientate the teaching and learning system by using student centered learning.

The International Accountant Association states that the important qualities of accountant graduates are high level skills in communication, the ability to arrive at informed judgments, and the ability to solve a problem (IFAC Education Committee, 2003).

PBL is a student-centered learning process that employs problems as context for students to develop problem-solving and communication skills as well as their fundamental knowledge. There have been numerous studies showing how PBL exceeds its traditional counterpart, the lecture-type approach in improving students' learning. Students who experience PBL have substantially more positive attitude towards the instructional environment than those in more traditional class (Schmidt & de Graaf, 1989). Students' communication skills enhance during the PBL exercise in the teaching learning process (Ali Bashiran & Abdul Kader; 2005, Colvin, 2005). Problem based instruction is designed to help students develop soft skill such as problem solving, team work, and communication skills (Albanese & Mitchel, 1993; in Duch, 2001).

This study analyses the results of a survey of PBL in Auditing class in Accounting Department, Widyatama University. This study shows that PBL provide students with the opportunity to gain knowledge and comprehension on theory and content. Additionally, PBL helps students develop their soft skills abilities such as problem solving, communication, and team work.

RESEARCH METHOD

The subjects for the study were 25 students enrolled in one of the Auditing classes. One semester was divided into 3 cycles with each cycle lasting for 4 weeks (4 class meetings.) There were 3 stages in each cycle: Planning, Implementation and Monitoring/Evaluation. The objective of the cycles was to provide continuous improvement of the learning process.

The procedure of PBL implementation was as follows:

1. Prior to the class commencement, students were presented with a class format. Students were given a brief overview of how PBL would be carried out in the class. The plan for the learning-lecturing process conveyed included:
 - a. Study materials and exercises for group discussions on Auditing.
 - b. Compulsory literature/module/handouts
 - c. Learning-lecturing plans to apply evaluation process during the three activities phases, namely planning phase, implementation and observation phase, and reflective phase.
 - d. Explanation about the application of *PBL/I* model through discussion and Collaborative Learning to improve soft skills and knowledge.
 - e. Assessment means for the process to measure achievements, consisting of written examination, observation and questionnaires.
 - f. Explanation about the rules of engagement in class.
2. The students were divided into two groups. They were expected to be active participants and the role of the teacher was that of a facilitator.
3. There were 3 cycles of PBL implementation. Each cycle the students were given problem based activities either individually or collectively.

Instrument

The instrument used in this study was adopted from Spencer & Spencer (1993), in a form of a questionnaire that measured the perception and attitudes of students toward the PBL method. The questionnaire consisted of 16 items on a 5-point Likert scale. For each item, students were asked to respond by giving 1 (strongly disagree) to 5 (strongly agree). The questionnaire measured the student's level of problem solving and communication skills.

FINDINGS

PBL learning experience

The findings in this paper supported other researches in that PBL has been perceived highly by students and it also shown the favorable attitude toward PBL.

Cycle I

Observation was carried out during the implementation of the first evaluation by using the previously prepared instrument. The results are illustrated in table 1. The evaluation result in cycle 1 showed that the ability level of *Social Skill* score with *Problem Solving & Analyzing* attribute was still low. At 30.83 percent, most students are still grouped at the basic level of problem solving skills. It indicated that students had little or no ability in problem solving. For *Communication* skills, the majority of the

students were at the basic level (36.09%). It meant that the students were capable to express opinions personally at the lower level.

Table 1: Cycle I

LEVEL	PROBLEM SOLVING & ANALYTIC		COMMUNICATION SKILL		STUDENT PARTICIPATION	
	Absolute	%	Absolute	%	Absolute	%
1	8	30.83	9	36.09	2	8
2	13	52.00	3	11.51	4	16
3	4	17.17	7	30.10	9	36
4	0	0	6	22.30	10	40
Total	25	100	25	100	25	100

Source: survey

The reflection of the researchers towards observation result in the first cycle was that most students were still adapting themselves towards the *SCL* approach. Students still lacked confidence in solving the problems and expressing their opinions. The questionnaire on the participant's report sheet showed that the majority of the students (36%) were less satisfied due to less active participants in engaging in discussion sessions.

Improvement which was scheduled in cycle 2 was needed as the level of students' ability was less than 50 %. Teachers and students reanalyzed the model, learning media and the instruments as well as the learning process to fine tune the program.

Cycle II

The learning activities in cycle II was generally similar to the previous cycle. The allotted time Auditing class meetings was 150 minutes per meeting per week, and it commenced after the fourth week.

Table 2: Cycle II

LEVEL	PROBLEM SOLVING & ANALYTIC		COMMUNICATION SKILL		STUDENT PARTICIPATION	
	Absolute	%	Absolute	%	Absolute	%
1	2	6.12	5	18.62	6	24
2	16	66.17	2	6.24	14	56
3	5	21.11	11	45.11	3	12
4	2	6.6	7	30.03	2	8
Total	25	100	25	100	25	100

Source: survey

In this cycle, the learning process and the implementation of discussion were improved. In the first meeting of cycle II the teachers reemphasized the specific goals of learning with the approach. Re-emphasis was also given to the tasks and the roles of the students, either as individuals or as discussion group participants. The student were demanded to be more creative and innovative in problem solving.

The observation result in cycle II showed that there was an improvement of the students' ability in problem solving and communication skills. Students at the intermediate level were recorded at 66.17%, which translated to the fact that the majority were capable of identifying problems, making priorities in solving them, and inquiring for information although they still needed directions.

As for communication skills, 45.11% of the students were at the third level, which meant that were able to verbalize their ideas to an individual or groups either spoken or written. Such ability, however, was not balanced with their ability listen to others effectively. Based on Participant Observation Sheet, most of the students (56%) were satisfied about their performance, both individually or as discussion groups. In this cycle, the students were content with excellent discussions and collaboration in comprehending the materials and discovering new information.

Cycle III

Cycle III completed the learning process evaluation in the Auditing class. The result in the third cycle is illustrated in tabel 3.

Table 3: Cycle III

LEVEL	PROBLEM SOLVING & ANALYTIC		COMMUNICATION SKILL		STUDENT PARTICIPATION	
	Absolute	%	Absolute	%	Absolute	%
1	0	0	0	0	15	64
2	1	2.52	1	3.17	8	32
3	17	68.65	15	58.23	1	4
4	7	28.83	9	38.60	0	0
Total	25	100	25	100	25	100

(Source: survey)

The observation result in this cycle points out the improvement of students' *Problem Solving & Analytic* attributes. At the advanced level (third level) was 68.65% of the students, which meant that most of the students were able to express their ideas effectively to an individual and groups. Only 28.83% of the students were grouped in the fourth level: they could express their ideas in spoken language, formal or informal writings and could pay attention effectively when others were speaking. The rest of the students in the third cycle (2.52%) were at the level 1 and level 2 of the *Problem Solving & Analytic* ability in level 1 and in level 2.

The students' *communication skills* were also improved: 38.60% of the students were at the fourth level with the ability to communicate effectively when they did the inquiring and providing answers to problem solving acceleration. Most of the students (58,23%) were in the third level, and only few students (3.17%) were still in the at basic and intermediate level and basic level were included.

The attitudes of the students toward PBL also improved, with 64% of the students indicated satisfaction in PBL method of teaching.

CONCLUSION

Communication and Problem solving skills are essential elements of professionalism. The goal of PBL model is to provide accounting students with the communication and problem solving skills needed in their future career. This paper has indicated that PBL implementation in Auditing class enhances communication and problem solving skills.

In the future, implementation of PBL, the supporting media and teaching methods need to be improved, such as facilities that enables recording of student's *feedback*. It is also recommended for other educators to implement the model to increase the student's soft skills.

REFERENCES

- Albanese & Mitchel (1993). Problem based learning : A review of literature on outcomes and implementation issues. *Academic Medecine*, 68 (1), 52-81
- Ali Bashiran & Abdul Kader. S. (2005). *PBL : Impact on communication skills for law students*, Internal Conference on Problem Based Learning, Lahti, Finland.
- Brojonegoro (2003). *Higher education long term strategy*, Directorate of Higher Education.
- Colvin, J. (2005). Using PBL to develop oral communication skills. *Seminar proceeding from PBL : From problems to Ideas through Communication*, University of Delaware.
- Depdikbud (1999). *Penelitian tindakan kelas (Classroom action research)*. Jakarta: Direktorat Jenderal Pendidikan Dasar dan Menengah. Direktorat Pendidikan Menengah Umum.
- Direktorat Jenderal Pendidikan Tinggi (DIKTI), (2004). *Tanya Jawab Seputar Unit Pengembangan Materi dan Proses Pembelajaran di Perguruan Tinggi (The Material Development Unit and The Teaching-Learning Process in Tertiary Education: Q&A)*. Jakarta.
- Evers. Frederick T., James C. Rush & Iris Berdrow (1998). *The bases of competence skills for lifelong learning and employability*. Jossey-Bass Publishers, San Francisco.
- Hardjodipuro, S. (1997). *Action research*. Jakarta: IKIP Jakarta.
- Putra, S. I. & Ariyanti P. (2005). *Sukses dengan soft skills: Bagaimana meningkatkan kemampuan interaksi sosial sejak kuliah (Success with soft skills: How to improve social interaction since college)*. Direktorat Pendidikan Institut Teknologi Bandung.
- IFAC Education Committee (2003). *International Education Standards (IES) for Profesional Accountants*.
- Spencer, L.M., Jr. & Spencer, S. M. (1993). *Competence at work: Models for superior performance*. John Wiley & Sons, Inc. USA.
- Stein. R, F. & Hurd, S. (2000). *Using student teams in the classroom: A faculty guide*. Bolton, MA: Anker Publishing Company, Inc.
- Stevens, D. D. & Levi A. J. (2005). *Introduction to rubrics: An assessment tool to save grading time, convey effective feedback and promote student learning*. Sterling, Virginia.
- Swara, Engko (1984). *Dasar-dasar metodologi pengajaran (Fundamentals of teaching methodology)*, Cetakan Pertama, Penerbit Bina Aksara, Jakarta.
- Tim Pelatih Proyek GSM (1999). *Penelitian tindakan kelas (Class action research)*. Jakarta: Departemen Pendidikan Nasional, Direktorat Jenderal Pendidikan Tinggi.