

THE MYSTERIES OF PROBLEM-BASED LEARNING: COMBINING ENTHUSIASM AND EXCELLENCE

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I. INTRODUCTION

THERE is already voluminous literature on problem-based learning (“PBL”). In this essay, I propose to discuss how PBL, as a teaching method, facilitates the pursuit of enthusiasm and excellence among university students, especially law students. In particular, I will discuss three issues. First, what is problem-based learning? Second, how is PBL applied in academia? Third, how could PBL be applied to the study of law in order to promote enthusiasm and excellence in legal education?

II. THE THEORETICAL FOUNDATIONS OF PROBLEM-BASED LEARNING

A. *What Is Problem-Based Learning?*

PBL is a term used to describe an approach to teaching the curriculum of any discipline. The principal idea behind PBL is that students’ learning should be based on carefully designed problems “that demand from the learner acquisition of critical knowledge, problem solving proficiency, self-directed learning strategies, and team participation skills.”¹ PBL “replicates the commonly used systemic approach to resolving problems or meeting challenges that are encountered in life and career.”² Therefore, PBL is an approach to learning that uses a problem, rather than a lecture, to enhance the learning of students. This approach shifts responsibility for learning onto the students and away from the teachers. “PBL acknowledges the possibility of prior knowledge (whether subject-specific or not) held by the learner. Further knowledge is acquired on a ‘need to know’ basis, enabling the learner to diagnose his or her own learning needs. Knowledge gained is fed back into the problem in an interactive loop.”³ Barrows and Tamblyn describe PBL as follows:

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1. An Overview of PBL, <http://www.mcli.dist.maricopa.edu/pbl/info.html> (last visited Mar. 1, 2007).

2. *Id.*

3. SUSAN E. ALDRED ET AL., THE DIRECT AND INDIRECT COSTS OF IMPLEMENTING PROBLEM-BASED LEARNING INTO TRADITIONAL PROFESSIONAL COURSES WITHIN UNIVERSITIES 3 (1997), available at <http://www.dest.gov.au/archive/highered/eippubs/eip9709/front.htm>.

The stimulation formats which provide the basis for this method allow for full and free inquiry and decision making on the part of students. The stimulation begins by providing context and preliminary information about the problem, for example, those few facts that a client gives the receptionist when making an appointment with a lawyer. Students then direct their own learning, exploring the problem in much the same way they would with an actual problem The problems, not a set syllabus, provide the stimulus and framework for learning. Knowledge is acquired through self-directed study and small group discussions, rather than through lectures.⁴

PBL is seen by some commentators as the most important development since the move to professional training in educational institutions.⁵ PBL has been adopted in higher education institutions in Australia, the European Union, Canada, and the United States during the last twenty years. Following the introduction of PBL into medicine at McMaster in Canada and into law at the University of Limburg at Maastricht in The Netherlands, PBL has been adopted in the fields of nursing, social work, engineering, and architecture, as well as law, optometry, and management.⁶ In dentistry, PBL initiatives have been taken at the University of Adelaide and The University of Queensland in Australia, and at Harvard in the United States.⁷

The relevant literature reports several perceived disadvantages of PBL. First, students may be uncomfortable with PBL because they are so used to lecture-based learning.⁸ Second, it may appear that the use of PBL does not convey the amount of knowledge students acquire through the conventional use of the lecture method. Third, an apparent disadvantage of the use of PBL relates to the length of time needed to master the content of a course. In particular, Donald Woods argues that it takes longer to master the same subject content if PBL is used as the teaching method.⁹ This criticism may be more apparent than real because, if students like the PBL teaching method, they may choose to learn the studied materials more in depth than is needed to succeed in the course. In addition, the longer time needed to master a course taught by PBL may be explained by the fact that PBL requires the development of other skills apart from the acquisition of knowledge.

However, the literature also reports the demonstrable advantages of PBL. First, PBL enhances learning because it requires small group teaching. This enhancement of learning is facilitated by the participation of students in the process of learning. Small group learning imposes an obligation upon students to

4. HOWARD S. BARROWS & ROBYN M. TAMBLYN, PROBLEM-BASED LEARNING: AN APPROACH TO MEDICAL EDUCATION 191 (1980).

5. DAVID BOUD & GRAHAME FELETTI, THE CHALLENGE OF PROBLEM-BASED LEARNING 13 (1991).

6. ALDRED, *supra* note 3, § 1.

7. *Id.*

8. DONALD R. WOODS, PROBLEM-BASED LEARNING: HOW TO GAIN THE MOST FROM PBL 2-4 (1994).

9. *Id.*

take learning into their own hands, thereby increasing their motivation to learn.¹⁰ Second, PBL is instrumental in assisting the retention of knowledge because, in general, students more easily recall information which is embedded in a factual context.¹¹ Third, PBL encourages interdisciplinary learning because the resolution of a problem may necessitate the application of dispersed knowledge.¹² A good example in the discipline of law is the Civil Procedure course. If PBL were applied to this course, students would be expected to ascertain the relevance of Contract, Tort, Company, and Agency Law to a relevant procedural problem.¹³ There is little doubt that the contextual integration of legal skills and knowledge properly prepares students for legal practice by encouraging them to adopt an integrationist approach to the resolution of legal problems.

B. The Application of PBL in Academia

When PBL is used as a teaching method, the traditional roles of teacher and student change markedly. Students assume responsibility for their learning, thereby enhancing their motivation to learn and providing them with feelings of accomplishment. In turn, teachers are used as resources, facilitators, tutors, and evaluators, who guide students in their problem-solving efforts.¹⁴ As indicated before, PBL requires small group teaching in order to enable students to discuss the problem or problems upon which the course is based. The problem is usually introduced in the first meeting of the members of the class. This process of learning is commonly referred to as the Triple Jump.¹⁵ The first jump aims at ascertaining what students already know about the problem used in the class. This process of ascertainment requires students to recall studied materials relating to the problem at hand. The second jump involves the development, by students, of the Hypothesis; it challenges students to define the problem used as the stimulus in the class. The third jump requires students to research the relevant issues to enable them to explain or justify the Hypothesis.¹⁶

10. *Id.* at 2-2.

11. Anita B. Szabo, *Teaching Substantive Law Through Problem-Based Learning in Hong Kong*, 11 J. PROF'L LEGAL EDUC. 195, 203 (1993).

12. *Id.* at 204.

13. *Id.*

14. See Dianne Smith et al., *The Introduction of Problem Based Learning to Students through A Computer Based Education Module*, (July 11-14, 1995) (paper prepared for The Inaugural Pacific-Rim-First Year Experience Conference, available at http://www.fyhe.qut.edu.au/past_papers/papers95/SMITH_D.doc) (citing Audrey Blunden, *Problem-Based Learning and its Application to In-House Law Firm Training*, 8 J. PROF. LEGAL EDUC. 115 (1990)).

15. See The University of Adelaide, *Problem-Based Learning: Useful Assessment Instruments 2*, http://www.adelaide.edu.au/clpd/materia/leap/leapinto/pbl_assessment_instruments.pdf (last visited Mar. 1, 2007).

16. *Id.*

III. THE APPLICATION OF PROBLEM-BASED LEARNING TO LAW TEACHING

A. *Problem-Based Learning and Case Law*

Law teaching is ideal for using PBL because the courses are based on case law.¹⁷ PBL has actually been used in law teaching for a long time even though it may not have been recognised as such by law teachers. The PBL teaching method, which uses problems as stimuli for learning, is applied in law teaching in order to enable students to think as lawyers. One application of PBL to law teaching is known as MIRAT. The letters in MIRAT stand for:

- M – Material Facts—present or absent
- I – Issues of law and policy
- R – Rules and Resources
- A – Arguments or Application
- T – Tentative Conclusion¹⁸

MIRAT provides a structure for both teachers and students to ensure a focused approach to legal learning. The MIRAT structure provides them with a framework that enables them to control the learning process and to guide them through the problem to the desired solution. This method is often used in tutorials and nowadays also in lectures. Students are expected to undertake the first step, which is the reading of the material facts. The second step involves an identification of the relevant issues of law and policy; this identification is undertaken by students when they prepare for the tutorial and is refined by the teacher when guiding his or her students through the problem. The third step, involving the ascertainment of the applicable rules and resources, requires independent research by students. The fourth step involves the application by students of these rules and resources to the problem used as the stimulus. The teacher acts as a facilitator in the discussion. The final step involved in the MIRAT method requires the teacher and the students to formulate an overall understanding of the problem used as the stimulus.

PBL is not just a teaching method; it is also a method of learning used in the assessment of students. Law students usually have to submit an assignment for each undertaken course. Most assignment topics are problem-based. Students have to identify the legal and policy issues and are required to undertake advanced research in the relevant area of law. Upon completion of their research, students would typically be required to apply the law to the facts of the problem and draw their own conclusions. Hence, the stages involved in the solving of a legal problem include the following:

17. Anita B. Szabo, *Changing the Way We Educate Law Students: Problem Based Learning*, 2 RES. & DEV. IN PROBLEM BASED LEARNING 261, 262 (Michael Ostwald & Arthur Kingsland eds., 1994) (proceedings of the PBL Conference 1994).

18. John H. Wade, *Meet MIRAT: Legal Reasoning Fragmented into Learnable Chunks*, 2 LEGAL EDUC. REV. 283, 284 (1990-1991).

- Problem finding;
- Preliminary consideration of approaches to the problem;
- Inquiry strategy;
- Issue identification;
- Research;
- Legal analysis and consideration of solutions; and
- Counselling or case management.¹⁹

Another form of assessment of law students' work is advocacy, which is equally problem-based; but in contrast to the writing of assignments, it requires students to present their arguments orally. This is a very popular method, used extensively by law schools throughout the world, especially in the United States where most law schools have established Moot Court Boards. PBL is also applied in Moot Court Competitions at Murdoch University School of Law. The Law School participates in the prestigious Willem C. Vis International Commercial Arbitration Moot; Philip C. Jessup International Law Moot Competition; the International Maritime Law Arbitration Competition (which is held at Murdoch); and the Manfred Lachs Aviation Competition. Eligible students are encouraged to participate in these Moot Court Competitions.

B. PBL and the Willem C. Vis International Commercial Arbitration Moot

For a number of years, I coached student teams who participated in the Willem C. Vis Competition. The achievements of my teams prove the spectacular success that PBL can have on students' performances. In the period between 1996 and 2002, my teams from the T.C. Beirne Law School defeated most of the world's leading schools, thereby substantially enhancing the School's international profile. The Willem C. Vis Moot is based on a problem dealing with an international commercial transaction between a buyer and seller who have their places of business in different states.²⁰ The transaction goes wrong and requires conflict resolution by the participating students. Since the Willem C. Vis Moot is based on *one* transactional problem (which, however, has many multi-faceted aspects and issues), it could be described as project-based learning, which conceptually is the same as PBL. The results of my students (which came from three different law schools) were truly spectacular.²¹

J. Reuben Clark Law School, Brigham Young University (1996)

1995-1996 – Placed seventh in the General Rounds; one Best Oralist Award

19. Suzanne Kurtz, Michael Wylie & Neil Gold, *Problem-Based Learning: An Alternative Approach to Legal Education*, 13 DALHOUSIE L.J. 797, 804 (1990).

20. Willem C. Vis Int'l Commercial Arbitration Moot, <http://www.cisg.law.pace.edu/vis.html> (last visited Mar. 1, 2007).

21. For results of all moots between 1993 and 2007, see Willem C. Vis Int'l Commercial Arbitration Moot List, <http://www.cisg.law.pace.edu/cisg/moot/mootlist.html#13> (last visited Mar. 1, 2007).

T.C. Beirne School of Law, The University of Queensland (1996-2002)

- 1996-1997 – Winner of the Moot; Placed sixth in the General Rounds; 2nd Prize, Best Memorandum for the Claimant;
- 1997-1998 – Grand-Finalist (Runner-up); Placed first in the General Rounds; two Best Oralist Awards;
- 1998-1999 – Quarter-Finalist; placed first in the General Rounds; two Best Oralist Awards;
- 1999-2000 – Winner of the Moot; Placed first in the General Rounds; second Prize, Best Memorandum for the Respondent; Honourable Mention, Best Memorandum for the Claimant; two Best Oralist Awards;
- 2000-2001 – Quarter-Finalist, Placed second in the General Rounds, third Prize, Best Memorandum for the Respondent; two Best Oralist Awards;
- 2001-2002 – Grand-Finalist (Runner-up); Placed first in the General Rounds; first Prize, Best Memorandum for the Claimant; Honourable Mention, Best Memorandum for the Respondent; first Prize, Best Advocate; one Best Oralist Award

The University of Notre Dame Australia (2005)

- 2004-2005 – Semi-Finalist; Placed seventh in the General Rounds; Honourable Mention, Best Memorandum for the Respondent; two Best Oralist Awards

C. Making Teams Work: PBL and the Willem C. Vis International Commercial Arbitration Competition

The prestigious Willem C. Vis International Commercial Arbitration Moot trains leaders of tomorrow in the principles of international trade law and arbitration law.²² It concerns an international trade transaction, subject to the United Nations Convention on Contracts for the International Sale of Goods, which is submitted to an arbitral tribunal for resolution in accordance with law and equity. The application of this Convention concerns many ethical (as well as legal) issues; for example, the meaning of performance of the contract in “good faith.” The competition climaxes in simulated arbitration hearings held in Vienna in the week before Easter. For example, in 2002, 138 teams from all continents, including Harvard, Columbia, Cornell, the best German universities, and many Australian teams participated in the Moot. By 2005, the number of participating law schools increased to 156.²³ One hundred and seventy-eight teams participate in the 2006-2007 Competition. Each of my teams consisted of

22. Willem C. Vis Int'l Commercial Arbitration Moot, *supra* note 20.

23. William C. Vis Int'l Commercial Arbitration Moot Participating Teams 2005-2006, <http://www.cisg.law.pace.edu/cisg/moot/participants13.html> (last visited Mar. 1, 2007).

five students, who were required to write two sophisticated memoranda and to participate in simulated arbitration hearings before distinguished panels of arbitrators. Several of my teams obtained the number one ranking in the world (i.e., they achieved the highest mark awarded in the preliminary hearings); they reached the Grand Final four times, and they actually won this prestigious event twice. In addition, my teams won many Best Memoranda prizes and Best Oralist awards. Consequently, many international opportunities, including offers of lucrative employment in Australia and overseas, opened up for the members of my teams. Although all team members were involved in the writing of the Memoranda, only the two “best” or “most suitable” students advocated a position before the arbitral panels in Vienna.

D. The Identification of Common Goals: An Essential Step in Achieving Team Efficiency

It is appropriate to reflect on the application of PBL to the making of successful teams. In my experience, the efficiency and effectiveness of teams largely depends on an identification of the common goals that team members seek to achieve. Indeed, the unprecedented success of my teams has prompted people to ask questions about the characteristics of a dream team. What makes teams work? What constitutes successful team building? In this context, it is important to acknowledge that a team’s success is almost never the result of accident or luck (although luck does play a role in competitions). Instead, the fashioning of an effective, workable team requires hard work, dedication, and a substantial commitment by both the coach and the coachees. My experience indicates that Hunter, Bailey, and Taylor’s statement that coaching “is a peer relationship based on trust and commitment” is substantially correct.²⁴ Although trust and commitment are conditions precedent for teams to work effectively, they are not the only requirements.

In order to suggest a plausible answer to the question as to what makes a team work, it is first necessary to clarify the meaning of the word “work” in this context. The concept “work” is value-neutral because it does not, in itself, indicate that the team’s achievement or results are determinative of whether the team has worked well. The concept of “work” is an indeterminate, ambiguous notion, the meaning of which will have to be supplied to assess the extent to which a team has worked well. Hence, it is highly desirable, in the context of the Willem C. Vis International Commercial Arbitration competition, to identify the benchmarks against which the success of a team will be assessed. These benchmarks, in turn, will depend upon the goals that one seeks to achieve by participation in the competition. For example, the competition could be seen as an educational tool that enables students to appreciate the uses (and abuses) of international trade law and arbitration as a dispute resolution mechanism. As such, a team would be deemed to be successful (or “to have worked well”) if its members learned a lot during the competition. If educational value of the

24. DALE HUNTER, ANNE BAILEY & BILL TAYLOR, *CO-OPERACY: A NEW WAY OF BEING AT WORK* 89 (1998).

competition was to be used as the benchmark against which to judge the effectiveness of a team, it would be necessary for all five team members to be given an opportunity to advance an oral argument before the Arbitral Tribunal in Vienna, even if their speaking skills or styles were not suited for the task. It might be appropriate to paraphrase the dictum of the founder of the modern Olympics in this context: it is not important to win, but to participate. However, if the goal of the team's participation was to win the competition or to advance as far as possible in it, an opportunity for members of the team to contribute to the oral hearings would not measure the team's success or absence thereof.

However, the goals of winning the competition and maximising educational value are not mutually exclusive because it is presumably impossible to win a competition without having learned a lot about the relevant law, policies, and ethics. It is for that reason that I encourage my students to maximise the educational value of the competition by advancing as far as is possible in the competition.

E. Effective Teamwork

The relevant literature indicates that a few basic building blocks have to be in place in order for a team to work well.²⁵ For a team to work well, it is necessary (1) to select the team members carefully,²⁶ (2) to coach the team properly and professionally,²⁷ and (3) to manage inter-team conflict sensitively.²⁸ In this essay, I mainly concentrate on (1) and (2) because inter-team conflicts could be avoided by a judicious selection of team members and professional coaching.

1. Selection of Team Members

A prudent selection of team members is understandably essential for team effectiveness. It may be argued that a team will only work well when team members possess the same skills and ideally come from the same background. In this context, two points may be made. First, although it is not possible to prove or disprove this assertion without extensive empirical research (which is obviously beyond the scope of this essay), it can be argued reasonably that a determination of the skills team members should ideally possess is dependent upon the goals the team is expected to achieve during the competition. As the Willem C. Vis Competition consists of different components, i.e., writing and speaking components, it is necessary to select team members with diverse complementary skills and aptitudes. Indeed, if a team were to consist of brilliant speakers who are not able to write a scholarly memorandum, the team would not

25. See generally What Makes Teams Work?, <http://www.fastcompany.com/online/40/one.html> (last visited Feb. 2, 2007); Understanding and Building High Performance Teams, <http://ptepartners.com/Team> (last visited Feb. 2, 2007).

26. Team Selection, http://highperformanceteams.org/hpt_sel.htm (last visited Feb. 2, 2007).

27. Coaching, http://highperformanceteams.org/hpt_coch.htm (last visited Feb. 2, 2007).

28. Coach Intervention, http://highperformanceteams.org/hpt_inve.htm (last visited Feb. 2, 2007).

work well. Thus, teams work best if their members' skills and aptitudes are compatible and complementary. Second, Tania Sourdin argues that a team will work well if there is no tension.²⁹ However, if the goal of the competition is to win, then tension often works as a catalyst that brings the best out of people and challenges them to do better.

2. *Appropriate Coaching as a Necessary Condition for Effective Team Work*

Most people know, instinctively, that capable coaching is necessary for a team to work well. Indeed, to use a soccer analogy, although a team may consist of brilliant individual Real Madrid-type players (i.e., the so-called "galacticos"), the team will not win the Spanish La Liga without appropriate training and coaching. Indeed, the coach is invariably blamed for the team's failure (even if its successes are not necessarily ascribed to the coach!). Coaching aims to ensure that a team's skills and aptitudes are properly developed, thereby enabling team members to reach their potential and the team to achieve its goals. Sometimes, it also requires an understanding and management of the limitations of the members of the team.

It is, for reasons of word constraints, impossible to expand on the importance of coaching. It suffices for my present purposes to give one example. As indicated above, two team members (i.e., the "best" or "most suitable") are used to present arguments to the Arbitral Panel. This requirement stems from the fact that the goal of participation is to advance as far as is possible in the competition. Even if this goal is deemed worthwhile, reasonable people could still disagree on the meaning of "best" or "most suitable." These concepts are essentially empty vessels, waiting to be filled in by the coach. During the preparatory or training phase of the competition, the coach might organise many mock-simulated arbitration hearings among all team members in order to ascertain the two "best" speakers. The assumption is that these two people will be selected for the purpose of presenting oral arguments before the arbitral panels in Vienna. However, appropriate coaching may require that only one or none of these two people be selected for that purpose. This is because a team of two speakers will only work well if they are able and willing to work with each other enthusiastically. In order for the two speakers, and therefore for the team, to work well, it is important that they like each other, i.e., to have the chemistry needed to achieve success. Hence, as team cohesiveness is important, the coach may sometimes have to select other speakers, who, at first sight, are not as good as the top two speakers, as revealed by the preparatory mock hearings. Nevertheless, it is important for the other members of the team to always feel that they are part of the endeavour. In the end, it is the team's commitment, willingness to go the extra mile, and determination that will make the difference. In striving to win, one acts ethically as well as professionally. Nevertheless, as this is not an exact science, teamwork will only ever be as good as the coach's and team members' commitment.

29. TANIA SOURDIN, ALTERNATIVE DISPUTE RESOLUTION 1-35 (2002) (discussing use of ADR in resolving conflict, with a focus on processes).

IV. CONCLUSION

The PBL teaching method aims at the acquisition by students of analytical knowledge and problem-solving skills, which, in turn, often requires an ability to work as an effective member of a team. The best way to evaluate the effectiveness of PBL is to look at the performances of students and the educational outcomes of students' work. The application of PBL in international moot competitions points to the great potential of PBL in the teaching and training of law students.