PROBLEM-BASED LEARNING APPROACH: A WAY OF TEACHING BUSINESS STUDENTS THE CONCEPTS OF MANAGING PEOPLE AT WORK

Zaki Shakir Seddigi King Fahd University of Petroleum and Minerals Dhahran, Saudi Arabia

Keng Neo Lynda, Wee Republic Polytechnic Singapore

ABSTRACT

The relevance of curricula and traditional teaching/learning approaches of Business Schools in the universities are being increasingly questioned. One of the best methods that have recently emerged in teaching and learning is Problem-Based Learning (PBL). It is not only cooperative, but also teaches students skills such as creativity, problem solving, managing the problem in context, higher-order thinking and learning how to learn. PBL places the students in the active role of problem-solvers confronted with ill-structured problems which mirror the demand of real-world problems. In this paper, the authors demonstrate how PBL can be adopted to equip business students with concepts on managing people at work.

Introduction

The relevance of curricula and traditional teaching and learning approaches of Business Schools in the universities are being increasingly questioned. Alternative teaching and learning methodologies are being explored on how to develop the new skills required by the business community. A Business Higher Education Forum Presidential Report, *America's Business Schools: Priority for Change*, noted [1]:

"Objectives should be focused not only on the acquisition of a body of basic knowledge, but more importantly on the development of analytical and personal skills so that knowledge can be applied to detecting and solving managerial challenges".

The same sentiments are reiterated in another report by the American Assembly of Collegiate Schools of Business entitled, *Management Education and Development: Drift or Thrust into the 21st Century*. The report concludes that Business Schools must broaden their goals and emphasizes that "changing the curriculum alone is not sufficient; learning methodologies used must also be altered" [1]. The goals for undergraduate business students should include the following [2]:

- 1. Verbal and written presentation skills
- 2. Thinking and reasoning skills such as the precise use of words, use of logic and evidence to justify conclusions and a smooth flow of ideas
- 3. Research skills
- 4. Analytical problem solving skills such as using the knowledge of business functions, formulating creative options and deciding appropriate strategies.

- 5. Clarity on personal strengths and career goals.
- 6. Holistic development such as poise, stability, energy and enthusiasm.

The authors propose that the above mentioned goals for the undergraduate business students can be achieved by adopting Problem Based Learning (PBL). PBL is one of the most exciting and powerful teaching and learning methods that emerged in the last 40 years. The focus of this paper is to demonstrate how PBL can be adopted to equip business students with concepts on managing people at work. The PBL approach and problem scenarios are presented.

Problem-Based Learning (PBL): What Is It And Why Use It?

According to Barrows and Tamblyn (1980), "PBL is the learning that results from the process of working towards the understanding or resolution of a problem [3]. PBL simultaneously develops reasoning and problem solving skills, disciplinary knowledge bases, communication skills, team skills and research skills. By placing students in the active role of problemsolvers confronted with an ill-structured problem which mirrors the demands of the realworld, it equips them for their professional practice. At the core of PBL is an ill-structured problem to trigger student learning. An ill-structured problem has the following features [4]:

- Messy and complex in nature
- Requires students to inquire, gather information, synthesize and reflect.
- Changing and tentative with no one single correct answer.
- Requires students to seek a variety of information resources

Unlike traditional instruction, which is often conducted in the didactic lecture-tutorial format, teaching and learning in PBL normally occurs within small discussion groups of students facilitated by a faculty tutor. Over 80% of medical schools are using PBL to train their students for their professional practice by using clinical problems often encountered by patients. Rather than focusing on facts, PBL encourages active learning and self-directed learning. Many studies demonstrated that PBL not only enhances students' knowledge but also develops student self-directed, life-long learning skills, communication skills and increases their confidence and competency in managing real world problems. Because of the transferability of learning, students become more motivated in learning. PBL integrates the learning of content and skills in a collaborative environment and develops the graduate's social skills. It emphasizes on "learning to learn" through the PBL process by letting students assume ownership for their learning [5-7].

Figure 1 illustrates the difference between PBL and the other instructional approaches. It can be seen that while traditional lecture format lies furthest from authentic learning, PBL lies the closest. Figure 2 illustrates a typical PBL process. A striking difference compared with traditional learning is that the problem is introduced at the start of the process.

The Challenges of Moving From Didactic Teaching To PBL

The migration to PBL requires the faculty to re-frame their views on the educational process and their teaching role. Because PBL is an education philosophy, it requires changes in curriculum design, delivery to assessment. Faculty members have to re-examine many of the relationships that have characterized their teaching in the past. Instead of being the sage-onthe-stage by lecturing, the faculty members become guide-by-the-side by facilitating the students towards the attainment of their educational goals. The shift also demands a change in the faculty's role from lecturing by transmitting information to the students to facilitating student learning where they become independent learners. Faculty members also find the educational planning needed for implementing a PBL curriculum to be very demanding since they have little prior knowledge and skill [8].

A Common Misconception: The Difference Between PBL and CBL

The authors noted that there is a misconception between PBL and Case-Based Learning (CBL). CBL is a well established educational process during which learning and reflection happen within a small team of learners, or between the individual learner and the supporting multimedia resource material, the tutor, or team, often on a distance learning basis.

Figure 1: Comparison of Learning Between PBL & Other Instructional Approaches



Source: Wee (2004)

The purpose of CBL and PBL is to allow students to work with and learn from real world problems including best practices with the intention of getting things done using sound methods, technologies and peer group experience as support mechanisms. In other words, CBL and PBL, at its most fundamental level use of real world problems as learning context for students to learn creative and critical thinking, reasoning and problem solving skills, collaborative learning, communication skills and acquisition of new knowledge. However, there are many differences between PBL and CBL such as the following:

- 1. Learning is triggered by a problem in PBL. There is no lecture prior to handing out of the problem to the students.
- 2. The problem in PBL is usually based on real world. There is no single correct answer. Students have to consult a variety of information bases. Hence, they have to research, synthesize and reason with each other. In CBL, the answer is embedded in problem and it requires critical thinking from students to identify them.
- 3. PBL focuses on developing higher order thinking skills and allows students to transfer their learning to their professional practice. The learning behavior in a PBL session mirrors the learning at the workplace. Students gather skills such as reasoning and problem-solving, communication, collaboration, and research that are essential to help them succeed at their work place.

Application of PBL in Managing People At Work

Faculty members can write the problem scenario by themselves or look to the real world for problem inspiration. They need to be clear on the educational outcomes that their students would attain by managing the problem. These outcomes are then presented as cues that are embedded in the problem and learning process. A recent book, "A Problem-Based Learning Module On Managing People At Work" by Wee et. al [9] provides an illustration on the contextualization of PBL in a business human resources module. The scenarios presented in this paper were extracted from this book with some modification made to cater to the Arabic culture.

Examples of PBL Scenarios For Managing People AT Work

Scenario 1: FINDING THE FIT

Ali, the CEO of Powersales company, is disappointed about the quality of the newly recruited staff. He consults Sameer, the Human Resources Manager, on what their company can do to enhance the hiring process.

Ali said, 'Sameer, the company is having trouble with the quality of the current salespeople that we just recruited. We suspect one of the reasons has to do with the job requirement and the fit of the personalities of our salespeople. In your opinion, what is the ideal personality profile of an effective salesperson? How can we assess the personalities of our applicants and staff?'

After the meeting, Sameer walked over to your office cubicle and assigned the job of finding the relevant information to you. You are to prepare a report of your findings and recommendations for Powersales Company to Sameer in two days' time.

Scenario 2: STEREOTYPES IN THE WORKPLACE

Rami, the Human Resources Manager of Powersales Company, advised you to short-list the applicants that have responded to the recent advertisements for the first interview based on their academic grades attained in schools. He feels that academically good students make better workers. There is no need to consider other factors. Do you think this is a good move?

Scenario 3: I COULD HAVE BEEN BETTER EXECUTED!

Nabeel Othman, Marketing Executive, has just been promoted to Marketing Manager in replacement of the previous one who has been retrenched. Due to the bad economy, his promotion is only based on title but without salary increment. As hiring has been frozen, the company is not hiring anyone to do his previous job. As such, he has to cover both the duties in his current job and that of his previous one.

He struggled to cope with the increase in work load for the first three months on the job. He was gradually falling behind schedule for most of his projects that he has been working on. The problem is complicated further by his new born son whose night-crying has deprived him of any meaningful rest at home. His productivity at work has declined drastically. He felt he was on the verge of a nervous breakdown.

When Nabeel highlighted his problems to his company, he was told that there is no way that the company can hire anymore staff as the sales revenue is not doing well to justify more headcount.

He feels like quitting but the thought of his financially dependent homemaker wife and newborn kid keeps him going all this while. In addition his health is deteriorating and he felt that he could not cope anymore. "This recession really affects everyone including myself. The recession in the economy has brought about so many consequences within this company and the senior management is not doing anything to address these changes effectively. How I wish all these changes could have been better executed!" he sighed.

What would be your views on managing the changes to lessen Nabeel's pain brought about by the changes in his environment?

Scenario 4: DILEMMA OF A SALES MANAGER

Hazim has been struggling with the thought of resigning from his job for two months already. He just about had enough of what he has seen happening in his office. The company he works for is a Saudi subsidiary of an American firm, and being a sales manager, he has to report to the Saudi president for his company on his sales targets on a fortnightly basis.

As the economy is bad and also because the software product he is in-charge of is still very much in the developmental stage, achieving his sales target poses a very challenging task to him and his subordinates. To make matters worse, his boss is now telling the entire sales force under him to oversell the product to potential customers. That means he has to tell his potential customers during the sales process that the software his company is developing can do more than what it actually can deliver. This also means that he is to avoid telling his customers that his software lacks some of the key features needed by the manufacturing industries, which his software is targeting.

Being a religious person, he is not at all comfortable with that idea as that means he has to tell partial truths or even blatant lies at times to his potential customers just to close a sale. This will certainly put him in direct conflict with his own personal values, beliefs and religious principles if he were to put the company's interest before himself.

"Hazim!" shouted his boss from his room and he immediately knows that he is about to have a hard time explaining his appalling sales figures. "Time to face the crunch again!" thought Hazim to himself.

"You looking for me boss?" asked Hazim. "Yes! And where's the sales that you are suppose to bring in?" demanded his boss. "I have tried my best but the economy is bad and not many companies are willing to spend as much money on softwares now." "That's not a good excuse! You know that in sales, you are expected to deliver your numbers or you are out! What then do you think my boss in U.S. wants to hear from me? The same story I am hearing from you now?!" retorted his boss. "But I just cannot tell my potential customers partial truths or even things that our software can do when in actual fact it can't!" Hazim replied raising his voice. "This is the last time I want to hear this from you Hazim! If you think you cannot lie to your customers to meet sales figures then there are a lot of people out there waiting for a job willing to do just that for the company ok? I am now giving you another chance to improve your numbers or else I'll have to replace you in two weeks time!" demanded his boss.

At this point Hazim is really at a loss for words and the thought about resigning is ever more real now than before. "Boss! I have decided. I will.....".

Hazim is your close pal at work. You often have your lunch with him. Other times, you play games such as table tennis and table soccer. How would you advise?

Scenario 5: I DON'T WANT TO BE PROMOTED!

Basil and Kamil, in their late teens, had been working as crew members at MacDonald's for about a year. They were good workers and had received compliments from customers who were impressed with their good service attitude.

Salah, the store manager, pleased with the performance of these two subordinates, called them in for an informal chat:

Salah: Both of you have been doing a good job and Jam considering you for promotion to crew leader. To prepare you for more responsibilities, you will need to undergo the management development program over the next six months.

Basil was very excited by this opportunity, as he had wanted to move on to a supervisory position whereby he could learn and practice leadership skills. He resolved to learn as much as possible from the training provided.

On the other hand, Kamil, an easy-going guy who got along well with everybody, did not like to 'interfere' with other people's work and preferred to concentrate on doing his own job. In addition, he felt that classroom training was a waste of time: why do you still need to 'study' or go for training when you have left school? He believed that he was doing his job well and did not need to improve further.

Nevertheless, both Basil and Kamil seized the opportunity and underwent classroom and hands-on training sessions together for six months.

Basil attended the classroom training sessions diligently. He learnt about basic restaurant operations, inventory control, crew motivation and communication skills. He tried to combine the knowledge learnt in the classroom and in the restaurant, with hands-on application of management skills.

Kamil, on the other hand, missed many training sessions, which he was supposed to attend. He was also uncomfortable with the idea of managing people or having to do resource planning.

Six months later...

Just when it was time for Salah to do a performance review with his two subordinates, he received a posting order from headquarters. Imagine that you were Salah's successor and, having to rate Basil and Kamil's performance, how would you assess them'? Can you think of alternative ways to help Kamil develop his career, knowing that Kamil is not a managerial candidate?

Course Format

Since PBL may be a new concept to some universities, it is essential that the faculty members be trained on the basic of PBL. Unless they experience the PBL way of teaching and learning as students themselves and reflect on the benefits, they may not be convinced of the power and benefits of PBL.

Students also need to be orientated to the new approach in teaching and learning. Resources such as library and computer have to be increased so that they can support the research needs of the students as they engage in active self-directed learning.

Finally, a visit to a PBL school can help faculty and administration staff understand the real cost of migrating and sustaining a PBL environment.

Assessment

PBL differs from traditional instruction in a variety of ways and therefore the knowledge and achievement of students should be assessed differently. An assessment plan explaining what to assess, how to assess, when to assess and who to assess is proposed. Common PBL assessment tools include written examinations, practical examinations, concept maps, peer assessment, self-assessment, facilitators/tutor assessment, oral presentations, posters and written reports. Often, assessment rubrics are formulated and communicated to all students and faculty. PBL assessment is often based on multi-tools and multi-raters to promote validity and reliability of the assessment results.

Conclusion

The authors strongly believe PBL enhances student learning and make them competent for the complex and global world. PBL is a more superior approach to teaching and learning because it develops the following in the students:

- 1. Confidence
- 2. Independence
- 3. Think on the move
- 4. Embrace change
- 5. Renew self
- 6. Team player
- 7. Motivated and responsible learners
- 8. Better retention of knowledge
- 9. Effective communicator
- 10. Improved social skills

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References

Kimber, D., & Siemensma, F., 1998, 'Round Table – The Academic Perspective - Reflections on Future Directions of Management Education', IIMB Management review, 10(1,2) 126-128.

Nendaz, M. R. and Tekian, A. (1999) Assessment in problem-based learning medical schools: A literature review. Teaching and Learning in Medicine, 11(4), 232-243.

Barrows, H. S. and Tamblyn, R.N. (1980), *Problem-Based Learning: An Approach to Medical Education*, New York, Springer.

Wee, K. N. L. (2004), Jump Start Authentic Problem-Based Learning, Prentice Hall.

Bridges, E. M. (1992) Problem based learning for administrators. Eugene, OR: ERIC.

Cottell, P. G. and Millis, B. J. (1994) Complex Cooperative Learning Structures for College and University Courses. In E. C. Wadsworth (Ed.) To Improve the Academy: Resources for Student, Faculty, and Institutional Development, Stillwater, Oklahoma: New Forums Press.

Wilson, B. G. and Cole, P. (1996) "Cognitive teaching models," in Handbook of Research for Educational Communications and Technology, D. H. Jonassen, Ed. New York: Simon & Schuster Macmillan, 601-621.

King, S. (1999) "Changing to PBL: Factoring in the Emotion of Change IN Themes and Variations in PBL" Conway, J. and Williams, A. (eds.) Themes and Variation in PBL, Proceedings from the PBL Conference, Montreal, Canada. 112-128.

Wee, K. N. L., Goh, T., Sun, C., Chang, Y. B., Ng, F., and Tan, S. S. (2003), A Problem-Based Learning Module On Managing People At Work: A Handbook For Students, Prentice Hall.