

# Benefits of Problem-Based Learning (PBL) for Students

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## Abstract

Learning means finding ways to make connections, develop new practices, generating new knowledge, and understanding of, profits, rather than repeating the mistakes and failures of the past. PBL has an important contribution to make arrangements in the creative learning process that turns mistakes into significant opportunities for personal, professional, and organizational development. This is a descriptive study with a sample of 76 people. The sampling technique menggunakan. Cross sectional study. Samples are then distributed proportionally to classes. Further data analysis was performed using descriptive statistics. PBL offers human resource development a way of learning with the tools of cooperation and team work, autonomy and responsibility, critical and creative thinking, innovation and connectivity, as well as the capacity to move beyond obstacles both directly and at certain times. Therefore, the duration of time needs to be carefully thought out to broaden the scope of PBL activities from the simulated environment that is often found in formal education to reality and the existence of the real world by continuing professional development and learning in the workplace.

**Keywords:** PBL, Benefits.

## INTRODUCTION

Problem-based learning (PBL) basically has a concern for development from individuals, groups, a community of practice and finally, by extension, organization. PBL, such as human resources (HR) itself, anticipate and enable a qualitative change occurs to facilitate the emergence of skills, knowledge, understanding, and above all individuals and organizations that can sort of capability, initiate and implement change. As said Ulrich and Smallwood 'The ability is the result of investment in staff, training, compensation, communication, human resources and other areas' (Ulrich & Smallwood, 2004).

Organizations generate new ideas and activities through learning, continuous change and innovation through time, space, departments and divisions. Learning means finding ways to make connections, develop new practices, generating new knowledge, and understanding of, profits, rather than repeating the mistakes and failures of the past. PBL has an important contribution to make arrangements in the creative learning process that turns mistakes into significant opportunities for personal, professional, and organizational development.

## RESULT AND DISCUSSION

### PBL Authenticity and Principles

Barrows & Tamblyn stated that PBL is basically rests on two key assumptions. First, that learning through problems produces situations that are far more effective and beneficial as a body of knowledge than learning that is obtained through conventional memory-based means such as lecturing only or reading books, and secondly, the skills used in treating patients (initially PBL is used in medical education) which is in most cases problem solving skills. So PBL is a reflection of real world experience (Barrows & Tamblyn, 1980a).

Most of the academic literature critical of PBL departing from the field of health or medical related, but the principle of axial and practices that have emerged from this experience has been applied to various fields such as higher education and professional learning - business, management, engineering, social work, accounting, architecture, construction, legal training, etc. (Boud & Feletti, 2013)

One reason for the enthusiasm of the tutor's belief is that PBL is addressed to 'all' students, facilitating cross-disciplinary studies, and maintaining a positive attitude in learning. Barrows and Tamblyn (Barrows & Tamblyn, 1980b) show that PBL offers things that are needed by teachers, trainers, and students, including :

1. argumentative skill development (giving reasons);
2. contextual or conditioning investigation or study groups;

3. vocational and / or activities are practically relevant; and
4. independent study.

### **PBL: A Path to Professional and Life-long Learning**

PBL is one way to learn. PBL more than focuses attention on the community in solving problems, it also allows individuals, groups, and organizations to improve, change, and grow.

Following on from Senge the concept of "learning organization", PBL can also be described as a way of learning that maintains a condition / state, allowing flexibility and creativity to emerge through adaptation and new generation of knowledge, understanding, products and practices (Senge, 1990). With this, PBL allows professional adults during learning to be more effective, because it requires learning to be: active, integrated, cumulative, constructive, meaningful, adaptive, and generative.

Generative learning requires a new way of seeing the world, governing work relationships, developing human resources, creating new products and product concepts, managing knowledge in a competitive environment and being successful (commercial). Knowledge creation, product development and the growth of professional abilities (and competencies) are often driven by problems such as lack of communication, inefficient work practices, decreased market share, conflicting personality that does not support, obsolete ideas, technology, skills, or knowledge.

What is needed to solve this problem is learning, critical reflection, and in space and time through the interactions that occur to be able to organize and establish the creation of new information, ideas, and actions. In this case, the world of work itself is empowering, motivating, and committed, and is therefore an efficient and effective key to human resource development.

### **PBL and Knowledge**

Educational philosophers state that knowledge can be divided into different categories, for example in an organization sometimes referred to as explicit knowledge, organized into rules, art, policy documents, routines, and so on, and knowledge that refers to knowing how to do something, which always unsaid and embedded, and basically are in expertise and experience. PBL allows, of course requires, finding skills, competencies, abilities, relationships, interactions, knowledge, concepts and practices that are at least new to each student or study group. This may involve learning how to make unspoken knowledge more explicit, and explicit knowledge unspoken: that is, how we only do things. In this way, PBL becomes interesting as action or study research, and it is possible to effectively combine the two (Cockerill et al., 1996). Margetson states that the PBL process (Margetson, 1997):

1. Encouraging open-minded, reflective, critical, and active learning;
2. Should be rewarded with respect for learners and facilitators, as knowledgeable, understanding, compassionate and have interests that come together to share learning experiences;
3. Reflect the complexity, reflection and change the fundamental nature of knowledge - that is, knowledge is complex and changing as a result of community feedback practitioners to assess the problem and act on the issue.

### **Foundation of PBL Theory**

PBL mostly shows constructivistic practices in its values and principles, these include (Hendry et al., 1999) :

1. Knowledge in people's minds: this is a pattern in time and space. Ideas or perceptions are spatio-temporal patterns that develop when someone interprets a situation or remembers something.
2. People's meaning or interpretation of something depends on their prior knowledge.
3. Perceptions and ideas of knowledge together with thought processes are built from within, in relation to the real world.
4. general knowledge derived from the brain and body - understanding knowledge (eg visual, audio, tactile) and actions (bodily movements).
5. Knowledge is created through understanding (perception) and action.
6. A person's knowledge may become untenable, or be combined to produce a person's conceptual conflict with the real world.
7. Knowledge creation is an integrated work or form that can be maintained, both qualitatively different from previous knowledge.

8. Creation or work of knowledge that can be actively maintained and requires energy, or is related to mental effort and time.
9. Creation of knowledge is pleasant and comfortable.

Circumvention problems such as how to manage the diversity of team culture, work relationships and complex functions, may not only require more information, but information that is qualitatively richer. This problem will also require analytical, synthesis, and evaluation skills that involve and stimulate complex thinking. With this, a number of variables that affect the effectiveness of PBL, including:

1. the nature of the learner's knowledge, especially because of the impact on the problem and identification of what is deemed necessary to learn;
2. the nature of the problem - the complexity of the problem, or vice versa;
3. the skills of the facilitator group in helping to promote the effectiveness and productivity of the learning experience;
4. interest, involvement, focus, and commitment of the participants to the task or problem encountered;
5. the ability to produce and reflect new knowledge, abilities and skills before applying them;
6. Feelings of achievement and possibility of achievement.

### Facilitating PBL

Beyond the PBL scenario the single greatest factor that influences the success of a PBL program is the facilitatory skill, knowledge and ability of the teacher. Such is the importance of facilitation that, within PBL, the teacher is usually referred to as the 'facilitator'. The facilitator monitors and stimulates the PBL process by posing leading questions, challenging trainee thinking, and raising facts or issues relevant to the problem (Jones, 2006).

In the PBL environment the facilitator plays an important role because it allows learning by supporting or fostering development, as individuals and groups become more fully involved. Learners must gain a sense of responsibility and confidence to manage the task of solving problems holistically (thoroughly), because the situation in PBL always requires people with the ability to consider various points of view, influences, consequences, practices, and responsibilities. This means being able to ask the right questions to stimulate and encourage continuous action and learning. In his writings on the educational science environment, Dahlgren and Öberg identified five types of questions that can achieve this goal. The question is as follows (Dahlgren & Öberg, 2001).

Encyclopedia questions - need fairly easy answers;

1. Meaning oriented questions - require a search for meaning approaches to terms and concepts;
2. Relationship questions - require the search for linkages and linkages;
3. Value-oriented - evaluative and often compares in nature;
4. Solution-oriented - practical and focused management.

Effective facilitation is central to the success of PBL activities. Based on (Wood, 2004) from previous research, PBL is problem based learning and are followed by 6 person minimal and from diverse culture or heterogon (different culture, race, diverse background, intelligence, genders). One thing to be sure facilitator needed to take a look and examine the discussion process.

There are three types of facilitation that can be investigated, applied and then evaluated as follows.

1. Hierarchical variety - the facilitator takes on an oversight role and plays a direct role, setting goals, challenging the opposition and so on.
2. Variety of cooperation - the facilitator shares authority with the team to enable them to learn independently.
3. The variety of autonomy - the autonomy of the PBL team is fully respected by the facilitator only in setting the conditions of learning that will occur.

### The Effectiveness of PBL

It must be clear that the way of learning adopted by an organization or HR manager is effective if it leads to improvements in professional practice, knowledge, skills and understanding. Until now, there have been a large number of PBL evaluations, particularly in tertiary education, and although this is totally inconsistent (Newman, 2003) in its findings and conclusions, PBL has increasingly been adopted in new areas. Albanese states, 'what may be more humane is a learning environment that supports collective interaction which is the end result of PBL' (Albanese, 2000). Other experts have proved that PBL is very effective in maintaining the memory of better knowledge in the thought process, more independent in learning and increase motivation and commitment.

If adopted in an human resources context, evaluation needs to address issues of gaining knowledge in fields related to both "what and how", in processes and products, for results and products, for results and outputs, in capacity to grow and continue learning as identification and implementation of certain solutions to certain problems and in a certain time. Evaluation also needs to find out whether learning has been done in depth, strategic or just on the surface, or a combination of the three.

To adapt Moon's (1999: 22) (Moon, 2001) regarding the summary of these categories, it might be worth considering the following.

#### Deep Surface Approach

1. Linking ideas to prior knowledge and experience.
2. Look for patterns and principles.
3. Examine the evidence and its linkages to get conclusions or solutions.
4. Examine logic, arguments, reasons critically and carefully.

#### Surface Approach

1. Learn without reflecting on the objectives or strategies.
2. Do not make a connection between the interconnectedness of knowledge with one another.
3. Follow established procedures or remember facts regularly and without criticism.
4. Look for difficulties in tackling new ideas, issues or problems.
5. Feel too pressured by the need to operate in a different way.

#### Strategic Approach

1. Placing consistent business in PBL activities.
2. Finding appropriate materials and conditions for successful completion of PBL activities.
3. Manage time and effort effectively.
4. Remain Standby what is felt or criteria that have been identified for success and achievement.

Changing the way of learning or even understanding problems, is a complicated process and may occur in some cases that a combination of deep learning and surface learning is needed to guarantee effective and optimal results.

## CONCLUSION

PBL offers human resource development a way of learning with the tools of cooperation and team work, autonomy and responsibility, critical and creative thinking, innovation and connectivity, as well as the capacity to move beyond obstacles both directly and at certain times. Therefore, the duration of time needs to be carefully thought out to broaden the scope of PBL activities from the simulated environment that is often found in formal education to reality and the existence of the real world by continuing professional development and learning in the workplace.

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