

## Unit 1: Introduction What is Problem Based Learning?



### Overview

In a traditional learning environment, a tutor is responsible for departing all of their wisdom and knowledge to learners during classes. Once the learning material has been delivered the student is then given questions or problems by the tutor to assess their level of knowledge in the subject area.

Problem based learning is an approach in which a problem is presented to the learner at the start of the course rather than at the end. The problem can be defined by a facilitator or the learner themselves. The learner is then responsible for searching for the relevant knowledge required to solve the problem. The student is responsible for their own learning. This is known as a constructivist approach to learning.

Think about times when you got a new phone or television. You did not need a tutor to teach you how to use this. You learned how to use it by, viewing YouTube videos, online reviews, reading the relevant information in the manual and through trial and error.

The same applies for a constructivist learning. Learning a new skill is a lot more complex than learning how to use a new phone. However, the same concept can be applied. Rather than a tutor giving the information they think you need. The learner is guided to find that information they actually need.

### What you will benefit from doing Problem Based learning

In a problem based learning environment there is a facilitator rather than a tutor who guides the learners in identifying and applying the relevant knowledge to their learning situation. The learning situation is a problem and the knowledge that is constructed is that which is required to develop a solution. In a problem scenario there may be a number of solutions or a combination of solutions required to solve the problem. Learning is conducted collaboratively.

Problem based learning has been proven to develop the following skills

- Critical thinking – the ability to make clear reasoned judgements
- Problem solving – a skill requiring a person to apply an ordered/structured process to solve problems
- Team work - ability to work as part of a team and with others
- Self-directedness – the learner's motivation to drive their own learning

Problem based learning will allow you to

- Become responsible for your own learning
- Set goals for yourself
- Assess your own learning
- Build self confidence
- Teach you how to find and apply information/knowledge to solve a problem

The focus of problem based learning is on the learning process undertaken to solve a problem rather than the outcome. This process can be applied to a wide variety of problems that you experience.

It is important for Problem based learning to be successful there must be trust. This course examines the traits required to become a Problem based learner. In addition, it will allow you use

problem based learning to solve a problem in your company while at the same time developing a number of skills key to lifelong learning.

### **Concerns of Problem based learning**

As PBL learner you must be aware of the limitations of this form of learning.

The transition from traditional learning to Problem Based Learning can be difficult. In your daily and personal lives you search for and apply new knowledge on a continuous basis. However this can be difficult to do in a within a learning context. As a result, you will be guided through each step of the PBL process.

There will be text and video learning material to explain what is required from you at each step. You will also have access to solved PBL problems and can contact learners in a similar situation about your concerns through an open discussion forum. In addition, for those of you who have registered for the course via the University of Limerick you will have access to tutor support throughout the programme.

The notion of being given a problem before you know how to solve it can also be a difficult concept to grasp. However, in traditional approaches to education where a tutor shows you how to do something and you mimic it using a similar problem it can be difficult to translate or apply this material to problems you face. By being presented with the problem first and showing you how to gather and apply the relevant knowledge to solve it what you learn is directly related to your daily work.

You might not always solve the problem this might be seen as a failure, however the fact that the solution you chose was not successful is not a failure, you will have learned from your approach and the method you applied and that is a success in itself.

### **Course structure**

The module consists of ten units ranging from 15 minutes to 1-hour long. Each unit will be comprised of a number of lessons, each lesson will be 5-10 minutes long.

Unit 1 What is PBL

Unit 2: Becoming a PBL learner (collaboration, self directed, active listening etc)

Unit 3: Roles in PBL

Unit 4: Selecting a problem for PBL

Unit 5: The PBL process

Unit 6: PBL supports

Unit 7: Define and clarify terms

Unit 8: Brainstorm, classify and learning objectives

Unit 9: Self study

Unit10: Reflection and reapplication

lection and reapplication

The units are largely centred around the PBL process. Your tutor/facilitator and your peers will support you through the PBL process. There will be regular assignments which you will be required to complete should you wish to be accredited for your participation in the course.