

PBL Foundation Programme

The Learning Academy (LA) / Temasek Centre for Problem-Based Learning (TCPBL) conducts a three-day professional development programme, the **PBL Foundation Programme**, for Temasek Polytechnic staff. It has also conducted this programme for educational institutions and organisations interested in implementing PBL in their own contexts.

TCPBL has conducted the **PBL Foundation Programme** for the following clients:

Educational Institutions: Regional

- Sri Lanka MOE Training for Math and Science teachers
- Hong Kong Singapore Exchange Programme for Secondary School Teachers
- 10 National Colleges of Technology in Kyushu and Okinawa, Japan
- University Pendidikan Sultan Idris, Perak, Malaysia

Educational Institutions: Local

- Temasek Junior College
- National Junior College
- Paya Lebar Methodist Girls' Secondary School
- St Anthony's Convent Secondary School
- St Nicholas Girls' Secondary School
- Temasek Secondary School
- Nan Chiau Primary School
- Institute of Technical Education
- MOE Home Economics Teachers

Uniformed Organisations

Institute of Maritime Operations & Systems (IMOS)

Participants' Feedback

Some feedback from participants who have attended the PBL Foundation Programme are listed below:

"There were lots of opportunities to share ideas and exchange opinions... the programme includes many hands-on sessions which were really useful."

-a teacher in a local secondary school

"The learning process was delivered clearly and real-life examples were given in abundance."

-a lecturer in a local institute of higher learning

"... the facilitators were excellent... you effectively conducted the sessions and your effort and careful preparations are appreciated."

-a lecturer in an overseas vocational college

"(There were) a lot of insights into methodologies of learning and assessment."

- a lecturer in a local primary school

PBL Foundation Programme

PROBLEM-BASED LEARNING (PBL)

Problem-Based Learning (PBL) is a learner-centred educational approach with the potential to develop learners with integrated knowledge, collaborative teamwork skills and change readiness. This approach also helps learners acquire critical as well as creative thinking skills and life-long learning attributes, all of which are necessary for today's global and fast-changing workplace.

Modules	Hours
Understanding and Experiencing PBL	3.5
Becoming a PBL Facilitator	3.5
Curriculum Design for PBL	3.5
Problem Design for PBL	7
Assessment for PBL	3.5
Total of 21 hours	

UNDERSTANDING AND EXPERIENCING PBL

Synopsis:

This workshop explores the what and why of PBL by drawing upon conceptions of learning and making connections with the theoretical underpinnings of PBL.

Participants will also experience the PBL process as learners in a simulated PBL facilitated session. This hands-on session will serve as a catalyst to generate discussion on issues arising from the use of the PBL approach from the learner's perspective.

Learning outcomes:

At the end of this workshop participants will be able to:

- explain the essential features of PBL
- appreciate the rationale for using PBL as a learner-centred approach to learning and teaching
- recognise and experience how learning takes place in a PBL setting
- Identify some pertinent issues related to learning in a PBL environment

PBL Foundation Programme

BECOMING A PBL FACILITATOR

Synopsis:

The role of the facilitator in a PBL context is a dynamic one. In this workshop, participants engage in the role of PBL facilitators, and experience facilitating various stages of the PBL process while working through a problem. Throughout there will be opportunities to reflect on their understanding of the dynamics of the facilitation process. Participants will also appreciate the PBL facilitator's role, facilitation strategies and models of facilitation that can be deployed to manage a productive PBL environment.

Learning outcomes

At the end of this workshop participants will be able to:

- articulate PBL facilitator roles and facilitation strategies
- identify the range of scaffolding strategies a PBL facilitator can use to make student learning visible and thinking explicit
- relate the use of various models of facilitation in PBL to their own implementation contexts
- facilitate the seven stages of the TP PBL Process

CURRICULUM DESIGN FOR PBL

Synopsis

Curriculum design for PBL is a crucial part of the process that generates a blueprint to guide the implementation of PBL in a programme of study. The planner needs to be cognisant of the key principles and issues surrounding the implementation of PBL in a curriculum in order to be able to make informed decisions. The various stages involved in designing a curriculum for PBL and the essential elements in the PBL process will also be identified. Participants will begin the process of curriculum design for PBL in their own programme of study by considering their own position and context, and formulating an initial plan for themselves.

Learning outcomes:

At the end of this workshop participants will be able to:

- articulate a curriculum process framework for implementing PBL in the curriculum
- identify the outcomes of learning that are intended to be achieved using PBL
- identify the different PBL curricula modes and evaluate their rationale for selecting particular ones for their curriculum
- identify the key principles of PBL applicable to their context and appreciate the impact of this on the structuring of the PBL learning experience
- formulate a beginning plan for implementing PBL in their curriculum and be aware of the key issues affecting the implementation

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PROBLEM DESIGN FOR PBL

Synopsis

One of the key drivers in a PBL curriculum is the 'real-world problem' scenario. A poorly designed problem will not encourage the enquiry process and will inhibit the achievement of the learning outcomes. How then should PBL problems be structured so that student learning, in the process of solving the problem, will be optimised? What support resources for the problem are required to guide facilitators during the process?

Participants will have the opportunity to design their problem scenario and widen their perspectives of problem design through a sharing segment. They will also identify the support resources required and begin to work on generating them.

Learning outcomes:

At the end of this workshop participants will be able to:

- explain some of the key principles in designing PBL problems
- identify the different types of PBL problems and recognise some of the circumstances in which they may be used
- craft problem scenarios in line with the intended learning outcomes
- review problem scenarios according to key principles of problem design
- assemble problem packages for learners and facilitators

ASSESSMENT FOR PBL

Synopsis:

Assessment practices in PBL need to be congruent with the principles and practices of PBL. This workshop examines how this can be achieved through a focus on common assessment methods in the context of PBL teaching and learning environments. Although the use of PBL aims to enhance student ability to utilize different process skills, in particular effective group work, ensuring that they are assessed effectively is vital to achieving some of the aims of PBL. Another important consideration is formative assessment, as well as summative assessment, and how students learn from feedback.

This workshop will focus on some of the features of good assessment practices in PBL. Through hands-on activities, participants will have the opportunity to visualize how these principles and practices might work in relation to their own PBL teaching and learning context.

Learning outcomes:

At the end of this workshop participants will be able to:

- examine how particular assessment principles can be implemented in the PBL context
- recognize features of assessment practices congruent with the aims of PBL
- draw ideas about the implementation of different assessment methods commonly used in PBL