

Handbook of Enquiry and Problem-based Learning: Irish Case Studies and International Perspectives

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AISHE READINGS
Number 2
2005



Editors: Barrett, T., Mac Labhrainn, I., Fallon, H.

Publisher: CELT, NUI Galway
Centre for Excellence in Learning and Teaching
NUI, Galway
Galway
Ireland

In association with the All Ireland Society for Higher Education (AISHE)

Email: celt@nuigalway.ie

Website: www.nuigalway.ie/celt/pblbook

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ISBN-10: 0-9551698-0-1

ISBN-13: 978-0-9551698-0-9

Recommended citation: Barrett, T., Mac Labhrainn, I., Fallon, H. (Eds) *Handbook of Enquiry and Problem-based Learning*. Galway: AISHE and CELT, NUI Galway

Funded by: Higher Education Authority (HEA) *Strategic Initiatives*

Cover design by: Brenda Dermody.

A C K N O W L E D G M E N T S

The twenty-eight authors for their time, energy, commitment and willingness to share their work in enquiry and Problem-based Learning.

The Centre for Excellence in Learning and Teaching (CELT), NUI Galway for managing this publication.

The Higher Education Authority (HEA) for funding the PPEBL project on which this publication is based.

Dr. Ivan Gibson of NUI, Galway for initiating the project with his original funding application in 2002 and Michelle Bradley for organising the Conference on PPEBL in 2003 in which this community of practitioners was first able to share ideas and best practice.

Brenda Dermody for her creativity and professionalism with the book cover design and Jacinta McLoughlin, Dublin Dental School & Hospital, T.C.D, Martin McCabe and Helen Lamb, Dublin Institute of Technology for their photographs.

Christina McDonald Legg for her extraordinary skills in proof-reading, layout and diplomacy.

E D I T O R S

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Iain Mac Labhrainn is the Director of NUI, Galway's Centre for Excellence in Learning and Teaching (CELT), which was established in 2002/2003. He is originally an astrophysicist and lectured in Physics for 15 years before moving completely over to educational development. He has a particular interest in the educational evaluation of learning technologies. In his current post he has supported a wide range of learning innovations, including Enquiry and Problem-based Learning. This handbook is part of the PPEBL (Project, Problem and Enquiry-Based Learning) initiative funded by the HEA (Targeted initiatives) that he and colleagues co-ordinated.

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F O R E W O R D

The purpose of this handbook is fourfold. Firstly, drawing on Irish case studies and international perspectives, it seeks to encourage the enhancement of the student experience of learning, through the development of problem and Enquiry-based Learning. Secondly, it aims to share success stories while painting a realistic picture of the processes involved:

“Thought flows in terms of stories - stories about events, stories about people, and stories about intentions and achievements. The best teachers are the best storytellers. We learn in the form of stories.” *Frank Smith*

It does this by discussing progress with initiatives and exploring difficulties, barriers, “mistakes,” improvements, alongside the strategies used to tackle these real emerging challenges. Thirdly, by drawing on many contributions from Ireland, it places Irish problem and enquiry-based practice in the international context. There are case studies from the seven Irish universities and the Dublin Institute of Technology. These case studies make links with international practice and there are also contributing chapters from England and Finland. These case studies are from a range of disciplines including; science (biology, physics and earth sciences), health sciences (occupational therapy, speech and language therapy and dentistry), engineering, business, law, education, arts (English literature and visual communications). Finally, this handbook aims to strengthen collegiality and help develop a collective approach to tackling common educational issues across Ireland and beyond.

The handbook is aimed at academic staff, both those who are considering introducing problem or Enquiry-based Learning strategies for the first time and those who are developing these initiatives on an on-going basis. Researchers and students on postgraduate courses in learning and teaching will also find the handbook informative, as will librarians supporting information skills training programmes for problem and Enquiry-based Learning.

Our focus is on *students learning* rather than *teachers teaching*. As Oscar Wilde reminds us:

“It is well to remember from time to time that nothing that is worth knowing can be taught.”

Problem and Enquiry-based Learning are multifaceted in nature. Problem-based Learning and Enquiry-based Learning are not mere teaching techniques but rather total educational strategies. Thus, this handbook is presented in eight sections, each of which deals with different aspects:

- Section 1 - Understanding Enquiry and Problem-based Learning
- Section 2 - Designing Enquiry and Problem-based Learning
- Section 3 - Tutoring Enquiry and Problem-based Learning
- Section 4 - Assessing Student Learning
- Section 5 - Listening to Students’ Experiences
- Section 6 - Bridging Education and the World of Work
- Section 7 - Developing, Supporting and Managing Learning Initiatives
- Section 8 - Reviewing and Researching Learning Initiatives

This publication arose from the PPEBL (Project, Problem and Enquiry-Based Learning) initiative at NUI, Galway that was funded under the HEA’s Targeted Initiatives scheme and by the Centre for Excellence in Learning & Teaching (CELT). PPEBL has, by many measures, been a great success, providing the basis for new learning initiatives across a range of academic disciplines, an international conference and video-based training materials. We are very

grateful to the HEA for their support and hope that we have added significant value to the original proposal by widely disseminating our experience and materials across the entire Irish HE sector. We have also benefited greatly from the recent development of the Education Developers' Network (EDIN) and its strengthening of collegiality and cooperation.

It is hoped that this handbook will contribute to the development of high-quality, engaging, challenging, and enjoyable problem and Enquiry-based Learning opportunities for our students.

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C O P Y R I G H T

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