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Teaching Postgraduate Research Methods using a Novel Problem-based Learning Approach

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WEB SHOTS

Abstract

Objectives

- to have an understanding of the idea behind designing and delivering a PG Research Methods Module using a Problem-based Learning Process in Higher Education.
- to discuss both the PBL approach used and the real life multi-disciplinary research problems from the accumulated Research Methods Problem Bank to date.

Abstract

- This session describes both the reasons for and the process of designing and delivering a Research Methods Module using a Problem-based Learning (PBL) approach in a Postgraduate Diploma in Third Level Learning and Teaching at a higher education institute in Ireland. The students who undertake this part-time Module are cohorts of academic staff (Faculty Members) in Higher Education (HE). They are hitherto referred to as participants. This module is one of eight offered on the PG Diploma, all designed and delivered using Problem-based Learning. The entire PG Diploma is voluntary, and only Faculty who are keen to implement novel pedagogical approaches in their own subject disciplines apply for a place on the modules.

Abstract

- The aim of this module is to provide a broad understanding of the research methodologies used in research in HE today, and present at postgraduate level, the theory for applying research methods and skills to all aspects of learning and teaching. This module also aims to prepare participants for planning a research proposal at Masters dissertation level. However, the key to the participants' success is by using the principles of PBL to share valuable information with their colleagues in a variety of other disciplines. The opportunity is being given to enhance group learning in a real life multi-disciplinary learning environment. This collaborative process is supported with tutor face-to-face and online facilitation sessions.
- The question can be asked why use a PBL approach for this, rather than continue allowing participants to research in a traditional learning environment? Quite simply, the main idea is to provide them with a taste of what is possible in a group environment for research. Therefore, the role of PBL is for the motivational benefits it provides. The participants are involved in active learning throughout, working with real-life research problems in their professional practice and what they have to learn in their independent and collaborative study is seen as relevant and important to enhance this. Arguably, these factors are important for educational development to act to improve teaching and learning in higher education today.

- Introduction
- Background to the course
- So you want to deliver a Research Methods course ...a case study
- Course Web Site
- Q & A



Postgraduate Masters Programme in Third Level Learning and Teaching:

Underpinning models of learning:

- Certificate level - experiential learning
- Diploma level - problem based learning
- Masters level - research based learning

PG Diploma Modules

Suite of modules offered

10 week duration for each module

PBL first module - mandatory

3 parallel modules: Online Learning, Psychology of Learning, Key Skills & Career Management

Research Methods module required for MA
and offered in 3rd 10 week block

Problem-based Learning Approach

PBL is a total approach to HE
Learning is centred round the PBL problem
The problem has to:

‘engage students’ interest, compel them to take it on as their responsibility, support the development and application of problem solving skills and stimulate self-directed learning into areas of study relevant to the curriculum.’



So you want to deliver
a Research Methods PBL
course....

WEB-SHOT2

Using a PBL approach

The background of the slide features a close-up, slightly blurred image of an open, antique book with yellowed pages. A quill pen is positioned vertically to the right of the book. The entire scene is set on a dark wooden surface, possibly a desk or table. The lighting is warm and focused on the book, creating a scholarly atmosphere.

Learning is student centred

Learning occurs in small student groups

Role of teacher: facilitator or guide

Problem is the organising focus for learning

Problem is a vehicle for the development of problem solving skills

New information is acquired through self-directed learning

Research Methods: Example learning outcomes

After completing this module, participants will be able to:

- critically evaluate and apply the findings of relevant educational research to their own professional context;
- identify issues/problems which are of professional concern and which are capable of further exploration and research;
- critically appraise a range of different methods and methodologies used in research in HE;
- formulate/draw up an acceptable research proposal suitable for a dissertation topic at PG level;
- develop and support a research ethos within their own classroom practice;
- use appropriate methods of measurement and analysis;
- **develop research supervision skills;**
- **develop their effective and efficient self-directed study skills;**
- **develop their teamwork skills.**

Research Methods: course structure

Induction session

Problem One - Qualitative Research

Problem Two - Quantitative Research

Individual Research Proposal

Course Materials

The background of the slide is a painting of an open book with a quill pen and a candle. The book is open, showing two pages with text. A quill pen is resting on the right page. A candle is visible in the background, providing light. The overall scene is set on a wooden surface.

Module Handbook

calendar, participant/tutor pages, assessment, readings

Module Related Resources

example courses, literature, glossary, FAQs

Online Course Support: Intranet and WebCT

Mail, Discussion fora, Chat

The Induction Process: Research Skills

- Relationships: Epistemology, Theoretical perspective, Methodology, methods
- Educational Research
- Library and the Internet Tutorials
- Academic Writing

The Induction Process: PBL

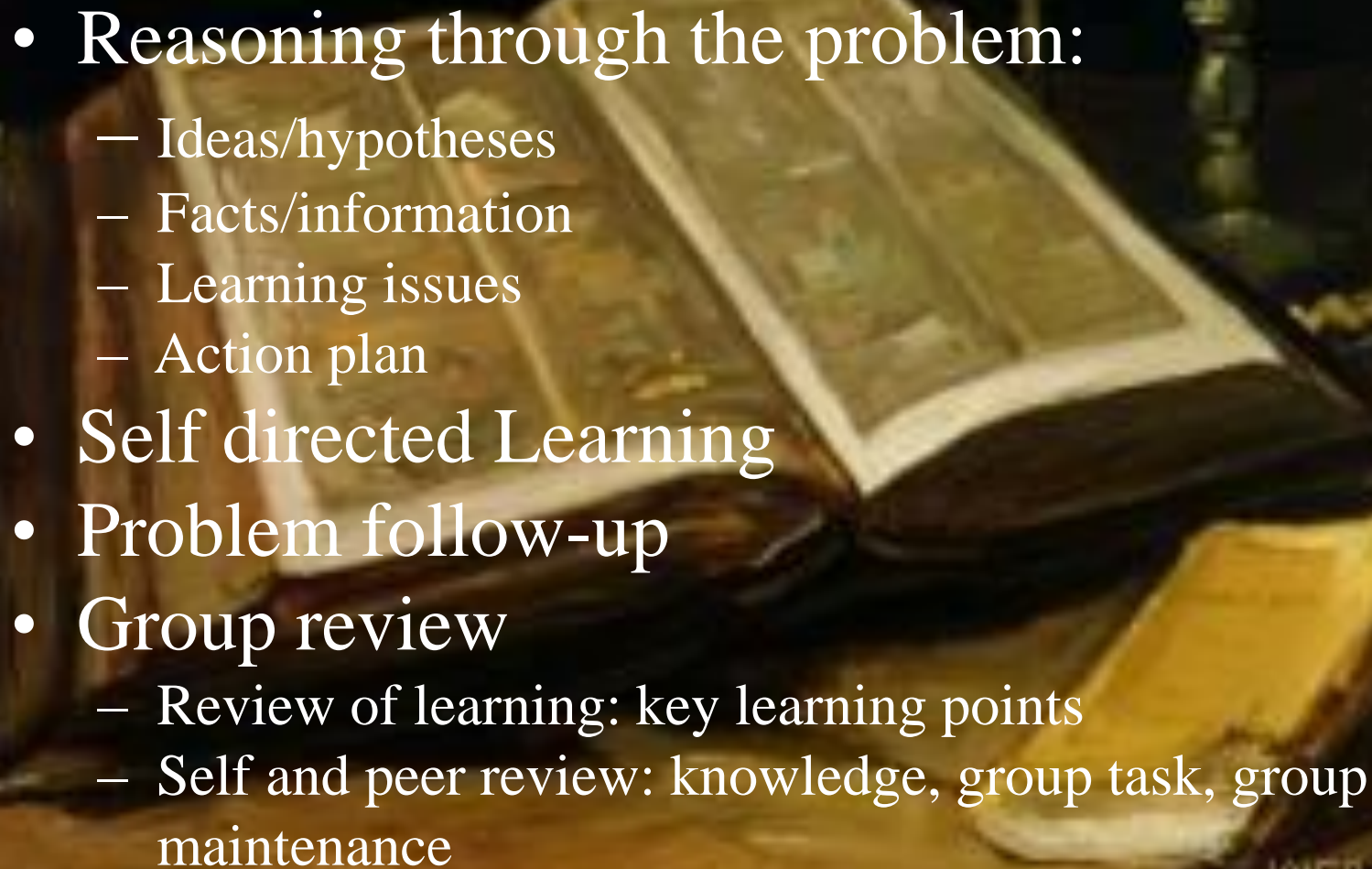
A still life painting featuring an open book with aged, yellowed pages, a quill pen, and a lit candle in a holder. The scene is set on a wooden surface, with a dark background. The lighting is warm, highlighting the textures of the paper and wood. The overall mood is one of quiet study and intellectual pursuit.

- Setting the climate:
 - Ground Rules
 - Tutor and Participant Roles
- Encountering a new problem
 - Consider the problem as presented
 - Re-write the problem according to the contextual realities of one group member
 - Clarify the kernal of the problem and the product to be produced



So you have given them the problem...

WEB-SHOT2

- 
- An artistic still life composition featuring an open book with a yellow bookmark, a lit candle in a holder, and a quill pen resting on a wooden surface. The scene is dimly lit, with the candle providing the primary light source, creating a warm, scholarly atmosphere. The text is overlaid on the left side of the image.
- Reasoning through the problem:
 - Ideas/hypotheses
 - Facts/information
 - Learning issues
 - Action plan
 - Self directed Learning
 - Problem follow-up
 - Group review
 - Review of learning: key learning points
 - Self and peer review: knowledge, group task, group maintenance

Important Issues

fixed resources linked to the two problems: ethnographic case study, action research, conducting a literature review, survey research, qualitative data analysis, supervising PG research students

equal participation?

good research practice?

Staff / student roles?

Unexpected Issues

An open book with aged, yellowed pages is the central focus. The text is overlaid on the book. In the background, a lit candle in a brass holder is visible, casting a warm glow. The overall scene is dimly lit, suggesting a study or library setting.

Concentration on research proposal rather than on
two problems

Time required for group collaboration

Importance of group dynamics

Assessment criteria - PASS/FAIL

Applied to all Diploma modules:

Team work

Self-directed study skills

Higher level cognitive skills

Practice relevance

Personal and career progression

Thinking about Assessment

Product vs process

group vs individual

Thinking about Assessment

The background of the slide is a still life painting. It features an open, aged book with yellowed pages, a quill pen resting on the pages, and a lit candle in a holder. The scene is dimly lit, with the candle providing the primary light source, creating a warm, scholarly atmosphere.

Group Presentation

Group Report

Individual Research Proposal

Self/peer/tutor comments at stages

Module Support

- Intranet Site
- WebCT Group Collaboration Support



Intranet Resource Site

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Documents

Discussions

Tasks

Calendar ▾

May 2002						
Su	Mo	Tu	We	Th	Fr	Sa
28	29	30	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1
2	3	4	5	6	7	8

Contacts

Polls

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- ! [Thanks to Eddie & Katrina](#) (Updated on May 15 by Brendan O'Rourke)
- ! [Analysing data in Qualitative Research Dissertations](#) (Updated on May 8 by Eddie)
- ! [Previous talks](#) (Updated on May 1 by Eddie)
- ! [Grounded Theory slides](#) (Updated on Apr 26 by Eddie)
- ! [New Programme - Something here for you??](#) (Updated on Apr 26 by Eddie)
- ! [Action Research Slides Available in Documents](#) (Updated on Mar 26 by katrina)
- ! [M.Phil Business, Critique the Literature](#) (Updated on Feb 1 by katrina)
- ! [Time plan, M.Phils Business](#) (Updated on Jan 25 by katrina)
- ! [Did you know?](#) (Updated on Jan 24 by katrina)
- ! [Online survey manual](#) (Updated on Jan 24 by katrina)
- ! [SITE NAME](#) (Updated on Dec 5 by Eddie)
- ! [Don't remain as a guest, please JOIN](#) (Updated on Nov 19 by Eddie)
- [Thanks to Eddie & Katrina!](#) (Updated on May 15 by Brendan O'Rourke)
- [recently updated qualitative research site](#) (Updated on Mar 21 by Eddie)
- [GROUP LINKS](#) (Updated on Mar 15 by Eddie)

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WebCT Discussion Fora

DIT

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Group A Discussion Forum



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Problem 1

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Subject	Author	Date	Status	Attachment
<input type="checkbox"/> 10. Interviews	Laura Morrissey	Mon Mar 25, 2002 11:35	New	
<input type="checkbox"/> 12. Re: postings	Colm Agnew	Mon Mar 25, 2002 20:24	New	
<input type="checkbox"/> 15. Barriers faced by ethnic minorities	Colm Agnew	Sat Mar 30, 2002 10:52	New	
<input type="checkbox"/> 16. Best International Practice	Colm Agnew	Sat Mar 30, 2002 10:55	New	
<input type="checkbox"/> 18. Barriers faced by ethnic minorities	Orlaith Tunney	Tue Apr 02, 2002 12:23	New	
<input checked="" type="checkbox"/> 19. Presentation	Orlaith Tunney	Tue Apr 02, 2002 12:55	New	
<input checked="" type="checkbox"/> 22. Barriers faced by ethnic minorities	Brian Bowe	Wed Apr 03, 2002 09:55	New	
<input type="checkbox"/> 23. Best International Practice	Brian Bowe	Wed Apr 03, 2002 10:02	New	
<input type="checkbox"/> 24. Next Week's meeting	Brian Bowe	Wed Apr 03, 2002 15:13	New	
<input type="checkbox"/> 27. Best International Practice	Tony Murray	Sun Apr 07, 2002 23:51	New	

Problem 2

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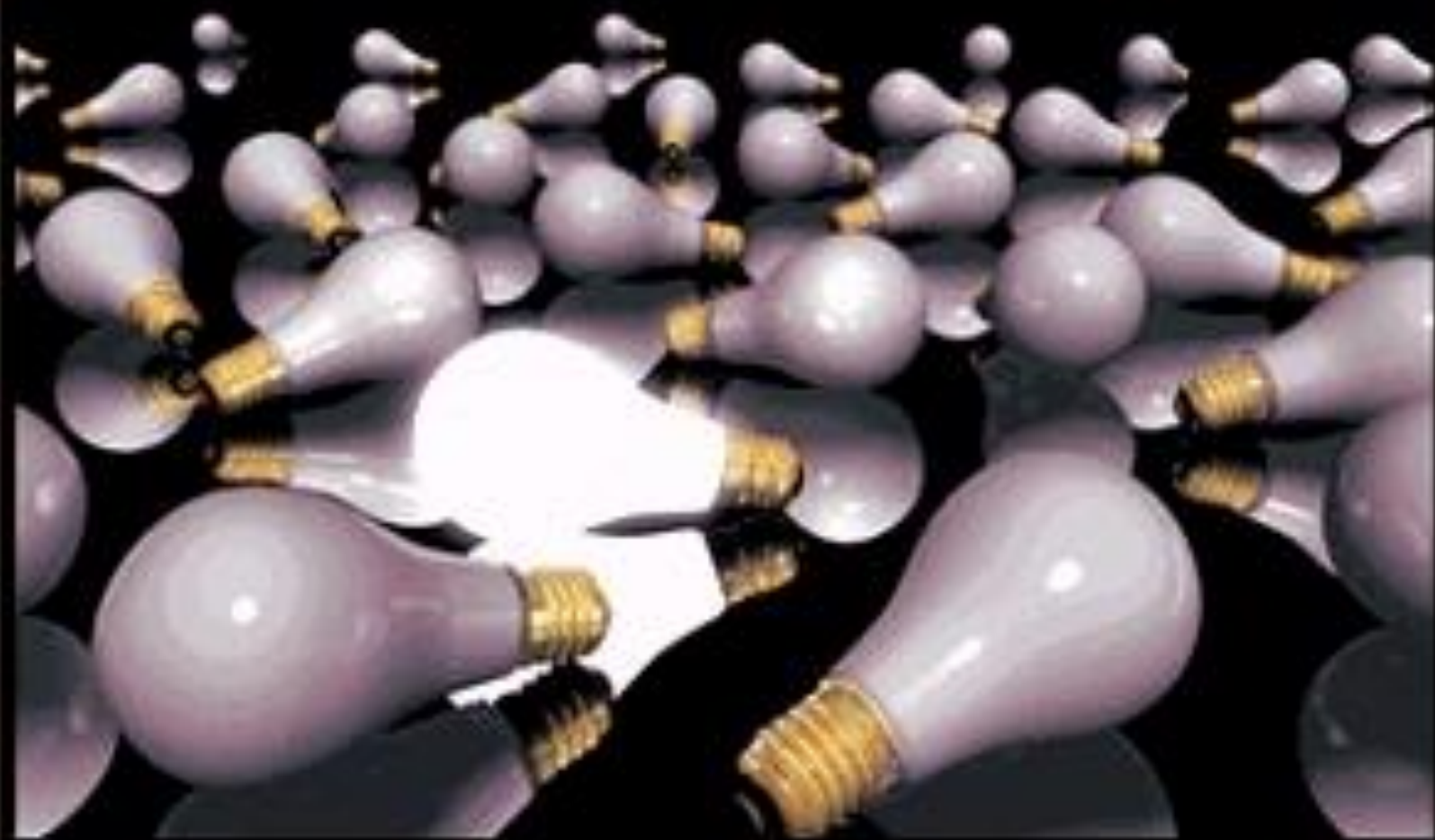
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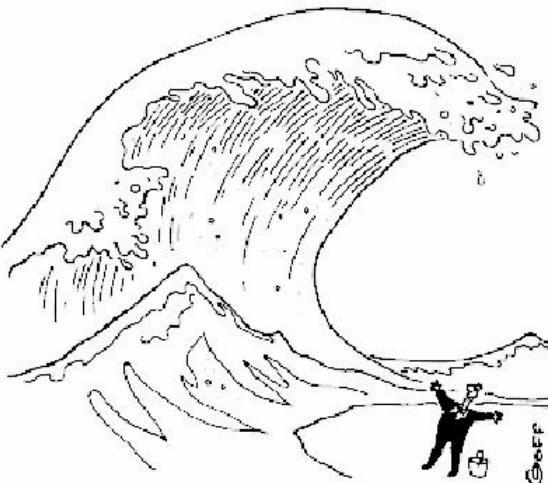
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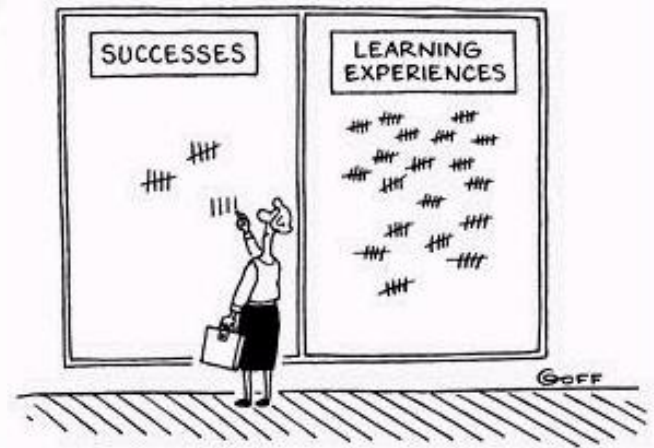
Subject	Author	Date	Status	Attachment
<input type="checkbox"/> 49. Questionnaires	Brian Bowe	Mon Apr 22, 2002 15:51	New	
<input type="checkbox"/> 50. Questions for the Teaching Staff	Brian Bowe	Mon Apr 22, 2002 15:58	New	
<input type="checkbox"/> 51. Questionnaires	Clem Ryan	Mon Apr 22, 2002 17:35	New	
<input checked="" type="checkbox"/> 53. Designing questionnaires	Orlaith Tunney	Thu Apr 25, 2002 22:30	New	
<input type="checkbox"/> 54. Ethics, Pitfalls Reliability & Validity.	Colm Agnew	Mon Apr 29, 2002 09:48	New	
<input type="checkbox"/> 55. Research Process	Tony Murray	Mon Apr 29, 2002 14:45	New	
<input type="checkbox"/> 57. Qualitative and Quantitative Approaches	Brian Bowe	Mon Apr 29, 2002 16:47	New	
<input checked="" type="checkbox"/> 59. Presentation for next Tuesday	Tony Murray	Wed May 01, 2002 12:18	New	
<input checked="" type="checkbox"/> 60. First Draft of Questionnaire	Tony Murray	Wed May 01, 2002 15:44	New	



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"EUREKA! MORE INFORMATION!"



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