Development & Implementation of a Team-Based Learning Module: An Academic Perspective

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Disclosure

- Author: Dr Jenny Morris
- Learner Objectives:
  - ✓ Recognise and value the development time and effort needed to implement team-based learning
  - ✓ Appreciate the pedagogic value of team-based learning especially with large groups of students
- There is no conflict of interest associated with the work presented
- The evaluation was funded through a Plymouth University Teaching & Learning Fellowship award 2012-2013

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Aim of Presentation

- Describe the process & outcome of implementing team-based learning (TBL) through:
  - Outlining the TBL sequence of activity
  - Identifying the planning required for implementation
  - Describing the perspective of the academic team
  - Reporting results from the summative assessment

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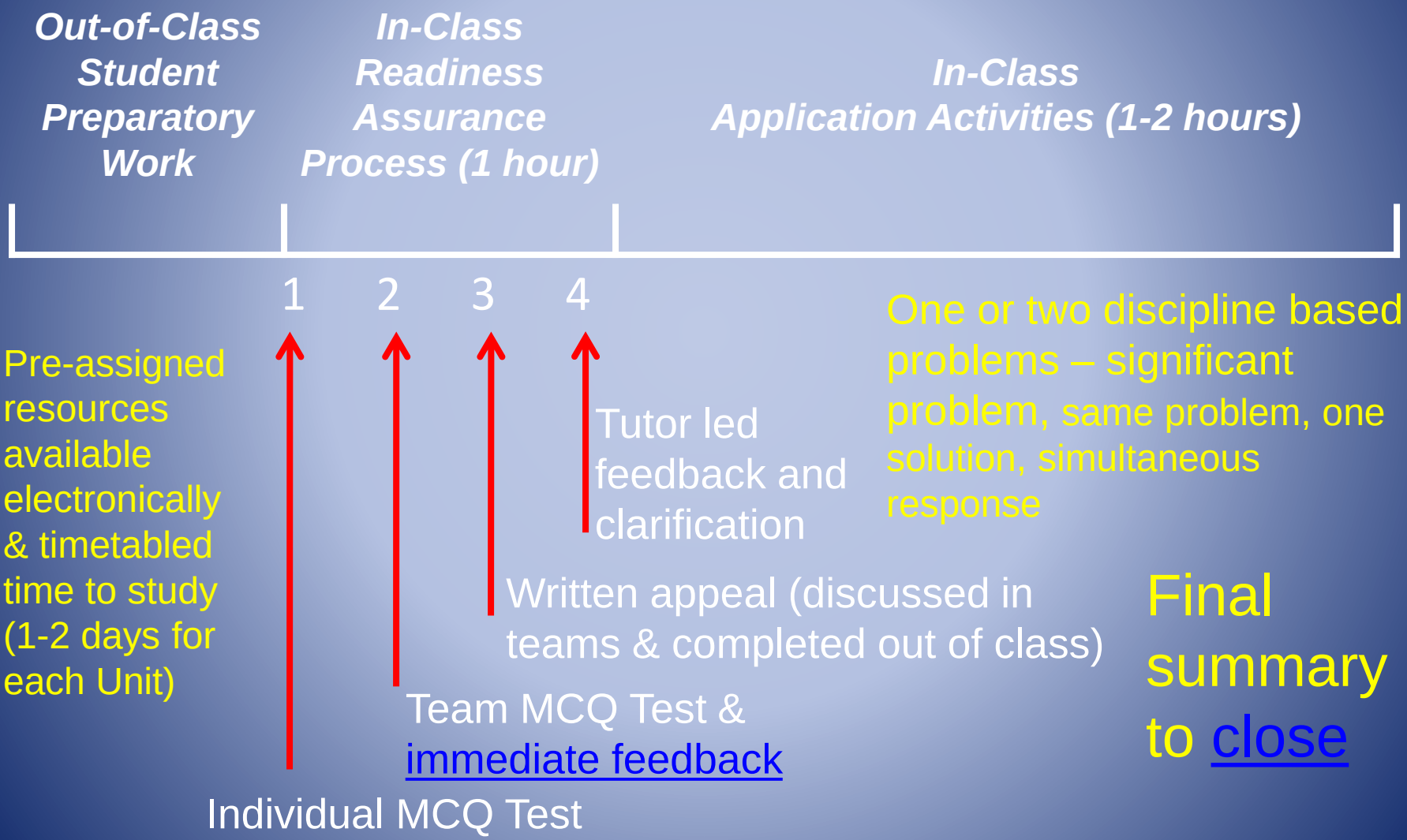
Team-Based Learning (TBL)

Designed by Larry Michaelsen in the 1970s in the United States as a teaching & learning strategy for ensuring the benefits of small group teaching with large groups of students

How I Learned about TBL:

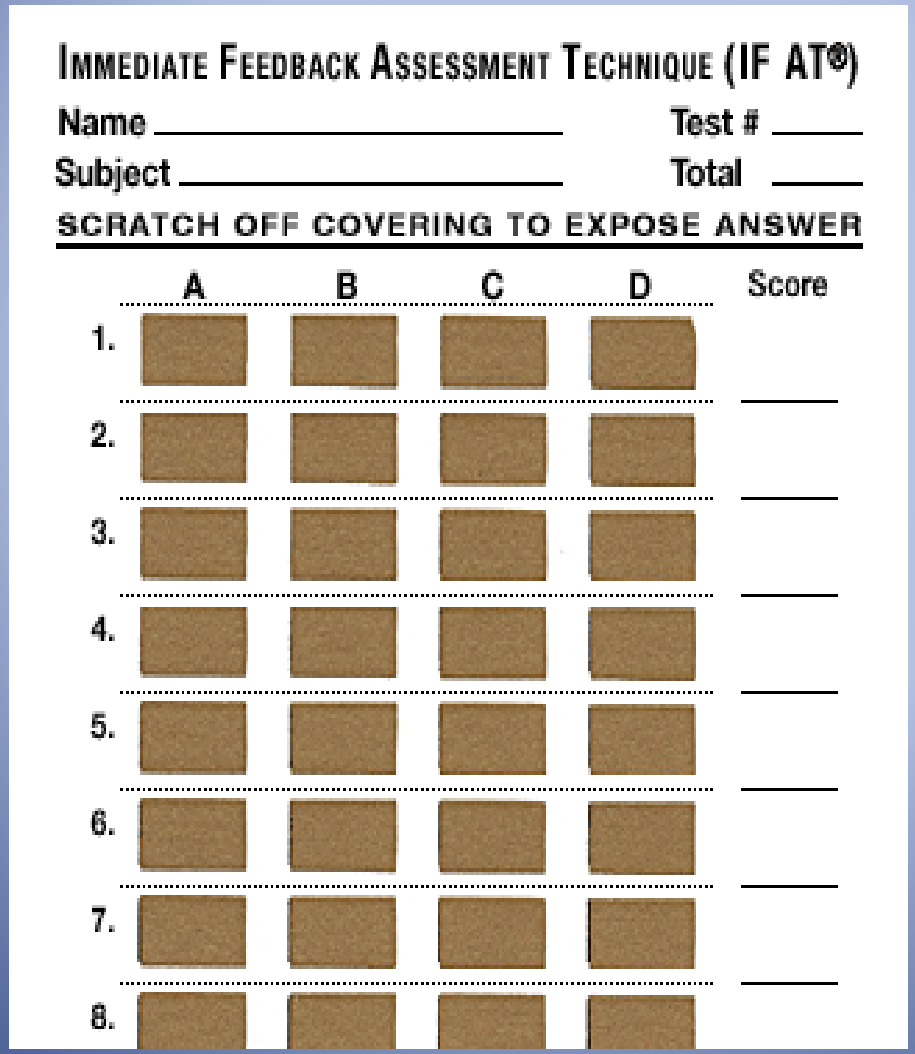
- Sabbatical at McMaster University in Canada (July 2011)
- Teaching course at Oxford University in England (September 2011)

TBL Activity Sequence for Each 'Learning Unit' within a Module/Course



Based on the work of L. Michaelson (personal communication)

Team Test Scoring – Immediate Feedback



IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT®)

Name _____ Test # _____

Subject _____ Total _____

SCRATCH OFF COVERING TO EXPOSE ANSWER

	A	B	C	D	Score
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

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Context of Implementation & Evaluation

Context of Implementation

- Opportunity to change teaching & learning strategy with curriculum redesign
- First implemented in 2nd year evidence-informed decision making module in 2012-2013 in BSc Nursing Programme
- Shared module across nursing fields (adult, child & mental health)
- Simultaneous delivery across multiple groups & 2 sites

Evaluation

- Post-intervention design with focus on student & academic perspective
  - ✓ Academic perspective & student results reported today

Planning for TBL: Key Elements (~ 9 months)

- My knowledge development around TBL & subsequent teaching team development
  - ✓ Reading about TBL, TBL Collaboration & Listserv, workshop run by Larry Michaelsen, TBL Collaboration annual conference
- Module reconfiguration into 4 units timetabled over 13 days between December 2012 and April 2013
- Agreement of elements for formative & summative assessment
- Resources identified/developed for each unit with key learning objectives
- Development & review of multiple choice test questions & application activities
- Consideration of students with specific learning requirements (e.g. extra time for test, separate room, reader)
- Division of student cohort of ~300 into 5 main groups each facilitated by 2 members of the teaching team
- Organisation of 44 teams of 5-6 students diversified according to nursing field and age (approximately 9 teams per group)
- Preparation of team folders, induction material, handbook
- Preparation of students for change in teaching & learning strategy

1.2 Formulating Clinical Questions (4 items)

By the end of your readings you should be able to: (i) Formulate clinical questions using the PICO(T) framework; (ii) Match clinical questions to research designs; (iii) Describe levels of evidence relevant to clinical questions.

Evidence-Based Practice, Step by Step: Asking the Clinical Question: A key Step in EBP

Webpage | Brief article that summarises how to formulate a clinical question using the PICOT framework. This is part of a series of papers that will be referred to throughout the module building up knowledge each time around the EIDM process.

Nursing, Research and the Evidence - A. Mulhall, Mulhall, A., 1998-01-01

Article | This is a useful article highlighting the importance of research in nursing and emphasising the kinds of evidence that underpin nursing practice. Read the article carefully with the aim of being able to understand that different research designs are used to answer different clinical questions. For example, a randomised controlled trial would not normally be used to explore patient experiences. Please also note that 'interpretism/naturalism' refers to qualitative research.

Types of Studies - Introduction to Evidence-Based Practice - LibGuides at Duke University Medical Center

Webpage | Having begun to understand that different clinical questions are answered by different types of study, you need to know that there is a hierarchy of research designs. This is sometimes referred to as the level of evidence. The pyramid in this resource illustrates the level of evidence represented when the type of clinical question is a therapy question. Note the reason for the pyramidal shape.

Evidence-Based Health Care: Finding the Best Evidence

Webpage | This is a helpful PowerPoint presentation that summarises the process of identifying a clinical question, describes levels of evidence; and begins to look at how to search for evidence. Use this to help reinforce your knowledge.

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Results from Evaluation: Academic Team Perspective

8 members of the team interviewed by research assistant employed for the evaluation using structured interview schedule

- ✓ 17 questions around each stage of implementation
- ✓ Individual interviews & took around 1-1.5 hours

Main Issues Identified:

- ❖ Perception of TBL prior to implementation
- ❖ Preparation required for each module Unit
- ❖ Facilitation rather than lecturing
- ❖ TBL as a learning strategy for EIDM
- ❖ General perceptions of TBL

Results from Evaluation: Summative Assessment (n=257)

Mean individual result 52.64%; mean team result 82.67%

20% scored 70%+; 39% scored 60-69%

Individual Results	TBL 2013	Non-TBL 2012
Overall pass rate at first attempt	89%	79%
Median result	62%	50%
Q1	56%	40%

Why Should TBL Make Such a Difference?

- ✓ Students need to do the preparatory work to succeed and not let their team down
- ✓ Multiple learning opportunities throughout the TBL process:
  - ❑ Independent learning through preparatory work and knowledge acquisition
  - ❑ Self-testing through the individual test
  - ❑ Peer learning through discussions around team test responses – explanations to others, questions to others
  - ❑ Immediate feedback from team test responses
  - ❑ Deeper learning through discussion, reflection and decision making in application activities
  - ❑ Clarification from tutors following the team test and application activities
  - ❑ Appeal process

All leading to high level of engagement throughout the module

Conclusions

- Significant effort& time required to change module to TBL
- Important to attend TBL workshops run by experts & to network with other (experienced) TBL users
- TBL is effective in getting students to engage
- Use of TBL led to improved results
- Academic team enthused by impact of TBL on student engagement & learning
- Important to follow TBL activity sequence as described
- We plan to use elsewhere in the curriculum

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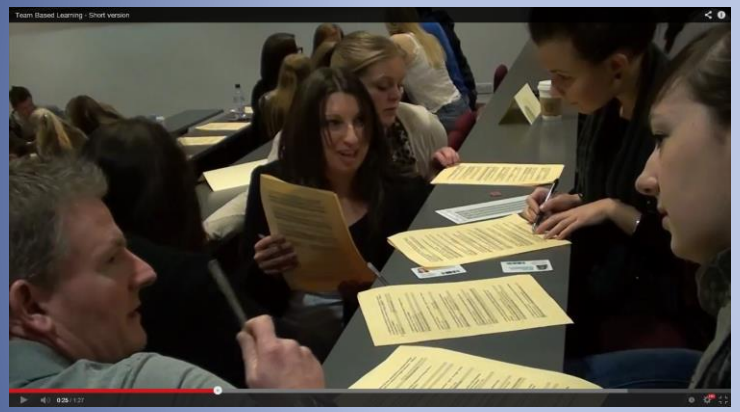
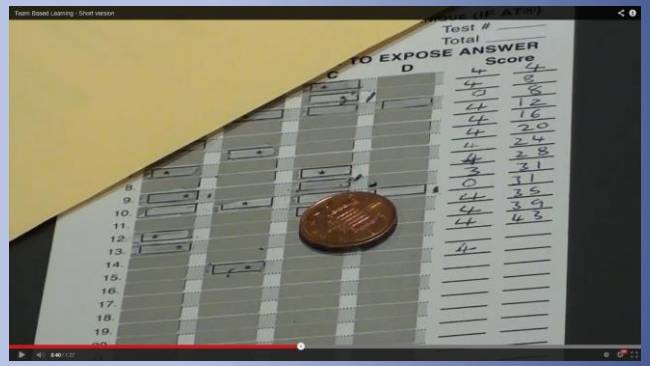
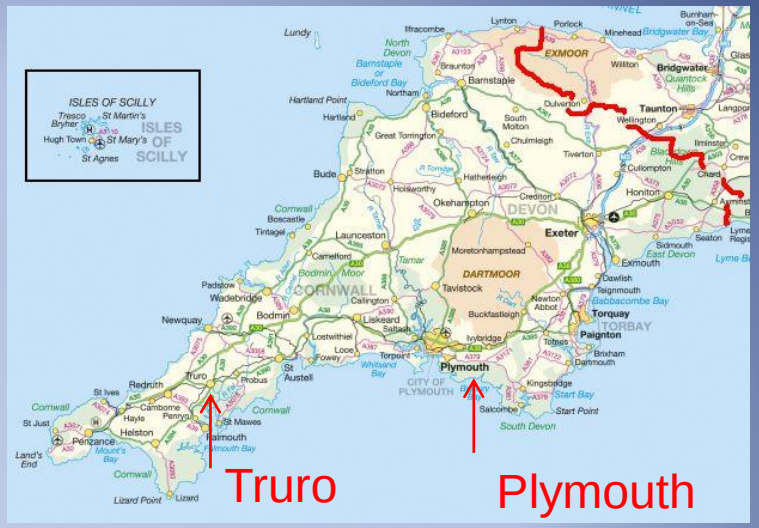
TEAM-BASED LEARNING WORKS!

QUESTIONS?







Minack Theatre

My Dog Rusty!