Improving Student Learning Symposium, Brussels, 4 - 6 September 2002

Symposium abstract:

Enhancing Teaching-Learning Environments in Undergraduate Courses (ETL)

Dr Ray Land, University of Edinburgh
Dr Velda McCune, University of Edinburgh
Professor Erik Meyer, University of Durham
Dr Nicola Reimann, University of Durham

Convenor: Dr Keith Trigwell, University of Oxford

Themes addressed: Learning and teaching methods; assessment; learning environments; supporting learners; implementing and managing change and innovation,

This four-year project, which started in January 2001 is seeking to develop subject-specific conceptual frameworks to guide institutional, faculty or departmental development of teaching-learning environments. The frameworks will seek to integrate findings from research both with the professional knowledge of academic staff and with national and institutional criteria describing high quality teaching and learning. By working collaboratively with departmental partners we are exploring ways of enhancing the system-wide capacity for research-based practice. The project is funded by the Economic and Social Research Council as part of the UK-wide Teaching and Learning Research Programme (TLRP). The programme as a whole is intended to strengthen the research base informing the quality of teaching and learning in the UK. It is committed to pursuing useful research and seeks to involve teachers very directly in the ongoing work of the project.

Members of the ETL project team are based in three centres, at Edinburgh, Durham and Coventry Universities. We aim to work collaboratively with up to twenty departments in five contrasting subject areas: biosciences, economics, electronic engineering, history, and media and communications. The course settings have been chosen to provide good coverage of academic disciplines and professional areas and a variety of traditional and innovative teaching-learning environments. The project team will support its partner departments in reviewing the effectiveness of their undergraduate teaching in two course settings and in identifying new ways of encouraging high-quality learning in their respective subject areas.

The various outputs of the project will be brought together and diffused by means of an integrated dissemination strategy which combines web-accessible resources with printed materials and collaborative workshops and seminars. The aim will be to assist those responsible for modules, courses and programmes of study to monitor, review and enhance the efficacy of teaching-learning environments by deploying data gathering and analytic tools which are evidence-based and have clear conceptual underpinnings. Our project extends over four years, until at least December 2004.

The papers presented at the symposium will discuss some of the key findings and methodological issues emerging during the first year of the research. As the project has got under way the research team have also begun to explore a range of theoretical perspectives that might help in the development of subject-specific conceptual frameworks. These include 'constructive alignment', 'ways of thinking and practising', 'marker outcomes', 'threshold concepts' and 'troublesome knowledge'. Symposium participants will be invited to assess the potential of these perspectives as both explanatory and actionable theories.

.../

Symposium Paper 1

The Enhancing Teaching-Learning Environments in Undergraduate Courses Project: Early Findings

Dr Velda McCune; Dr Nicola Reimann

Universities of Edinburgh and Durham

Themes addressed: Learning and teaching methods; assessment; learning environments; supporting learners; implementing and managing change and innovation.

This paper will begin with a brief overview of the ETL project, but will focus mainly on the findings emerging from the first year of the research. This first phase of the project involved a survey of teaching quality assessment reports from thirty-seven highly-rated departments. The reports were chosen so as to be broadly representative of the range of institutions currently offering undergraduate-level courses in the five subject areas in focus in this project. Subsequently, telephone interviews were carried out with staff from twenty of those departments and ongoing discussions with our subject advisors have helped us to make sense of those findings, and to develop our emerging understanding of teaching and learning in those areas. This work has been supplemented with reviews of the generic and subject-specific literature and through discussions with our international consultants, Professors John Biggs and David Perkins. The project has now entered its second phase, where the project team will work closely with departments to investigate and develop the teaching-learning environments relating to one first and one final year course unit. This phase will run for approximately two and a half years, ending in the Summer of 2004. These departments may include some of those that were involved in the telephone interviews, but this will not necessarily be the case.

In discussing the first phase of the project we will outline some of the key findings, conceptualisations and methodological issues which have emerged. One theme that has been of interest is the idea that high quality student learning might be best conceptualised in some contexts as 'ways of thinking and practising in the subject.' This is a broad concept which can encapsulate, for example, knowledge, understanding, approaches to learning and studying, self-regulation, skills, and values. A second key issue will be finding effective ways of communicating with colleagues in the five subject areas about their evolving understanding of the teaching-learning environments of the course units under consideration and about findings from the student learning research literature. In part, this will involve finding appropriate language to discuss these issues effectively with colleagues from different backgrounds, what David Perkins described to us as finding our 'action poetry'.

.../

Symposium Paper 2

Threshold Concepts and Troublesome Knowledge

Professor Erik Meyer; Dr Ray Land

Universities of Durham and Edinburgh

The present ESRC Project 'Enhancing Teaching and Learning Environments' (http://www.ed.ac.uk/etl), which is part of the large scale ESRC Teaching and Learning Research Programme Phase 2, is developing the concept of 'marker outcomes' as a key organising feature of constructive learning environments. What distinguishes a marker outcome is that it is a core learning outcome that can be defined at different levels of achievement. It can, moreover, provide a micro-perspective on the extent to which a given curriculum might be considered 'constructively aligned' (Biggs 1999). As a means of gaining purchase on the idea of marker outcomes this conceptual paper will explore a further theoretical notion, namely the idea that within specific disciplines there exist key 'threshold concepts'. Such concepts, it will be argued, lead to a new and previously inaccessible way of thinking about something. They lead to an experience similar to that characterized by James Joyce as a moment of 'epiphany' – 'the sudden revelation of the whatness of a thing'. From a learning perspective they have a transformative effect upon understanding without which the learner cannot satisfactorily progress. With such transformed understanding a new cognitive (and very possibly affective) terrain is brought into view, with possible corresponding effects on learner identity. Threshold concepts in this sense are therefore to be seen as essentially enabling. Without such understanding the learner is restricted to a limited application of the concept in question and destined to remain in a suspended state of 'liminality'. This can lead to a form of mimicry in their subsequent use of the concept.

This paper will also consider the extent to which threshold concepts are a factor in terms of what Perkins (1999) describes as 'troublesome knowledge'. This is knowledge that appears, for example, counter intuitive, alien (emanating from another culture or discourse), or incoherent (discrete aspects are unproblematic but there is no organising principle). Perkins categorises such encounters as 'inert', 'ritual', 'conceptually difficult', and 'foreign'. We might also add 'tacit' knowledge to this catalogue of the troublesome. In certain instances the mediating nature of language and discourse in relation to understanding may lead us to consider instances of troublesome language. The paper will invite colleagues to consider specific examples of both threshold concepts and troublesome knowledge in particular disciplinary contexts, and to consider the potential implications and utility of these notions in relation to their own disciplinary practice.

Biggs, J.B. (1999). Teaching for Quality Learning at University. Buckingham, Open University Press.
Perkins, D. N. (1999). The many faces of constructivism. Educational Leadership,57 (3), 6-11.