Application for “A Whole Session of Your Own”

Title: Critical Thinking and Higher Education: A Tale of Two Universities

Contributors:

Professor Carol McGuinness - Queens University Belfast

Professor Carol McGuinness is Professor of Psychology at Queen’s University, Belfast in Northern Ireland. She is director of the ACTS project (Activating Children’s Thinking Skills) which has longitudinally evaluated the impact of teaching thinking methods on children’s learning in primary classrooms (2001-2005) [www.sustainablethinkingclassrooms@qub.ac.uk](http://www.sustainablethinkingclassrooms@qub.ac.uk). She is the author of the influential report, From Thinking Skills to Thinking Classrooms (1999), commissioned by the Department of Education in London. She was awarded a National Teaching Fellowship (2000) for her work on student learning in higher education.

Professor Aidan Moran - University College, Dublin

Professor Aidan Moran is Director of the Psychology Research Laboratory in University College, Dublin, Ireland. A Fulbright Scholar, he recently directed a 3-year evaluation of a critical thinking skills program for university students. His research interests include cognitive psychology (mental imagery, eye-tracking and critical thinking) and sport psychology (concentration, expertise). He has published extensively in leading journals and has written seven books, the most recent of which is Timeless Wisdom: What Irish Proverbs Tell Us About Ourselves (with Michael O’Connell, UCD Press, 2006).
Dr Arlene Egan - University College, Dublin

Dr. Egan is a critical thinking lecturer and researcher in University College, Dublin, Ireland. Her PhD thesis was “The Development and Evaluation of a Learning Skills Course for First Year Psychology Students”. Recently, she has completed co-authoring a report on the design, application and evaluation of critical thinking programs used in various academic schools in University College, Dublin.

Dr Liam O’Hare - Queens University Belfast

Dr O’Hare is a Research Fellow in the School of Psychology Queen’s University Belfast. His PhD examined ‘The Measurement of Critical Thinking in Undergraduate Psychology Students’. He has held a Critical Thinking Workshop on behalf of the UK Higher Education Academy with Prof. McGuinness. Dr. O’Hare has also published work on university students’ generic skills including the thinking, communication and employment skills.

http://www.psych.qub.ac.uk/Staff/staff.aspx?name=ohare
Background: For the past five years, University College, Dublin (UCD) in the Republic of Ireland, and Queen’s University Belfast (QUB) in Northern Ireland, have been collaborating on research and practical issues concerning “Critical Thinking and Higher Education”. Whereas the UCD research team has been largely concerned with evaluating explicit interventions for the development of critical thinking skills in university students, the QUB team has been observing the implicit development of such thinking through typical student participation in a higher education programme. Integrating these complementary perspectives, the purpose of this session is to review the progress and prospects of our research on teaching thinking skills in higher education.

Session Aims and Objectives:

- to discuss what critical thinking is and to relate it to other types of student thinking and learning
- to suggest ways to assess or identify critical thinking
- to discuss methods for developing critical thinking
- to show patterns of critical thinking development in H.E.
- to share practical issues when developing critical thinking

Format: Four short research papers (15 mins) followed by a ‘Socratic Seminar’ (30 mins). A summary of the research papers is presented below. The Socratic seminar will have the following format. A ‘leader’ (one of the contributors) will ask a question. The attending delegates will then respond with answers to the question. The ‘leader’ will then summarise the responses and the delegates will once more have an opportunity to respond. Delegates are kindly asked to have prepared short answers to the Socratic Seminar questions before attending the session. See below for the Socratic seminar questions.
Summary of Research Papers

Context: It is widely assumed that higher education develops transferable skills and attitudes in students, as well as providing them with disciplinary knowledge. Of these transferable attributes, the ability and disposition to think critically are seen by many educationalists as being crucial for a student’s life, work and citizenship. The importance of critical thinking for education has a long history, dating back to Socrates. But in the 20th century there has been renewed interest in teaching critical thinking, particularly in the US and more recently in the UK and Ireland. Three questions in particular have been hotly debated: What exactly is meant by the term ‘critical thinking’? How can critical thinking be assessed? How can critical thinking be successfully taught? The aim of this symposium is to address each of these questions as well as providing insight into other components of critical thinking.

Presentation 1 (McGuinness): It has been said that there are as many definitions of critical thinking as there are theorists working in the area. This first paper will explore some of these definitions as they relate to higher education (Ennis, Paul, Halpern, Fisher). The concept of critical thinking will be analysed in relation both to critical thinking skills and critical thinking dispositions (Facione, Delphi Report). In addition, links will be made to the importance of epistemological beliefs for critical thinking (Kuhn).

Presentation 2 (O’Hare): The second paper presents empirical findings from the QUB team who have been observing the implicit development of critical thinking skills and dispositions through typical student participation in a higher education programme at undergraduate level. Using the California Critical Thinking Skills and Critical Thinking Dispositions Inventories (UK versions), longitudinal and cross-sectional data were collected from cohorts of 1st year, 2nd year and 3rd year students studying for an undergraduate degree in psychology. The results suggest that critical thinking skills significantly improved over the period of three years and critical thinking dispositions varied in their developmental progression. Moreover, these variations could be linked to features of course design. Implications for student learning and for curriculum design are discussed.
Presentation 3 (Egan):

This paper presents work from the UCD research team who have been evaluating explicit interventions for the development of critical thinking skills in first year university students. A programme was designed in which the development of critical thinking was embedded in the undergraduate psychology curriculum, specifically in the tutorial scheme. Students attended 20 such tutorial sessions over a period of one year. Using a pre-post and follow-up design, the development of the students’ critical thinking skills was examined over a two year period using the California Critical Thinking Skills Test. The results suggested that the critical thinking skills of these students improved significantly over the intervention period. The practical difficulties associated with this applied type of educational research together with the implications of this work for students, teachers and educational reformists are discussed.

Presentation 4 (Moran): In this final paper, a more general critique of critical thinking skills interventions in higher education is presented. It points out that curriculum design issues, staff development for teaching critical thinking, as well as practical difficulties are rarely fully discussed. The symposium will conclude with ideas for some potentially fruitful new directions for research on teaching critical thinking in higher education.

Socratic Seminar Questions:
What exactly is meant by the term ‘critical thinking’?
What are the similarities or differences between Thinking and Critical Thinking?
How can critical thinking be assessed?
How can critical thinking be successfully taught?