Briefing Paper Template
Seminar Series 2011:

Submission Date

Please submit the completed briefing paper to seminarseries@heacademy.ac.uk within two months of delivering the seminar.

Aims & Outputs

Please consider the following when completing your briefing paper:

The aims of the Briefing Paper are to:
- Summarise the key issues presented at the seminar, including the implications of research/evaluation evidence for practice.
- Stimulate discussion, share practice and support the sector's access to relevant research/evaluation evidence.

The briefing paper is designed to accommodate the following types of seminar:
- Those describing findings from research or evaluation projects (either completed or in-progress) and their implications for practice;
- Those describing the application of research and/or evaluation evidence to practice

The Briefing Paper Template on pages 2-4 outlines the basic requirements for the briefing paper and is meant to assist host institutions in summarising the seminar outcomes and also enable a consistent approach across the seminar series.

If you wish to provide any suggestions for how the template might be improved please email seminarseries@heacademy.ac.uk.

Please note the briefing paper will be disseminated through the Academy's EvidenceNet service. For further details on this service please visit the below web link:
http://www.heacademy.ac.uk/evidencenet

1. Background information	
Seminar Title:	Problem/ Inquiry Based Learning for employment. Meeting current and future challenges through collaboration
Institution(s):	**UWIC & Cardiff**
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2. Abstract: Please provide a brief abstract of the seminar delivered (maximum 200 words).

A brief explanation of both PBL and employability set the scene, providing links between the attributes encouraged by PBL and those highlighted by the CBI as desired graduate skills, knowledge and attributes. Presentation of findings drawn from recent doctoral studies explored the value that different student groups (A level & Access courses) on entry to higher education place on knowledge and how these values influence their transition to university, experiences of PBL and the development of employability skills. A café style approach was adopted to promote the sharing of practice and to develop some practical solutions to identified current challenges .

Findings of a longitudinal study on the use of PBL to promote creativity in student thinking (recognised as one of the essential employability skills in a rapidly changing work culture) were presented. Highlighted were the practical difficulties in developing a PBL curricular that encourages risk taking, adaptability, a place to challenge and be challenged and that develops autonomous learners. Practical exercises provided an opportunity to adopt a solution based approach to explore some of the current challenges facing HE/FE providers in designing learning opportunities, assessment, easing transition to HE and evaluating student learning in relation to employability skills.

3. Rationale: Please provide the background context, such as the research/evidence-informed practice context, which provided the impetus for the seminar.

A recent doctoral study into Occupational Therapy students' perceptions of knowledge and skills whilst undertaking a problem-based learning (PBL) course informed the first part of this seminar. This was followed by the findings of a qualitative longitudinal study exploring the perceptions of aspects of PBL that enhance or inhibit creativity.

Discussion between academics regarding the challenges of raising students' awareness of the employability skills within the curriculum led to insights into the link between the embedding of employability skills and PBL. In particular was the shift needed during the transition to higher education by students coming from different educational pathways. The need for a creative workforce has been highlighted by employers, educational policy since the Dearing report (1997). The processes undertaken when utilising a PBL cycle can be clearly linked to the processes undergone in the analytical framework when being creative.

4. Generation of Evidence: Please describe how the reported research/evaluation findings were generated e.g. methods used

The doctoral study utilised qualitative methodology through the use of semi-structured interviews with final year occupational therapy students. Students were sampled on the basis on their previous educational pathways i.e. a traditional A level route or through access qualifications in health and Social care. The data was analysed heuristically through the theoretical frameworks developed by Basil Bernstein (a Sociologist of Education).

The longitudinal study followed Occupational Therapy students through their three years on a PBL course. Two focus groups were conducted each year to identify and verify emerging themes. Volunteer sampling was used to form the focus groups in each year. The data generated was qualitivily analysed using coding and identifying emergent themes. Themes were taken back to the focus groups for verification and elaboration.

5. Related key terms and concepts: Please list up to 5 key words which closely describe the topic of the seminar. These will facilitate the search functionality used by the Academy's EvidenceNet services.

Employability, Problem-based learning, Creativity, Entrepreneurship, Skills and knowledge.

6. Existing Evidence: Please provide details of research/evaluation evidence drawn on and reported in the seminar

A key finding from the doctoral study was that students perceptions of knowledge was shaped by their previous educational pathway and that they viewed knowledge differently depending on that pathway. Students coming from a traditional 'A level' route tended to perceive knowledge as fixed and discipline specific (vertical discourse), whilst those students coming from an 'Access' route tended to have a less absolute view of knowledge, valuing personal experiences (horizontal discourses). This bias towards different types of knowledge leads students to engage in the PBL process differently. On transition to higher education , those students coming from a tradition route prioritised academic (esoteric) knowledge over tacit (experiential knowledge). This highlighted a challenge for PBL educators in terms of making the philosophy of PBL overt from the outset and that time is spent in professionally socialising student into the PBL process. In the same way as students have difficulty recognising different types of knowledge they also have difficulty in recognising the employability skills developed through PBL. Therefore there is a need for educators to make these much more visible and that there is constructive alignment (Biggs and Tang 2007) with assessment methods.

Findings from the study on creativity revealed a number of factors that influenced the students ability to develop creative thinking. Students highlighted the need for an environment which fosters an ability to challenge ideas whilst remaining safe. Safety was created through group cohesiveness and tutor facilitation that promoted sharing of tacit knowledge and personal experience. The tutor modelling this approach was seen as vital, with self disclosure and the ability to bring in personal practice experiences. Too promote creative thinking students need to be presented with problems (triggers) that provided a real-life context in which they could use problem-solving skills, entrepreneurship and lateral thinking rather that pre-determined solutions. This posed a challenge for resource development to ensure triggers are challenging enough and that the cognitive journey to the outcome is valued.

7. Research findings/New Evidence: Please describe any new findings or evidence reported in the seminar.

Within the seminar the participants were directed to the document 'Future Fit – Preparing graduates for the world of work', published by the CBI and Universities (2009), to explore employability skills and these were linked to skills developed through problem-based learning (Barrows, 1986) and underpinned by adragogical principles.
Specific links were made between employability skills (such as team working, problem

solving and self management) and students' experience of PBL through drawing the student voice.

'I felt that PBL was good because I knew I had the skills to find things out, what questions to ask and who to go to, to find out information (OT student)' – demonstrating team working and in particular a 'can do' approach. Recognised as one of the attributes that underpins employability skills (CBI).

'I think problem-solving is a very important skill and the PBL course makes us very good problem solvers…For me OT is about having the skills and ability to go and look at stuff, having the skills of researching about things (OT student)' – The self-management and problem solving skills being very evident.

Findings from the creativity study highlighted the need for inclusion of experiential learning within the PBL curricula in order for students to think outside of the box and take risks with their learning, with low stake consequences, allowing exploration – Freedom to explore.

8. Outcomes of research /evaluation evidence and the implications for policy and practice:
Please identify any application or outcomes of research/evaluation evidence and detail the implications for policy and practice for different stakeholder groups such as: academics, learning technology practitioners, professional developers, senior managers, policy makers, students, sector organisations, employers and professional bodies.

Academics
- Recognition of the importance of transition and providing learning opportunities that bridge the different pedagogical principles of PBL and higher education.
- To make the PBL programme outcomes and links to employability more overt from the outset.
- Design learning materials that encourage creativity of thought and prepare students for an ever changing employability landscape and life-long learning.
- To develop assessment methods that value different types of knowledge and focus on process and skills developed e.g. patch work text, presentation-vivas, that value group work skills, different modes of communication and entrepreneurship.
- Staff development for PBL facilitators to help establish a safe and challenging environment for student learning.

Professional Developers
- Promotion of PBL methodology as a means of enhancing employability skills.
- Promoting constructive alignment and assessment that values employability skills and reflects the philosophy of PBL.
- Promote the value of experiential learning, particularly in the real world to contextualise academic learning with future practice.

Learning technologists
- To recognise the potential for virtual learning technologies to develop creative triggers and opportunities for social networking to promote student learning.

Senior Managers and Policy makers
- PBL can be seen as resource intensive however senior managers need to recognise the potential of PBL for enhancing an employability agenda and meeting government initiatives.

Students
- Increased transparency of the curriculum and recognition of different educational pathways prior to HE.
- Students awareness of the need to be equipped for an ever-changing work place

and valuing the PBL process in developing this – taking more responsibility for self management from the outset.
- Freedom to explore without judgement.
- Recognising the value of co-operative forms of learning as opposed to competitive learning.

Employers
- Recognition of how PBL can prepare students for the work place and meet the skills identified by them as being important.

Professional bodies
- Need to recognise how learning outcomes will differ from traditional courses , incorporating skills and flexible outcomes.

9. Emerging themes: Please detail the discussion topics or themes that were raised by delegates during the course of the seminar - suggesting areas that would merit further investigation.

Assessment
- The challenge of assessment design that value the PBL process was raised.
- Designing assessment that reduces strategic learning and steers students away from immediately focusing on the outcome.
- Assessment criteria that promote risk taking and knowledge

Transition from prior education to HE
- The need to develop clear guides for the students regarding expectations and the transition process
- The need to develop learning opportunities that explore graduateness from the outset and set aspirations.
- Theoretical foundation in building confidence to explore

PBL implementation
- The need to shift the mind set of staff and students to embrace PBL
- Design of triggers that promote skills and integrated knowledge and practice and encourage entrepreneurial thinking.
- Use of students as partners in designing learning opportunities

All of the above would merit further investigation as these were only touched on within the time frames available.

10. Any other comments: Please use this box to include any additional details.

The session was filmed and sections of the film will be put up on 'Innovations in PBL' website.

11. Bibliography/references (preferably annotated): Please list any references mentioned in or associated with the seminar topic. Where possible, please annotate the list to enable readers to identify the most relevant materials.

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