Preparing for work and inquiry via a CLEAR approach: Combined Learning for Employability And Research

Preparing for work and inquiry via a CLEAR approach: Combined Learning for Employability And Research

James Wilkinson | jameswilk@btinternet.com
King's Learning Institute, Kings College London

Carlotta Olason | Sickle Cell Society

The 'Combined Learning for Employability and Research' (CLEAR) framework is an approach designed to support inquiry based learning and development of employability attributes. It emerged as a set of responses to difficulties encountered on a Level 5 'Work Related Learning and Research' module, where students often struggled to manage themselves, work to time, expedite group projects, handle multiple perspectives and apply research methods theory.

The study which sought to articulate, evaluate and conceptualise the CLEAR approach, used data and analysis from student reflections, module statistics and observations, interviews with research methods tutors and students (pre/post experiencing CLEAR); and literature perspectives.

Outcomes from fieldwork assisted in identifying specific areas of difficulty and in providing qualitative evidence of benefits related to the holistic nature of the CLEAR approach. Findings are linked to a theoretical framework integrating learning which is: active and student-centred; experiential and reflective; inquiry based; socially and individually constructed; and which encompasses cultural discourses and transforms tutor and student identities.

Keywords | *inquiry; employability ; constructivism; active, student-centred, situated, transformative and social learning*

Introduction

For many years there have been persistent and compelling calls for higher education to develop knowledge, skills and attitudes needed for inquiry and research (eg. Elton, 2001 citing Humboldt's work of 1810; Boyer Commission, 1998; Barnett, 2005; Ramsden, 2008; Healey and Jenkins, 2009) and also for employability (eg. Yorke, 2010 citing the Committee on Higher Education of 1963; Dearing 1997; Yorke and Knight, 2007. Knight and Yorke (2004, p.2) argue that 'good learning' for these two purposes need not be seen as 'oppositional' but rather as 'aligned ...constructs'. However, there are also concerns expressed in both areas. These include disquiet over restricting research based learning to a select elite or to final year students (eg. Healey and Jenkins (2009), transmission-based approaches (eg. Elton, 2001; Laurillard, 2002); learner passivity and dependence on 'certainties' provided by authorities (eg. Mezirow, 1997; Brown,1997; Boyer Commission, 1998; Ramsden, 2008; Baxter Magolda, 2010). Employability literature suggests difficulties in regulation and management of self, time and projects and, when learning with others, cross-cultural teamwork (Sola and Wilkinson, 2008). There is also concern over high stakes assessment and its negative impact on learner self-efficacy (Knight and Yorke, 2003).

Much of the above discourse emphasises the need to embed development of requisite 'skilful practices' in the curriculum rather than treating them in isolation (Yorke, 2010). It also suggests that learning actively, constructing knowledge and managing themselves and others, develops in university students the 'functioning knowledge' (Biggs and Tang, 2011, p. 81) and personal attributes which universities and employers both wish to see in graduates.

At the University of West London (UWL), the Level 5 'Work Related Learning and Research' (WRLR) module on the Higher National Diploma (HND) Business course sought to develop such learning for employability and inquiry through group work by developing research proposals and individual reflection on the experience. However, assessment results in the first two years were disappointing. While this may be partly explained by the academic profile of the students, typically lower than for those on bachelor programmes, the module tutor (Wilkinson) was concerned that the poor results reflected shortcomings in his initial teaching approach, which comprised a one-hour lecture plus two seminars per week. Difficulties related especially to: students' lack of critical engagement with theoretical perspectives; understanding of research methods theory; self, time and group project management; application and transfer of theory; and confidence, autonomy and identity.

Responses included significant reduction of lecture time, allowing longer sessions spent coaching small groups and interventions designed to encourage more active, self-directed, inquiry based learning to facilitate improved, employability related practices of self, time and group project management. A further innovation was to allow students to critique examples of the tutor's own research outputs, including not only polished but also rough drafts.

These changes were introduced over a number of years, in a largely ad hoc manner. With improving results came a desire to evaluate, articulate and conceptualise the above pedagogical approach. In 2009-2010, funding by UWL's 'Research in the Teaching Environment' scheme supported a study conducted by the module tutor to realise these aims, and the University's 'Graduate Internship' programme provided administrative support (Olason).

This paper starts by describing and explaining methods used in the study. To facilitate presentation and analysis of the considerable volume of data, and to illustrate the above narrative, selected findings will be presented thematically in five parts:

1. Engaging critically with theoretical perspectives;
2. Understanding of research methods theory;
3. Self, time and group project management;
4. Application and transfer of theory; and
5. Confidence, autonomy and identity.

The findings section concludes with presentation of module performance statistics. Because of the study's inductive approach, theoretical perspectives will be presented after the findings, as recommended by Creswell (2003), followed by a summarised conceptual framework for the 'CLEAR' approach, and our conclusion.

Methods

Because of the study's aim of researching an evolving, complex innovation in an educational rather than laboratory setting, a design-based approach was adopted.

Design-based research seeks to address the challenge to develop theories of learning and teaching that explain the 'multiple interactions' of learners and teachers acting in complex social settings in response to 'intervention designs in situ' (Sandoval and Bell, 2004, p.199, acknowledging Brown,1992). The Design-Based Research Collective proposes that rich, descriptive accounts of educational interventions and of the way these are enacted, typically triangulating *'multiple sources and kinds of data', can assist in explaining innovative practice and in providing 'principles that can be localized for others to apply to new settings'* (DRBC 2003, pp.7-8).

Multiple sets of data were gathered in three stages from: student reflections, module statistics and tutor observations; interviews with research methods tutors and students (pre/post experiencing CLEAR); and literature perspectives used to develop a conceptual framework.

Stage 1: Pre-intervention observations and interviews

i. observations of three years' experience with the module, prior to 2009, written by the module tutor (Wilkinson);
ii. interviews with three Level 6 tutors, who all had many years' experience teaching research methods and supervising dissertations on final year bachelor programmes; and
iii. interviews with eight students prior to experiencing the CLEAR approach.

Stage 2: Post-intervention interviews and students' written work

i. interviews with eight students after experiencing the CLEAR approach;
ii. student reflective portfolios.

Stage 3: Analysis of theoretical perspectives
Literature was examined before, alongside and after the various Stage 1 and Stage 2 activities, with the aim of *'analysing in a circular fashion the progression between parts and whole...'* as advocated by Addison (in Crabtree and Miller, 1999, p. 151) and other authors in relation to qualitative research (eg. Creswell,2003; Cousin, 2011).

To establish baseline data, a questionnaire comprising a repertory grid of ten opposing constructs was completed by students prior to the interviews and their responses acted as prompts for discussion during the Stage 1 interviews. For example, to establish students' understanding and attitude towards autonomous learning, prior to experiencing the CLEAR approach, they were asked to enter the letter 'I' for 'ideal' and 'C' to indicate their actual (current) position on a line between the following pair of opposing statements:

> *"I like learning by myself".....".I prefer if the teacher tells me*"

Stage 1 and 2 interviews and the students' portfolios produced qualitative data, analysis of which was facilitated with NVivo software. Codes identified in transcripts of recorded interviews were organised using editing and template styles described in Crabtree and Miller (1999), producing 12 themes, reduced eventually to the above five core categories. In addition to developing theory inductively, analysis of qualitative data aimed to reveal complex layers of meaning, to facilitate understanding of student and tutor perspectives, and to provide 'vivid, illuminative and substantive evidence of such behaviour and experiences' (Cousin, 2009, p.8).

The CLEAR story

Observations and extracts from interviews and students' work presented in this section provide substance for the narrative which was briefly summarised in the introduction. The selection and structuring of the evidence also reflects attempts at making sense of the data and aligning it with literature perspectives presented in the following section. In general, commentary expressed in the post-intervention interviews and reflective portfolios was positive, and the selected comments presented here are representative. However, instances of disconfirming evidence are also presented where relevant.

Interviews with Level 6 tutors suggest that many of the difficulties encountered on the WRLR module are not limited to Level 5 HND students, and may resonate with other higher education colleagues' experience.

Engaging critically with theoretical perspectives:

> *"Many, if not all students had difficulty grasping the process and even the purpose of literature review when it came to identifying a clear focus for their research, placing their work in relation to current thinking, critically analysing and synthesising ideas drawn from multiple perspectives, producing a conceptual, analytical framework for research, and explaining and justifying methods and methodology choices"*. (WRLR Module Tutor Observations)

Indeed, engaging actively and critically with relevant literature appeared to be a significant area of difficulty, acknowledged by the students and emphasised in the Level 6 tutors' comments. Implicit in the above observation are difficulties relating to reading and writing for research and academic purposes.

Reading

> *"Many students appeared to have done very little reading as their grasp of the concepts needed in their research proposals was typically limited or patchy."* (WRLR Module Tutor observations)

Tutor 2 believed that poor reading skills affected students' ability to develop a specific focus for their research:

> *"They need to be more diligent in terms of their reading. They need to develop an accumulation of knowledge of what the subjects actually mean and what their subdivisions mean so that they can be clear. They seem to fear being specific as if that requires more knowledge than they really want to ... either have or to acquire."*

Moreover, students acknowledged that they should read better and more. Student I also admitted to a disinclination to take on the necessary hard work:

> *"…I don't think I read enough as I should. I feel, like, whatever's convenient, I'll just, like, sort of rely on that for my research. Like I do get a lot of books from the library, and then, the internet is quite good, so I mean… I don't use as much books. I suppose I use more internet than books. (Pause)… I mean, it's just having to go out and umm, just look at other things…. I think it's just laziness (laughs) in my case."*

From the Level 6 tutors' comments, such reading behaviour is not untypical and they repeatedly linked this lack of reading to difficulties achieving a clear research focus:

> Tutor 2:
> *"I find that some of the weaker students sometimes have the best ideas, but they don't know how to narrow them down…. Some of them really do start with something but it's too general and they need to focus down on it.*
>
> Tutor 1:
> *"It's difficult when they haven't read anything and they don't know where they're going…."*

The WRLR module tutor's reduction of time spent lecturing and more time working with small groups created a less formal atmosphere in which students were more ready to ask questions. Getting students to undertake inquiry during class time appeared also to motivate them to engage more responsibly:

> *"They asked me to show them how to access academic journal articles via the university's electronic data bases. They had attended a presentation on this but could not remember how to do it. They even seemed receptive to tips on skim-reading and ways to structure complex ideas. Previous attempts to pass on such study skills had usually coincided with their eyes taking on a curiously glass-like appearance. They seemed now to understand that being specific in their research aims required deeper knowledge than they actually possessed, and that reading might give them this"*. (WRLR Module Tutor observations)

Several post-intervention interviews suggested that the module had encouraged greater commitment to reading. Student I, for example, believed that working in a group had helped. Her statement of what might seem obvious also suggests that the benefits of reading were new to her:

"… we would always come in to do research in the library and just check out books and see what we could get so… I think I have learnt from them, like how they do research …(and)… actually go to the sources and even, like – I don't know – just reading books and stuff, and I think that helped quite a lot 'cause it just broadens my knowledge a bit."

Student N also found that the module had helped her to engage more diligently and critically with literature, making her more open to wider perspectives and helping her to focus her efforts:

"Doing this project has prepared me to look deeper into a topic and find out all I can about it, from more than one angle. I feel I can research more strategically and practically." (Student N – reflective portfolio)

Writing:

"There were worrying numbers of suspected plagiarism cases, and where students did produce their own writing, this was often poorly structured, descriptive and lacking effective and critical analysis." (WRLR Module Tutor observations)

The Level 6 tutors likewise referred to instances of plagiarism and were also concerned that students lacked the necessary analytical skills, as is illustrated by concerns expressed by Tutor 3 and her efforts to address these:

"I mean, we say to students, you know 'You should critically evaluate these articles and you should put it all in your own words' and we think we know what that means, and we think that they know what that means, but my experience is: they don't…, and so the idea is to actually say: 'What are the skills you need to put things in your own words. You need to be able to paraphrase, you need to be able to use quotations, you need to be able to summarise. What does that skill mean? Show me that you can do it. Yes, that's what you need to be doing in your essay".

Similar difficulties linking reading, understanding and writing were also reported by Student C:

" Sometimes it is a bit difficult to put into your own words and sometimes you need to … before you put (it) into your words, you need to kind of think: "how well do I understand it and how well does it make sense to me?"

According to the tutors, students also failed to appreciate the iterative nature of writing and how articulating research intentions, underpinning theory, processes and outputs requires "a huge number of drafts." (Tutor 1).

"They're unused to this idea of writing and editing,…. What they'd rather do is to keep it in their head and somehow magically and mysteriously have it appear perfectly on a sheet of paper, and it doesn't quite work like that" (Tutor 2).

Tutor 2 also saw weaknesses in critical analysis as an attitude problem:

"They lack the reasoning and argumentative part of it…. I mean, I'm quite happy when someone argues with what I've said and proves that I'm wrong. I think: "Well done! Great! Go on!" But that happens only one in every 20 students a year."

Understanding research methods:

Concerning research methods, Tutor 2 highlighted both conceptual and linguistic difficulties, as well as the need for tenacity:

"...it's quite complicated, and you start introducing ... lots of new words to them that they haven't heard before ... and you've got 'quantitative' and 'qualitative', 'methodologies' and you've got 'sampling frames' and you've got 'populations' and 'variables' and all these words that are quite ... 'swimmy' when you first start and ... they're a bit worried, I think, and they almost give up, and I try and tell them that ... you've just got to plod away with it. It does become bearable and you don't get everything right."

Asked to characterise the 'good' students, tutors again emphasised the importance of engaging with literature and of applying it purposefully:

" ... the better students are the ones that are able to do the reading, synthesise what they've got and then apply it to a methodology, or at least have thought of how they can apply it, maybe to different ones and then have selected something. Mostly, though, that's a struggle for a lot of students. With the better ones, that's definitely the hallmark, it's reading...."

Writing post-intervention, Student N claimed in her portfolio to have learnt the importance of specifying aims, planning and persistence:

"I have also learnt how to put together a research project and the elements involved. At the beginning of the work related learning module I didn't know much about the writing up of a research project. .... I have now learnt how clear aims and objectives need to be to make them achievable. I also have learnt that you need to keep working on a project, and planning it out is key to covering everything in that topic."

While this is encouraging, it should be noted that knowledge and understanding of research methods featured much less prominently in most interviews and portfolios, where students tended rather to emphasise gains in employability-related skills.

Self, time and group project management:

"Group work was intended to fulfil several employability related learning outcomes, and also to make the challenges of undertaking research more manageable by spreading the load amongst individuals. A few groups achieved considerable cohesion and synergy but for many, sharing the work with others merely confounded an already challenging task. In particular, there were issues with self, time, project and group management"
(WRLR Module Tutor observations)

The Level 6 tutors did not mention group work because the dissertation is an individual task. Their reticence concerning project management specifically may be more telling, suggesting that it was not uppermost in their minds. However, they did comment on time management issues.

Time and self management:

Indeed, managing time was highlighted by tutors and students alike.

"… in the first week or so, when they're getting started, you kind of want to really shake them up and get them to realise that they've got to get going now…." (Tutor 1)

"Time management: it's something I think we all struggle with…. They don't work quickly enough. There's a tendency to wait and leave it, rather than quickly getting to the nub of the whole thing".
(Tutor 2)

This tendency was echoed by Student C, for whom imminent deadlines served to concentrate the mind:

"I tend to do things at the last minute but I always get on time, for some strange reason, and I think the reason why is that … I work well under pressure when knowing that I have to finish something the next day: my mind is just focused and information just starts to come together…."

However, such procrastination came at a price, as he conceded when asked if he was happy with his grades:

"No, I feel like I could have done a lot better if I spent a bit more time".

Reflecting post-intervention on skills she had improved, Student O emphasised self- and time management, explaining that the module had helped to develop her planning skills:

"During the assignment I had many other responsibilities outside of school as I am (a) single parent and am working as well. Good planning helped me in organisation of day to day tasks and I was able to find enough time to do my assignment as well."

For another student, working in a group proved motivating in relation to self-management and commitment:

"When I first started the course this year I wasn't able to manage work, and home responsibilities, plus hobbies, I also wasn't prioritizing well, I thought work

was important, and home responsibilities but this course was for some reason coming last. This module changed that for me, when we first were put into groups and we started working on our assignments, I felt that I had to show the same level of commitment as other team members, I think seeing how seriously they took this project motivated me to do just as well". (Student P, reflective portfolio)

Group project management:

Managing the complexities involved in producing a research proposal during a nine-week project, and identifying and sharing tasks between three or four team members was challenging. Pre-intervention attitudes among students towards group work were mixed. A few appeared to enjoy it but most were less enthusiastic. Student I, for example had experienced the benefits of co-operation, but others emphasized problems linked to self and time management, dealing effectively with conflict, and problem solving:

"I really like group work, 'cause everyone has a different sort of background and knowledge of things…. If I don't know something, that person may know, and it's good to actually share your knowledge and expertise…." (Student I).

"I think that most of the time I find relying on people a bit awkward because you have to rely on their time schedule and sometimes it can kind of collide, and when you have…kind of… conflicts, it can escalate in, like… silly arguments…. I can easily get distracted by negativity." (Student C).

"Most of the group work was really messy and people did not turn up and no one really said how they felt or what issue they had, … (so) no problems were solved". (Student G)

A further problem was the issue of free-riders:

"Working with x was really difficult. I have never come across a person that was just not willing to put in the effort and just wanted you to do all the work." (Student A's portfolio)

Experiencing such problems and also reflecting on them appeared to help her feel better able to confront such individuals in future:

"…put it right first time… I'd make sure I would speak to him earlier."

And if this sounds only theoretical, there was also evidence of her having developed greater assertiveness for real when working with a colleague on the group project:

"…whenever I put my idea or opinion forward she would find fault in it and give it no value…. When things became excruciating, I confronted her. When we discussed the matters she realised that she was in the wrong and agreed to take on board other people's opinion…. It made me feel much better and we were able to work smoothly."

During the WRLR module, students were introduced to concepts relating to emotional intelligence, and these may have contributed to more empathic attitudes and helped them to manage their own emotional responses to situations, as is suggested in these examples:

"Before the module I used to be, like, 'Their problem is their problem, not really my issue', but now I …look at the problem and kind of try and help." (Student E, Stage 2 interview)

"Emotions are quicker than rational thought. That is why learning how to control them is so important. I am normally (an) enthusiastic person and easily express myself. However, I am impulsive and often respond to situations before thinking it through. Being able to analyze a situation and look at it from (the) perspective of others enabled me to understand other people's feelings, analyze their motives and connect better with them in what they want to achieve". (Student O's reflective portfolio).

The early years of the WRLR module coincided with the module tutor's co-ordination of a European project which designed a module on cross-cultural project management, elements of which were incorporated on the WRLR module.

"I used less time talking at all the students, and spent longer coaching

small groups undertaking their projects during class contact time. Now they produced ground rules, developed project plans and responsibility matrices, and sought to achieve in their groups cohesion (Rathje, 2007), an atmosphere of inclusivity and creativity (Ceserani and Greatwood, 1995), and to develop mindfulness (Langer, 1989) in handling uncertainty and anxiety in the face of different others (Gudykunst, 2004). Every week they wrote minutes and action plans, reported on progress and reflected on this learning in their journals". (WRLR Module Tutor observation)

As an example of the benefits of this approach, student O's portfolio reflections on group project management were more fully articulated than most, but were not unrepresentative:

"On our project, we have planned our actions and to make sure we do tasks on time we took minutes of our meetings. Tasks have been given to each member regarding … skills and abilities. We divided the complex assignment into little tasks and monitored progress of achievement regarding our milestones. I learned that planning, control, team management, communication and integration are crucial for project management. Starting work without planning is not (a) good strategy. Setting clear aims and objectives are crucial for success of a project. In addition, communication between team members is very important and lack of good communication can lead to misunderstandings, conflicts or delay in work. Sharing tasks between team members is beneficial for the team. Knowing all of above, I have bigger knowledge on project management than I had before I started this module".

Application and transfer:

"It was not as if I had not told them how to do all of this. In lectures and in on-line materials, I thought I had spelled it out for them". (WRLR Module Tutor Observations)

The module tutor's frustration implicit in this comment relates to the apparent difficulty students had applying what he believed he had taught them. Level 6 tutors reported similar difficulties, several of which related to research methods being taught out of context:

"I mean, I've got quite a lot of experience teaching research methods, but I think… for me, when it's any kind of academic study skills, whatever you want to call it,…, if they're taught in isolation, I don't think they, umm, the students don't see, they just think: …, 'Someone's telling me how to write again', and they don't really apply it. It's giving the application that's the challenge with these sorts of skills." (Tutor 3)

"I think teaching research methods by itself is a problem because, unless you're applying it, you can have some inspiring lectures and talks, but there's a question of reality. I mean, (adopting the voice of somebody listening to such a talk) 'Bloody hell! This is amazing stuff!' But – this is the way I learn – unless I do it at the same time I find it very difficult." (Tutor 1)

For the tutors, timing might achieve better application, and in more ways than one. On the one hand, research methods could be taught when relevant to students' needs:

"… I'd be doing it at the same time. …. I'd be much more in favour of drip feeding and try to strategically deliver the stuff as they need it". (Tutor 1)

On the other, there was a view that teaching research methods needed to start earlier:

"Teach it in Level 5. Don't wait until Level 6 and cram it into a semester. …they arrive at this point, Level 6, with a lack of confidence, a lack of knowledge, a lack of skills in many cases, and we do cram it in there. …. I suspect if you did a full research methods module at Level 5 (it) might bring about a different situation, with students coming to this in a completely different state of preparation". (Tutor 2)

In contrast, Tutor 1 questioned whether research methods should not be left until later:

"I'm not sure we should be doing it at undergraduate level".

In theory, many of the skills are developed earlier in the curriculum, but Tutor 3 suggested that students can fail to appreciate how they apply in different contexts:

> *"...a lot of them (i.e. research skills) apply to many assessments that students do, so for example looking for information and evaluating it would apply to writing an essay and in the same way it would apply to research. I think one of the problems is that students don't always see transferability of these skills."* (Tutor 3)

Evidence that the changes introduced on the WRLR module were helping students to become better able to apply their learning in practice could be observed in the improved research proposals (assignment 1), which were typically better conceptualised and articulated, and in the learning logs and portfolios (assignment 2), where students' reflections generally provided fuller analysis. These improvements were reflected in improved grades (see 3.7 below).

The emphasis given by students to improved self, time and project management suggests that these generic employability skills were important in helping them to manage the complexities involved in working in a team to produce a research proposal. However, students' relative reticence over more specific areas related to inquiry and research means that apart from the improved grades, it is less easy to be certain over what it was about the module's approach that was helpful.

In fact the way the second, reflective assignment was designed and structured encouraged students to reflect more on employability aspects than on skills relating to inquiry and research. Such bias may explain the above reticence and may also be linked to disconfirming evidence reported by one of the students:

> *"...the research methods we used were quite difficult to apply, 'cause nobody had done this sort of thing before. We weren't really clear on how to apply it to be honest."* (Student G).

This study has drawn attention to the need to articulate inquiry more clearly in learning activities and intended outcomes, and to place greater emphasis on reflection on the research skills developed.

Confidence, autonomy and identity:

> *"You know, you'd like them to come back next week and say: "Ok, this week, now I've got something, come on smart guy : let's see you pick holes in this!" And that's what you want from them, but they don't seem to have that innate confidence, knowledge, and ability to want to do that or be prepared to do that."* (Tutor 2)

More 'diligent' reading would no doubt give them the knowledge, as has already been discussed. However, this is not the only skill or attribute that would give students the stronger sense of agency that Tutor 2 suggests is needed. Several of the tutor and student comments suggest that underlying several of the difficulties already discussed might be issues relating to learner confidence, autonomy and identity. For example, Student I's comments revealed ambivalence when asked how she felt about being required to find things out for herself:

> Student I:
> *"I think it's sort of good, 'cos it helps increase your knowledge, like I mean, it's independent learning, they want you to think for yourself, kind of thing, so I mean , going out there to find... I mean, use resources like internet, books, or talk to people, I think that's it, yeah."*
>
> Interviewer:
> *"And you don't mind doing that? "*
>
> Student I:
> *"I absolutely don't mind doing it 'cos I feel like, it gives me a sense of satisfaction that I can do it for myself, so it's like a skill, really .... "*

Her apparent enthusiasm may, however, have been prompted by a desire to say what she thought the interviewer (her tutor) wanted to hear. A little more probing yielded the concession that

> *"Actually I would prefer if the teachers did tell me".*

Indeed, this was an attitude shared by several of the students. Asked how she felt about handling multiple perspectives, Student G's response reveals her lacking sense of personal agency. Her reliance on guidance provided by an expert authority figureure also reflects

her expectations about identities and roles of students and teachers:

> *"I would find it confusing, to be honest, because... I wouldn't know what to write, but from what I've been told, like, from a lecturer that "This is your main source, that's the latest edition, that's what should be correct", then that's one I would mostly rely on. Because I've been told by them ... that this is the right source, I find because obviously they know a lot more than what we do, I find that more valuable and I would trust that source more than I would trust anything else that I would look into".* (Student G)

The inquiry based learning approach adopted on the WRLR module required students to be active, and they were also introduced to theory intended to develop a stronger sense of agency:

> *"I used to have fixed `self-belief'* (Knight and Yorke, 2003)*, which means I believed that I just could not (achieve) success in disciplines that I found difficult to learn. I was always proud of myself when I suceeded but disappointed when I failed. Now I have learned that little failures on the way to success should not be big disappointments for me."* (Student O, reflective portfolio)

Several students also commented on the value of having to reflect on their learning experiences, in their weekly learning logs and reflective portfolios. Student B contrasts her experience on other modules with WRLR, where not only the output of group work counted but also experience and reflection on the process.

> *"It was challenging but I think it enables you to grow in those areas that you find yourself challenged in. Like being able to deal in situations ... and then having to evaluate it is a completely different thing – you don't do that at all in any other module: you just get set to do group work and then produce the work whereas here you look at every difficulty, analyse it in different ways and then not only that but you looked to find ways of improving on it which is also quite good 'cause it enables you to find out, like, a problem and a solution rather than just having the normal module that does not do anything like that."*
> (Student B, Stage 2 Interview)

Module performance statistics:

Grades achieved on the WRLR module across the four years leading up to and including the year of the study suggest improving student performance .

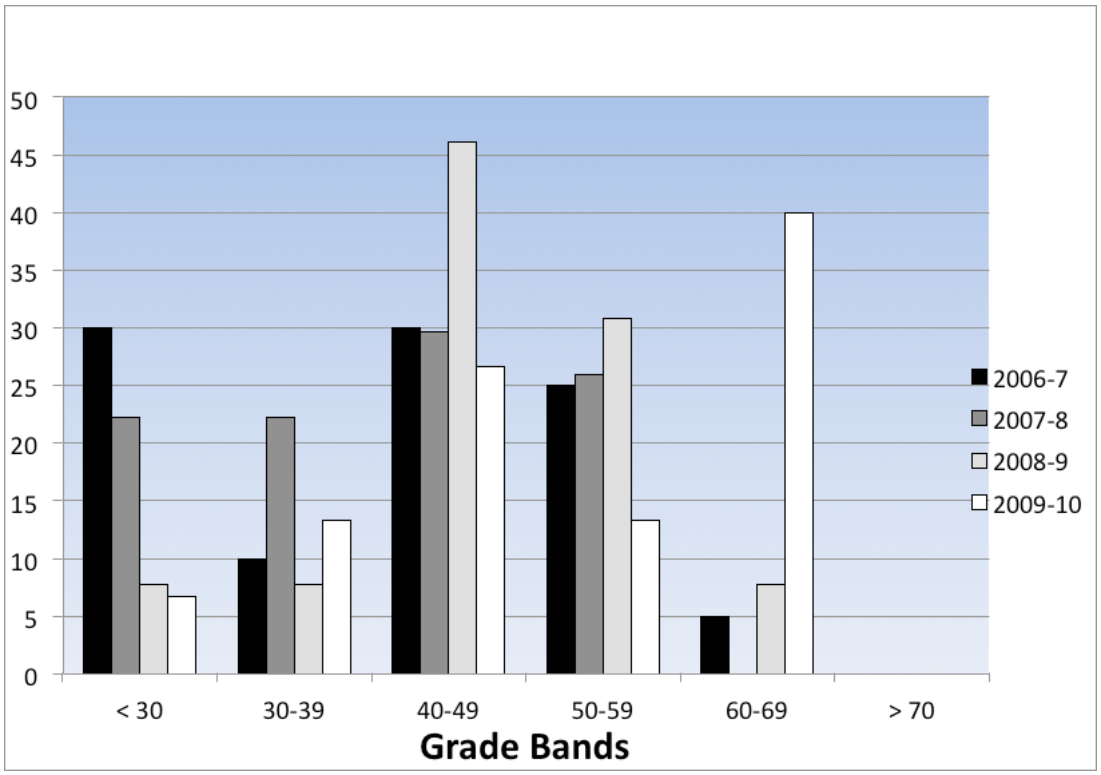


Figure. 1. Grade Distribution on the WRLR module (as % of class size)

CLEAR ideas

Unsurprisingly, the above narrative reflects concerns that are also expressed in the literature on research based education and employability. Some of the strategies intended to address these concerns are themselves questioned. Student-centred approaches may be poorly thought through and applied, and fail to provide sufficient challenge (Furedi, in Gill (2008)). This may indeed have been a problem in the early days of the WRLR module. Moreover, with social forms of learning, these risk students losing sight of individual responsibility (Sanger, 2010), an issue highlighted by several of the students. It is of course also possible that the module tutor's lectures and teaching materials were simply not very good, but their failure to inspire and facilitate understanding, critical engagement with and application of theory, can be linked to widespread concerns over transmission-based approaches (eg. Boyer Commission, 1998; Elton, 2001; Ramsden, 2008). Elton argues that these work only with the most able students and even they learn better when they engage with and own the processes of learning. Key criticisms of transmission-based teaching are that it encourages surface (Marton, 1994), and passive learning (eg. Elton, 2001) and 'learned helplessness', making students fail to 'engage readily in intentional, self-directed action' (Brown 1998, p.399). Such learning does not equip learners for the journey from *'uncritical acceptance of external authority to self-authorship'* (Baxter Magolda, 2010, p.2).

The decision to reduce lecture time also links to the related view that learners need to be active, not simply receptive, and that they should reflect on their learning (eg. Brown, 1998; Laurillard, 2002). Laurillard's 'conversational framework' makes particular reference to the work of Schön (1987) and Wenger (1998), involving on one level, discourse, theory and conceptual understanding and on the other, active, practical and experiential learning, the two levels bridged through engaged participation in *'adaptation (practice in relation to theory) and reflection (theory in the light of practice)'* (Laurillard, 2002, p.22). On the WRLR module, such reflection was facilitated via the weekly learning logs and the final assessed portfolio. Biggs and Tang (2011) explain that the introduction of assessed portfolios, where students show evidence of their learning, was the starting point for the highly influential practice of outcomes based teaching and learning which Biggs called 'constructive alignment'. This is 'constructive' in the sense that learners *'use their own activity to construct their knowledge as interpreted through their own schemata'* (Biggs and Tang, p.97).

Approaches that entail experience, reflection and constructivism include inquiry based learning (IBL), originally developed at McMaster University in Canada. IBL practice described by Justice et al. (2007), Allan and Powell (2007) and Spronken-Smith and Walker (2010) involves not only activity aiming to acquire and construct new knowledge and understanding, but also a pedagogical approach based around this process (Justice et al.). It entails a student-centred, teacher-facilitated approach where learners are engaged in a self-directed process of discovering and co-constructing knowledge and new understanding, gradually engaging more and more responsibly in their learning and self-reflection. Spronken-Smith and Walker thus describe 'structured', 'guided' and 'open' categories of IBL relating to the degree of independent learning, and problems in the early years of the WRLR module may have related to too high a degree of openness, with insufficient structure and guidance. They also report (p.723) that IBL has been said to

> *'enhance student learning outcomes, particularly the development of higher order skills ... as well as strengthen the teaching-research nexus'*.

According to the conceptual framework for the teaching-research nexus by Healey and Jenkins' (2009, p.7), the CLEAR approach might be interpreted as being mainly 'research-oriented', 'developing research and inquiry skills and techniques', but because students are active in conducting literature review and making research methods choices (if not actually carrying them out), elements of it can also be described as 'research-based' ('undertaking research and inquiry'). Empirical data reported by Trowler and Wareham (2007) suggest benefits relating to the development of a range of knowledge and skills, as well as epistemological awareness. However, they also point to a range of related 'possible dysfunctions' concerning 'slow' and 'patchy' coverage of the curriculum, 'low quality research with poor ethical control', learner resistance and the constraints linked to the timetable and modularised curriculum. These dysfunctions may, like Tutor 1, lead to a

questioning of the appropriateness of research activity for undergraduate students. However, the need for students to be urged away from passive acceptance of certainties provided by authorities to actively constructing knowledge for themselves makes a compelling case for more rather than less inquiry based learning on undergraduate courses, and for this to start much sooner. To illustrate the point, contrast the experiences of students whose induction involves sitting in lecture theatres with those at the University of Gloucestershire who head out into the community, to places of natural beauty, or the local zoo to investigate topics relevant to their subject disciplines (Healey and Jenkins, 2008). It is not difficult to imagine which of the two sets of students is likely to engage better with their subject and who will understand sooner the processes of knowledge construction.

Small group coaching and supportive mentoring, practised on the WRLR module, bears similarities with the cognitive apprenticeship model envisaged by Collins, Seely, Brown and Newman, cited by Woolley and Jarvis (2007). This, like IBL, provides structure and guidance intended to facilitate the learning process and which is gradually reduced. In addition to modelling, the tutor provides coaching and scaffolding, helps students to articulate knowledge and engage in reflection, and facilitates exploration of ideas and problem-solving processes.

Experiential learning models tend to emphasise application by the individual. Citing the work of Vygotsky (1981), Davis et al. (2000), as well as Lave and Wenger (1991), Quay (2003) is concerned that such emphasis risks taking insufficient account of more holistic conceptions of learning, which embrace also social constructivism and discourse related to the cultural context in which learning is situated. In fact, Justice et al's (2007) IBL model acknowledges these concerns and appears to balance these competing requirements, as does the model for developing intercultural communication competence proposed by the IICEE project team (2009). Both the 'Manchester Steps' and 'Portsmouth' Models described by Allan and Powell (2007) also include elements of social learning. At Portsmouth, a 'small-group dialectical component' involves tutors facilitating students engaging in dialogue to address contradictory or divergent theoretical perspectives.

The importance of culture and context links to another problem with lectures, namely to the suggestion that however skilfully a message is crafted and conveyed, the values, preconceptions, and current situation of the intended recipients (Mackay, 1994) or their 'frames of reference', 'habits of mind' and 'structures of assumptions' (Mezirow, 1997, p.5) either prevent them or affect how they receive it. This appears consistent with the view that initiating learners into academic practice requires a process of enculturation, and transformation of learners' identity (Mezirow, 1997; Wenger, 1998; Quay, 2003), legitimising their peripheral situation as newcomers, and facilitating their entry and membership of a community of practice (Lave and Wenger, 1991). Given the 'work related' aspect of the WRLR module, this link to Lave and Wenger's work appears appropriate, though there are also similarities with the learning communities described by Brown (1998, p.399), which emphasise 'independent and group research on some subset of a topic of inquiry', and on meta-cognitive reflection.

This emphasis on social and transformational learning suggests that rather than acting as didactic experts, it would therefore be more appropriate for teachers to see themselves as one side of a partnership (Justice et al, 2007; Ramsden, 2008), sharing expertise and authority with learners (Baxter Magolda, 2010), as happened when drafts of the WRLR tutor's work were subjected to students' critical scrutiny.

Finally, the issue of confidence, suggested as a factor underlying poor student performance may relate to concepts of self-efficacy (Bandura, 1994). This theory figureures prominently in the USEM (Understanding, Skills, Efficacy and Metacognition) model proposed by Knight and Yorke (eg. 2003; also, Yorke and Knight, 2007) who, drawing on the work of Dweck (1999), argue that high stakes assessment is unhelpful in promoting positive self-efficacy beliefs. Hence the decision on the WRLR module to reduce weighting on the group assignment and to build in regular low-stakes assessment that offers possibilities for students to develop confidence and improved performance through feedback and further reflection.

CLEAR framework

In summary, as a response to five years' experience with the WRLR module, and to primary and secondary findings from this study, the CLEAR approach seeks to integrate practices where learning is: **active and student-centred** (eg. Elton 2001); **experiential and reflective** (eg. Laurillard, 2002; Kolb and Kolb, 2005); **inquiry based** (eg. Allan and Powell, 2007, Justice et al., 2007; Spronken-Smith and Walker, 2010); **socially constructed** (eg. Lave and Wenger, 1991); **situated** with reference to **cultural discourses** (eg. Quay, 2003; Sola and Wilkinson, 2008); and involving a process of **enculturation** which **transforms tutor and student identities** (eg. Brown, 1997, Mezirow, 1997, Wenger, 1998; Quay, 2003).

Accordingly, second year undergraduates work in groups to develop a research proposal. As individuals, they reflect on the process both in weekly learning logs and in a final evaluation of their research and group project experience, submitted in week 14. In line with Baxter Magolda's (2010) call for **shared authority and expertise**, the CLEAR approach involves learners critiquing both rough and polished examples of the tutor's as well as each others' work. The approach also draws on the **cognitive apprenticeship** model proposed by Collins, Seely Brown and Newman (cited by Woolley and Jarvis, 2007) which places emphasis on the tutor acting as a coach and role model for students, guiding learners in self, group and project management. The CLEAR approach limits transmission forms of teaching and allows time to be spent by the tutor working intensively with groups, simulating the role of line manager. In class, groups present minutes and reports, allowing both students and the tutor to monitor progress and provide weekly feedback. Students also apply creativity and project management techniques, together with an understanding of cross-cultural management issues (Sola and Wilkinson, 2008). Low-stakes formative assessment, in the form of a draft research proposal submitted in week 6 of the module and a group presentation in week 9, yields feedback for student groups to use in their final summative piece of written coursework in week 11. Students likewise are given feedback on their learning logs, submitted in week 7 (Weeks 1-6) and in week 12 (weeks 7-11).

The following representations of the framework, in tabular and dynamic formats, are attempts to articulate the CLEAR approach.

Figure. 2. Combined Learning for Employability and Research (CLEAR): conceptual framework and summary of teaching and learning activities

STUDENTS...

INDIVIDUAL LEARNING	**SOCIAL LEARNING**
…construct knowledge and understanding, engaging responsibly in the learning process, contributing their fair share to group work, keeping weekly learning journals and producing a final reflective assignment. (Laurillard, 2002; Kolb and Kolb, 2005; DAR, 2009 (Gibbs)	…co-construct knowledge and understanding, offering each other constructive, critical feedback in communities of practice (Lave and Wenger, 1991) and of learning (Brown, 1999); applying project management and creativity techniques and applying theory relating to emotional intelligence (Goleman, 1995) and cultural discourse (Quay, 2003; Sola and Wilkinson, 2008). This includes: building cohesion (Rathje, 2007) and an atmosphere of creativity (Ceserani and Greatwood, 1995); mindfulness (Langer 1989); and managing uncertainty and anxiety towards different others (Gudykunst, 2004).

inquiry based learning

the inquiry process; taking responsibility; engaging with issue; developing good question(s); determining information needed; accessing information; evaluating information; synthesising a coherent whole; and applying the 'inquiry paper checklist' (Justice et al., 2007).

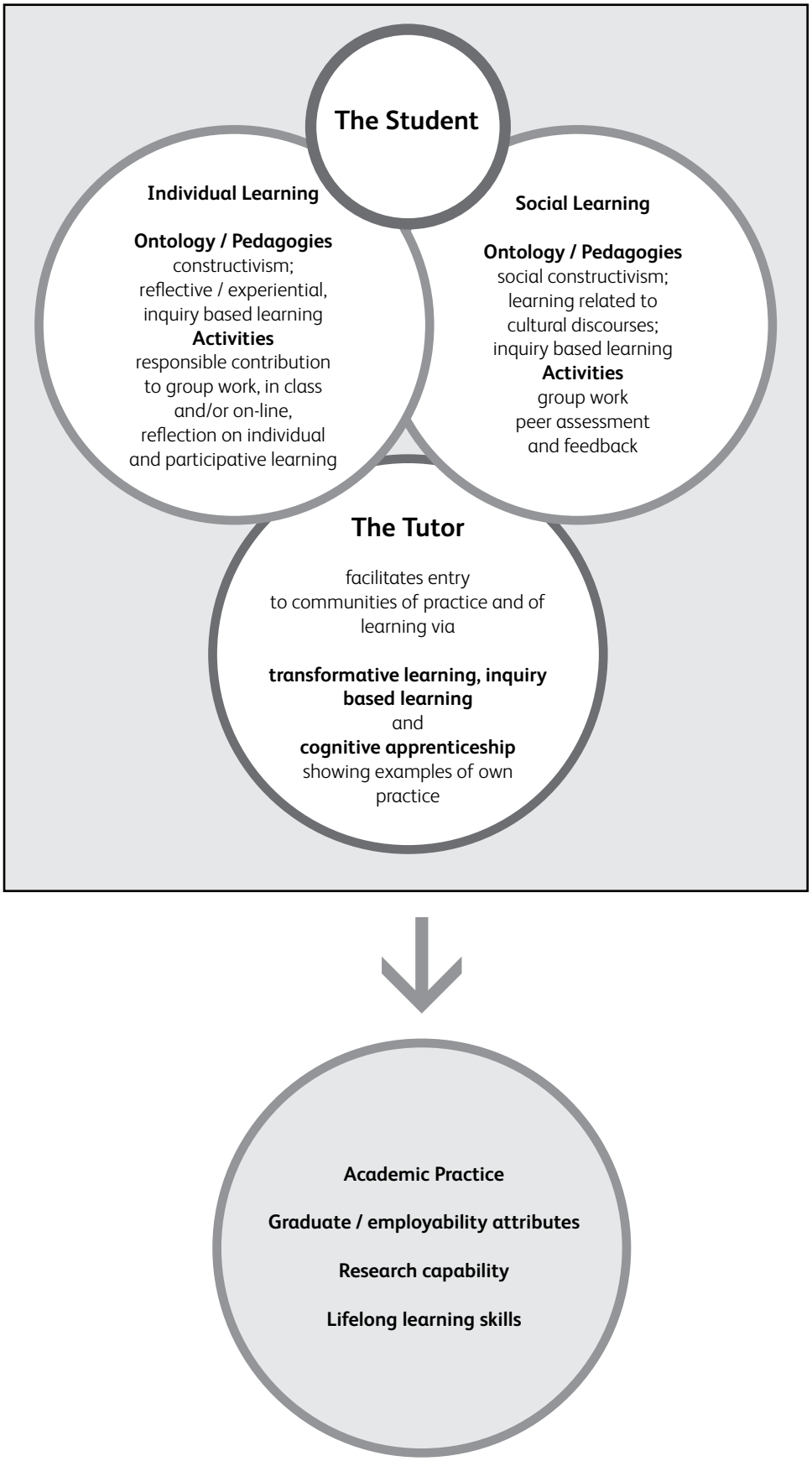
The 'Manchester Steps' and 'Portsmouth' Models (Allan and Powell, 2007).

Structured → Guided → Open inquiry (Spronken-Smith and Walker, 2010)

TUTORS…

…facilitate a supportive, non-threatening environment, encouraging students to see tutors less as authoritative experts, more as equal partners, sharing authority and expertise (Brown, 1997; Mezirow, 1997; Baxter Magolda 2010); model supportive, collegial behaviour and share both rough and polished examples of practice, provide coaching and scaffolding, assist articulation of knowledge and reflection on experience, and encourage exploration of problem-solving processes (Collins et al., 1989, cited by Woolley and Jarvis, 2007) and application of creativity and project management techniques (Sola and Wilkinson, 2008); design assessment which includes tasks that are low stakes and formative, and provide feedback (Knight and Yorke, 2003).

Figure. 3. Combined Learning for Employability and Research:
a CLEAR approach (dynamic representation)



Strengths, limitations and further work

Depending on their epistemological orientation, readers may view the rich qualitative data as providing vivid and illuminating insights into tutor and student perspectives on learning behaviour and experience, and see this as the study's major strength. Others of course may consider that the data does not amount to very much more than a series of organised anecdotes.

Nevertheless, the study can be said to exhibit characteristics considered to be the goal of design-based research (DBRC, 2003, p.5) in the way that the design of the CLEAR learning environment and the process of conceptualising the approach were 'intertwined', took place via 'cycles of design, enactment, analysis and redesign', and have led to theory that helps to 'communicate relevant implications to practitioners...'. The study also shows how the CLEAR design functions in 'authentic settings' and the presentation of rich, qualitative findings from multiple sources and types of data have documented and connected 'processes of enactment to outcomes of interest'.

While they provide apparently encouraging evidence of improving performance on the WRLR module, the study's only quantitative data – the module performance statistics –need treating with caution. Smaller class sizes in the two later years and variations in the academic abilities and motivation of individual students mean that it is not possible to describe with confidence a firm causal link between improved performance and the innovations described.

Further limitations restrict the study's ability to make claims concerning the first aim of the study, which was to evaluate the CLEAR approach as enacted on the WRLR module. In particular, despite the lack of problems found when piloting the repertory grid questionnaire with another group of students, when used with the actual participant group, inconsistencies in students' responses and the small sample size (16) made quantitative analysis unusable in any meaningful way. A further issue relates to the inductive, circular process by which primary and secondary data were gathered and analysed. While this eventually resulted in the above core categories, which provide useful points to consider when designing modules, themes identified by a more deductive process would have permitted more rigorous testing of claims relating to the CLEAR approach's benefits. Indeed, it would be useful to undertake such testing in future studies and in these, greater emphasis should be given to evaluating learning for research and inquiry.

Conclusions

Our paper, and the practices, behaviours and experience that it reports, reflects concerns and issues raised in discourse relating to the teaching-research nexus and to employability. The CLEAR approach's explicit emphasis on employability development, including application of and reflection on practices relating to self, group and project management, may be a point of difference from other inquiry based learning approaches and a possible justification for the approach's title. We believe that making these employability enhancing features explicit is important, not only serving generic 'work related' aims but also assisting students to manage the skilful practices needed for the 'good' university learning embraced by Knight and Yorke's (2004) USEM model (understanding, skilful practices, efficacy and metacognition). However, this study draws attention to the need for stronger articulation of skills and knowledge needed for inquiry and research, and for the provision of structures that facilitate suitable activities for developing inquiry and research capability and reflection on them.

As we wrote in the introduction, calls for universities to develop employability and inquiry have been persistent and compelling. Yet our experience in higher education suggests that these calls are experienced by many university lecturers merely as part of the background noise in which they practise, and that they are often drowned out by other competing agendas and constraints, several of which prioritise transmission of content above all else. Indeed, we hear of courses where the number of lecture hours is increasing while tutorials are being reduced. Our study suggests that such strategies are unlikely to engage students and turn them into active and responsible learners. Given the limitations in the study, the CLEAR approach is presented tentatively, but we believe that it offers potential for such transformation.

References

Allan, G. and Powell, N. (2007) Examining the underlying principles of enquiry-based learning: two instances of where learning sessions start and end. *The International Journal of Learning*, 14 (8), p157-165. *EBSCOhost: Education Research Complete* [Online]. Available at: http://web.ebscohost.com/. [Accessed 25 July 2011].

Bandura, A. (1994) Self-efficacy. In V. S. Ramachaudran ed, *Encyclopedia of human behavior* (Vol. 4, p. 71-81). New York: Academic Press. (Reprinted in H. Friedman ed. *Encyclopedia of mental health*. San Diego: Academic Press, 1998). [Online]. Available from: http://www.des.emory.edu/mfp/BanEncy.html. [Accessed 16 May 2010].

Barnett, R. (ed.) (2005) *Reshaping the university: new relationships between research, scholarship and teaching*. Maidenhead: McGraw-Hill/ Open University Press. [Online]. (Partially) available from: http://books.google.com/books?id=W00hmGDCYZ4Candprintsec=frontcoveranddq=barnett+reshaping+the+universityandrview=1andcd=1#v=onepageandqandf=false. [Accessed 19 May 2010].

Baxter Magolda, M. (2010) A tandem journey through the labyrinth. *Journal of Learning Development in Higher Education*, 2. [Online] Available from http://www.aldinhe.ac.uk/ojs/index.php?journal=jldheandpage=articleandop=viewandpath%5B%5D=61andpath%5B%5D=37 [Accessed: 7 June 2010].

Becket, N. and Kemp, P. (eds) (2006). *Enhancing graduate employability in business and management, hospitality, leisure, sport, tourism*. Newbury: Threshold Press Ltd / Oxford Brookes University.

Boyer Commission on Educating Undergraduates in the Research University (1998). *Reinventing undergraduate education: a blueprint for America's research Universities*. Stony Brook: State University of New York at Stony Brook. [Online]. Available from: http://naples.cc.stonybrook.edu/Pres/boyer.nsf/673918d46fbf653e852565ec0056ff3e/d955b61ffddd590a852565ec005717ae/$FILE/boyer.pdf. [Accessed 19 May 2010].

Brown, A. (1997) Transforming schools into communities of thinking and learning about serious matters. *American Psychologist*, 52 (4), p.399-413. [Online] Available at: *EBSCOhost: PsycARTICLES* [Online]. Available at: http://web.ebscohost.com/. [Accessed 26 April 2012].

Carnegie Foundation (1996) Ernest L. Boyer. A leader of educators, an educator of leaders. 1928-1995. *91st Annual Report of The Carnegie Foundation for the Advancement of Teaching.* [Online] Available at: http://www.messiah.edu/boyer_center/resources/literary/ELBLeader.pdf. [Accessed 14 November 2011].

Ceserani, J. and Greatwood, P. (1995) *Innovation and creativity*. London: Kogan Page.

Cousin, G. (2009) *Researching learning in higher education: an introduction to contemporary methods and approaches.* Abingdon: Routledge.

Cousin, G. (2010) Neither teacher-centred nor student-centred: threshold concepts and research partnerships. *Journal of Learning Development in Higher Education*, 2. [Online] Available from: http://www.aldinhe.ac.uk/ojs/index.php?journal=jldheandpage=articleandop=viewandpath%5B%5D=64andpath%5B%5D=41 [Accessed: 7 June 2010].

Crabtree, B. and Miller, W. (1999) *Doing qualitative research*. London: Sage Publications Ltd.

Creswell, J. (2003) *Research design: qualitative, quantitative, and mixed method approaches.* 2nd ed. London: Sage Publications.

DAR (Distributed Action Researchers) (2009). *Gibbs reflective cycle.* [Online] http://distributedresearch.net/wiki/index.php/Gibbs_reflective_Cycle. [Accessed 10 June 2010].

Dörner, K. (1996) *The logic of failure: recognizing and avoiding error in complex situations.* New York: Metropolitan Books (Hardcover) and Perseus Books (Pocketbook Edition).

Elton, L. (2001) Research and teaching: conditions for a positive link. *Teaching in Higher Education,* 6 (1), pp.43-56. [Online] Available at: EBSCOhost: Academic Search Elite [Online]. Available at: http://web.ebscohost.com/. [Accessed 26 April 2012].

Elton, L. (2007) The nature of effective or exemplary teaching in an environment that emphasizes strong research and teaching links. *New Directions for Teaching and Learning,* no. 107, Fall, p33-41. EBSCOhost: Academic Search Elite [Online]. Available at: http://web.ebscohost.com/. [Accessed 26 April 2012].

Gill, J. (2008) A matter of opinions. *The Times Higher Education.* [Online]. Available from: http://www.timeshighereducation.co.uk/story.asp?storycode=404642. [Accessed 10 May 2010].

Glaser, B. and Strauss, A. (1967) *The discovery of grounded theory: strategies for qualitative research.* Chicago: Aldine Publishing Company.

Goleman, D. (1995) *Emotional intelligence.* London:Bloomsbury Publishing.

Graves, S. and Maher, A. eds (2008) *Developing graduate employability: case studies in hospitality, leisure, sport and tourism.* Newbury: Threshold Press Ltd / Oxford Brookes University.

Gudykunst, W. (2004) *Bridging differences*, 4th ed. London:Sage.

Healey, M. and Jenkins, A. (2008) Developing students as researchers. *UC Magazine,* October 2008, p17-19 [Online]. Available from: http://www.heacademy.ac.uk/assets/documents/subjects/escalate/6166.pdf. [Accessed 20 April 2012].

Healey, M. and Jenkins, A. (2009) *Developing undergraduate research and inquiry.* [Online]. Available from: http://www.heacademy.ac.uk/assets/documents/resources/publications/DevelopingUndergraduate_Final.pdf. [Accessed 20 April 2012].

IICEE Project Team (2009) A model for developing intercultural competence: an integrated approach. In Alagic, M., Rimmington, G., Liu, F. and Gibson, K. eds. *Locating intercultures: educating for global collaboration.* New Delhi: MacMillan Learn International Series.

Justice, C., Rice, J., Warry, W., Inglis, S., Miller, S. and Sammon, S. (2007). Inquiry in higher education: reflections and directions on course design and teaching methods. In *Innovative Higher Education,* (2007) 31. p.201-214. *EBSCOhost: Education Research Complete* [Online]. Available at: http://web.ebscohost.com/ . [Accessed 26 July 2011].

Knight, P. and Yorke, M. (2003) *Assessment, learning and employability.* Maidenhead: Open University Press/McGraw-Hill Education.

Knight, P. and Yorke, M. (2004) Embedding employability into the curriculum. *Learning and Employability, Series 1*. York: The Higher Education Academy. [Online] Available from: http://www.heacademy.ac.uk/assets/documents/employability/id460_embedding_employability_into_the_curriculum_338.pdf. [Accessed 15 May 2012].

Kolb, A. and Kolb, D. (2005) Learning styles and learning spaces: enhancing experiential learning in higher education. *Academy of Management Learning and Education*, 4 (2). pp.193-212. [Online] *EBSCOhost: Business Source Premier* [Online]. Available at: http://web.ebscohost.com/ . [Accessed 26 July 2011].

König, C. and Kleinmann, M. (2007) Time management problems and discounted utility. *Journal of Psychology,* 141 (3), p.321-334. EBSCOhost: *Academic Search Elite* [Online]. Available at: http://web.ebscohost.com/ . [Accessed 26 July 2011].

Land, R. (2004) *Educational development. discourse, identity and practice.* Maidenhead: Oxford University Press / McGraw-Hill Education.

Laurillard, D. (2002) Rethinking teaching for the knowledge society. In *Educause Review,* January/February 2002. [Online]. Available from: http://net.educause.edu/ir/library/pdf/erm0201.pdf. [Accessed 24 May 2010].

Lave, J. and Wenger, E. (1991) *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.

McGhie, V. (2008) The role of the lecturer in the learning process: towards a learning – centred approach. *The International Journal of Learning,* 15 (11). *EBSCOhost: Education Research Complete* [Online]. Available at: http://web.ebscohost.com/ [Accessed 26 July 2011].

Mackay, H. (1994) *Why don't people listen?: solving the communication problem*. Sydney: Pan.

Marton, F. (1994) Phenomenography, in Husén, T. and Postlethwaite, N. eds, *The International Encyclopedia of Education*. Second edition, vol. 8, Pergamon, p.4424-4429. [Online] Available from: http://www.ped.gu.se/biorn/phgraph/civil/main/1res.appr.html [Accessed 19 May 2010].

Mezirow, J. (1997) Transformative learning: theory to practice. *New Directions for Adult and Continuing Education*, 74, p.5-12. [Online] Available from: http://www.hrdmax.com/images/column_1325932983/Mezirow%20Transformative%20Learning.pdf. [Accessed 1 May 2012].

Pedagogy for Employability Group (2006) Pedagogy for employability. *Learning and Employability Series*. The Higher Education Academy. [Online]. Available from: www.heacademy.ac.uk/.../id383_pedagogy_for_employability_357.pdf. [Accessed 12 May 2010].

Quay, J. (2003) Experience and participation: relating theories of learning. *The Journal of Experiential Education,* 2003 26(2) p. 105-112. [Online]. Available from: http://staff.edfac.unimelb.edu.au/~jquay/QuayJEE26(2)2003.pdf. [Accessed 19 May 2010].

Ramsden, P. (2008) *The future of higher educationteaching and the student experience*. Report for the Department of Innovation, Universities and Skills. [Online] Available from: http://webarchive.nationalarchives.gov.uk/20090506151308/http://www.dius.gov.uk/higher_education/shape_and_structure/he_debate/~/media/publications/T/teaching_and_student_experience_131008. [Accessed 19 May 2010].

Rathje, S, (2007) Intercultural competence: the status and future of a controversial concept. *Language and Intercultural Communication,* Vol 7 (4).

Sanger, L. (2010) Individual knowledge in the internet age. *Educause Review*, vol. 45, 2 (March/April 2010), p.14-24. [Online]. Available from: http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume45/IndividualKnowledgeintheIntern/202336. Accessed 26.10.05. [Accessed 26 June 2010].

Schön, D. (1991) *The reflective practitioner : how professionals think in action*. Adershot: Avebury.

Sola, N. and Wilkinson, J. (2008) *Developing intercultural competence*. 4th international conference on education in a changing environment. Conference proceedings. [Online]. www.ece.salford.ac.uk/proceedings/papers/04_07.pdf. [Accessed 7 June 2010].

Spronken-Smith, R. and Walker, R. (2010) Can inquiry-based learning strengthen the links between teaching and disciplinary research? *Studies in Higher Education*, 35(6) p.723-740. Routledge [Online] Available from: http://www.tandfonline.com/doi/pdf/10.1080/03075070903315502. [Accessed 9 May 2012].

Trowler, P. and Wareham, T. (2007) Re-conceptualising the 'teaching-research nexus', In *Enhancing higher education, theory and scholarship, proceedings of the 30th HERDSA annual conference, Adelaide, 8-11 July 2007*. [Online]. Available from: http://www.herdsa.org.au/wp-content/uploads/conference/2007/papers/p53.pdf. [Accessed 3 May 2012].

Wenger, E. (1998) *Communities of learning: learning, meaning and identity*. Cambridge: Cambridge University Press.

Woolley, N. and Jarvis, Y. (2007) Situated cognition and cognitive apprenticeship: a model for teaching and learning critical skills in a technologically rich and authentic learning environment. *Nurse Education Today,* 27, 73-79. *EBSCOhost: Education Research Complete* [Online]. Available at: http://web.ebscohost.com/ . [Accessed 26 July 2011].