Briefing Paper Template
Seminar Series 2011:
Programme Area: Assessment and Feedback

1. Background information	
Seminar Title:	**Transforming Students through Peer Assessment and Authentic Practice**
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2. Abstract: Please provide a brief abstract of the seminar delivered (maximum 200 words).

This seminar provided the opportunity for participants to consider how they can provide authentic assessment and involve students as peers and mentors in the assessment process within their own discipline areas. The session explored the potential benefits of these approaches and also addressed the fears and possible drawbacks of such approaches, creating the opportunity to explore these in more detail and discuss solutions and approaches to avoid. The workshop was built around three different experiences of assessment practice in the higher education sector. It used a combination of speed geeking and a world cafe to allow participants to move around the room and listen to a short presentation on each experience and contribute to a related question in a conversational manner. The first experience was based on the use of students to provide feedback to their peers on formative work. The second experience used students from one subject area to help 'mentor' students in a different subject area. The final experience used a conference with external delegates to provide an authentic assessment experience for students.

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

Involving students in the assessment process, either as assessors or mentors brings many potential benefits (Boud et al (2001), Brown and Glasner (1999), Race (2001)). Although these benefits are widely recognised amongst the learning and teaching community, uptake still remains patchy across the higher education sector.

This seminar drew on three different approaches to assessment and feedback but all three are firmly grounded in the principles of active learning. The philosophy underlying active learning can be seen in this quote attributed to Confucius, Chinese Philosopher and reformer (551BC – 479BC) "*I hear and I forget. I see and I remember. I do and I*

understand". Active Learning is "*generally defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing*" (Bonwell and Eison, 1991).

The Boyer Commission through its two reports *"Reinventing Undergraduates Education: A Blueprint for America's Research Universities,"* (Boyer, 1998) and *"Reinventing Undergraduate Education: Three Years after the Boyer Report"* (Boyer, 2002) reinforced the need for active learning. Based on a quote from the famous education reformer and psychologist, John Dewey from the early nineteenth century, the Boyer commission emphasise that *"Learning is based on discovery guided by mentoring rather than the transmission of information"* (Boyer, 1998). The Association of American Colleges and Universities in its document 'G*reater Expectations – A New Vision for Learning as a Nation Goes to College'*, called for a teaching-learning paradigm shift that would ensure active, empowered, informed, and responsible learners (AACU, 2002). There is strong evidence that active learning can lead to higher level learning (Prince, 2004; Felder and Brent (2009).

Although there is literature on how to teach effectively and on how people learn (Handelsman et al, 2004; Race, 2010), there is still a reluctance for academic staff to engage in this process. As Wood (2004) comments "*medical people are now encouraged to carry out 'evidence-based medicine', so why do we not carry out 'evidence-based teaching'?*" The authors were keen to build on experiences and successful approaches from the literature and ensure that the students were 'learning by doing'. As shown in the Learning Pyramid in Figure 1, students learn more effectively (i.e. 'deep learning' rather than 'shallow learning') if they are active rather than passive during the learning process.
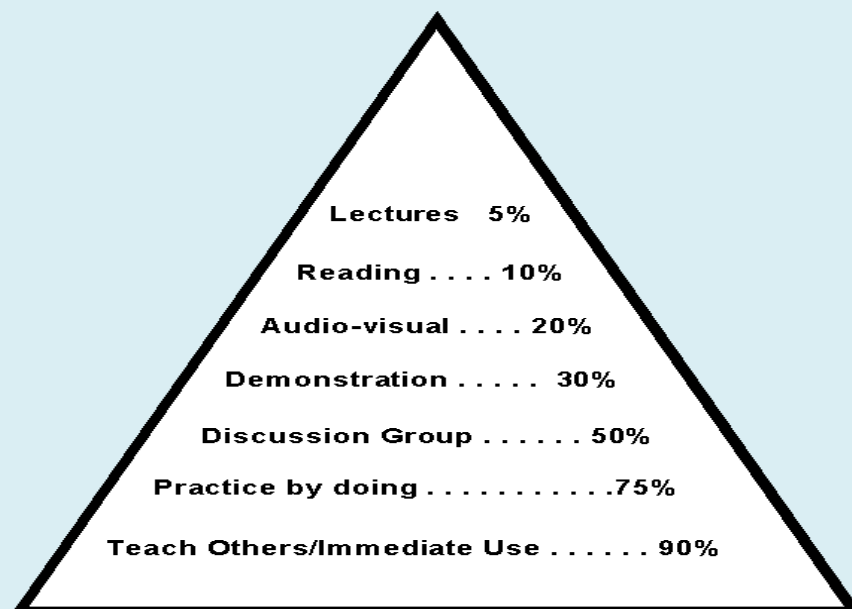
Figure 1: The Learning Pyramid (Source(Wood, 2004))
Please note: The percentages represent the average "retention rate" of information following teaching or activities by the method indicated.

In addition, there is strong rationale for providing authentic assessment opportunities,

supported by the considerable body of research on learning and teaching that has demonstrated that learners need to be able to construct their own meaning of the world, using information they have gathered and been taught, and their own experiences with the world. According to Mueller (2010), authentic assessment is "*a form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills*". Wiggins (1993) describes it as "*...Engaging and worthy problems or questions of importance, in which students must use knowledge to fashion performances effectively and creatively. The tasks are either replicas of or analogous to the kinds of problems faced by adult citizens and consumers or professionals in the field*."

In 2003, the QAAHE (2003) stated that *"The single intervention by universities and colleges that would improve the quality of the student learning experience would be the enhancement of assessment practices".* However Stefani (2009) observes that assessment practices are still very conservative, commenting that "*We still assess that which is easy to assess rather than the more complex life-long learning skills which are really required of graduates when they enter into employment".* Changing assessment practices to improve the quality of the student learning experience should be given a higher priority across higher education institutions. Initiatives such as the Assessment for Learning CETL at Northumbria University (Northumbria, 2010) and the Re-Engineering Assessment Practices (REAP) project in Scottish Higher Education (REAP, 2010) have helped to highlight this area of development and provide useful examples and case studies. Both initiatives provide a set of guiding principles for assessment design. For example the REAP project provides a set of 11 principles for good assessment design building on two basic concepts of 'empowering' the learner and 'engaging' the learner. This study draws on these assessment principles and those of the Northumbria CETL to inform the design of the assessment for the module.

Both active learning and authentic assessment encourage student engagement in their learning. As one student comments "*To be engaged with my studies is to ...understand it and enjoy it and feel a connection between myself and what I am studying, rather than just learning.*" (NSSE, 2006).

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

All three experiences are based on action research approach (Pickard, 2007), and used the four step cycle defined by Kemmis (see Figure 2),
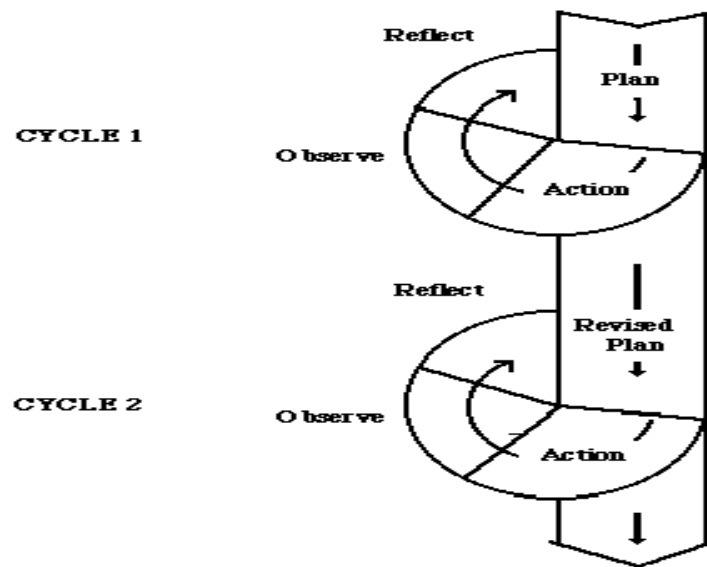
Figure 2: Action Research Protocol after Kemmis (Source: (MacIssac (2010)).

Strachan et al (2010) provide further details of this approach and how it was applied to providing an authentic assessment approach. Their approach is briefly summarised below:-

1. **Reflection.** The teaching team *reflected* on their learning and teaching experience using student feedback and evidence from other sources e.g. student marks, external examiner comments, own experience and self reflection. For example in one module student feedback was generally positive but expressed that some of the material was 'dry and boring' and the module team were conscious that too much of the module activities were at the top of the Learning Pyramid (see Figure 1 in previous section) leading to poor retention of information by students and a lack of student engagement. The next step in the action research cycle is to make plans for some form of intervention. Drawing on previous successful strategies for learning and teaching, the module team identified that an authentic assessment approach would be a key area for development.

2. **Plan.** Investigation of the literature highlighted that a research-tutored and research based approach might help students engage more actively. In a research based approach the curriculum is based around inquiry based activities and the division of roles between teacher and student is minimized (Griffiths, 2004). A research-tutored approach is again student centered with students learning in small group discussions with a teacher about research findings with the emphasis on research content (Jenkins and Healy, 2005). Six of the ten strategies for 'mainstreaming' undergraduate research publication (Walkington and Jenkins, 2008) were identified as beneficial. These were: build publication into course and programme requirements, widen what counts as research, widen the forms of publication, involve undergraduate students in the publication process, make the employability benefits of undergraduate research clear to students, link publication opportunities. In addition the teaching team used the eleven principles of the REAP project (REAP, 2010) to modify the assessment to both 'empower' and 'engage' the student. These approaches were incorporated into the module delivery and assessment processes.

3. **Action.** The third step in the action research cycle is the intervention. The teaching

team changed their module delivery to a more inquiry based approach. The assessment used a conference set up for external employers from business, industry and the public sector as a vehicle for students to present their final assessments from the module. This provided a much more authentic process for the students and allowed them to tailor their work for presentation to an external audience.

4. **Evaluation**. The results from this change of delivery and assessment practice were evaluated from the perspective of the students and the teaching team. All of the students were positive about linking the final assessment to a conference aimed at employers from industry, business and local government. Student A commented *"having a context for the presentation was very helpful as it enabled me to plan accordingly"*. They also commented that it was a useful experience to present to employers and would be useful later when seeking employment as well as helping their presentation skills. There was limited time for the students to present at the conference and students did comment they would welcome more feedback on their work from the conference delegates. Staff found the assessment process resulted in greater motivation and engagement by the students. The final student work was of a high quality and the students turned up punctually and smartly dressed on the day of the conference. Although a number of students were apprehensive about the 'verbal tours' of the posters they had been asked to do, on the day, they presented clearly and with confidence, responding well to questions and showing on the whole that they had researched their chosen topic well and had a good technical understanding of the subject content of their poster. Students were also keen to receive feedback on their final assessment with over 90% attendance at the 'optional' session arranged for this. This contrasted with the previous year where students wanted to see their marks but did not seem interested in the tutor feedback and comments.

The teaching team is continuing to take an action research based approach to the module delivery, reviewing this current delivery in light of the student and tutor feedback, planning for the next delivery and implementing and reflecting once again.

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.

Student engagement
Student mentor
Authentic assessment
Peer assessment
Enhancement

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

The seminar reported on three different experiences of assessment and feedback practice in the higher education sector where students are actively involved in the process. Exploring the potential benefits of these approaches and also identifying the potential drawbacks and issues and solutions to these, will help others to consider how they can apply these ideas within their own discipline area. The three case studies are outlined below:-

1. Peer Review for Formative Feedback led by Dr Rebecca Strachan

In this study, peers on the same programme were asked to provide feedback on a draft assignment. The main aims of this study were to engage students with their assessment criteria, provide effective formative feedback for students and finally to improve students' self analysis of their work and through this, improve the standards of their assessed work. This was achieved by introducing a student peer review element to a module. Students were asked to produce a draft of their final assessment at an early stage. This was reviewed by the other students in small groups, with students providing written peer feedback. Following this, the tutor also provided feedback. Students used this feedback to help produce their final summative assessment.

This approach proved successful, particularly the experience of giving feedback to others. One student commented *"Reading others' draft ... helped me get the final structure right. Being forced to give feedback to my peers helped me polish my critical analysis & evaluation skills. It provided the needed interaction"*. Another student observed *"To be honest I did not learn a lot from the peer feedback but it was nice to compare my draft with others. I picked up a few tips ... about addressing the assignment requirements"*.

It is clear that students need a motivation to engage in the process. This was provided by only providing tutor feedback to those students that had fully engaged in the student review process. It is also essential to ensure the feedback from other students is constructive. This was achieved by providing clear guidance during the teaching sessions on what was acceptable and what wasn't and providing a template for the peer feedback. A further safeguard was provided by the tutor feedback which gave the opportunity to agree or correct any of the student feedback. In order to help manage the time for tutors and students, the students were split into groups of 4 or 5 and the tutors agreed that the tutor feedback on the draft assignment would form the main feedback for the assignment and only minimal comments would be provided on the final version. The students were fine with this and appreciated getting the majority of their feedback at the formative stage. Table 1 shows the results of a student survey on how useful they felt the process to be.
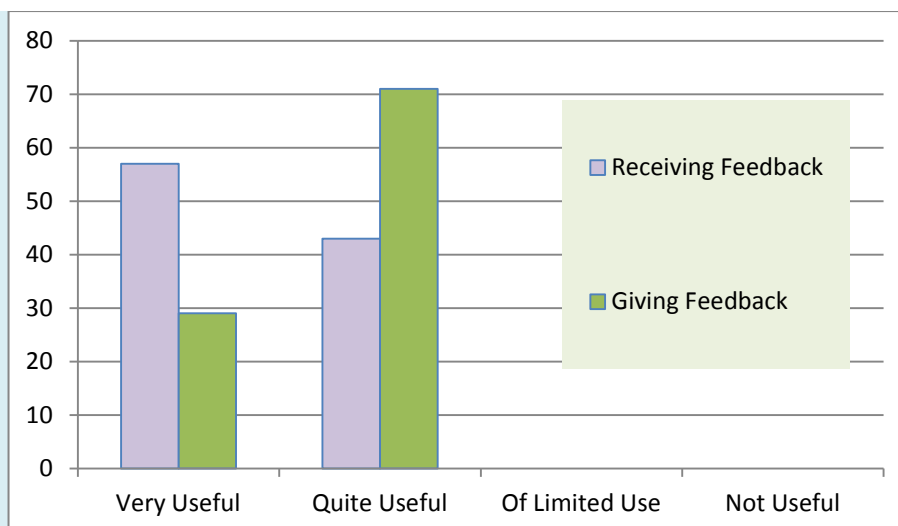
Table 1: Student Feedback on the Peer Review Process

Overall the students found the process of providing the feedback very valuable and led them to a better understanding of the assessment criteria ultimately leading to improvements in their own assignments.

2. Peer Support – a cross programme experience led by Dr Alison Pickard

'Information PALs' is the first stage in establishing a peer mentoring framework within the School of Computing Engineering and Information Science (CEIS) at Northumbria University and embeds information literacy skills within the curriculum. "*Information literacy is now regarded by governments across the world as a core educational and life skill" (*Herring, 2004, p.91). This project arose from the recognition that there is a need to develop alternative approaches to developing these skills that engage and motivate students more effectively and ties information literacy learning and teaching into the needs of the individual students rather than through generic modules.

Peer tutoring and support has been recognised as being beneficial for a number of years (Topping, 1996), and there are many examples of using peers within a particular subject discipline such as Ladyshewsky & Gardner (2008). This project looks at using students across disciplines. Students from the Information and Communication Management discipline are trained to become Peer Assisted Learning (PAL) mentors, working with a PAL facilitator and module tutors to embed effective Information Literacy strategies within discipline specific modules. The PAL mentors share experience and knowledge from their disciplines in order to enrich the learning experience and enhance the sense of student community. The project draws upon the subject expertise of the Information and Communication Management area within CEIS in developing appropriate context specific Information Literacy strategies encouraging and supporting their fellow students to:

- Recognise their information need
- Distinguish ways of addressing the gap that need creates
- Construct strategies for locating information

- Locate and access appropriate information
- Organise, apply and communicate that information and synthesise
- Demonstrate their own evidence based practice.

The project was initially set up with a group of final year students on a learner support module acting as mentors to a group of first years in the same subject area. It was then expanded so that final year students from the information and communication management discipline provided expertise to a set of second year students in the computer engineering discipline. The mentors found this process helpful in reinforcing their own learning and understanding of information literacy as well as being of benefit to the mentees. It is clear from this experience that student mentors have valued the opportunity to be a mentor. The project has also allowed them to apply the theories of learning in a practical context in a way that has not been possible before. Being able to discuss what they are doing with their own group of 'learners' has proved beneficial and the student mentors have commented on the satisfaction they felt when their mentees understood something or became confident with their referencing or search techniques. One mentor commented "*I'm really getting a lot out of this, you couldn't get this from the Learner Support theory, you have to do it.*" They are now able to add being a mentor to their Curriculum Vitae and this experience is not only helpful to their own learning but will also help them once they enter the workplace. The role of mentor was found to be so rewarding and enjoyable to some students, that they are now pursuing mentoring opportunities elsewhere. The mentees also benefited particularly those from the computer engineering discipline: "*this is brilliant, everyone should get these sessions".* However success does depend on careful planning and preparation of both the mentors and mentees.

3. Authentic Assessment: From Learners to Practitioners led by Dr Christopher Laing

This final case explores an authentic and lively approach to delivering and assessing a module on technical authoring to undergraduate computing students. Students were asked to produce work for presentation at a conference aimed at external participants mainly from local industry and business. This challenged the students in terms of their technical authoring skills and brought a professionalism and realism to the module (Strachan et al, 2010).

The background to this work is to change the assessment process to a more authentic one that enables students to become enquiry based researchers. It builds on the following Assessment for Learning principles "*emphasises authenticity & complexity*" and provides "*extensive opportunities to engage in the kinds of tasks that develop and demonstrate their learning".* The students found the experience daunting but also a really useful experience. As one student commented "I *was a bit scared when I took the option of doing a poster for the conference, it sounded more exciting than the book review but I was a bit nervous about it being a real conference. I'm so pleased I did it now, I feel as if I learned loads more because it felt more important than just an assignment.*" Another student remarked "*Presenting at a real conference makes it extra special.*"

The success of this approach relies on ensuring the students understand what is involved and why they are being asked to do this work. It also requires support and funding to arrange and hold the conference itself.

The study found that basing the module delivery on a research enquiry approach and taking a more authentic assessment approach has helped student motivation and engagement. The use of an employer conference provided a realism and professionalism that would not have been possible through a more conventional assessment strategy. The approach also led to a greater sense of community within the student body and allowed the students to gain in confidence both through their conference presentations and their attendance at the conference itself.

There three case studies provide a sound basis for further work to ensure assessment and feedback is engaging for students and authentic.

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

See above – Section 6.

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.

In terms of outcomes, the three studies have indicated that involving students in their own learning is a very valuable approach that should be adopted more widely across higher education. Whether students are peers or mentors in the process, the act of providing feedback or mentoring to other students has obvious benefits to those providing it as well as those receiving it. Careful planning and explanation of the approach to the students is important early on in the process and providing simple safeguards and checkpoints throughout the process is also helpful. The use of authentic assessment practice as provided in the third case illustrates that students welcome the opportunity to engage in real world activities and with external people such as those from industry and business. Taking a research enquiry approach allows students to develop confidence and take responsibility for their own learning, both of which benefit the learning process and professionalism of the students. It is important to consider the time, support and funding needed for these activities and plan them carefully to make sure they are still effective and efficient for all.

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.

During the seminar one concern was around the motivations for doing this and whether the use of peer review or mentors could be seen as just 'using students to do the work for the teachers'. The counter argument is that there are real tangible benefits to the students such as 'greater engagement in the process', 'learning to teach' and 'helping them understand the learning process'. It also changes the power relationship between teacher and student into a more equal one. Providing a good explanation and establishing the rules of engagement were seen as key ingredients in ensuring the approach was successful and easing any anxieties among the students. The peer review process would be difficult to operate under an anonymous marking regime.

In terms of the seminar itself, it was clear that we could have spent more time discussing each experience. However the delegates enjoyed the sharing of ideas and good practice and also being made aware of the main problems and issues that had been encountered and how these could be addressed. The format of the seminar proved useful in allowing the three cases to be explored in detail and creating a relaxed atmosphere to discuss and share ideas, concerns and experiences around the three case studies.

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

The funding and support provided by the HEA for this conference was useful and helped us create an event that participants found useful and interesting. The presenters also benefitted from this experience through the discussions around each of the cases with the other participants. In one instance, there is already the potential for collaborative work with another institution as a follow up from this seminar.

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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