

Open Research Online

The Open University's repository of research publications and other research outputs

Peer observation, feedback and reflection for development of practice in synchronous online teaching

Journal Item

How to cite:

Jones, Mark H. and Gallen, Anne-Marie (2016). Peer observation, feedback and reflection for development of practice in synchronous online teaching. *Innovations in Education and Teaching International*, 53(6) pp. 616–626.

For guidance on citations see [FAQs](#).

© 2015 Taylor Francis

Version: Accepted Manuscript

Link(s) to article on publisher's website:
<http://dx.doi.org/doi:10.1080/14703297.2015.1025808>

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's [data policy](#) on reuse of materials please consult the policies page.

oro.open.ac.uk

Peer observation, feedback and reflection for development of practice in synchronous online teaching

Mark H. Jones

Department of Physical Sciences, The Open University, Milton Keynes, UK.

Address for correspondence: The Open University, 351 Altrincham Road, Sharston,
Manchester, M22 4UN.

e-mail: m.h.jones@open.ac.uk

Anne-Marie Gallen

Department of Engineering and Innovation, The Open University, Milton Keynes, UK.

Mark H. Jones is Senior Lecturer and Staff Tutor in the Faculty of Science at the Open
University.

Anne-Marie Gallen is Staff Tutor in the Faculty of Mathematics, Computing and Technology at
the University.

Peer observation, feedback and reflection for development of practice in synchronous online teaching

Peer observation of teaching is an established developmental tool in face-to-face settings. While there have been studies into peer observation as applied to asynchronous online teaching, less is known about its application to teaching online using synchronous communication systems. We describe a small-scale study of an online peer observation scheme with a group of Associate Lecturers in Physical Sciences at the UK Open University. This cohort of teaching staff was engaged in a series of peer observed tutorials, with the aim of fostering their development through subsequent reflection and dialogue. The study was evaluated through the thematic analysis of subsequent structured conversations. Emergent themes lead us to consider the value of peer observation in the context of synchronous online tuition.

Keywords: e-learning; pedagogy; peer observation; reflective practice, synchronous online tuition.

Introduction

Online learning at the Open University (OU) is making increasing use of synchronous conferencing facilities (Harper and Nicolson, 2013), i.e. those that allow students to communicate by audio and share whiteboards and documents in real time. While such technologies engender a wide range of pedagogic approaches, they also present questions about what strategies can be effective in developing staff to use such tools. It is useful to make a distinction between development of technical competence, and the development of practices which facilitate effective learning using such tools. In our case, technical training is addressed through the provision of online staff development courses. Development of good practice in effective learning presents greater challenges, not least because there is, as yet, little by way of established good practice.

Since knowledge of good practice lies with staff confident enough to experiment with the medium and inclined to reflect on their work, we are interested in

assessing whether peer-observation can play a useful role in developing staff to use synchronous conferencing tools to facilitate learning.

Background

Peer observation: models and issues in implementation

Peer observation has a chequered history as a method of staff development in UK higher education (e.g. Lomas and Kinchin, 2006). A useful classification developed by Gosling (2002), categorises peer observation schemes according to models with different purposes: an evaluative model with a focus on quality assurance, a developmental model used in initial training, and a collaborative model which aims to improve teaching through reflection, dialogue and innovation. Since our goal was to develop and disseminate good practice using practitioner experiences, Gosling's (2002) collaborative model seemed appropriate for our needs.

The collaborative model is based on the shared perception that the peer relationship is genuine. In such an environment, a process of dialogue about practice may lead to mutually beneficial development. However, as noted by many authors (e.g. Lomas and Kinchin, 2006) the widespread adoption of peer-observation schemes in UK HEIs for quality assurance and institutional audit processes, has resulted in peer-observation commonly being viewed as an 'evaluative' process (using Gosling's terminology). Many of the staff involved in this study hold posts at other HEIs, so addressing preconceptions of peer observation was an important consideration in the design of our scheme.

Peer observation has been studied extensively from various perspectives, ranging from the perceptions of individuals involved in peer observation (e.g. Cosh 1998; Bell, 2010), through the practicalities of implementing such schemes (e.g. Martin

and Double, 1998; Jarzabkowski and Bone, 2006), to reviews of how the ethos of particular academic departments influences the way in which it operates (e.g. Hammersley-Fletcher and Orsmond, 2004). Such perspectives are interlinked, but effective schemes are those designed to engage individuals so that they participate in a collaborative and supportive manner, such as the example described by Harper and Nicolson (2013).

There are many challenges to the design and delivery of such schemes. As noted above, it may be necessary to address perceptions that peer observation is equivalent to evaluation. Secondly, as noted by Cosh (1998), it is important to ensure that participants have the relevant skills in observing and giving feedback, and consequently a preparatory briefing or training session is often included in the design of such schemes. Also, the peer observation process has been shown to result in the participants feeling apprehension and anxiety (Cosh, 1998; Bell, 2001). Such anxiety is not only due to feelings of being judged as a result of observation, but also arises from lack of confidence about acting as an observer, and in particular about giving critical feedback. A further significant aspect of peer observation schemes is that they require organization and some record keeping. Even when pared down to a minimum, there is often a perception that such schemes are overly bureaucratic.

Peer observation in an online context

The move to online learning has seen experimentation with peer observation as a developmental technique. It is useful to distinguish between online learning using asynchronous communication, such as online forums, and learning activities based on synchronous communication systems. Peer observation in online learning with asynchronous communication has been discussed in studies presented by Bennett and Barp (2008) and Swinglehurst et al. (2007). In addition to technological issues arising

from such systems, in general, any change that requires new pedagogical practices raises the question of how best to support staff through such a change.

Teaching through synchronous communication systems requires different skills to those needed to support learning through asynchronous methods. While allowing real-time communication, a characteristic of such systems is that the feedback cues between all participants (students and educators) are highly attenuated. This presents significant challenges for educators seeking to adapt learning activities from other contexts (face-to-face or asynchronous online tuition) to suit this mode of communication. While this raises questions about effective learning design for synchronous online tuition, here we concentrate on the immediate problem faced by teaching professionals; how to adapt their skills to work in this new environment.

Design and implementation of a peer observation scheme

As a distance education institution utilizing a student-centred approach with a strongly developed correspondence tuition model, the OU delivers much of its teaching via hardcopy books and online VLE delivery. Associate Lecturers (ALs) at the OU are subject specialists with an allocated cohort (called a tutor group) of students. They are part-time staff working from home, and are not in regular face-to-face contact with their colleagues or line manager. On the modules in this study, the tutor group typically comprises about 30 students.

The teaching activity that was the subject of this peer observation process was an online tutorial that the AL ran with their own tutor group. Student participation in tutorials is optional, and the number attending any given tutorial is typically fewer than the number in the tutor group. All of the modules covered in this study had recently introduced synchronous online tutorials, based on the Blackboard Elluminate Live!TM system.

Two actions were taken to emphasize the collaborative nature of our scheme to participants. Firstly, following the “Type-A”¹ model of McMahon et al. (2007), the process was set up such that the person being observed (the observee) had control over the process. In practice, they had to volunteer to participate to contact their observer to arrange observation sessions, and to notify the organiser that the process had been completed. Secondly, the collaborative nature of the process was explicitly described in an online briefing, by contrasting it to the evaluative and developmental models that the participants may have been exposed to in other situations.

The design of our scheme followed that described by Martin and Double (1998), but with modifications to an online context. In particular, the process model had three stages: pre-observation meeting, the observation itself, and a feedback meeting.

A cohort of 20 physical science ALs were invited to participate in the peer-observation programme. From this group 12 ALs volunteered to take part in the scheme and its evaluation. Although no analysis was made of reasons for not volunteering, it is known that some ALs had high workloads that acted as a disincentive to participation. Pairings for participants was organised such that no person observed the same person who observed them. Some observations were made with participants who worked on the same module, while others were made between ALs on different modules.

A one hour online briefing was provided to introduce the peer observation scheme to the participants. As well as outlining the collaborative model, this introductory briefing also provided guidance about how the process should be run. Only 3 participants attended the live briefing session; the rest were asked to view the recording of the session and contact the organiser with any queries. As part of the

¹ McMahon et al. classify peer observation schemes depending on whether the control over information in the process lies with the observee (“Type A”) or with other people (“Type B”).

evaluative process all participants reported that they had viewed the live session or its recording.

It was advised that the pre-observation meeting should cover note-taking protocols, the sharing of whiteboards, and how the observer would be introduced to students. Note-taking, i.e. the process of recording actions and events of significance is an important aspect of observing (e.g. Martin and Double, 1998). It was recognized that many staff would have little prior experience of this, and attention was given to describing a method that is essentially a hand-written time-line of events.

The briefing also covered aspects of the feedback process known to be problematic in peer-observation schemes. There is a risk of the observer being perceived as judgmental during the observation, leading to a breakdown in trust and the failure of the process. Arguably more likely, is feedback that is superficial and consequently is unhelpful in prompting meaningful reflection on practice (Gosling, 2009).

Evaluation of the observation, feedback and review discussions

Methodology

Evaluation was based on structured telephone conversations carried out during the month following the observation sessions. In preparation, each participant was asked to review their reflective notes as both an observer and observee. The framework for the conversation was a set of open-ended questions designed to elicit reflective responses about their experiences.

During the conversations it became clear that not all participants had kept notes of their reflections. Furthermore, it was evident that some had not been given written feedback of their online sessions. These discrepancies occurred despite the initial briefing and hand-out which clearly stated the procedures for taking part in the study.

These conversations were recorded and transcribed for the purposes of analysis. Since the aim of this pilot study was to identify emergent issues around the use of peer observation in a novel setting, a thematic approach was adopted.

Emergent issues in online peer observation

The structure of the evaluative conversations was designed to draw out participants' attitudes towards the peer observation process and record any reflections relating to changes in practice that may have resulted. From the transcripts we identified six themes that have implications for the use of peer observation in online teaching and learning. Many of these themes are already well recognized in the context of face-to-face teaching; our aim here is to draw out issues that are particular to synchronous online delivery.

What are sources of anxiety in being observed / being an observer?

Despite the overall positive responses, many ALs reported feeling anxiety as a result of their role as either observer or observee. The respondents used such words as 'apprehensive', 'anxiety', 'unsure', 'uneasy', 'frustration' and 'wary' when talking about being observed. Such anxiety is a well reported (Cosh, 1998; Bell, 2001; Hammersley-Fletcher and Orsmond, 2004) feature of peer observation, and seems to apply to the online environment.

One participant described the experience as '...a little bit nerve-wracking.' (participant 9) whilst another stated 'I was a bit apprehensive...' (participant 1). Some anxiety was generated by the processes relating directly to the observation. One participant noted that 'I got my usual anxiety about giving the tutorial anyway and a little bit of extra, er, anxiety, because I still hadn't spoken to, er, the person who going to observe me.' (participant 3)

Another source of anxiety was the effect of observation on the AL-student relationship. As expressed by one participant ‘... I have this feeling that when I’m talking to the students or whatever that it’s me and them and I have a certain relationship with them. And being observed live just breaks it.’ (participant 4)

However, the role of observer also led to anxieties, and, several participants felt uncomfortable giving feedback on sessions they had observed. Two factors could be important here. Firstly, that ALs are working remotely is likely to be a barrier to providing feedback without the cues that are present in face-to-face discussions. Secondly, anxieties may result from the briefing being insufficient preparation for the participants. The briefing did not prevent some participants from seeing peer observation as an evaluation of performance rather than an opportunity to reflect on practice. Furthermore it is questionable whether the briefing equipped observers with the skills needed to provide feedback.

What effect does observation have on the learning process?

A well-documented issue (e.g. Martin and Double, 1998) in face-to-face peer observation is that the presence of the observer changes the dynamic of the learning environment. Such changes are usually reported from the point of view of the observee, and reflect ALs anxieties about how they are perceived by students. In asynchronous online teaching, observation is a hidden process with students often unaware that it has taken place. While this raises some ethical concerns about student consent (Bennett and Barp, 2008), it does remove any effect that observation may have on the learning process.

The intention of this scheme was to have observation of live sessions, resulting again in AL concern about the presence of an observer in an online room.

‘...suddenly they come to a tutorial and I’m there at the top [of the participants list] and then there’s this other person who ... appears to be a moderator as well. Which is very interesting, because it, almost off-putting for students, thinking well who’s actually leading it’ (participant 9)

One feature of the particular system used is that it allows recording, and generally ALs did record sessions (primarily for the benefit of non-attenders). Despite the intention that peer observation should have been carried out on live sessions, some observations were carried out on recordings. This does not seem to have had any adverse reaction from the ALs involved, and perhaps avoids interference with the learning process, although it raises issues of student consent for recordings to be used in this way.

Effects of observer/observee knowing, or not knowing, each other beforehand

In contrast to many HE Institutions, Associate Lecturers at the OU are dispersed across the UK/RoI and do not, in general know each other. However, within a cohort teaching on a particular module, some staff may know one another. The evaluative conversation included questions about the observer and observee knowing each other beforehand and attitudes to whether this had an effect.

Whilst some participants valued the anonymity as ‘... that reduces the chance of taking things personally.’ (participant 12) others had strong feelings about the relationship building on shared values, stating ‘I think it’s possibly easier when, when there’s that kind of, there’s that, if you like, a history of mutual respect between you, that professional contact and respect.’ (participant 10).

There was a suggestion that both observers and observees would benefit if they ‘...could get to know each other at a face-to-face staff development event, before this begins’ (participant 3); a view that perhaps devalues the online environment as a space to meet and support each other.

Overall, responses were mixed about the pre-existing relationship between the participants. OU Associate Lecturers often experience isolation and are seeking out ‘buddies’ or other ways of developing informal work-related conversations. This is borne out in evidence from other contexts (Swinglehurst et al., 2007; Shortland, 2004) that a collegiate system of support is effective in delivering results within a peer observation environment. Studies of Associate Lecturers at the OU focus on the merits of informal learning within this cohort of staff as fundamental to the development of these higher education professionals (Knight et al., 2007; Harper and Nicholson, 2013)

Does peer observation result in changes in practice?

When discussing whether peer observation is an effective method of developing online synchronous teaching, it is important to determine the nature of the changes in practice triggered by the process. Positive comments on changes in practice were made in some cases; many suggesting reflection on the structure and delivery of online tutorials, such as ‘...there was just one thing that he picked up and pointed out and I thought well, yes, I’ll try that’ (participant 10)

Some ALs found the experience positive and used their reflection to inform changes in online working practices. Five of the twelve participants stated that they would adapt their practice as a result of feedback they had received. Overall the changes in practice identified by observers fell into a number of specific areas that centred on the increase of interactivity with students. For instance, ‘I’m more likely to, to, to try some of the...bells and whistles ... the sort of polling type things, the multiple choice questions.’ (participant 8), and ‘I suggested... some multiple choice questions, so you can initiate some interaction, er, pretty easily and er, students enjoy that, especially if they can answer. And he found that was a good idea, er, just to improve interaction,...’ (participant 5).

These responses indicate a development of techniques aimed at improving interaction. This is unsurprising, given that this is the major issue that ALs identified as being problematic. While it is important that peer observation allows ALs to develop these techniques, it could be argued that such end points represent a rather superficial outcome: the peer observation scheme was envisaged as developing reflective practice – not only new techniques, but also questioning their effectiveness in supporting learning.

Does peer observation lead to reflection on practice?

A key aspect of developmental peer observation schemes was that they should foster reflection on practice, which has the potential to drive individual change. It is useful therefore to examine whether participants were conscious of the phase of reflection within this scheme and whether there are factors that act to drive personal reflection.

In the evaluative conversations, it is clear that ALs were aware of the process of reflection and its benefits: ‘...because of taking that time to reflect on yourself and, and learn from other people as well.’ (participant 2), and ‘...the reflection and the ability to, then, fairly quickly adopt it into your own teaching has been a real, you, a good learning curve’ (participant 9)

Although we have emphasized the technological differences between face-to-face and synchronous online tuition, we believe that the relevant difference here is the lack of established best practice in using the medium. ALs are new to the technology and, have a provisional approach to their practice; ‘I really needed to know how other people were doing that in practice, people that were perhaps more experienced than me...’ (participant 2).

It could be argued that the need to develop confidence and affirm practice was a major intrinsic driver towards self-reflection. As good practice in using this medium

becomes established, it will be of interest to see whether self-reflection is such a clear outcome of peer observation schemes.

Is the act of 'observation' more effective than 'being observed'?

Although the peer observation process did foster reflection, it does not necessarily stem from the process of being observed. In this study, several participants suggested that the feedback was neither valued nor effective. For example, one stated 'I always find that being observed I really don't listen to what people say...' (participant 4)

The strongest statement came from an AL who found the peer observation feedback of little value. This observee felt being observed focused on performance and that '...you expect you're going to be judged somehow, in some way by the students and I suppose the only difference is that, you know, you're being judged by, in this case, by a peer'. (participant 11).

A notable exception to this negative view of observers was provided by one participant who saw the process of being observed as a way to get feedback on innovative practice; 'I decided that I be fairly experimental, to see how it went down...' (participant 6).

The initial briefing stated that one of its aims was to stimulate an innovative approach. That only one AL from the cohort explicitly reflected this in their approach to the observed session may be indicative of a wider lack of confidence in using this new medium, but it also highlights the difficulty of creating a space in which ALs feel comfortable to experiment.

A long recognized aspect of peer observation in the face-to-face context is that being an observer also leads to reflection on an individual's practice. Indeed it has been argued that observation typically leads to greater change in practice than the process of being observed (Cosh, 1998). Participants in this study reported a similar effect.

Participants found observing ‘...more beneficial...’ (participant 3) ‘ and ‘... sort of stimulating...’ (participant 10). One participant stated ‘I think probably you learn more that way...’ (participant 6) whilst another asserted ‘I learnt more from observing than being observed, in that, in that particular case’ (participant 8).

That the act of observing is a stronger trigger to reflection than the receipt of feedback, is not surprising. What was unexpected is just how strong this effect was in this situation.

Discussion

The issues raised by this small-scale study into peer observation for online synchronous tuition need to be considered in the wider context of providing staff development for teaching practice using this medium. While the study set out to explore peer observation in an online setting, it is important to stress that the key issue is the facilitation of effective development, rather than the promotion of peer observation *per se*. This is particularly pertinent in an educational environment where peer review is taken as an indication of the commitment to institutional quality assurance: ‘Peer review’ risks becoming the goal rather than a means to achieving more meaningful developmental goals.

We have seen that the scheme described here, which aimed to develop staff in their use of synchronous teaching tools, does have some effect. However, this effectiveness has to be set in the context of the stage of development of the medium. Unlike face-to-face teaching, few ALs have experience of being taught through synchronous communication methods. While, as noted by Bennett and Marsh (2002), this lack in their own learning experience is a disadvantage in terms of development, it does have the effect that any relevant development opportunities will be seized upon.

We contend that the degree to which any development programme will be judged to be effective is likely to be highly dependent on the maturity of the medium. There is a tendency for staff to evaluate effectiveness by reference to the development of particular skills. Since the field is immature, there are many skills and techniques which may be picked up and, in a sense 'learned'. However, this view of what constitutes effectiveness is different to the stated aims of the collaborative model of peer observation. As noted by Gosling (2009), the outcome of peer observation should be an improvement to teaching and learning, but one which stems from analysis, self-reflection, discussion and wider experience. It is the commitment of individuals to these aspects of peer review that should form a basis of judging whether peer observation has any effect. In our study, participants report on experiences of self-reflection prompted by the discussion within the process. However, longer-term studies are needed to explore the degree to which attitudes towards taking a more reflective approach are developed by peer observation.

Furthermore, peer observation is arguably most effective when it operates in a way counter to the way in which it is presented to participants. Numerous studies show that reflection on observing others is more effective than feedback on being observed (Hammersley-Fletcher and Orsmond, 2004; Cosh, 1998; Bell and Mladenovic, 2008). Indeed, this led Cosh to suggest that peer observation should be re-formulated such that 'the focus is less on the observed and more on the active self-development of the observer' (Cosh, 1998). Whilst a laudable aim, this throws up the question of whether observation conducted without the framework or discipline of a formal observation process would provide the same benefits to the observer.

One of the interesting aspects of this programme relates to the initial briefing. This covered a range of topics including an overview of collaborative peer observation,

ownership of the process, and discussion about ways to approach observation and feedback. From the evaluative conversations it seems that although all ALs participated or watched the recording, many remained unclear about the aims and details of the scheme. This raises questions about how best to run such a process with geographically dispersed staff, including the possibility that only a face-to-face briefing could ensure that ALs are properly prepared.

Consideration of these factors suggests that other approaches should be explored to enable the realisation of the outcomes of peer observation through other methods. In particular, Knight et al. (2007) note that with this cohort of teaching staff – Associate Lecturers at the OU – the type of staff development perceived to be most effective is what these authors describe as intentional *non-formal* professional learning. To capture the benefits suggested by peer observation and reflection we could seek to introduce a structured, yet, informal process of peer observation. This might include creating a way for ALs to choose when and where to observe their peers. A system that allows observers to contact their peers, agree to attend a session, record observations for later reflection and then reflect and act on their reflections, would seem, to be relatively straightforward. This would raise technical issues that relate to access permissions and data protection, and also the need to record when and if observations have taken place. However, the success of such a scheme must depend on whether teaching staff see benefits in peer observation and reflection as part of their developmental needs, and whether the framework would be sufficient to motivate participation.

Our consideration of the nature of peer observation and reflection for online learning leads us to one fundamental question. How do you develop a community of practice among distributed staff who hardly ever meet? The peer observation process in this case study has some effect, although as we have argued, this may be a result of the

dearth of development opportunities in this new medium – in such circumstances, almost any form of development is likely to have an effect. For a continuing process of development through reflection and a shared understanding of practice, peer observation needs to sit within a framework of ongoing dialogue, such as that adopted by Harper and Nicolson (2013). Despite the dispersed nature of the cohort, such frameworks do exist in the form of self-help (asynchronous) forums, and, in instances of team teaching using synchronous tools. Moves to encourage the development of reflective practice, using peer-observation within such naturally sustaining peer relationships would seem a valuable way forward that could be evaluated in future studies.

Acknowledgements

The authors would like to thank all of the Open University physical science Associate Lecturers who participated in this peer-observation scheme.

References

- Bell, M. (2001) Supported reflective practice: a programme of peer observation and feedback for academic teaching development. *International Journal for Academic Development*, 6(1), 29-39.
- Bell, A., & Mladenovic, R. (2008) The benefits of peer observation of teaching for tutor development. *Higher Education*, 55(6), 735-752.
- Bennett, S., & Barp, D. (2008) Peer observation—a case for doing it online. *Teaching in Higher Education*, 13(5), 559-570.
- Bennett, S., & Marsh, D. (2002) Are we expecting online tutors to run before they can walk? *Innovations in Education and Teaching International*, 39(1), 14-20.
- Cosh, J. 1998. Peer Observation in Higher Education – A Reflective Approach. *Innovations in Education and Training International*. 35(2), 171-176.
- Gosling, D. (2002) Models of Peer Observation of Teaching. Learning and Teaching Support Network, Generic Centre. Retrieved 28 October 2014 from http://learningandteaching.vu.edu.au/teaching_practice/improve_my_teaching/e

valuation_support_for_my_teaching/Resources/id200_Models_of_Peer_Observation_of_Teaching.pdf

- Gosling, D. (2009) A new approach to peer review of teaching. *SEDA paper 124*, Chapter 1.
- Hammersley-Fletcher, L., & Orsmond, P. (2004) Evaluating our peers: is peer observation a meaningful process? *Studies in Higher Education*, 29(4), 489-503.
- Harper, F., & Nicolson, M. (2013) Online peer observation: its value in teacher professional development, support and well-being. *International Journal for Academic Development*, 18(3), 264-275.
- Jarzabkowski, P., & Bone, Z.(1998) A 'how-to'guide and checklist for peer appraisal of teaching. *Innovations in Education and Training International*, 35(2), 177-182.
- Knight, P., Tait J., & Yorke, M. (2007) The professional learning of teachers in higher education. *Studies in Higher Education*, 31(3), 319-339.
- Lomas L., & Kinchin, I. (2006) Developing a Peer Observation Program with University Teachers. *International Journal of Teaching and Learning in Higher Education*, 18(3), 204-214.
- McMahon, T., Barrett, T., & O'Neill G. (2007) Using observation of teaching to improve quality: finding your way through the muddle of competing conceptions, confusion of practice and mutually exclusive intentions. *Teaching in Higher Education*, 12(4), 499-511.
- Martin, G.A., & Double, J.M. (1998). Developing higher education teaching skills through peer observation and collaborative reflection. *Innovations in Education and Training International*, 35(2), 161-170.
- Shortland, S. (2004) Peer observation: a tool for staff development or compliance? *Journal of Further and Higher Education*, 28(2), 219-228.
- Swinglehurst, D., Russell, J., Greenhalgh, T. (2008) Peer observation of teaching in the online environment: an action research approach. *Journal of Computer Assisted Learning*, 24(5), 383-393.