



Centre for Higher Education Research & Practice

Perspectives on Pedagogy and Practice

Volume 6, December 2015

Research Article

Repositioning feedback: Incorporating video technology into a formative peer review process for group-based and individual student assessment

Steve McPeake, Mark McCrory, Heather Farley,
Kenny McCartan and Ian Smyth

Background – Engaging students in formative peer review

As higher education practices shift from primarily teaching to one of facilitating and supporting learning and engagement, so too do assessment and feedback practices continue to shift, to become increasingly formative, collaborative and engaging. The National Student Survey (NSS) (HEFCE, 2011) has contributed to an increased focus on the quality of feedback provided to students. Efforts made to address this, however, have not been without their challenges (Hounsell, 2007). Of particular concern is that the traditional locus of control for the process has largely remained with the educator, and yet an increase in the feedback provided by the educator does not necessarily equate to a corresponding increase in quality of the student learner experience, particularly if based on actions taken as a direct result of receiving this feedback.

Traditionally, the provision of feedback tended to reflect a didactic approach to teaching, with students given a written, largely summative assessment of their final work by their tutors. A more formative approach has since developed, where for example, students write assignments (or deliver other pieces of assessment) which are graded and returned to them with accompanying text which offers some formative insight into their awarded grade and ways in which they might improve. This paper outlines the experience of a Technology Facilitated Learning (TFL) project which aimed to incorporate a new means of peer review, using digital video recordings and online discussion tools, to better prepare students in two modules within the Ulster Business School (UBS) for their end-of-year assessed presentations and professional conversations respectively. This project built on an earlier TFL project, which investigated the potential

role and perceived effectiveness of audio feedback to students. In all of this work, the overarching aim was to develop (and disseminate) a broader portfolio of potential tools for tutors to avail of when planning assessments and the methods by which feedback is provided to students. In considering peer review, the concept should not be confused with peer assessment. Typically, peer review should engage students in an iterative process of feedback dialogue, rather than isolated feedback events (Nicol, 2010). Often, a peer assessment process involves students attributing weighted marks at the end of an activity, depending on perceived student contribution to the task in hand. Equally often, however, the risk in this process is that students will sit on the fence as regards feedback and duly award generous marks to their peers. Whilst peer assessment and review is to be commended at least for involving the students, arguably, the best examples have a greater and earlier emphasis placed on the process of peers actively constructing and delivering their own evaluative and professional judgements to others. This is in contrast to simply focussing on applying quantitative grading to an end 'product' and merely repeating the lecturers' comments (Cowan, 2012; Cartney, 2010).

This, in turn, has greater implications for the students by encouraging them to engage more closely in a process that will also help them to directly reflect on their own learning and on the professional skills and competencies required therein (Sadler, 2010). It is perhaps this self-awareness process that needs greater focus. As Ertmer et al. (2007) note, peer feedback can help students with their own externalisation, again building on their confidence and capability levels. Such aspirations are central to management education practices in the Ulster Business School, whether at undergraduate or Masters level.

Notwithstanding the extant criticisms, this project sought to expand the potential use and effectiveness of peer review by aligning the use of video technology as a feedback mechanism, with the design principles as highlighted by the PEER Toolkit project (Nicol, 2011) and with Ulster University's Principles of Assessment and Feedback. The use of video feedback within the learning environment is not new per se (see, for example, Roter et al., 2004; Falchikov, 2005), but this project sought to

embed its use much earlier in the process, in essence using it as part of the whole learning and assessment process, rather than as a method of assessment in itself. The project was undertaken by a small community of practice involving colleagues in the Department of Management and Leadership, TFL and ICT Customer Services (ICTCS). This paper shares the group's experience of rolling out the new assessment exercises in two modules, describing how the peer review process worked and considering its success or otherwise, based on evaluative feedback received from the student groups (who participated in end-of-term focus groups) and from the tutors involved. Consideration was given to similarities and differences in the case studies, particularly in regard to its application with group-based and individual assessments, and with undergraduate and postgraduate students.

Method

The methodological design took the form of action research with a qualitative evaluation.

Planned module activity

Two Semester 1 modules were selected from two courses which ran within the Department of Management and Leadership within the Ulster Business School. These were a level 4 Effective Communication module, which was delivered to first year, full-time BSc (Hons) Management and Leadership Development students (n=26) and a level 7 Human Resource Management module, which was delivered to part-time, postgraduate MSc Human Resource Management students (n=30). The aim was to test the approach with two very different groups of students and assessment types. Thus, whilst some aspects of the process were identical for both cases, other aspects had to be adapted, depending on the task in hand.

With both student groups, the aim was for ease of application and transferability for others, based on generally available teaching spaces and equipment. Thus, the project made use of mobile technologies such as smartphones and tablets which are readily available to students and tutors, and can easily capture students' practice assessments in class with minimal prior planning and/or pre-booking of equipment. These practice

sessions were then to be uploaded onto Blackboard Learn by the students, for other students to access and review accordingly. In small groups, each student would then review and critique each other’s work, using defined criteria as outlined by the tutor. In this way, the technology would facilitate peer review of students’ practice assessments with the intention that each student’s dual experience as both presenter and assessor would be a beneficial one. Firstly, it gave them an early opportunity to experience the assessment in front of others and in turn, observe others’ engagement with the assessment. Secondly, they could then reflect on

Module title	BSc (Hons) Management & Leadership Development: Effective Communication module		MSc Human Resource Management: People Resourcing module	
Nature of Module	This module introduces students to the fundamentals of effective communication. It is designed to encourage students to understand and reflect upon how to be more effective communicators in the workplace and at university. It also encourages students to understand others, their perceptions and how this affects a successful outcome.		This module focuses not just on the practical aspects of recruitment, selection, employee retention and dismissal but also the strategic aspects to equip learners with the knowledge and understanding required for resourcing and talent management within a global context.	
Module Level	Level 4; full-time undergraduate		Level 7; part-time postgraduate and in employment	
Cohort Size	26		30	
Nature of Assessment	Students working in groups of 4 during the module and in the delivery of a final (10 minute) group presentation in week 12		Students working in groups of 3 during the module, but undertake an individual (15 minute) professional conversation with the module tutor in week 11/12, on a selected topic	
Assessment: Marks Allocated	Presentation weighting: 20% Contribution to the peer review process: 30%		Professional discussion weighting: 50%	
Facilitated work during the module	Week 2	1 st practice recording (any topic)	Week 2	Class discussion of assessment criteria
	Week 5	Class assessment exercise of ‘Model Presentation’	Week 4	1 st practice recording (personal aspect)
	Week 7	2 nd practice recording of draft presentation followed by upload to Blackboard	Week 6	2 nd practice recording (professional aspect)

Week 8	View recordings and prepare feedback	Week 10	Review feedback and make final preparations for presentation
Week 9	Review Feedback and make final preparations for presentation		

Table 1: Key characteristics for each module group

what they saw and experienced in regard to better preparing themselves for their own end-of-module assessment and the criteria to be applied. The following table summarises the key characteristics for each group:

For the undergraduate students, the Effective Communication module sat alongside a Management Skills module, acting as one of the initial points for inducting students who are embarking on their chosen course and developing appropriate skills, such as sourcing material and referencing correctly, academic writing, working in teams and, in this case, delivering presentations. For the MSc HRM students, the module aimed to encourage students to develop a strategic approach to the attraction and retention of staff, a key part of which is the ability to demonstrate relevant professional and practical skills. The professional conversation was therefore an important vehicle for these experienced HR professionals to further develop and reflect on these skills.

In both cases, students recorded an initial presentation or discussion on a topic of their choice, at an early stage in the module. At this point, the topic itself was not as important as the chance to practice the respective assessment method for a given time, to encourage some subsequent personal reflection on, and review by others of, the actual delivery and to become familiar with using mobile technology to review and upload the material to Blackboard Learn. The undergraduate students completed an in-class activity in week 5 using a 'model presentation'; similarly, there was an exemplar professional discussion prepared by the tutors, which contained deliberate mistakes as well as points of good practice shown to the MSc class. This facilitated positive discussion with the students on the key assessment requirements, but was also an important exercise

in easing the students into the process. Following this, the students had an opportunity to deliver, record and upload a draft of their assessment, which they refined, following the receipt of feedback from their peers. For the postgraduate group, there were a further two practice recordings, focusing on different aspects of their work. Feedback and review of these informed final preparations for the professional conversations, scheduled over the last two weeks of the Semester. In awarding marks, the undergraduate module awarded marks to the students for the quality of their engagement in the peer review process, whereas the postgraduate module did not. This offered an interesting comparison on whether students might place more emphasis on a process being attached to module marks before engaging with it (Brint et al., 2008).

Thus, students developed and refined their knowledge, skills and confidence throughout the module, through more active engagement with each other along the way, rather than just preparing (often at the last minute) for one presentation at the end. Certainly, for the undergraduate students, this provided a more structured and supportive environment with managed steps along the way – arguably more familiar to their school experience.

Evaluation of the process

On completion of the modules, a qualitative evaluation was then carried out, informed by two focus groups (one from each cohort of students) as advocated by Morgan (1997) and Kleiber (1994). Qualitative focus groups were deemed the most appropriate in this instance, as they allowed for a thorough exploration of the concepts that emerged from the student's own experiences. A series of semi-structured questions was prepared (see Appendix 1), covering ease of use in regard to the technology and uploading activity and the role and perceived value of the peer review process, including the use of video recording and student feedback given and received. Each focus group was asked a similar set of semi-structured questions to allow comparisons to be made, notwithstanding some slight variations given the respective assessment requirements. Students were invited to participate in the focus groups on completion of their Semester 1 examinations and each discussion lasted approximately 45

minutes. Eight students attended the MLD focus group and 10 students attended the HRM focus group, with a mix of male and female students. The students chosen in each instance provided a representative sample of the module cohort in terms of gender, marks, age, etc. The focus groups were recorded, having received permission from the students with the assurance of anonymity. Responses were then categorised into key themes, as summarised below (Norton, 2009). Focus groups can suffer from limitations with regards to the facilitator's role; i.e., it is important for them to control the conversation yet without introducing their own bias in terms of questioning and body language. This was acknowledged and limited by the facilitators being adequately trained and aware of any potential issues that might arise (Berg, 2004).

Findings

In reviewing the focus group discussions, it was interesting to note a number of similarities and differences between the two student groups. Main themes are considered below:

The video recording process

Both groups were relatively unconcerned about the actual recording process, perhaps as a result of the 'informal' and unobtrusive way it was done, using smart phones and iPads which they were very familiar with. As one postgraduate HRM student noted: "I don't think you notice the camera – it would be different if you were going in and doing a presentation just in front of a camera, but the fact you were doing a discussion...all of a sudden after a few minutes you didn't notice it was there."

As perhaps might be expected, given their age and level of experience, seven of the eight undergraduate MLD students were initially more concerned and/or uncomfortable about presenting to their classmates, whereas the postgraduate students in employment felt this was easier as they had more experience of speaking in front of others. Conversely, the postgraduates were more concerned with the new format of assessment (professional conversation), which they had not previously encountered, although they were more comfortable with it once they

had become familiar with the requirements: “Prepares you better for the workplace rather than exams” ... “focussed your mind on a different way of assessment”.

As is often the case, all respondents reported a distinct dislike of watching and/or listening to themselves, although many acknowledged the significant benefits: “Watching the video back and hearing your own voice was so weird” (MLD student); “It was horrible watching yourself but it was very, very helpful” (HRM student).

In both cases, the student groups acknowledged the value of the sessions where they could assess pre-recorded videos showing common pitfalls in regard to the respective assessments. These provided the chance not only both to build confidence using a ‘safe’ scenario and identify areas for improvement, but also to rehearse the language of giving appropriate feedback to others: “... we weren’t going into the process ‘blind’ without any practice with the lecturer” (HRM student). Similarly, with the undergraduate MLD students, coverage of the assessment criteria early on in the module ensured that they were in fact thinking about how they were going to be marked from the beginning: “I didn’t realise the presentation, the colour and style of it really mattered, it was just what the person was saying”. Interestingly, the video recordings and playbacks seemed more valuable to the undergraduate MLD students in preparing for their presentations than it did for the HRM postgraduate students, who had more divided opinions on their use. These ranged from: “After the first one I thought it was a waste of time to do the videos”, to “I completely disagree, I felt redoing it was really beneficial because we only did 7 – 10 minutes the second time, and we thought ‘we’re going to push and see what it’s like doing the full time’”. The MSc HRM students appeared to value the feedback given by their peers more than the technology used to record it. This may be due to the nature of the respective assessments, in that the video recording of presentations was perhaps seen to be more directly relevant than for professional discussions. Nonetheless, a number of the respondents did recognise that the recordings helped them to see that they were indeed implementing suggestions from feedback: it “made you more aware of your mannerisms watching it back” and more

importantly, helped them to ascertain whether improvements had been made in subsequent recordings.

The giving and receiving of feedback

It was encouraging to see how receptive both student groups were to receiving feedback within this exercise, although this may also have been a feature of thorough planning and a well-designed process. Therefore, it is essential that the module ground rules, along with tutor and student expectations, are very clear from the outset and the majority of issues or concerns raised resolved quickly. The students liked to know what was expected of them in regard to assessment and had no desire to be actively involved in generating their own assessment criteria. Our experience would suggest that students were particularly open to receiving formative feedback from peers, with the summative assessment and overall module oversight coming from the lecturer(s). Whilst some MLD students had expressed initial concerns about presenting to their peers, their fears seemed unfounded: “Nobody took offence at the feedback. It wasn’t bad feedback, it could only help”. Similarly, the MSc HRM students saw potential in learning from each other: “When something is pointed out by a lecturer they take it personally – ‘I’m going to fail’ – but when it came from others it was like ‘I do it too, so watch out for it’”. As an MLD student noted: “you may not notice something yourself until someone points it out”. Some postgraduate students recognised that their maturity may assist in this process: “At Masters everyone is mature enough to give appropriate feedback which is constructive”. Students in both groups did make the connection that they were learning through evaluating others’ performances and giving feedback accordingly: “It made you think about how you did things yourself” (MLD student) and, interestingly, through benchmarking themselves against the best in class: “if someone did something well, you could do it too”.

An unforeseen benefit was the way in which students engaged in giving feedback within the class. The intention had been that, after the presentations, student groups would go away, upload their presentations onto Blackboard and then review and write feedback for their peers. This did happen in some cases, as originally planned. In practice however,

students engaged in meaningful discussions after each presentation and replayed the recordings made there and then, which meant that more immediate feedback was shared within this forum. Students liked this and commented that the ‘real time’ reporting was very useful. In fact this became even more important as problems with the uploading process began to emerge. Some even felt that “watching the recordings again was a waste of time” although the value of watching themselves at least once has already been noted.

It would appear that such an exercise can be beneficial, particularly in a first year module, when the focus is on developing skills, self-reflection, and an ability to progress through the course. Sometimes, tutors may feel that practice presentations are repetitive or over-kill for students. However, if placed appropriately, they can allow students to practise a range of important skills within their cohort and be better prepared in advance of their own assessment.

How the exercise was structured

Student comments on their respective module experiences suggest that much of our module planning was effective. In particular, video recording practice presentations were seen as an important way of overcoming nerves; of becoming more familiar with talking for a given period of time (for example the first practice presentation was often much shorter than students realised) and of improving particular skills and/or correcting identified aspects, in advance of the ‘real thing’: “It made you think about how you did things yourself” (MLD student); “Seeing how the group got better was helpful as weeks went on” (HRM student). For the undergraduate first year group, in particular, it was noted that the incremental structure helped them with their time management, whereby they had to prepare more in advance and could not leave things to the last minute. Whilst there were still a few problems with one or two students in groups (the usual issues associated with dysfunctional group work, (for example, peers do not deliver work on time and/or fail to appear for scheduled meetings), these were dealt with, and the other students could still benefit from engaging in the process – a useful tool to have in Semester 1 of first year.

The technology

Finally, the technology itself merited some consideration in facilitating the process. Whilst the use of smart phones/tablets in class worked very well, producing good quality recordings in a user-friendly way, the biggest issue reported was in relation to uploading these video recordings onto Blackboard Learn. This caused much frustration, described as a “nuisance” and a “nightmare” by two respondents. Some compatibility problems between Android and Apple devices were reported, but only by the MLD student group. As noted above, the fact that the HRM students replayed the recordings and discussed and gave feedback in ‘real time’, helped to circumvent the technology problems in this exercise. One HRM respondent noted: “Technology issues didn’t detract because the feedback was so useful”. It is, however, something that needs consideration when planning future technology-facilitated exercises.

Conclusion

In conclusion, all respondents felt that they were better prepared for their own end-of-module assessments as a result of giving and receiving feedback. In particular, the gain in self-confidence was evident, with students noticing a big difference from weeks 2 to 12 and in feeling more prepared. The incorporation of practice activities (including student presentations and ‘model’ presentations) in regard to assessment and feedback from a very early stage in the module was highly beneficial, particularly for students who typically do not engage with their assessment criteria/requirements until the last minute. An additional advantage reported by both the undergraduate and postgraduate students was that of team building: “You bond with your group more – you want each other to do well” (MLD student); “I liked how it was ‘our wee group’ and we could see progress together” (HRM student). Such a collegial approach, if built on further, can only help in future modules.

In relation to the use of video in this project, the technology can add significant benefits to peer review, although its value is dependent to some degree on the nature of the assessment and in the supporting infrastructure (i.e., the technology available and network capacity for uploading videos), which can make or break student (and lecturer) buy-in

to the process. The use of smart phones/video recording in class can be helpful for both lecturers and students alike, and easily facilitated. Similarly, the quality is more than adequate for these purposes and can allow students to review the presentations in small groups in order to prepare feedback. Simple playback in-class and reflection in ‘real time’ is something we would consider incorporating in the future, rather than relying on students and Blackboard technology to upload and revisit the recordings at a later date. Certainly, video technology can, as with audio feedback, play a useful role as part of varied and stimulating assessment strategy within any course – the challenge is, however, to continue to encourage students to make connections between modules and transfer their learning accordingly. Lecturers need to continue to embrace a range of methods, and the effective integration of technology-facilitated activities, such as peer review of recorded presentations, has an increasingly important role to play in engaging with students within a changing learning landscape. As Boud et al. (2001, p.2) note, “peer learning is a necessary and important aspect of all courses ... without it students gain an impoverished education”.

References

- Berg, B. L. (2004) *Qualitative research methods for the social sciences* (5th ed.) Boston, MA: Pearson/Allyn & Bacon.
- Boud, D., Cohen, R., Sampson, J. (eds.) (2001) *Peer Learning in Higher Education*. London: Routledge.
- Brint, S., Cantwell, A.M. and Hanneman, R.A. (2008). The two cultures of undergraduate academic engagement, *Research in Higher Education*, 49 (5), 383-402.
- Carless, D. (2006) Differing perceptions in the feedback process. *Studies in Higher Education*, 31, 219–33.
- Cartney, P. (2010) Exploring the use of peer assessment as a vehicle for closing the gap between feedback given and feedback used, *Assessment & Evaluation in Higher Education*, 35 (5), 551-564.
- Cowan, J. (2012) Developing a Pedagogy for Interactive Learning. In Jia, J. (ed.) *Educational Stages and Interactive Learning*. Hershey, PA: IGI Global, 1-17.

Decker, P.J., Nathan, B.R. (1985) Behavior modeling training: Principles and applications. New York: Praeger.

Ertmer, P. A., Richardson, J. C., Belland, B., Camin, D., Connolly, P., Coulthard, G., et al. (2007). Using peer feedback to enhance the quality of student online postings: An exploratory study. *The Journal of Computer-Mediated Communication*, 12(2), 412-433.

Falchikov, N. (2005) Improving assessment through student involvement. London and New York: Routledge.

HEFCE (2011), Plans for the National Student Survey 2012, Available at <http://www.hefce.ac.uk/pubs/year/2011/cl252011/name,68231,en.html> [Accessed 4th August, 2014]

Hounsell, D. (2007) Towards more sustainable feedback to students. In: Boud, D. and Falchikov, N. (eds.) *Rethinking Assessment in Higher Education: Learning for the Longer Term*. London: Routledge, 101-113.

Kreuger R.A. (1988) *Focus groups: a practical guide for applied research*. London: Sage.

Mills, G. E. (2011) *Action research: A guide for the teacher researcher*. Boston: Pearson.

Morgan D.L. (1997) *Focus groups as qualitative research*. (2nd ed.) London: Sage.

Nicol, D (2010) From monologue to dialogue: improving written feedback in mass higher education. *Assessment and Evaluation in Higher Education*, 35 (5), 501-517.

Nicol, D. (2011) Developing the students' ability to construct feedback, QAA Enhancement Themes Conference, Heriot-Watt University, March 2-3, 2011. Available at <http://www.enhancementthemes.ac.uk/docs/publications/developing-students> [Accessed 3rd August, 2014]

Norton, L. (2009) *Action research in teaching and learning: a practical guide to conducting pedagogical research in universities*. Oxon: Routledge.

Roter, D.L., Larson, S. and Shinitzky, H. (2004) Use of an innovative video feedback technique to enhance communication skills training, *Medical Education*, 38145, 157.

Sadler, D. R. (2010) Beyond feedback: developing student capability in complex appraisal, *Assessment & Evaluation in Higher Education*, 35 (5), 535-550.

Appendix 1 -

Peer Review Focus Group Question Schedule

General introduction to the focus group (confidentiality, etc.) and reminder of the peer review process.

General Questions

- What was your view of the assessment when it was introduced at the start of the semester?
 - Being videoed?
 - Giving and receiving feedback to/from your classmates?
- Now that you've gone through the peer review process, what did you like about it?
- What did you not like about the process?
- Do you feel it was appropriate that you were asked to give feedback to your classmates?

Criteria

- (Steve only) – What are your reflections on the initial session in which we developed the assessment criteria together?
- (Mark only) – Had you looked at the assessment criteria for the presentation before the marking exercise in week 5?
 - (For those who had) – Did you understand the criteria?
- Do you feel the marking exercise using the video helped you understand the criteria better?
 - In what ways?
- Do you feel the peer review process (giving and receiving feedback on your draft assessments) helped you understand the criteria better?
 - In what ways?

Process

- Did you feel able to give feedback to your classmates?
 - If not, what was stopping you?
- Could the lecturer have done anything else to help you give feedback to your classmates?
- (Steve only) – When you were making the recordings, did you find you gave or received any feedback from your classmates?

- Outside of the ‘formal mechanisms’ for giving and receiving feedback, did you find that you discussed your own or others work e.g. during coffee breaks?

Technology

- How did you find the technology aspect of the project:
 - Making the recordings?
 - Uploading them to Blackboard?
 - Accessing others’ videos?
 - (If negative) – Did this detract from the experience?
 - How could it be made better for future users?

Outcomes

- Do you think the peer review process helped you prepare for your assessment at the end of the module?
- Do you think the process helped you address any nerves you had about the assessment?
 - If so, in what ways?
- Concentrating on the process of giving feedback, did giving feedback change your own approach to the assessment in any way?
 - If so, could you give me any examples?
- Concentrating on the feedback you received from your classmates:
 - Could you understand the feedback you received?
 - Do you feel the feedback you received was useful?
 - Have you any examples of how you changed your work based on the feedback you received?
- Did you receive any feedback you disagreed with?
- Did you feel you had to act upon feedback you disagreed with or did you feel able to ‘reject’ it?
- How would you compare this type of assessment to that you have experienced in other modules?
- Did you find the process motivating?

Closing Questions

- Thinking back through the process and everything we have discussed, what to you is the key thought or reflection you have on peer review?

- How would you compare this type of assessment to that in other modules?

Steve has been with the department since 2007, initially as a PhD researcher/part time lecturer before becoming a full time lecturer in 2010; prior to this he worked in industry for approx. twenty years. Steve's research focuses on organisational perspectives on equality and diversity particularly in relation to the employment of migrant workers from the A8 countries. He has presented much of his research at conferences around Europe over the last number of years and has recently designed new modules on equality and diversity for undergraduate and postgraduate courses. He is also the Department's assessment and feedback champion and has attended/presented at various HEA events on the topic over the last two years. This has resulted in him piloting a number of innovative assessment and feedback practices with undergraduate and postgraduate students within the Ulster Business School, these include the use of audio and video technology.

Mark joined the Ulster Business School in 2010. He is the Course Director for the full-time MBA, and is working towards a PhD focusing on the transfer of learning from management education. Prior to joining the University, Mark worked as a Senior Consultant for ITS Ltd (International Training Services) delivering management education and organisational development consultancy services to clients across the UK and Europe. Prior to this, he worked in learning and development and human resource management within the NI health service. Mark is a chartered psychologist and chartered member of the CIPD.

Heather joined the University in 1992, having previously worked in the food industry. She has taught primarily in the areas of Strategic Management and Marketing and is currently Head of the Department of Management and Leadership, in the Ulster Business School, based in Jordanstown. She is a Senior Fellow of the Higher Education Academy.

Kenny is Project Coordinator (Technology Adoption) within ICT Customer Services, Ulster University. Dr. McCartan is a Fellow of the University's Centre for Higher Education Practice and has responsibility for working with academic staff to identify and implement innovative technological solutions to enhance the teaching and learning experience for both staff and students at the University.

Ian joined the university in 2009 as a research assistant before commencing his PhD full time in 2012. His research focuses on the influence of social capital upon family firm succession dynamics. He works as a part-time lecturer within the department of Management & Leadership specializing in the field of human resource management. Ian is a member of the Chartered Institute of Personnel and Development.

Copyright

© 2015 Gillian Armstrong, Julie Bradley, Maire Braniff, Clare Carruthers, Heather Farley, Susan Fetherston, P Green, Kay Hack, Iain Jack, Andrew Jaffrey, Jack Kendall, Kenny McCartan, Stephen McClean, Julie McClelland, Mark McCrory, G McGrath, Una McMahon-Beattie, Steve McPeake, Fidelma Moran, Brian Murphy, Brenda O'Neill, Philip O'Neill, M Pogue, Ian Smyth, Christine Wightman, Abigail Wilson

Published by Ulster University

Gillian Armstrong, Julie Bradley, Maire Braniff, Clare Carruthers, Heather Farley, Susan Fetherston, P Green, Kay Hack, Iain Jack, Andrew Jaffrey, Jack Kendall, Kenny McCartan, Stephen McClean, Julie McClelland, Mark McCrory, G McGrath, Una McMahon-Beattie, Steve McPeake, Fidelma Moran, Brian Murphy, Brenda O'Neill, Philip O'Neill, M Pogue, Ian Smyth, Christine Wightman, Abigail Wilson assert their rights to be identified as the authors of the articles in this work.

All rights reserved. Except as otherwise permitted under the Copyright Designs and Patents Act 1988, no part of this work may be copied, uploaded, transmitted, communicated to the public or adapted in any form or by any means without the prior permission of the copyright holder(s).

ISSN 2044-7388

For further information please contact:

Email: CHERP@ulster.ac.uk

Website: ulster.ac.uk/centrehep