Developing enterprise skills through peer-assessed pitch presentations Anna Faherty

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Abstract

Purpose

The paper investigates the impact of using summative peer assessment to develop enterprise skills within higher education.

Design/methodology/approach

An empirical investigation analysing students own perceptions of the peer assessment process to evaluate its impact.

Findings

Participating students indicate that peer assessment aided the achievement of an enterprise learning outcome relating to persuading and influencing. They also report developing skills that will be useful for the workplace, and identify additional learning benefits. Qualitative feedback suggests some discomfort with the inherent non-traditional instructor–learner relationship.

Research limitations/implications

Acknowledging the limitations of using students' own perceptions, the narrow focus on one course and the singular experience of summative peer assessment this investigation highlights the need for additional research into the impact of pedagogies where 'teachers' deliver more of a facilitation role.

Practical implications

The study reinforces the need for educators to invest time and effort in explaining the processes and issues involved with peer assessment. It highlights the contribution that creative industries' educators might be able to make to the wider development of enterprise skills across higher education disciplines.

Originality/value

The study contributes to two important but under-explored areas of educational research: the development of enterprise skills outside the business school and the use of peer assessment within enterprise education. It provides a case study for non-traditional assessment and identifies a key challenge associated with the emergent pedagogical approach of heutagogy.

Keywords

Enterprise education, peer assessment, skills, creative industries, heutagogy, higher education, experiential learning

Paper type Research paper

Introduction

As graduates face new challenges (Barnett, 2012) in a world of increasing uncertainty and complexity (Hayward and Jackson, 2011; IBM, 2010: 3), and even the most entrenched businesses require innovation (Ries, 2011: 34), there are regular calls for students of all disciplines to emerge from university armed with enterprise skills (Smith and Price, 2011: 4-5).

Enterprise may be defined as the application of creative ideas and innovations to practical situations (QAA, 2012: 8). Broader in reach than entrepreneurship (Down, 2010: 4), enterprise comprises a set of personal skills, attributes and behaviours that may be applied in any context (NCGE, n.d). Enterprise offers opportunities to develop individuals as much as new ventures and businesses – by fostering learning attitudes that reward and support innovation and change (Jones and Iredale, 2010).

Enterprise skills development is a complex process (Deignan, 2011: 65). It requires innovative teaching methods (Gibson, 2011) and, as with assessment of practice (Brown, 1999: 104), assessments outside established frameworks (Wilson, 2012: 50). Despite assessment's central role in framing and creating learning (Gibbs, 2006: 22), and its power to motivate students to engage in further learning (Haines, 2004: 10), assessment practice in enterprise education has been overlooked in the literature (Pittaway *et al.*, 2009; Carey and Matlay, 2010). Aspiring enterprise educators therefore lack guidance and support (Draycott, *et al.*, 2011). By investigating the impact of summative peer assessment and feedback on enterprise skills development, this empirical study takes a step towards filling this gap.

Nature of enterprise education

There has been considerable debate (Neck and Greene, 2011; Pittaway and Cope, 2007) about whether enterprise skills can be learned, yet capability to be enterprising *can* be taught (Pilch and Shimshon, 2007: 16). In contrast to traditional entrepreneurship education – aimed at encouraging people to start a business (Jones and Iredale, 2010) – enterprise education develops enterprising skills, behaviours and attributes (Gibb, 1993), and equips learners to *use* these skills (Rae *et al.*, 2012). This distinct learning experience (Pilch and Shimshon, 2007: 14) encourages learning by doing, experimentation, creative problem-solving, independent thought and interaction with others (Jones and Iredale, 2010).

Like employability (Ball, 2003), enterprise is not just a bundle of attributes and skills, but a learning process in itself. Shifting the focus from transmission models to experiential approaches (NESTA, 2008: 21), enterprise education develops "qualities and attitudes of self-reliance, pragmatism, adaptability and determination" (Pilch and Shimshon, 2007: 26). It naturally, therefore, emphasises personal development (Gibb, 2002). Reminiscent of workplace-based "self-managed learning" (Cunningham *et al.*, 2000), these characteristics are consistent with the "emerging" (Bhoyrub *et al*, 2010) approach of heutagogical learning in education. Blaschke (2012) describes heutagogy as facilitating the development of students' competences as well as their capability and capacity to learn.

Like enterprise education, heutagogy redefines the mechanism connecting learners and teachers (Winkel, 2013), allowing students to take control of their learning and develop personalised learning experiences (Rae, 2010). Reshaping and renegotiating the entire teaching and learning construct (Jones and Iredale, 2010), instructors become *facilitators* who guide students through the process of learning (Draycott *et al.*, 2011; Jones and Iredale, 2010; QAA, 2012: 24). The concept of teacher as guide or facilitator is also seen in other constructivist teaching approaches (Cunningham, 1992; Murphy, 1997), such as online learning (Haythornthwaite, 2009) and project- or problem-based learning (Danielsen and Nielsen, 2010).

Enterprise beyond the business school

A decade ago, Gibb (2002) reported increased attention on delivering enterprise education outside business schools. Others (Wilson, 2012: 33; Rae, 2010) highlight the importance and promotion of enterprise across science, technology, creative and humanities programmes. Entrepreneurial skills are also being fostered in schools of nursing (Boore and Porter, 2010).

In the context of these increasing demands from other subject areas (Rae, 2010), and criticisms of business schools (Carey and Matlay, 2010) for what Neck and Greene (2011) label a "stand and deliver" lecture approach and a constraining focus on business start-ups (Gibb, 2002; NESTA, 2008: 29), this study builds on NESTA (2008: 18) and Carey and Matlay's (2010) view that business educators could learn from those teaching creative disciplines.

Enterprise programmes

Enterprise courses cover a wide spectrum of topics and issues, from business subjects to transferable skills and work experience (Gibb, 2002). In its guidance for HEIs seeking to develop students' enterprise skills, the Quality Assurance Agency (QAA, 2012: 8) highlights creativity, idea development, problem solving, communication (including persuasion) and practical action.

Enterprise education programmes build self-confidence and self-efficacy, developing practical skills required to initiate and pursue ideas and providing experience in building teams (Volkmann *et al.*, 2009: 144). While some courses use active learning (Jones and Iredale, 2010), incorporating real situations, role plays, projects, business plan development and presentations (Levie, 1999: 17), Neck and Greene (2011) suggest effective enterprise education requires new forms of teaching.

Assessment for enterprise skills development

Conventional forms of assessment, such as exams and essays, are not optimal for assessing enterprise capabilities (Rae, 2010). While the QAA (2012: 23) recommend using a range of assessment tools, many traditional approaches *exclude* assessment of desired enterprise learning outcomes (Botham and Mason, 2007: 84). Even when enterprise skills such as idea generation *are* assessed, it can cause anxiety among educators (Carey and Matlay, 2010), perhaps because there are few well-developed mechanisms for assessing skills, competences and behaviours (Botham and Mason, 2007: 84).

Assessment for learning and peer assessment

Unlike traditional assessment, assessment for learning (AfL) approaches prioritise learning *outcomes* over *evaluation* of learning (Kearney, 2012). AfL focuses on developing learners' skills in evaluating, judging and improving their own performance (Montgomery and McDowell, 2008). Since learners able to consciously reflect on their own learning are likely to become enterprising individuals (Race, 2010), AfL seems likely to positively impact the development of enterprise skills.

The key AfL approach of peer assessment involves students in the judgment of whether assessment criteria have been met (Biggs and Tang, 2007: 187). Peer assessment traditionally assesses 'product' (e.g. a presentation) rather than 'process' (the research leading to it) (UKCLE, 2010). It helps students understand what is considered good work and why (ASKe, n.d.), improving both learning (Li *et al.*, 2010) and the quality of student submissions (Rawson and Tyree, in Zariski, 1996). Since it makes assessment real and relevant (QAA, 2012: 24), peer assessment should lead to increased critical understanding (Freire, 1970: 62). It has been shown to boost confidence (Lapham and Webster, 1999: 189) and is also key to maintaining and developing standards of professional practice (Heron, 1988). Boud (1999), however, considers that isolated peer assessment initiatives fail to impact on learning outcomes.

Student experience of peer assessment

Early research on peer assessment focused on students assessing their collaborators within group work, or explored issues around validity (Hanrahan and Isaacs, 2001), with limited investigation of student attitudes (Smith *et al.*, 2002). Pope (2005) explored students' perceived levels of stress (which were raised by the idea of peer assessment, but which also appeared to enhance performance). More recently, van Zundert *et al.*'s (2010) thorough literature review reported positive student attitudes in 12 out of 15 peer assessment studies.

Despite this, peer assessment can be contentious, particularly when marks count towards a student's degree (Attwood, 2009). Some studies (Cartney, 2010; Hanrahan and Isaacs, 2001; Vu and Dall'Alba, 2007) highlight difficulties with understanding and applying assessment criteria; others (Cassidy, 2006) report confidence with this.

From a teaching perspective, lecturers fear handing assessments over to students, due to disparity between tutor and student marks (Stefani, 1994). However, peer marks agree well with teachers' marks, on average, if the criteria are "explicit and well understood" (Falchikov and Goldfinch, 2000).

Peer assessment and enterprise education

Like enterprise education, peer assessment moves away from teacher-directed methods, involving students in active processes (Kollar and Fischer, 2010; Strijbos and Sluijsmans, 2010) and placing the onus on students to take responsibility for their own learning (Liu and Carless, 2006; McGarr and Clifford, 2012). A detailed comparison between the reported benefits of peer assessment and the characteristics of effective enterprise education, as shown in Figure 1, strongly suggests peer assessment might be an appropriate pedagogy for the development of enterprise skills.

Figure 1: The benefits of peer assessment align with the characteristics of effective enterprise education

Hypotheses

Given the synergy between peer assessment and enterprise education, this empirical study investigates the impact summative peer assessment may have on enterprise learning outcomes. It is designed to test four hypotheses:

- Hypothesis 1: there is a significant perception by students that the process of peer assessment helped them achieve a key enterprise learning outcome relating to persuasion and influencing skills.
- Hypothesis 2: there is a significant perception by students that the process of peer assessment helped them achieve other enterprise learning outcomes or develop other enterprise-related skills and attributes.
- Hypothesis 3: there is a significant perception by students that the process of peer assessment enhanced skills useful in the workplace.
- Hypothesis 4: there is a significant perception by students that the process of peer assessment was a valuable experience.

The results relating to each of these hypotheses were considered to be 'significant' if there was at least a 95 per cent probability of the outcome being true (P < 0.05).

Study method

Educational context of this study

The research was conducted over two years, within the year-long Kingston University Publishing MA. This practical course prepares students to work in an industry that is underskilled, with almost 40 per cent of publishers reporting a "business skills" gap. Half of these specifically cite low

"entrepreneurial skills" (Skillset, 2011: 18). The course exhibits many generic characteristics of creative programmes, as identified by Carey and Matlay (2010), such as experiential, project-based and work-based learning, peer critiques and instructors who are also practitioners.

In the first semester *Product Development and Editorial Management* module students develop their own publishing concept into a commercially-viable business proposition. Although the module is not explicitly described as an enterprise course, the learning outcomes include several aspects described as enterprise skills by the QAA (2012: 8). Module assessments include a market analysis report, written business proposal and a critical reflection on the business planning process. A peer-assessed oral presentation was designed in order to assess the specific enterprise learning outcome: "to deliver persuasive presentations to win support for a business proposal within an organisational context". The emphasis on winning support from peers mirrors the industry context, where commissioning editors must persuade colleagues of the value of a publishing proposal, induce them to share their vision for it and gain support for investment (Davies, 2004: 39; Thompson, 2010: 196; Guthrie, 2011: 23).

Study participants

Participation in the peer assessment process was mandatory for all students on the module, and each was also invited to share their views in this study. Recruitment to the MA Publishing is internationally diverse, with over 60 per cent of students originating from outside the UK. Reflecting a historical gender bias in the publishing industry (Athill, 2000: chapter 7), the student body is also predominantly female (males made up less than 8 per cent of the participating cohorts). Most participants were recent graduates, with less than 1 per cent of the group over the age of 30. All students' first degrees were in non-business or management-related disciplines.

The peer assessment process

Students delivered a pitch in front of their peers, who assessed performance against tutor-defined grading criteria and provided written feedback. As with many other peer assessments (Luxton-Reilly, 2009; Magin, 2001), the final mark was averaged from those submitted by several peer assessors (usually between three and five) and only contributed a relatively small component (30 per cent) to the module mark. Marking and feedback sheets were collected, checked and averaged by the instructor, before being returned to participants. Since it has previously been shown (Sluijsmans *et al.*, 2002) that training in the peer assessment process leads to more effective assessment, students were given the opportunity to practise the entire process in a formative assessment, which was then followed by a discussion about marking criteria and grade levels.

Questionnaire design and analysis

An anonymous web-based questionnaire was distributed via the online survey tool SurveyMonkey five months after the pitches had been delivered and students had received their marks and feedback. Data was collected in successive years, from two separate cohorts. From the combined throughput of 63 students, a questionnaire response rate of 38.1% per cent was seen (24 responses in total). This is in line with observed rates for other online student surveys (Kaplowitz *et al.*, 2004), and higher than the average web-survey response identified by Shih and Fan (2008).

Hypotheses 1 and 2 were tested by three different metrics. Firstly, learners ranked seven statements derived from the benefits of peer assessment listed in Figure 1, on a four-step Likert scale. Secondly, they indicated which, if any, of the module learning outcomes they felt the process had enabled them to achieve. Finally, prompted by the publication of the QAA paper providing guidance on enterprise and education in higher education (QAA, 2012), the second cohort were additionally

asked to identify which, if any, of the QAA enterprise skills they felt had been improved by the process.

Hypotheses 3 and 4 were tested by direct questions, which offered yes/no/don't know options. Two open questions were designed to collect qualitative data relating to the perceived development of workplace-relevant skills, and to allow students to share general comments or concerns about the process. Since the term enterprise was not used anywhere within the course documentation, neither cohort was explicitly asked to comment on the development of "enterprise skills".

For nominal data from the module learning outcome responses and the yes/no/don't know questions, the percentage of positive responses (*p*) to each statement or question was first calculated. The null standard error was calculated as $\sigma_{null}(p) = \sqrt{[((p_{null} (1 - p_{null}))/n]]}$, where p_{null} is the probability of choosing one of the responses at random. Assuming random responses would deliver a uniform distribution, p_{null} was set to 0.50 for the statements relating to hypothesis 1 and 2 and 0.33 for those offering three options. As per Agresti (2007: 8), the significance of *p* is the number of standard errors the sample percentage falls from the null hypothesised proportion, given by $z = (p - p_{null})/\sigma_{null}(p)$. This formula was used to deliver the conditional probability *P* for each result.

Ordinal data from Likert scale responses was treated as a set of single categorical variables. Nonparametric tests were used to identify the central tendency for each statement (as recommended by Cohen *et al.* (2000: 80-1) and Jamieson (2004)) before applying a Pearson goodness of fit chi-squared test to infer the statistical significance of the responses in comparison with randomly-selected data. Assuming a uniform distribution of random responses, the null value for each response was set to 0.25 (since each statement offered a choice of four possible answers).

Substantive statements from the qualitative responses were grouped into similar categories before conducting a quantitative count analysis on the key themes.

Results

Hypothesis 1

83 per cent of respondents indicated that the process of being assessed by other students as well as assessing the work of others had "enhanced my ability to present to and influence others" (mode and median both 3 on a four-point Likert scale). 88 per cent of respondents felt the process of peer assessment had helped them achieve the module learning outcome "to deliver persuasive presentations to win support for a business proposal within an organisational context". This was the only statistically significant positive selection from the module outcomes. Additionally, 75 per cent of respondents indicated that the process of peer assessment had helped them improve the QAA learning outcome "persuade others through informed opinion and negotiate support for ideas". Again, this was the only statistically significant positive selection from the QAA list, though the small sample size for this specific question (which was only posed to students in the second year of the study) may have an impact on the level of significance seen. All three results support the rejection of the null hypothesis for Hypothesis 1.

Hypothesis 2

Over 70 per cent of respondents ranked the statement "enabled me to learn from the successes and failures of others" positively (mode and median both 3 on a four-point Likert Scale) and the statement "improved the quality of my own work" negatively (mode and median of 2). Over 79 per cent of respondents did not consider that the peer assessment process had helped them achieve two of the module learning outcomes, with 75 per cent also choosing not to select one of the QAA statements. All other results were not statistically significant. While the null hypothesis can be rejected for Hypothesis 2 in the context of learning from the successes and failures of others, there is insufficient evidence to reject it in the context of wider skills and knowledge.

Hypothesis 3

71 per cent of respondents answered the question "Do you think the peer assessment and feedback process enhanced any skills that will be useful to you in the workplace?" positively. The null hypothesis can therefore be rejected for Hypothesis 3. When answering the open question about workplace relevance, 50 per cent of respondents highlighted presentation skills and/or the experience of working with colleagues. 38 per cent referred explicitly to influencing or persuading others and 13 per cent mentioned critiquing others.

Hypothesis 4

67 per cent of respondents answered the question "Do you think the peer assessment and feedback process was a valuable experience for you as a student?" positively. The null hypothesis can therefore be rejected for Hypothesis 4. When answering the open question about the entire experience, a third or more respondents raised concerns around reliability (47 per cent) and/or reciprocity (33 per cent). A third (33 per cent) also cited a preference for greater tutor involvement, while 27 per cent explicitly highlighted concerns relating to the use of different markers.

Discussion

The results indicate that the majority of students perceive this single instance of peer assessment as helping them achieve a learning outcome, which relates to the enterprise skill of persuading and influencing. This is consistent with Race's (2007: 62) view that assessing other students enables learning.

While achieving this outcome might simply be a consequence of preparing and delivering a presentation, qualitative feedback identifies a learning benefit gained not just from *delivering* a presentation, but from presenting *to colleagues* and attempting *to influence* them. Further, students reported that peer assessment enabled them to learn from the successes and failures of others, an approach NESTA (2008:21) identifies as delivering entrepreneurial outcomes. Despite reporting learning in this way, many students did not consider the quality of their own work to have improved, as would be expected from Rawson and Tyree in Zariski (1996) and Pope (2005). Note, also, that students did not share their views on the value (or otherwise) of the formative and summative feedback they received.

The majority of participants reported that the process enhanced skills that would be useful to them in the workplace. This echoes Vu and Dall'Alba's (2007) finding that peer assessment around 'realistic' work-related tasks enables the development of professional capacities. Qualitative feedback indicates that students consider delivering presentations to colleagues, and persuading or influencing others, to be useful workplace skills. This aligns with the emphasis employers and industry bodies place on presenting within publishing (Penguin n.d.: 26-29; Skillset 2008: 77), and the more general view that presentations develop professional competences (Race, 2007: 61).

Overall, students rated the process as valuable. This is likely to create a virtuous circle, since the value students place on the experience will positively affect their learning (Kearney, 2012). The positive perceptions could, in part, be due to the real-world nature of the task, since assignments meaningful to students increase student satisfaction (Boud, 2006) and accelerate learning (Rogers, 1969: 114). Students also benefit from learning environments that mirror aspects of professional practice (Langan *et al.*, 2005), as the use of peer assessors in this study did.

Reliability of marks

Many participants raised concerns about reliability. Assessments are considered to be reliable if comparable groups of students achieve similar results, and marks are consistent across assessors

(Haines, 2004: 32). In the formative assessment session, the student-awarded marks were, as with other studies of peer assessment reliability (de Grez *et al.*, 2012), higher than tutor marks, on average.

Following the formative exercise, and a discussion around marking and grade criteria, the average marks dropped by five percentage points, more closely approaching the tutor average. Student concerns about reliability and fairness are therefore not borne out by the results, nor by other studies of the reciprocity effect (Magin, 2001).

Role of assessment and the instructor

Of course, even if the final results were unreliable, students may still learn from the experience (Orsmond *et al.*, 2000). Conversely, satisfying students' desire for greater instructor control could actually undermine their ability to learn (Boud, 2000). This disparity between AfL and students' own views about assessment has also been observed by Maclellan (2001), who reported that 80 per cent of students perceived assessment as judging levels of achievement not enabling learning. This conflicts with the National Union of Students' call for a shift from measuring performance to helping students learn (Attwood, 2009).

Overall, concerns about instructor involvement suggest some learners are uncomfortable with the rebooted teacher-student relationship characterising the heutagogical enterprise education paradigm. This "attachment to the formative pedagogical approach of tutor-as-guide" has been previously identified by Patton (2012), while Andrews (2011) suggests students wedded to face-to-face teaching find more participatory learning environments disorienting. More specifically, Cartney (2010) flags student concern around the "absence" of tutors in peer assessment. This may be related to the greater value students place on engagement with staff, compared with the substantive content of their educational experience (Kandiko, 2012: 46), or simply their desire to gain approval from a tutor (Donnelly and Fitzmaurice, 2005). Whatever the reasons, it is important to take steps to address this concern, since the teacher-student relationship is a key predictor of academic performance (Sanchez et al., 2011). To mitigate the adverse impact, enterprise educators need to invest time and effort in explaining the processes and issues involved (Jones and Iredale, 2010). Equally important, instructors themselves must take time to reconstruct their own mind sets (Paige, 2009), embracing a "cultural shift" to reconceptualise assessment as an active process (Cartney, 2010). Indeed, Van den Berg et al. (2006) found teachers using peer assessment were unclear about their own roles in the process, often wanting to provide greater levels of guidance and support. However, only by using student-centred learning approaches will educators be able to help learners change the way they perceive the world (Biggs and Tang, 2007: 16-19) – which includes how they view the assessment process, and the role of instructors, too.

Looking to the world of project- and problem-based learning, we can derive some practical inspiration: Donnelly and Fitzmaurice (2005) report that frequent tutor supervision opportunities support students while they tackle a scenario where they must take on responsibility for their own learning. At a broader level, Boud (1988: 8) calls for all teachers to take responsibility for constructing courses that foster student autonomy. Larisey (1994) goes a step further, calling for the normalisation of the practice of peer assessment within educational institutions.

Limitations

The core limitations in this study relate to the validity of students' perceptions of their own skills development, the single implementation of a summative peer assessment experience, a small sample size and potential bias due to the survey response rate.

Validity of student perceptions

While McGee *et al.* (2009) consider that students lack the experience and resources to judge their own enterprise skills development, Volkmann *et al.* (2009: 65) rate student evaluation of courses and activities as paramount. In fact, focusing on students' own experience of learning delivers an evaluation method cohering with the principles of good teaching, learning and assessment (Ramsden, 2003: 220-221). Posing questions in the context of module learning outcomes – as was done in this study – is also an effective impact assessment (Harte and Stewart, 2012).

The time lag between the peer assessment process and the collection of student views ensured learners reflected on the process *after the fact* rather than in the moment (Rogers, 2001). In the intervening time, they had also completed activities that may have enhanced their ability to judge the extent of their learning. In particular, they had delivered a written critical reflection on the product development process, a task that can potentially lead to broader – objective – judgments about situations (Moon, 2008: 24-25). They had also completed at least ten days work experience within a publishing firm, where they were likely to witness first-hand the value of skills in the workplace (Frier and White, 2006: 14).

Single implementation

Boud (1999) warns of using new assessment approaches in a "tokenistic" fashion, stating that isolated activities will not significantly impact on learning outcomes. In addition, the contentious nature of peer assessment, and contradictory evidence about the difficulties students experience when understanding and applying assessment criteria, suggest that a singular summative experience of peer assessment may not provide enough experience for all students to benefit from it.

Given the experimental nature of this innovative intervention, it would not have been appropriate to apply such an untested approach to the entire programme from the start. However, while it is difficult to draw generalised conclusions from the results of this isolated pilot, they do provide an initial starting point for further exploration and experimentation.

Sample size

The focus on one postgraduate course may introduce bias relating to students' level of experience and maturity. For instance, Lladó et al (2014) reported that students further into the higher education system found it easier to apply the tools and processes of peer assessment. The perceptions of the MA students in this study might therefore be more positive than those of a group of less experienced undergraduates.

Survey response rate

The survey response rate indicates a potential bias (Adams and Umbach, 2012), since students happy to spend time commenting on the process may be those who feel most strongly about it. While committed and high achieving students might be expected to be more likely to respond, there is some evidence that students with more enterprising personality traits are less likely to participate in surveys such as this (Porter and Whitcomb, 2005). In this instance, identifying – or compensating for – the potential bias is therefore not straightforward.

Conclusion

From an analysis of student views in a specific context, the implementation of summative peer assessment and feedback has been shown to aid development of a key enterprise skill useful in the workplace. Study participants valued the experience and considered that it enabled them to learn from the successes and failures of others, while enhancing their ability to present to and influence colleagues.

Overall, the study contributes to two important but under-explored areas of educational research: the development of enterprise skills outside the business school and the use of peer assessment as a tool for learning within enterprise education. It reinforces the notion that creative industries' educators may be able to make a valuable contribution to the wider development of enterprise skills in higher education, and highlights some of the challenges of implementing the emergent pedagogical approach of heutagogy. As the emphasis on – and demand for – enterprise education grows, this study prompts deeper investigation into the application of peer assessment within enterprise programmes, student attitudes relating to enterprise education pedagogies and, in particular, the student–teacher relationship. It also provides practical learnings that could support the increasing uptake of non-traditional assessments (Brown, 1999: 104).

While the narrow focus on one implementation within one course means it is difficult to generalise the results or draw substantial conclusions concerning their significance, it is hoped that this smallscale preliminary investigation will lead to further research, especially in terms of the impact on student satisfaction when teachers take on more of a facilitation role, and on appropriate strategies for supporting students required to take more responsibility for their own learning.

References

Adams, M.J.D. and Umbach, P.D. (2012), "Nonresponse and Online Student Evaluations of Teaching: Understanding the Influence of Salience, Fatigue and Academic Environments", *Research in Higher Education*, Vol. 53, pp. 576-591.

Agresti, A. (2007), *An Introduction to Categorical Data Analysis*, 2nd ed., Wiley, Hoboken. Andrews, R. (2011), "Does E-learning Require a New Theory of Learning? Some initial thoughts", *Journal of Educational Research Online*, Vol. 3 No. 1, pp. 104-121.

ASKe. (n.d.), Making peer feedback work in three easy steps!, available at:

http://www.brookes.ac.uk/aske/documents/2788_123-PeerFback.pdf (accessed 7 June 2012). Athill, D. (2000), *Stet: An Editor's Life*, Granta Books, London.

Attwood, R. (2009), "Well, What Do You Know?", *Times Higher Education*, available at: http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=405152 (accessed 19 September 2011).

Ball, L. (2003), *Future Directions for Employability Research in the Creative Industries*, Higher Education Academy, York.

Barnett, R. (2012), "Learning for an unknown future", *Higher Education Research & Development*, Vol. 31 No. 1, pp. 65-77.

Bhoyrub, J., Hurley, J., Neilson, G.R., Ramsay, M. and Smith, M. (2010), "Heutagogy: An Alternative Practice Based Learning Approach", *Nurse Education in Practice*, Vol. 10, pp. 322-326.

Biggs, J. and Tang, C. (2007), *Teaching for Quality Learning at University: What the Student Does*, 3rd ed., Society for Research into Higher Education & Open University Press, Maidenhead.

Blaschke, L. M. (2012), "Heutagogy and Lifelong Learning: A Review of Heutagogical Practice and Self-Determined Learning", *International Review of Research in Open & Distance Learning*, Vol. 13 No. 1, pp. 57-71.

Boore, J. and Porter, S. (2010), "Education for Entrepreneurship in Nursing", *Nurse Education Today*, Vol. 31, pp. 184-191.

Botham, R. and Mason, C. (2007), *Good Practice in Enterprise Development in UK Higher Education*, National Council for Graduate Entrepreneurship.

Boud, D. (1988), *Developing Student Autonomy in Learning*, 2nd ed., Taylor & Francis, Abingdon. Boud, D. (1999), "Avoiding the Traps: Seeking Good Practice in the Use of Self Assessment and Reflection in Professional Courses", *Social Work Education*, Vol. 18 No. 2, pp. 121-132. Boud, D. (2000), "Sustainable Assessment: Rethinking Assessment for the Learning Society", *Studies in Continuing Education*, Vol. 22 No. 2, pp. 151-167.

Boud, D. (2006), "Foreword", in Bryan, C. and Clegg, K. (Eds.), *Innovative Assessment in Higher Education*, Routledge, London, pp. xvii-xix.

Boud, D. and Associates. (2010), Assessment 2020: Seven Propositions for Assessment Reform in Higher Education, Australian Learning and Teaching Council, Sydney.

Brown, S. (1999), "Assessing Practice", in Brown, S. and Glasner, A. (Eds.), *Assessment Matters in Higher Education: Choosing and Using Diverse Approaches*, Open University Press, Buckingham, pp. 95-105.

Carey, C. and Matlay, H. (2010), "Creative Disciplines Education: A Model for Assessing Ideas in Entrepreneurship Education?" *Education* + *Training*, Vol. 52 No. 8/9, pp. 694-709.

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*, Vol. 35 No. 5, pp. 551-564.

Cassidy, S. (2006), "Developing Employability Skills: Peer Assessment in Higher Education", *Education* + *Training*, Vol. 48 No. 7, pp. 508-517.

Cohen, L., Manion, L. and Morrison, K. (2000), *Research Methods in Education*, 5th ed., RoutledgeFalmer, London.

Cunningham, D.J. (1992), "Assessing Constructions and Constructing Assessments: A Dialogue" in Duffy, T.M. and Jonassen, D.H. (Eds.), *Constructivism and the Technology of Instruction: A Conversation*, Lawrence Erlbaum Associates, New Jersey, pp. 35-44.

Cunningham, I., Bennett, B. and Dawes, G. (2000), *Self Managed Learning in Action: Putting SML into Practice*. Gower, Aldershot.

Danielsen, O. and Nielsen, J.L. (2010), "Problem-oriented Project Studies – The Role of the Teacher as Supervising / Facilitating the Study Group in its Learning Processes", in *Proceedings of the 7th International Conference on Networked Learning*, 2010, pp. 558-565.

Davies, G. (2004), Book Commissioning and Acquisition, 2nd ed., Routledge, London.

De Grez, L., Valcke, M. and Roozen, I. (2012), "How Effective are Self- and Peer Assessment of Oral Presentation Skills Compared with Teachers' Assessments?", *Active Learning in Higher Education*, Vol. 13 No. 2, pp. 129-142.

Deignan, T. (2011), "Understanding and Improving Transitions in Education for Enterprise", in Kill, R. and O'Rourke, K. (Eds.), *Inspiring Enterprise: Transforming Enterprise Education At Leeds Metropolitan University*, Leeds Met Press, Leeds, pp. 56-69.

Donnelly, R. and Fitzmaurice, M. (2005), "Collaborative Project-based Learning and Problem-based Learning in Higher Education: A Consideration of Tutor and Student Roles in Learner-focused Strategies", in O'Neill, G., Moore, S. and McMullin, B. (Eds.), *Emerging Issues in the Practice of University Learning and Teaching*, AISHE, Dublin, pp. 87-98.

Down, S. (2010), *Enterprise, Entrepreneurship and Small Business*, SAGE Publications, London. Draycott, M.C., Rae, D. and Vause, K. (2011), "The Assessment of Enterprise Education in the Secondary Sector", *Education + Training*, Vol. 53 No. 8/9, pp. 673-691.

Falchikov, N. and Goldfinch, J. (2000), "Student Peer Assessment in Higher Education: A Metaanalysis Comparing Peer and Teacher Marks", *Review of Educational Research*, Vol. 70 No. 3, pp. 287-322.

Freire, P. (1970), *Pedagogy of the Oppressed*. (Revised edition), Penguin, London.Frier, H. and White, P. (2006), *Key Skills and Employability Through Work-Related Learning and Enterprise*, Learning and Skills Development Agency, London.

Gibb, A. (1993), "Enterprise Culture and Education: Understanding Enterprise Education and its Links with Small Business, Entrepreneurship and Wider Educational Goals", *International Small Business Journal*, Vol. 11 No. 3, pp. 11-34.

Gibb, A. (2002), "In Pursuit of a New 'Enterprise' and 'Entrepreneurship' Paradigm for Learning: Creative Disruption, new Values and New Ways of Doing Things and Combinations of Knowledge", *International Journal of Management Reviews*, Vol. 4 No. 3, pp. 233-269.

Gibbs, G. (2006), "How Assessment Frames Student Learning" in Bryan, C. and Clegg, K. (Eds.), *Innovative Assessment in Higher Education*, Routledge, London, pp. 23-36.

Gibson, D. (2011), "Is "Elvis" the Answer to Embedding Enterprise into the Higher Education Language Curriculum? A Case Study Review of the Enterprise Education Model Developed at Queen's University Belfast", paper presented at the 4th EUNoM Symposium. Multilingualism in the Knowledge Economy: Labour Markets Revisited, and Corporate Social Responsibility in Belfast, Northern Ireland, 14-15 November.

Guthrie, R. (2011), *Publishing: Principles and Practice*, SAGE Publications, London. Haines, C. (2004), *Assessing Students' Written Work: Marking Essays and Reports*, RoutledgeFalmer, London.

Hanrahan, S.J. and Isaacs, G. (2001), "Assessing Self- and Peer-assessment: The Students' Views", *Higher Education Research & Development*, Vol. 20 No. 1, pp. 53-70.

Harte, V. and Stewart, J. (2012), "Develop. Evaluate. Embed. Sustain: Enterprise Education for Keeps", *Education* + *Training*, Vol. 54 No. 4, pp. 330-339.

Haythornthwaite, C. (2009), "Participatory Transformation", in Cope. B. and Kalantzis, M. (Eds.), *Ubiquitous Learning*, University of Illinois Press, Champaign, pp. 31-48.

Hayward, B. and Jackson, T. (2011), "New Graduates Face a More Uncertain Future Than Ever Before", *Guardian*, 06 June, available at: http://www.theguardian.com/sustainable-business/blog/tim-jackson-british-graduates-green-dreams (accessed 14 August 2013).

Heron, J. (1988), "Assessment Revisited" in Boud, D. (Ed.), *Developing Student Autonomy in Learning*, 2nd ed., Taylor & Francis, Abingdon, pp. 77-90.

IBM. (2010), *Inheriting a Complex World: Future Leaders Envision Sharing the Planet*, IBM Global Business Services, Somers.

Jamieson, S. (2004), "Likert Scales: How to Ab(Use) Them", *Medical Education*, Vol. 38, pp. 1212-1218.

Jones, B. and Iredale, N. (2010), "Enterprise Education and Pedagogy", *Education* + *Training*, Vol. 52 No.1, pp. 7-19.

Kandiko, C.B. (2012), Student Expectations and Perceptions of Higher Education: A Study of UK Higher Education, QAA, Gloucester.

Kaplowitz, M.D., Hadlock, T.D. and Levine, R. (2004), "A Comparison of Web and Mail Survey Response Rates", *Public Opinion Quarterly*, Vol. 68 No. 1, pp. 94-101.

Kearney, S. (2012), "Improving Engagement: The Use of 'Authentic Self- and Peer-assessment for Learning' to Enhance the Student Learning Experience", *Assessment & Evaluation in Higher Education*, Vol. 38 issue 7, pp.875-891.

Kollar, I. and Fischer, F. (2010), "Peer Assessment as Collaborative Learning: A Cognitive Perspective", *Learning and Instruction*, Vol. 20, pp. 344-348.

Langan, A. *et al.* (2005), "Peer Assessment of Oral Presentations: Effects of Student Gender, University Affiliation and Participation in the Development of Assessment Criteria", *Assessment & Evaluation in Higher Education*, Vol. 30 No.1, pp. 21–34.

Lapham, A. and Webster, R. (1999), "Peer Assessment of Undergraduate Seminar Presentations: Motivations, Reflection and Future Directions", in Brown, S. and Glasner, A. (Eds.), *Assessment* *Matters in Higher Education: Choosing and Using Diverse Approaches*, Open University Press, Buckingham, pp. 183-190.

Larisey, M. M. (1994), "Student Self-Assessment: A Tool for Learning", *Adult Learning*, Vol. 5 No. 6, pp. 9-10.

Levie, J. (1999), *Entrepreneurship Education in Higher Education in England: A Survey*, Department for Education and Employment, London.

Li, L., Liu, X. and Steckelberg, A.L. (2010), "Assessor or Assessee: How Student Learning Improves by Giving and Receiving Peer Feedback", *British Journal of Educational Technology*, Vol. 41 No. 3, pp. 525-536,

Liu, N.F. and Carless, D. (2006), "Peer Feedback: The Learning Element of Peer Assessment", *Teaching in Higher Education*, Vol. 11 No. 3, pp. 279–290.

Lladó, A.P. *et al.* (2014), "Student Perceptions of Peer Assessment: An Interdisciplinary Study", *Assessment & Evaluation in Higher Education*, 2013, Vol. 39 Issue 5.

Luxton-Reilly, A. (2009), "A Systematic Review of Tools that Support Peer Assessment", *Computer Science Education*, Vol. 19 No. 4, pp. 209-232.

Maclellan, E. (2001), "Assessment for Learning: The Differing Perceptions of Tutors and Students", *Assessment & Evaluation in Higher Education*, Vol. 26 No. 4, pp. 307-318.

Magin, D. (2001), "Reciprocity as a Source of Bias in Multiple Peer Assessment of Group Work", *Studies in Higher Education*, Vol. 26, pp. 53-63.

McGarr, O. and Clifford, A.M. (2012), "'Just Enough to Make you Take it Seriously': Exploring Students' Attitudes Towards Peer Assessment", *Higher Education*, Vol. 65, pp. 677-693.

McGee, J.E., Peterson, M., Mueller, S.L. and Sequeira, J.M. (2009), "Entrepreneurial Self-Efficacy: Refining the Measure", *Entrepreneurship: Theory & Practice*, July, pp. 965-988.

Montgomery, C. and McDowell, L. (2008), "Investigating Theory and Practice in Assessment for Learning: Four Case Studies Volume 1", Northumbria University Centre for Excellence Assessment for Learning, available at: http://www.northumbria.ac.uk/static/5007/cetlpdf/casestudies1.pdf (accessed 17 September 2013).

Moon, J. (2008), *Critical Thinking: An Exploration of Theory and Practice*, Routledge, Abingdon. Murphy, E. (1997), *Constructivism: From Philosophy to Practice*, available at:

http://www.ucs.mun.ca/~emurphy/stemnet/cle3.html (accessed 26 April 2014).

NCGE. (n.d.), *The Enterprise Concept*, National Council for Graduate Entrepreneurship, available at: http://archive.ncge.com/home.php (accessed 18 August 2013).

Neck, H.M. and Greene, P.G. (2011), "Entrepreneurship Education: Known Worlds and New Frontiers", *Journal of Small Business Management*, Vol. 49 No. 1, pp. 55-70.

NESTA. (2008), *Developing Entrepreneurial Graduates: Putting Entrepreneurship at the Centre of Higher Education*, NESTA, London.

Orsmond, P., Merry, S. and Reiling, K. (2000), "The Use of Student Derived Marking Criteria in Peer and Self-assessment", *Assessment & Evaluation in Higher Education*, Vol. 25 No. 1, pp. 23-38.

Paige, R. (2009), "Self-directed Learning and the Mind-set of Successful Entrepreneurial Learning", *ATEA Journal*, Vol. 37 No. 1, pp. 16-21.

Patton, C. (2012), "Some Kind of Weird, Evil Experiment': Student Perceptions of Peer Assessment", *Assessment & Evaluation in Higher Education*, Vol. 37 No. 6, pp. 719-731.

Penguin. (n.d.), "Working in Publishing: Careers with the Penguin Group", The Penguin Group, London, available at: http://gs12.globalsuccessor.com/docs/images/175/6/1/PENCAREERS09.pdf (accessed 11 August 2013).

Pilch, T. and Shimshon, B. (2007), *Enterprise for All*, The Smith Institute, London. Pittaway, L. and Cope, J. (2007), "Entrepreneurship Education: A Systematic Review of the Evidence", *International Small Business Journal*, Vol. 25, pp. 479-508. Pittaway, L., Hannon, P., Gibb, A. and Thompson, J. (2009), "Assessment Practice in Enterprise Education", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 15 No. 1, pp. 71-93.

Pope, N.K.L. (2005), "The Impact of Stress in Self- and Peer Assessment", *Assessment & Evaluation in Higher Education*, Vol. 30 No. 1, pp.51-63.

Porter, S.R. and Whitcomb, M.E. (2005), "Non-Response in Student Surveys: the Role of Demographics, Engagement and Personality", *Research in Higher Education*, Vol. 46 No. 2, pp. 127-154.

QAA. (2012), *Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers*, The Quality Assurance Agency for Higher Education, Gloucester.

Race, P. (2007), The Lecturer's Toolkit, 3rd ed., Routledge, London.

Race, P. (2010), "Making Enterprise Happen", *Assessment, Teaching & Learning Journal (Leeds Met)*, Vol. 8, pp. 27-29.

Rae, D. (2010), "Universities and Enterprise Education: Responding to the Challenges of the New Era", *Education* + *Training*, Vol. 17 No. 4, pp. 591-606.

Rae, D., Martin, L., Antcliff, V. and Hannon, P. (2012), "Enterprise and Entrepreneurship in English Higher Education: 2010 and Beyond", *Journal of Small Business and Enterprise Development*, Vol. 19 No. 3, pp. 380-401.

Ramsden, P. (2003), *Learning to Teach in Higher Education*, 2nd ed., RoutledgeFalmer, London. Ries, E. (2011), *The Lean Startup: How Constant Innovation Creates Radically Successful Businesses*, Portfolio Penguin, London.

Rogers, C. (1969), *Freedom to Learn: A View of What Education Might Become*, Merrill, Columbus. Rogers, R. R. (2001), "Reflection in Higher Education: A Concept Analysis", *Innovative Higher Education*, Vol. 26 No. 1, pp. 37-57.

Sánchez, M.M, Martinez-Pecino, R, Rodríguez, Y.T. and Melero, P.T. (2011), "Student Perspectives on the University Professor Role", *Social Behavior and Personality*, Vol. 39 No. 4, pp.491-496. Shih, T-H. and Fan, X. (2008), "Comparing Response Rates from Web and Mail Surveys: A Meta-Analysis", *Field Methods*, Vol. 20 No. 3, pp. 249-271.

Skillset. (2008), *Skills Needs Analysis for the Publishing Industry*, Skillset, London, available at: http://www.skillset.org/uploads/pdf/asset_12226.pdf?5 (accessed 11 August 2013).

Skillset. (2011), Publishing Labour Market Intelligence Profile, available at:

http://www.creativeskillset.org/uploads/pdf/asset 14113.pdf?3 (accessed 14 May 2013).

Sluijsmans, D.M.A., Brand-Gruwel, S. and Van Merriënboer, J.J.G. (2002), "Peer Assessment Training in Teacher Education: Effects on Performance and Perceptions", *Assessment & Evaluation in Higher Education*, Vol. 27 No. 5, pp. 443-454.

Smith, H., Cooper, A. and Lancaster, L. (2002), "Improving the Quality of Undergraduate Peer Assessment: A Case for Student and Staff Development", *Innovations in Education and Teaching International*, Vol. 39 No. 1, pp. 71-81.

Smith, S. and Price, A. (2011), "The Institute for Enterprise Centre for Excellence in Teaching and Learning: History, Context, Work and Issues for Future Sustainability", in Kill, R. and O'Rourke, K. (Eds.), *Inspiring Enterprise: Transforming Enterprise Education at Leeds Metropolitan University*, Leeds Met Press, Leeds, pp. 2-17.

Stefani, L.A.J. (1994), "Peer, Self and Tutor Assessment: Relative Reliabilities", *Studies in Higher Education*, Vol. 19 No. 1, pp. 69-76.

Strijbos, J-W. and Sluijsmans, D. (2010), "Unravelling Peer Assessment: Methodogological, Functional and Conceptual Developments", *Learning and Instruction*, Vol. 20, pp. 265-269. Thompson, J.B. (2010), *Merchants of Culture: The Publishing Business in the Twenty-First Century*, Polity, Cambridge. Topping, K. (1998), "Peer Assessment Between Students in Colleges and Universities", *Review of Educational Research*, Vol. 68 No. 3, pp. 249-276.

UKCLE. (2010), "Group, Peer and Self-assessment", available at:

http://www.ukcle.ac.uk/resources/assessment-and-feedback/group/ (accessed 7 June 2012). Van den Berg, I., Admiraal, W. and Pilot, A. (2006), "Peer Assessment in University Teaching: Evaluating Seven Course Designs", *Assessment & Evaluation in Higher Education*, Vol. 31 No. 1, pp. 19-36.

Van Zundert, M., Sluijsmans, D. and Van Merriënboer, J. (2010), "Effective Peer Assessment Processes: Research Findings and Future Directions", *Learning and Instruction*, Vol. 20, pp. 270-279. Volkmann, C. *et al.* (2009), *Educating the Next Wave of Entrepreneurs: Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of the 21st Century*, World Economic Forum, Geneva. Vu, T.T. and Dall'Alba, G. (2007), "Students' Experience of Peer Assessment in a Professional Course", *Assessment & Evaluation in Higher Education*, Vol. 32 No. 5, pp. 541-556.

Wilson, T. (2012), *A Review of Business–University Collaboration*, Department for Business Innovation and Skills, London.

Winkel, D. (2013), "The Changing Face of Entrepreneurship Education", *Journal of Small Business Management*, Vol. 51 No. 3, pp. 313-314.

Zariski, A. (1996), "Student Peer Assessment in Tertiary Education: Promise, Perils and Practice", in Abbot, J. and Willcoxson, L. (Eds.), *Teaching and Learning Within and Across Disciplines,*

Proceedings of the 5th Annual Teaching Learning Forum, Murdoch University, February 1996, Murdoch University, Perth, pp. 189-200.