

Pushing the boundaries: a study of higher education students' responses to a creative, art-based learning experience

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Abstract

This article examines students' responses to an open-ended, art-based task which involved the documentation of the creative process and culminated in the production of individual art pieces. It explores how students approached the work, and how working independently in a collaborative, learning space impacted on their personal and professional identities. The findings support the view that students are more engaged with their learning when they have access to challenging, creative experiences which enable them to demonstrate their knowledge, understanding and skills in different ways.

Keywords: Creativity in higher education; creative thinking; art-based learning; student engagement; creative learning environments

Introduction

Creativity in education has been approached and researched in many different ways over the last 60 years, with reference to specific foci in a range of educational learning environments. As Craft (2001, 11) points out, 'the economic imperative to foster creativity in business has helped to raise the profile and credentials of creativity in education more generally'. Government reports, policy documents and research studies relating to creativity have been explored elsewhere (Craft, 2001; Das, Dewhurst and Gray, 2011), as have the many reasons to support the development of creative pedagogies and practices in educational institutions (Cropley, 2001; Kleiman, 2005; Seltzer and Bentley, 1999). Bamford (2006, 11) refers to the 'international narrative' of creativity, making the point that its inclusion in educational policy documents worldwide and its integration in curriculum frameworks *in schools* has given it high status. However, some educators feel that creativity in Higher Education (HE) is undervalued and that attempts to develop more creative and experiential pedagogy are often thwarted (Dollinger et al, 2005; Kuh, 1996). It could be argued that the current policy priorities and assessment processes of performance-driven HE institutions are in direct conflict with creative development. In order to reach some kind of compromise, this study suggests that HE educators should be encouraged to experiment with, discuss and share creative strategies which aim to enhance rather than replace existing practices.

According to Jackson (2006, 1), providing opportunities for undergraduate students to be creative 'should be an explicit part of their higher education experience'; they 'need to have access to dynamic course modules which genuinely promote open-mindedness and experimentation and recognise that creative practice involves rigorous, structured intellectual processes' (Watson, 2012, 457). My work has shown that learning experiences linked with creativity are often regarded as lightweight and non-academic by both students and colleagues; if this view is to be challenged, discussions drawing on the numerous creativity discourses need to take place. Although creativity is no longer seen as a mysterious, exclusive process experienced by artistic geniuses, but is recognised as a practical skill which can be fostered and developed (Craft, 2005; Cropley, 2001), there continues to be a lack of

consensus about the meaning of this multi-faceted and complicated term. It is important for both policy makers and practitioners to articulate their understanding of the terms used somewhat liberally in course specifications and, more importantly, make it clear how they envisage these translating into practice. As the wide range of definitions explored in the literature (Craft, 2001; Jeffrey and Woods, 2003) focus on different aspects of the creative process, it is important to clarify the view of creativity that underpins the creative pedagogical approaches discussed in this paper.

The Research Study in Context

The modular BA in Education Studies course aims to provide all undergraduates with a wide range of stimulating, challenging learning opportunities which encourage creative, critical and conceptual ways of thinking. The optional ‘Creativity and Learning’ module, which was specifically designed to provide a small group of students in the final year of their degree with alternative, creative learning experiences, reflects the view that everyone has the potential to be creative. This ‘democratic’ approach, advocated by the National Advisory Committee on Creative and Cultural Education (NACCCE Report, 1999), referred to by Craft (2005) as ‘little c creativity’, supports the idea that creativity can be taught and developed. Over a twelve-week period, students explore and gain insight into the theory and practice, philosophy and policy of creativity in education through formal lectures, interactive seminars, input from a range of practitioners and independent reading. They are also required to engage in practical, self-reflective creative learning activities and explore their own creative processes through the planning, creation and presentation of an art piece. The different, but complementary, modes of delivery reflect some of the multiple factors considered essential to the understanding of creativity (Amabile, 1983); these include subject knowledge, motivation, learning styles and personality traits. Drawing on definitions which focus on cognitive processes (Seltzer and Bentley, 1999; Torrance, 1980), personal development and product (Gardner, 1993), the importance of addressing how these impact on the creative experience has been acknowledged. Rather than identifying and selecting ‘creative’ individuals to undertake the module, the focus is on introducing pedagogical approaches that aim to help students develop some of the characteristics and abilities associated with creativity. With reference to the four categories of personal creativity characteristics identified by Treffinger et al. (2002), students are encouraged to use their imagination to generate and explore ideas, respond to new situations in a novel way, make connections and become more aware of their creativeness.

This article explores how students approached and responded to the practical art-based element of the module; it builds on the findings of a small-scale exploratory study which examined students’ perceptions of working in the creative learning environment of an art studio (Watson, 2012). A discussion of the findings, which focused on students’ initial thoughts, feelings and expectations of the experience; how they experimented with materials and ideas; the collaborative approaches to learning adopted; how they made links between theory and practice and the issues surrounding the assessment of process and product, highlighted some important issues. One of the key points to emerge from the findings was that although the majority of students welcomed the opportunity to be assessed in more meaningful, creative ways, they were understandably concerned about the potential impact on their degree classification. However, it was evident from the data that ‘students benefit from being exposed to alternative learning and teaching approaches which put them under

pressure and shake up their preconceived ideas about what it means to be an education undergraduate' (Watson, 2012, 457). The controversial issues of introducing creative experiences that challenge traditional teaching methods and approaches to assessment in HE, which are beyond the scope of this paper, are explored elsewhere (Watson, 2013).

Aims and Rationale

This small-scale, practice-based study examines how students made use of the practical, creative learning experience to interrogate their self-knowledge and construct new meanings and understandings. In particular, it seeks to find out how they approached and managed the task, with reference to some of the factors that influenced their responses, and how the experience helped them to explore their personal and professional identities. The investigation is underpinned by the values and principles of experiential and reflective learning - including autonomy, decision-making and reflection - which have been well documented and discussed elsewhere (Kolb, 1984; Moon, 2004). From the first session in the art studio to the final exhibition day, students are encouraged to question their underlying assumptions and reflect on each stage of the process; the production of an art piece, although important for assessment purposes, is really just a vehicle for their creative thinking. Findings from the previous study (Watson, 2012) showed that students make sense of transformative learning experiences with reference to their interests, thoughts and feelings - factors which tend to be marginalised in studies about the learning process. As Savin-Baden (2000, 6) points out, 'new definitions and new meanings of learning often emerge when the interaction of ideas and experiences collide with one another' but 'the consideration of personal experience in learning is something that is noticeably lacking in the literature'.

Although not the focus of this particular study, it is important to note that the students' independent art-based work was carried out in a supportive, collaborative learning environment. It has been recognised that social structures have a major role in fostering the creativity of individuals (Jeffrey and Craft, 2001); according to Cooper and Jayatilaka (2006), groups are potentially more creative than individuals, as ideas can be shared and challenged. As Garrison and Kanuka (2004, 97) consider 'free and open dialogue, critical debate, negotiation and agreement', to be 'the hallmark of higher education', it was surprising to discover that the majority of students in the group seemed to have limited experience of these practices. Far from promoting a 'free-for all' approach, the practical art sessions are carefully structured; the introductory activities, designed to stimulate questioning, thinking, feeling and acting, provide students with a generic framework for individual creative development. This concurs with the view that students' learning experiences should evolve 'from a common starting point, or question, even if they do develop their ideas independently' (Jarvis, 2006, 226). It has been acknowledged that promoting experiential learning and reflection is not easy but, as Jacobson and Ruddy (2004, 2) point out, 'a skilled facilitator, asking the right questions and guiding reflective conversation before, during, and after an experience, can help open a gateway to powerful new thinking and learning'. For the purpose of this study, the reflective sketch book, used to document the creative process, is viewed as a learning tool rather than as evidence to support the summative assessment. The recording of ideas through words and images, followed by metacognitive reflections on their experiences, supports the ideas that underpin the models of experiential learning referred to earlier

(Kolb, 1984; Moon, 2004). As Rogers (1983, 279) points out, ‘creativity in learning is best facilitated when self-criticism and self-evaluation’ are encouraged but, as highlighted in the findings of the exploratory study, it is important that students evaluate and make use of new ideas emerging from their reflections. According to Lukinsky (1990), in addition to breaking old ways of thinking, reflective journals may contribute to changes in life direction, as new interests emerge from self-examinations. Although it is considered helpful for students to organise their thought processes, the ‘journals’ allow the familiar linear approach to learning to be challenged; in the spirit of creativity, rather than putting order into chaos (Klenowski et al, 2006), students are encouraged to pursue seemingly random ideas in order to push the boundaries of their thinking.

Methodology

This small-scale qualitative investigation is part of a more extensive, on-going action research study of creativity and student engagement in HE; it draws on an interpretive social-constructivist conceptual framework and builds on the findings of a more general, exploratory study carried out in the previous year (Watson, 2012). The reflective methodology employed (Schon, 1983) encouraged students to document and share their creative learning experiences and develop their ideas with new insights. As the study sought to explore the creative development of individuals, but in the context of a collaborative setting, case reports were introduced in the later stages of the data collection process. In a case study, states Burns (2000, 460) ‘the focus of attention is on the case in its idiosyncratic complexity’; although it was possible to identify common themes in the data, each ‘story’ related was unique.

The empirical data collection process was conducted in three distinct phases over the twelve-week period of the module; in line with the shift towards qualitative creativity research carried out in the actual learning environment, noted by Craft (2001), this took place in the art studio. Preliminary questionnaires were administered to the group of Year 3 ‘Creativity in Education’ students (n=20) in the first session; students were asked to consider their definition of creativity, note any prior knowledge and experience of art-based work and comment on their initial thoughts and feelings about the practical work. These, together with transcripts of the semi-structured interviews conducted over a six-week period, students’ reflective sketchbooks and observation notes, provided the data for phase one. The second phase involved carrying out more in-depth interviews with eight of the students, following the exhibiting and assessment of their art work in the final week of the course. They were asked to reflect on the module, talk about how they approached the art-based task and consider if the experience had impacted on their personal and professional identities. Focus group interviews with participants who secured places on the Primary Initial Teacher Education (ITE) course (n=10), undertaken to see if the practical art work had impacted on the post-graduates’ personal and professional identities, provided data for phase three. As Menter et al. (2011, 149) point out, this method is ‘well suited to exploratory and illuminative work’; the ‘interviews’, which were more like conversations, encouraged the participants to interact with each other and enhance on points made. Morgan (1996, 130) highlights the importance of the ‘researcher’s active role in creating the group discussion for data collection purposes’; I generated the initial questions, and made sure that all group members were given the opportunity to contribute, but the student teachers were encouraged to manage the conversations. The in-depth interviews, which were recorded and transcribed,

provided the most useful data as they ‘put flesh on the bones of [the] questionnaire responses’ (Bell, 1999, 135) and enabled issues raised in phase one to be explored.

The multiple methods approach employed was considered appropriate, as obtaining information from different perspectives increased the reliability of the findings. However, there were some issues related to the observation process and the selection of participants which needed to be taken into consideration. The observations enabled me to witness the various interactive processes at work in the art studio and deepen my own situational understanding with students (Elliott, 1993); however, it was difficult, as their tutor, to maintain the non-participant role I had originally intended. All students completed the ethics consent form, which guaranteed confidentiality and stated that the research would not impact on their grades, but the fact remained that I would be assessing their work. As I approached very positive former BA students who were still based at the university, the purposive, opportunist selection of participants for the focus groups needs to be acknowledged.

Findings and Discussion

This section provides an overview of how students approached the art-based task, with reference to some of the factors that influenced their responses; it also addresses their perceptions of how the experience impacted on their personal and professional identities. With reference to literature focusing on creativity in education, the discussion draws on the empirical data, collected over the twelve week period.

How students approached the task

Students were encouraged to make individual responses to the general exploratory activities, introduced at the beginning of each session, with the view of generating ideas for their own art piece. Observation notes indicate that some preferred to work systematically and methodically on a specific theme whilst others were more willing to experiment with different materials and ideas as new insights emerged. It was evident that some felt more comfortable working completely on their own in the studio whereas others found it more useful to explore ideas with their peers. As ‘each learner brings a unique set of experiences and subjectivities to draw upon: their personal psychology, imagination, talents and attitudes’ (Jackson, 2006, 7), it is not surprising that students responded to the practical task in very different ways. ‘*Looking at everyone else’s work made me realise how unique and subjective our ideas are*’, remarked one student, ‘*the very different thoughts and emotional responses we bring to the situation highlight our individuality*’. It is impossible to do justice to the wide range of individual ‘stories’ that emerged from the data but the following extract, taken from a very detailed reflective sketch book, highlights some interesting issues to consider:

I decided to incorporate maths and music into my artwork as I am interested in both these subjects and wanted to explore the links between them. I researched the work of John Cage¹ and applied some of his abstract ideas to my work; this opened up my eyes to the idea of

¹ Cage is perhaps best known for his 1952 composition *4'33"*, which is performed in the absence of deliberate sound; musicians who present the work do nothing aside from being present for the duration specified by the title. The content of the composition is not "four minutes and 33 seconds of silence," as is sometimes assumed, but rather the sounds of the environment heard by the audience during performance.

things not always being what they seem. Despite the many setbacks, I was determined to pursue the vision of my final piece. As I experimented with different materials and ideas, I realised that maths can be as creative as music ...

The final product, titled 'Mathematical Silence' consisted of a small box, containing mathematical drawings, symbolic objects and recordings of sounds heard in supposedly silent places. Looking through the reflective sketch book, which included detailed sketches and notes of the process, it was interesting to see that so many complex creative ideas had been distilled into such a small final product. The entry supports the view that creativity involves an interaction of subject knowledge, creative skills, prior knowledge and motivation (Amabile, 1983); it also reflects how some of the personal creativity characteristics identified by Treffinger et al. (2002), including flexibility, originality and metaphorical thinking, were developed throughout the module.

The findings showed that what the students had seen and experienced during the week, including their immediate learning environment, and how they were feeling on the day, influenced their approaches to the art work. Many commented on how discussions with both the artist and their peers had impacted on the direction they chose to take; others mentioned the importance of reading around their topics and being inspired by what they had seen in the art galleries. One student said that reading what others had to say about her chosen theme (dance) and researching how artists had portrayed it made her feel that her ideas were worthwhile. Several students made comments about how the more traditional, theoretical sessions had influenced their responses to the practical work. One said, *'these have helped to shape our values and attitudes towards creativity that we take with us into the studio'*; another said that one of the models of creativity discussed in a lecture (she was referring to Urban's, Componential model, 1991), had provided her with a framework for reflection on her art work. She went on to talk about how she had used the list of personal components to identify her strengths and areas for development; *'it made me realise'*, she explained, *'that I am open to new ideas and experiences and have a tolerance for ambiguity but I need to work on positive self-evaluation and self-esteem in the studio'*. One of the trainee teachers also referred to this model when he considered what had influenced his approach to the art-based task; *'if we had only experienced the practical sessions, I would have been unaware of the complex interplay of internal and external factors that are involved in moving from creative process to product'*. This concurs with a point made by Stake (1995, 16) that 'issues are not simple and clean, but intricately wired to political, social and especially personal contexts'.

Impact on personal and professional identities

It was interesting to see how markedly students' definitions of creativity had developed over the course of the module; the wide range of discourses explored through their reading and in seminar discussions were reflected in the findings. Evidence from the initial questionnaires and interview transcripts showed that the view of creativity in the first week was rather restricted; it was generally regarded as an individual, personal way of expressing thoughts and feelings through different materials and resources. As most of the participants related creativity to the arts, their original definitions affected the way in which they approached the practical task; some were nervous and apprehensive, as they did not consider themselves to be good

at art, whilst others were confident that their artistic talents would enable them to achieve a high grade. As mentioned earlier, the impact that the assessment process has on students' creative development is not addressed in this paper; however, it is important to acknowledge that it had a significant impact on their approaches to the work. As the module progressed, and students became less daunted by experimenting and taking risks in the studio, their views of creativity changed; more emphasis was placed on the creative process and the wider application of creative thoughts and ideas. As one student said, *'I have come to realise that creativity can be integrated into ordinary, everyday life – I have discovered creative skills that I did not know I had'*. This revelation, which chimes with Craft's notion of 'little c creativity' (2005), reflects how creativity research has moved from looking at *how* creative people are to a focus on how they *are* creative. According to Treffinger et al (2002, 10), developing an understanding of preferred learning styles 'helps people to identify and recognise their creative strengths and nurture their creative productivity'; the shift from concern about a perceived lack of creative skills to a recognition of unique creative styles was apparent in the data. Several participants referred to *'the sense of freedom and self-understanding'* that came with *'exploring new ideas in a creative learning environment'*; although not always a comfortable experience, they began to embrace uncertainty and ambiguity. One student said the practical task had encouraged her to rebel against her preference for predictability; *'trying out new, non-linear approaches, being messy and following up random thoughts made me question why I had taken things at face value for so long'*. Another student, interviewed in phase two, talked about how *'the fear of losing control'* with her work led to *'feelings of despondency and deflation'*; however, she felt that she had to go through this period of negativity in order to rise above it. *'I gradually saw the importance of adapting the final piece as the process changed and shaped my thoughts and I became more open-minded'*, she said – *'it is ironic that I had my most creative ideas when I felt vulnerable'*. This supports Maslow's (1976) view that although many people fear self-knowledge, they are more likely to discover their true potential as they become more aware of their creative freedom.

As Oliver et al (2006) discovered, in their study of students' experiences of creativity, despite the wide range of interpretations of this complex term, it plays a very important part in defining how students see themselves. Students had much more to say about how the module had impacted on their personal identities at the end of the twelve week period, when they were considering the next stage of their careers. One student said *'the module has definitely put creativity at the forefront of my thoughts in terms of teaching'* and another said it had made her *'realise the importance of being creative across the curriculum to enhance learning and increase engagement'*. An interesting point to emerge from the data was that trainee primary teachers felt they needed to recognise their own creative skills and attributes in order to understand how to encourage and develop children's natural creativity. This is demonstrated by the following comment, made by a student in one of the focus group interviews:

I am a creative person but it was the creativity module that helped me to recognise it. There was always an element of play in my art work; whilst others were keen to come up with something deep and meaningful, I was happy to experiment, produce something and then find the meaning. On

reflection, I realise that the creativity module has been my lifeline as I am constantly applying what I learnt to my teaching.

In response to the question about the impact of the module on professional identity, another trainee teacher said, *'focusing on the process rather than the product was in stark contrast to what we had experienced before; it made me realise the importance of paying more attention to the on-going development of children's creativity and placing less emphasis on outcomes'*. It was evident from the discussion that most of the group members had not only extended their pedagogical repertoire in schools, but had thought more about the kind of creative teachers they wanted to be. With reference to a Year 4 poetry session, one participant said she felt *'more inclined to be flexible with lesson plans'* and another felt that, having discovered more about her own preferred approaches to learning, she would make a determined effort to incorporate a wide range of creative strategies into her lessons. The following extract, taken from the final entry in a student's reflective sketch book, encapsulates the spirit of creativity that underpins this study:

'I have more questions to ask than I did at the beginning but see this as a positive thing; it demonstrates how my thinking and attitudes have developed over the weeks. The module has made me aware of my own personal creativity and encouraged me to rise above the tensions of the current educational climate to foster the creativity of pupils.'

Although the research findings are not conclusive, the evidence of progression in the individual 'stories' indicate that creative development had occurred over the twelve-week period. Interestingly, students who did not regard themselves as creative individuals at the beginning of the process exhibited more creative characteristics on the final day of the module. As evidenced in the focus group interviews, the point at which the exhibition was dismantled marked the beginning rather than the end of the process for some students: one said, *'taking away the physical objects left me with a new sense of identity as I began to consider how I could apply some of the creative processes to my professional development'* and another remarked that *'once my work had been assessed, I was free to think about all the new skills I had developed in such a short time; my ideas about teaching have been transformed'*.

Conclusion

This study has outlined some of the advantages of providing education undergraduates with alternative, creative learning experiences in the final year of their degree course. It has highlighted the value of relating these to meaningful, purposeful, multi-sensory activities which enable them to demonstrate and articulate their creative thought processes. The findings support the view that students benefit from having access to a range of pedagogical approaches which promote both convergent and divergent thinking and encourage them to adopt a metacognitive approach to their learning. However, as suggested by the evidence, if they are to develop as independent, reflective learners who can embrace change, credit needs to be given for risk-taking and experimentation throughout their time at university. As the current HE system tends to focus on what students can do rather than on their ability to think - what Barnett (2007) refers to as the 'performative slide' - this has implications for policy and practice at all levels.

Higher tuition fees and the increasing emphasis placed on ‘student voice’ have encouraged students in the UK’s competitive, market-driven HE system to *expect* and *demand* high quality, challenging learning opportunities. This small-scale study suggests that universities need to promote alternative pedagogies and practices which seek to preserve the traditional values of HE but enhance, develop and transform the intellectual experiences of students. The findings support the idea of introducing complementary learning and assessment tasks, which encourage viewing and constructing knowledge in different ways, into existing courses. Having been viewed by some as a ‘soft option’, the creative work experienced over the twelve-week period soon came to be regarded as demanding, intellectually challenging and engaging. However, if there is to be a more extensive change of mind-set, colleagues need time to discuss and clarify their understanding of creative practice, with reference to the some of the discourses referred to in this paper. As creativity can be expressed in so many different ways, it is important that the wide range of personalities, prior knowledge, talents, interests and preferred approaches that students bring to the learning situation are acknowledged; only then can we, as educators, introduce transformative pedagogies that will push the boundaries of their HE experience.

References

- Amabile, T. 1983. *The social psychology of creativity*. New York: Springer-Verlag.
- Bamford, A. 2006. *The wow factor: global research compendium on the impact of the arts in education*. Berlin: Verlag.
- Barnett, R. 2007. *A will to learn*. SRHE, Maidenhead: Open University Press.
- Bell, J. (1999). *Doing your research project* (3rd ed). Maidenhead: Open University Press.
- Burns, R. 2000. *Introduction to research methods*. London: Sage.
- Cooper, R. and Jayatilaka, B. 2006. Group creativity: the effects of extrinsic, intrinsic and obligation motivations. *Creativity Research Journal* 18, No. 2: 153-172.
- Craft, A. 2001. *An analysis of research and literature on creativity in education*. Report for Qualifications and Curriculum Authority.
- Craft, A. 2005. *Creativity in schools: tensions and dilemmas*. London: Routledge.
- Cropley, A. 2001. *Creativity in education and learning*. London: RoutledgeFalmer.
- Das, S., Dewhurst, Y. and Gray, D. 2011. A teacher’s repertoire: developing creative pedagogies. *International Journal of Education and the Arts* 12, No. 15: 1-39.
- Dollinger, S. J., Dollinger, S. M. & Centeno, L. 2005. Identity and creativity. *Identity* 5: 315-339.
- Elliott, J. 1993. *Reconstructing teacher education: teacher development*. London: Falmer Press.
- Gardner, H. 1993. *Creating minds: an anatomy of creativity seen through the lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham and Gandhi*. Harper Collins: New York.
- Garrison, D. and Kanuka, H. 2004. Blended learning: uncovering its transformative potential in higher education, *Internet and Higher Education* 7: 95-105.
- Jackson, N. 2006. *Creativity in higher education: creating tipping points for cultural change*. Scholarly Paper 3 – Surrey: Centre for Excellence in Professional Training and Education, University of Surrey.

- Jacobson, M. and Ruddy, M. 2004. *Open to outcome*. Oklahoma City, OK: Wood 'N' Barnes.
- Jarvis, P. (ed) 2006. *The theory and practice of teaching* (2nd ed). Oxford: Routledge.
- Jeffrey, B. and Craft, A. 2001. The universalization of creativity. In A. Craft, B. Jeffrey and M. Leibling (eds). *Creativity in Education*. London: Continuum.
- Jeffrey, B. and Woods, P. 2003. *The creative school: a framework for success*. London: RoutledgeFalmer.
- Kleiman, P. 2005. Creativity and assessment in higher education. Paper presented at the ESRC Creativity Seminar, University of Strathclyde.
- Klenowski, V. Askew, S. and Carnell, E. 2006. Portfolios for learning, assessment and professional development in higher education. *Assessment and Evaluation in Higher Education*, 31, No. 3: 267-286.
- Kolb, D 1984. *Experiential learning as the science of learning and development*. Englewood Cliffs, NJ: Prentice Hall.
- Kuh, G. 1996. Guiding principles for creating seamless learning environments for undergraduates. *Journal of College Student Development* 37, No.2: 135-143.
- Lukinsky, J. 1990. Reflective withdrawal through journal writing. In J. Mezirow and Associates (eds.), *Fostering critical reflection in adulthood*. San Francisco, CA: Jossey-Bass.
- Maslow, A. 1976. Creativity in self-actualising people. In A. Rothenburg and C. Hausman (eds), *The creativity question*, Durham, NC: Duke University Press.
- Menter, I., Elliott, D., Hulme, M., Lewin, J. and Lowden, K. 2011. *A guide to practitioner research in education*. London: Sage.
- Moon, J. 2004. *A Handbook of reflective and experiential learning: theory and practice*. London: Routledge Falmer.
- Morgan, D. 1996. Focus groups. *Annual Review of Sociology* 22: 129-152.
- National Advisory Committee on Creative and Cultural Education (NACCCE), 1999. *All our futures: creativity, culture and education*. Suffolk: DfEE.
- Oliver, M., Shah, B., McGoldrick, C. and Edwards, M. 2006. Students' experiences of creativity. In N. Jackson, M. Oliver, M. Shaw and J. Wisdom (eds). *Developing Creativity in Higher Education: an Imaginative Curriculum*. Oxon: Routledge.
- Rogers, C. 1983. *Freedom to learn for the 80's*, (2nd ed). Columbus: OH, Merrill.
- Savin-Baden, M. 2000. *Problem-based learning in higher education: untold stories*. Buckingham: Open University Press.
- Schon, D. 1983. *The reflective practitioner*. London: Temple Smith.
- Seltzer, K. and Bentley, T. 1999. *The creative age: knowledge and skills for the new economy*. London: Demos.
- Stake, R. 1995. *The art of case study research*. London: Sage Publications.
- Treffinger, D., Young, G., Selby, E. and Shepardson, C. 2002. *Assessing creativity: a guide for educators*. Sarasota, Florida: Center for Creative Learning.

Torrance, E. 1980. Assessing the further reaches of creative potential. *Journal of Creative Behaviour* 14, No. 1: 1-19.

Urban, K. 1991. On the development of creativity in children. *Creativity Research Journal* 4: 177-191.

Watson, J. 2012. Comfortably uncomfortable: a study of undergraduate students' responses to working in a creative learning environment. *Learning Landscapes* 6, No.1: 443-461.

Watson, J. 2013. Creative development or high performance? An alternative approach to assessing creative process and product in higher education. Unpublished conference paper.

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