

Creativity and Enquiry in Action: a case study of cross-curricular approaches in teacher education

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Abstract:

The current Key Stage 3 National Curriculum for England orders that our education foster determination, adaptability, confidence, risk-taking, enterprise, creativity and enjoyment in a cross-curricular context in pupils. To appreciate these dimensions student teachers need to have multiple opportunities to experience such a curriculum for themselves. However, initial teacher education is an intense and demanding experience; student teachers veer between phases of basic survival and personal innovation as they develop their individual pedagogy and personal philosophy. For new secondary teachers their own subject specialism forms a core feature of their emerging professional identity and can act as a barrier to collaborative practice beyond that specialism. This paper discusses one example of a cross-curricular approach in which Art and Geography PGCE students reflect on their experiences of a collaborative event designed to break down subject barriers while exploiting the potential of subject specialism. Data collected from semi-structured interviews conducted with a sample of students during the two-day event is discussed. Data revealed that critical outcomes of the event included the practice and development of genuine collaboration, negotiation, teamwork, and leadership.

Key words: role-based enquiry; creativity; cross-curricular; subject specialisms

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Introduction

What sorts of skills do we want new secondary teachers to develop? New secondary teachers need classroom techniques, practised routines and an understanding of what they can do to enable learners to learn. Teacher 'training' ensures that student teachers gain adequate skills to enter induction as Newly Qualified Teachers. But is this enough if we are concerned about preparing them for a life lived teaching in such a way that the subject disciplines thrive and inspire the next generation?

This paper illustrates one element of a PGCE programme which deliberately extends student teachers' experiences. Over a four year period Geography and Art secondary PGCE students from neighbouring universities have been engaged in collaborative projects, variously involving school pupils and teachers, galleries, museums and country parks. The focus for this paper is the most recent event held in June 2009, based at the Baltic Centre for Contemporary Art in Gateshead. The event was planned using a role-based enquiry technique drawing on some of the principles of Mantle of the Expert© (Heathcote & Bolton, 1994). The purpose and outcomes of this event will be discussed in the contexts of the contemporary teacher education and the shifting curriculum. Students' reflective comments, collected from semi-structured telephone interviews, contribute to the discussion of the outcomes of the project.

Background

The rationale: An alternative perspective on subject pedagogy for new teachers

A key characteristic of secondary teacher education is the attention given to developing subject pedagogy. While relatively confident in their specific subject knowledge; PGCE students often underestimate the need for active

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translation of this into specialist pedagogical knowledge. Hence the student teachers spend considerable time in subject-based workshops at university and in subject departments in schools. This convention reinforces and is reinforced by the tradition of specialist departments and faculties in secondary schools.

While there is inherent challenge involved in learning the new skills and knowledge of teaching, working predominantly in subject contexts creates a comfort zone. In this zone common language is used and understandings are shared. One of the core aims of the combined Geography and Art projects illustrated in this paper has been to take students (and their subject-based tutors) out of this comfort zone. An intended outcome has been to demand that the students articulate the knowledge, understanding and skills generated by their subjects for each other in such a way that they can work meaningfully together. When viewed from the possible perspective of pupils as learners (rather than simply as consumers of qualifications) a strict subject-based curriculum does not always make sense. While there is a need for excellent subject knowledge and specific pedagogies, the world beyond academia is not organised in subject disciplines. It is our concern that the subject divisions can result in a gap between the aspiration and actual achievement of excellent pedagogy for teachers, and can act as a barrier to authentic and meaningful learning and engagement for learners.

The conventional set-up of independent subject disciplines was challenged by the 'Big Picture' dimension of the secondary National Curriculum for England (QCA, 2007), which created space for cross-curricular work and a more skills-based approach, as indicated by the Personal Learning and Thinking Skills (PLTS) curriculum. This was complemented by the Rose

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Review of primary education which suggested that 'subjects are essential but not sufficient' (Rose, 2009, p.14). After just four years of implementation it is perhaps not surprising that the current national curriculum in secondary schools is being implemented with varying levels of success (Ofsted, 2009). As David Leat writes in McGrane & Lofthouse (2010) 'There is a much cited differentiation between the curriculum as written, the curriculum as taught and the curriculum as experienced. The curriculum as taught is invariably a thinner, weaker version of the written version. However, in the curriculum as experienced, the learning for pupils can be expected to fall significantly short of the aspirations of the written curriculum (p.12).'

Indicating a policy turn-around to the 2007 National Curriculum the 2010 White Paper on Education 'The Importance of Teaching', states that the revised National Curriculum will 'have a greater focus on subject content, outlining the essential knowledge and understanding that pupils should be expected to have to enable them to take their place as educated members of society' (p.42). For subjects such as Geography and Art, classed as non-core subjects, the 2007 curriculum and 2010-11 curriculum review create both opportunities and threats; as they do for teacher education. We hope that our newly qualified teachers can act as catalysts for curriculum development in the schools which employ them, but we do not take this for granted.

Creativity and enquiry-based learning in the secondary curriculum

One of the dimensions of the curriculum that is frequently in flux is that of creativity. The 1999 National Advisory Committee's report to the DfEE 'All our futures: Creativity, culture and education' identified the following qualities of creative activities: imagination, purpose, originality and value, (NACCCE, (1999). While the school Art curriculum is classified as a

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creative art, Geography is not. However, creative thinking sits within the cross-curricular Personal, Learning and Thinking Skills framework.

Creativity is thus currently positioned beyond the confines of the creative arts and design and technology departments; and teachers in other subjects, including Geography, should provide opportunities for young people to;

'think creatively by generating and exploring ideas, making original connections [and to] try different ways to tackle a problem, working with others to find imaginative solutions and outcomes that are of value' (DOE, 2010:4.9).

Fleming (2008) recognises the 'energising force of the concept of creativity in arts education' (p.51) but there is no reason that this should be limited to the arts curriculum areas. 'All Our Futures' made a distinction between 'teaching creatively' and 'teaching for creativity'. The first is about teachers using their own creative abilities to inspire and engage pupils in what they are teaching. The second is about developing pupils' own imaginations, creative skills and powers of original thought (1999, p.102). Durbin (2003) suggests that 'interpreting the world around us for others is fundamentally a creative pursuit' (p.64), and as such indicates that creativity should also be recognised as a valid outcome of Geographical education. It is in the creative pursuits of using imagination, being original, pursuing purpose and judging value that Geographers and Artists can co-exist, although frequently in their individual domains.

Our work with PGCE Geography and Art students exemplifies the coalition of these domains. When encouraged to think outside their subject boxes our students have been able to develop concrete or conceptual creative outcomes for a genuine audience. As such they are modelling creative

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thinking as it is embedded in the PLTS framework; and at the same time practising other National Curriculum personal, learning and thinking skills such as team work and self-management.

Enquiry-based learning is also gaining currency. While enquiry-based learning is hard to define in simple terms, Roberts (2003) suggests that initially it engages pupils' curiosity and the learning activities which follow are more pupil led than traditional didactic teaching approaches. In essence pupils pursue questions rather than get taught the answers, and desired learning outcomes relate as much to procedural and metacognitive knowledge as to factual knowledge. Through enquiry-based learning pupils have opportunities to develop skills and strategies to make sense of new information and experiences for themselves and are encouraged to be critical and questioning. Evidence of the value of enquiry-based learning is now emerging from inspections. In June 2010 Ofsted published 'Transforming Religious Education' in which they noted good practice when an enquiry-based approach was adopted, which 'focused very clearly on developing skills and conceptual understanding as well as content' (p.45). The potential for enquiry-based learning was further supported by the 2011 Geography Ofsted subject summary report which indicated that, 'In strong secondary school geography departments many students were inspired by challenging and engaging questions; with diverse sources and data' (p.2).

The event: Role-based enquiry

The event which this paper focuses on was held in the final week of the 36-week PGCE programme. It was designed to model role-based enquiry as an alternative pedagogic approach. In order to maintain authenticity it was planned as appropriate for post-graduates on a professional course (in other words students were not asked to engage as if they were themselves

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secondary-age pupils). Art and Geography PGCE students were 'commissioned' by the BALTIC Centre for Contemporary Art education manager to develop ideas for a landmark exhibition called Urban Stories. They engaged in workshops with artists and writers, and explored the potential of the gallery as a venue. They then adopted the role of experts in multi-disciplinary cultural enterprises and were asked to demonstrate how they would plan for and design the Urban Stories exhibition to each other, their tutors and gallery staff. As such the event deliberately inverted the trainees' orthodox perspective of the PGCE tutor as expert. While both tutors and gallery staff were present at key points during the event the dominant characteristic of the role-based enquiry was that the PGCE students were positioned to work collaboratively as if *they* were the experts, with an enterprise to run and a client who needed a job done. As such the situation created authentic and complex contexts within which the PGCE students operated. As such we were modelling an approach which has the potential to support the cross-curricular innovation and development of a Personal Learning and Thinking Skills curriculum seen in many secondary schools.

Research question

This paper considers the research question:

What are student teachers' perceptions of the professional learning processes and outcomes related to engagement in a cross-curricular event rooted in enquiry and creativity, and what can be learned from this to inform initial teacher education programmes?

Methodology and methods

A qualitative methodology was adopted which aimed to capture the students' reflections-in-action (Schön, 1987) during the role-based enquiry

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event which was held in June 2009. To a large extent this was a pragmatic decision. The cohort completed their PGCE courses within a week of the event and as such it was appropriate to capture their reactions to the experience at the time rather than through later reflection. These time constraints led us to make use of a key research method, that of semi-structured interviews. The decision to use interview methods reflects an epistemological position which favours the view that human action is socially and culturally bounded and that to understand why people behave the way they do requires 'seeing people through the eyes of the people being studied' (Bryman, 2001, p. 277). Semi-structured interviews are perhaps the most commonly used by qualitative researchers, particularly in education research. They offer a structure - a sequence of themes and/or questions to be covered and usually some prompts or probes which 'enable the interviewer to ask respondents to extend, elaborate, add to, provide detail for, clarify or qualify their response' (Cohen, Manion and Morrison, 2003, p. 278). A semi-structured interview schedule thus includes open-ended questions, but 'deviation from the agenda' is 'expected and accepted' (Limerick et al, 1996, p.451). The interviews were conducted by an off-site research associate using scheduled telephone calls in the morning of day two of the two-day event in June 2009. They allowed students to reflect on the initial activities and outcomes of the event, but did not compromise the final stages of the project prior to dissemination in the afternoon of day two. The group size was sixteen Geography students and fifteen Art students. Three students from each subject were interviewed (21% sample).

The interview was designed to enable the students to explore the ways that they were each drawing on their own subject specialism and wider

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professional skills and engagement in productive dialogue in the context of the task. The interview questions were as follows:

1. Please tell me whether you are Geography or Art PGCE student?
2. Can you tell me briefly about the activity you are doing?
3. As you engage in this activity can you describe the personal and professional skills that you are using to undertake the group work?
4. Please consider what you are offering your group as a subject specialist, and how this is contributing to the activity.
5. What are you learning about the other subject specialism?
6. What kinds of conversations are you having in your group?
7. On reflection what might be the outcomes of this type of cross-curricular work in your professional learning and development?
You may want to think about this in both a practical and philosophical terms.

Review of the interview transcripts enabled a thematic analysis of the students' reported experiences and perceptions related to the role-based enquiry event. The interviews were recorded, transcribed and the transcripts were subsequently analysed by two members of the research team, one of whom had participated in the telephone interviews and one of whom who had not. The interpretative process undertaken by the two researchers was based on the 'editing organising style' proposed by Miller and Crabtree (1999, p.22). Core themes related to subject pedagogy and identity, working in a cross-curricular context and the role of dialogue in task completion were explored.

In addition to the interviews all participating students were invited to leave evaluative feedback comments related to the event using post-it notes.

Some students were observed writing these collaboratively and others

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individually. Fourteen anonymous comments were received. The PGCE tutors and gallery staff also observed the dissemination event and reviewed the outcomes together. Notes were taken of the key characteristics of the task and the students' responses to it. The post-it notes and staff perception formed an informal data set which allowed a degree of triangulation with interview data.

Findings

Both the student interviews and post-it notes revealed that outcomes of the event included the practice and development of genuine collaboration, negotiation, teamwork, and leadership. It is through the deployment of these that the students drew on each others' skills, knowledge and theoretical frameworks to successfully propose valid Urban Stories exhibition designs. The anonymity of students quoted below is maintained through the use of pseudonyms.

Subject pedagogy and identity

The collaborative and productive nature of the event appeared to enable PGCE students from each discipline to view each other in the creative domain. One art student was surprised by the fact that,

'[Geographers] also quite creative. We think we are the art students we are the creative ones, but it has been interesting sharing that role' (Sam, Art student).

and another student noted that she had,

'learned more about how [Geographers] work and their problem solving ability' (Emma, Art).

Geography students indicated the value of looking at their subject from a more creative perspective;

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'It's been really different taking that creativity into the geography and that's been a really enjoyable part of it. [Art students] were putting a different spin on it and talking about different ways that we could represent our ideas, and not just sculpture and painting but media and audio' (Ruth, Geography).

There is evidence that the experience brought new Geography teachers closer to employing creative processes and developing creative outcomes based on their subject knowledge and skills. This is significant for what is deemed to be a non-creative subject. Integrating desired learning outcomes based on creativity into their developing pedagogies and interpretations of the curriculum may thus seem a less alien and more substantive objective than it otherwise might have.

In a challenging cross-curricular context the PGCE students needed to explore their own and each others' subject. As one student reflected they had '...combined each others' skills and refined ideas through informed conversations' (anonymous student comment on post it note).

The students identified a range of ways in which they had articulated their subject and used this to explore links between the two. The theme of urban stories, the basis of the role-based enquiry, triggered them to recognise relevant organising concepts which both parties could relate to. These included conflict, dynamics, community and stereotypes. As one student stated,

'[Geographers] have a slightly different angle on what they are doing but there are lots of common themes across art and geography like social construction, people and spaces and time and how these all interact.'

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and she went on to say;

'We have also been discussing how we view the word concept in a different way. The geography people tend to think of concepts as the subject matter whereas artists think of the concept as how things are shown' (Anthea, Art student).

The exhibition proposals resulting from the role-based enquiry and presented to the group were all unique. Tutors and gallery staff recognised that they drew on the Art students' familiarity with the exhibition space and art traditions; but were entirely rooted in geographical concepts and representative of the complexities of urban life. Inequality, population dynamics and changes in urban land-use were explored as the students wove together their skills in, and appreciation of, interactive media, mapping technologies and contemporary art.

Not only was the experience itself reported as enjoyable and productive, but it may have longer term impacts on how the new teachers operate once in post, in particular in building pedagogic relationships beyond their own subject. As one Geography student reflected in relation to the outcomes of the project for him;

'...definitely an understanding and appreciation of the art subject. I have learnt more in two days than I would in six months in school. I have a better understanding of how art is taught and I appreciate that geography can link with more subjects and how they can link. It has broken down stereotypes' (John, Geography student).

The nature of the task and diverse learning outcomes

Despite the role-based enquiry approach being novel and unfamiliar to the students they reported that it generated a powerful learning environment;

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creating a unique working space within which they drew on their combined knowledge and skills to develop a response to the task brief. As one student simply stated;

'It's got us thinking – we are coming out with some quite good ideas. It's a great way of bringing students right into the centre of their learning. It was a new concept for most of us. It's an interesting idea – it involves a lot of creativity and imagination and bringing your ideas to the table' (Sam, Art Student).

There is evidence that the role-based enquiry approach helped students to gain confidence despite the unfamiliar context of the venue and task allocated, and this appears to be aided by taking the role of the expert,

'At first it was a little difficult to combine ideas from both art and geography backgrounds but as the discussions progressed it became apparent how much the project lent itself to relevant issues in both areas. We found that by taking the roles of 'expert' we began to develop our ideas in ways we wouldn't normally be comfortable with' (anonymous student comment on post it note).

While the Urban Stories event was specifically developed for the PGCE students themselves, it illustrated for them the potential of role-based enquiry as a teaching approach for both cross-curricular and subject-based learning in schools. Its value lies in its ability to bridge learners' own experiences with those that they have limited direct access to through creative engagement in authentic roles. As an enquiry-based pedagogy it is not as fanciful as it first appears, it does allow students to think, talk and plan in roles other than their own. It thus helps them to explore attitudes, values, environments and knowledge sets from the perspective of developing expertise rather than that of naivety. The specific event seemed to create such conditions, as one student reflected at the end of the project;

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'I see myself the same but modified – more open to other suggestions. You need that. You can't just live in a little art box. You need to connect with all the other boxes – all the other subjects and all the other people. That increases your knowledge' (Anthea, Art PGCE student).

Furthermore the interviews indicate that students' successful completion of the task necessitated sophisticated communication, teamwork and leadership skills. As illustrated by these final quotes;

'I am used to working in groups but with not knowing anybody you have got to really state what your strengths are and work together and establish the group dynamics quite fast so that everyone can work to their strengths' (Anthea, Art PGCE student).

'Delegating roles and tasks has been interesting to watch; I have worked a little bit collaboratively before but not on such an intensive project – it's quite new – in the past it's not been on such a personal level with joint ideas' (Sam, Art PGCE student).

'Because you are taking on this role of the expert you are having to talk confidently about what it is you are doing. Everyone has had to become a team leader of their specific professional area and we have all had to push ourselves a bit further and all take on a bit of a team leader role' (Emma, Art PGCE student).

Discussion

The outcomes reported above are specific to the role-based enquiry event and necessarily only represent the students' reflections at the time within this specific case study. They become more generalisable because this event was the fourth in an annual sequence of Geography and Art PGCE

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cross-curricular projects. A recurring theme for the work has been the use of cultural venues in which to situate the projects. These have offered both subject neutrality and a stimulus to the learning activity. Although the projects often take students out of the familiar we have found that these events offer rich learning experiences, and that students develop appropriate skills and understandings to be successful in these contexts. Students in the preceding year worked collaboratively to produce a piece of environmental art in a forest park, basing their work on a geographical sense (senses of place, scale, connectivity, etc). This 'creative pursuit' (Durbin, 2003) encouraged a diverse response, ranging from a carbon footprint created from waste collected from the forest; to delicate wire spirals hanging from winter branches and the forest eye glancing through the trees at passers-by. Each of the four collaborative events has resulted in an 'artefact' of the collaborative creative process, such as a PGCE student-facilitated school visit to a gallery or an artwork constructed using found materials as already described. Although eager to highlight the accomplishments of the creative process, we are also promoting and keen to recognise the less tangible outcomes.

Our belief is that a PGCE course is an identity-shaping device. Student teachers emerge with a new professional persona, and the qualification paves the way for a new career. When applicants for the PGCE are interviewed they recognise and proclaim their dual intentions of promoting and propagating a love of their subject and of supporting young people in developing skills for life. Successful secondary teachers come in many guises; but many of the desirable, and often under-rated, qualities of successful teachers; the ones who make real impact in terms of enhanced pupil learning opportunities and outcomes, relate to teachers' creative abilities. When faced with challenging behaviour, an alternative curriculum

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specification, or a new technological tool good teachers act creatively, and often in active collaboration with others. Thus as PGCE tutors we aim to teach creatively and teach for creativity (NACCCE, 1999).

If the PGCE programme simply 'trains' new teachers to adopt current policy as practice they can be daunted by the transitions and innovations they will face once in post which are endemic in our education system. Professional identity is not fixed, but is fluid and transformative; therefore training to teach has to be accompanied by genuine opportunities for the creation of complex and adaptable personal professional identities which transform the individual so that they have the aptitudes and abilities to take unknown future challenges. Teacher education which employs pedagogic approaches such as role-based enquiry offers an alternative approach to a training diet of theoretical principles, tips for teachers and the adoption of standardised approaches to meeting policy requirements. PGCE students need professional knowledge and understanding and practical strategies which allow them to both conceptualise and be successful in the multi-dimensional school environment. Our projects suggest that what Fleming (2008) recognises as the 'energising of the concept of creativity' can be mapped successfully onto initial teacher education.

In terms of the school curriculum Geography and Art are rarely integrated. The role-based enquiry device supported students in developing a collaborative approach. Students' reflections suggest that Art and Geography may share more common ground than would be anticipated by many teachers. Core concepts that have supported the students' collaboration are place and space; each one containing overlapping meaning within the two subjects. In their interviews students reflected on how each discipline offers opportunities to consider how the world is

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sensed and represented, both conceptually and in reality. Through dialogue and creative practice students explored the ways that the world is perceived and stereotyped, the complexity of socio-economic and physical processes at a variety of scales and the use of different media in expressing these. This outcome may help the new Geography teachers address the weakness identified by Ofsted that pupils in weaker departments 'were denied the opportunity to think about change in the contemporary world and how to imagine alternative futures' (Ofsted, 2011, p.2).

The range of cross-curricular projects conducted over four years has allowed the students to explore the value of combining their skills, knowledge and understanding. In evaluations students have stated that they see opportunities rather than barriers in continuing this collaboration once in post. In essence they see justification in drawing their subjects together in their shared goals;

- To gain a greater understanding of one's own and others' sense of place in the world and to explore means by which to articulate this;
- To understand environments and communities more deeply and exercise emotional engagement in relation to them;
- To enable and encourage expression of one's opinion about personal, local, regional, national and global issues.

Conclusion

Meeting genuine challenges in cross-curricular PGCE groups demands that students more carefully define and articulate their own specialist knowledge and skills, paying regard to the commonalities and contrasts in the ways that each subject discipline interprets and represents the world. They bring together professional attributes and their emerging subject pedagogy. We

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suggest that the integration of these experiences into the PGCE can support students' ability to meet the sophisticated and complex needs of their learners in the classroom in line with the expectations of the 2007 secondary curriculum. It may also help them to address the demand of the 2010 White Paper which states that teachers should have 'a greater degree of freedom in how that knowledge might be acquired and what other teaching should complement this core' (p.42). These projects suggest that professional learning, which has the potential to shape teaching practice, emerges when PGCE students themselves experience and reflect on the types of learning outcomes specified in curricular approaches. As such the events illustrated in this paper offer a model for an enriched provision in ITT.

In addition, the project approach offers each trainee the experience of a creative model for professional development once qualified, supported by evidence that when teachers embrace creative education in the sense of teaching *creatively* and teaching *creativity*, teachers are more engaged in their own education, teacher morale is greater and achievement rises across the board (Lamont, Jeffes and Lord, 2010).. Although it is almost impossible to determine what the role of any specific experience has been in a students' development of professional skills and attributes, it is essential for course leaders to make informed decisions about what to include within their programmes. Positive student feedback from the collaborative projects has ensured that they are maintained in the schedule; and evidence from the interviews during reinforces this decision for future years.

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