

# The complexities of creativity within Initial Teacher Education

GEETA LUDHRA



*GEETA LUDHRA is a lecturer in Education at Brunel University, West London. Presently she leads the Initial Teacher Training programme for primary education students (those training to teach pupils aged between 5-11 years of age) and teaches on the English programme. She has taught in primary schools and worked as a deputy headteacher and leading literacy advisor within local authorities.*

## Abstract

*This research explores beginning teachers' perceptions of creative practice and investigates the complexities of developing creative processes within Initial Teacher Education (ITE) and the primary classroom (pupils aged 5-11 years of age). The term 'beginning teachers' refers to trainees within the first few months of their teacher training programme. This research was conducted among 165 primary PGCE (Postgraduate Certificate of Education) trainees. This article draws on the creative experiences of beginning teachers prior to joining ITE and classroom observation data. These examples, along with models of creative pedagogies provide an overall picture of the current context and issues of creative practice within primary education. Throughout the article, consideration is given to how Initial Teacher Educators can seek to modify their own practices to support trainees better within the potentially problematic interrelationship of creativity and curriculum. The article concludes with a series of recommendations for ITE. It particularly emphasises the need for teacher educators to address the ways in which they prepare trainees to take risks with innovative approaches and the degree to which school-based mentors are either open to or 'gate keeping' creative practice from beginning teachers.*

**Keywords:** Beginning teachers; creativity; Initial Teacher Education (ITE); primary education; PGCE (Postgraduate Certificate of Education)

## Introduction

The trouble with 'creativity', as Fisher (2004, 7) observes, is that 'as with intelligence and other brain-based functions ... the concept is ethereal and elusive'. Creativity is thus, arguably, in conflict with more concrete cognitively based paradigms of learning. Einstein suggested as much when he observed, 'Imagination is more important than knowledge. For knowledge is limited while imagination embraces the whole world'. Knowledge, in other words, seeks to define, whereas the creative impulse seeks to break new ground. This is not, of course, to say that knowledge and creativity are mutually exclusive, or that they are diametrically opposed to one another. However, it is worth observing at the outset that the relationship between them is

not straightforward. Knowledge and creativity should perhaps be seen as mutually dependent, but aversely related principles.

Creativity requires transformation (Mellou, 1994). It is about the business of taking risks cognitively, imaginatively and pedagogically. This is a notion increasingly alien within an education system that is governed by league tables and tests, and more notable for its instrumentalism than its pursuit of individualism (Hodgson & Spours, 2003). It is against this complex background that the following discussion of creativity and philosophical conceptualisations of education with beginning primary teachers emerged.

## The study

Semistructured questionnaires were used to gather data from trainees in one West London institution between 2006-7. As part of a cross-curricular module of work (History being the focus subject), trainees were required to deliver a creative presentation in groups to their fellow students. Questionnaires were delivered on two separate occasions. The first questionnaire (administered at the start of the module before any taught input on aspects of creativity) gathered data on trainees' perceptions and observations of creative practice within primary teaching, their own experiences of creativity at different stages of their education and trainees' extra-curricular activities outside of the taught aspects of the course. The first questionnaire also provided space for trainees to make additional comments on creativity and primary teaching. The second questionnaire focused on the presentation aspect of the module. It gathered peer assessment data on specific aspects of the presentation and reflection data on the processes trainees engaged in during the preparation process. For the purpose of this article, discussions will draw primarily on data collected from the first questionnaire.

## What is creativity?

There are many definitions of creativity and the word originates from the Latin 'creatus' meaning 'to have grown'. It encompasses a range of broad processes, each of which can also be broken down into a number of sub-divisions. Fisher (2004) suggests three stages of creative evolution: generation, variation and originality.

There are different levels of engagement within what we may term creativity, and this very plurality highlights the difficulties attendant on approaching creativity in pedagogy in the case of beginning teachers. As beginning teachers seek to establish a set of certainties and fixed principles within which they can develop their practice and measure their success, the seemingly abstract nature of creativity and creative processes can seem rather threatening. Creative teaching is often associated with a classroom where there is little discipline or organisation and this, for beginning teachers, can present considerable management risks.

Perhaps in part, this reflects a fundamental suspicion of creativity within education, rooted in the fact that creativity is radical and challenges boundaries, whereas many models of education function on principles of conservatism and 'reproduction' in Bourdieu's sense of the term. Creativity challenges traditional notions of criticism and analysis by inverting the ratio of content and response. In traditional conceptualisations of pedagogy, which presuppose the importance of analysis and criticism, content is paramount, whereas within creative paradigms, content may be superseded by response. The conflict between these two propositions is usefully suggested by identifying the differing impulses of creative and critical thinking, which Guilford (1950) refers to as 'divergent' and 'convergent' thinking (see Table 1).

**Table 1: Creative thinking and critical thinking**

<b>Creative Thinking</b>	<b>Critical Thinking</b>
synthesis	analysis
divergent	convergent
lateral	vertical
possibility	probability
imagination	judgment
hypothesis forming	hypothesis testing
subjective	objective
an answer	the answer
open-ended	closed
associative	linear
speculating	reasoning
intuitive	logical
yes and	yes but

(Summarised from Fisher, 2004)

These dichotomies force us to question the relationship between creativity and curriculum (Boden, 2001) and this poses challenges to ITE where, as Sternberg and Williams (1996, 3) identify, 'the creative individual uses analytical ability to work out the implications of a creative idea and to test it'. It is important that beginning teachers are provided with opportunities to balance both the analytical and creative.

Genuine creative involvement in education requires a change of locus for teachers/ lecturers and pupils alike. Creative thought often requires movement away from 'safe' cognitive content into the more 'dangerous' areas of personal response, which are more difficult to define, rationalise and assess. It recognises that knowledge of content alone is insufficient (Robinson, 2001; Tighe, Picariello & Amabile, 2003) and emphasises the intrinsic value of knowledge and the role of creative processes in acquiring and extending it (Csikszentmihalyi, 1996).

## **Creativity, pedagogy and social construction**

Notions of creativity relate closely, within pedagogy to social construction. Therefore, in considering the learning of beginning teachers, it is important to pay attention to the multifaceted significance of social arenas in constructing learning (Csikszentmihalyi, 1988). Whilst the individual and individuality are central in creative pedagogy, learning is socially, not individually constructed within various cultures (Vygotsky, 1978). Within this complex situation teachers must seek imaginatively to engage the creative abilities of their students on both an individual and community basis. Where this engagement occurs through communities of learners within a creative classroom ethos, it is far more empowering as individuals are able to develop new skills from others. This creates interesting tensions as highlighted in Table 2. Lecturers, beginning teachers and class teachers all play a significant role in establishing and nurturing ideas of creativity within their own social arenas.

Creativity, the creation of effective and appropriate learning environments and the creation of discipline and age-relevant bodies of knowledge are all interlinked within pedagogy.

**Table 2: Social construction and pedagogy**

<b>Social arena</b>	<b>Considerations</b>
Social arenas within which learning takes place	How well do teacher educators prepare trainees to take managed, creative risks in the classroom? This transfer is more than simply putting theory into practice (Beaty, 2003). Do educators model risk taking through their own teaching approaches?
Social and cultural reasons for imparting creative learning	How is creativity valued from both social and cultural points of view? Robinson (1999, 7) states that young people are experiencing rapid, cultural change within a diverse society where 'the engine of cultural change is the human capacity for creative thought and action'. Is creativity perceived as an impartible quality (Lebor & Ingram, 2007), a desirable end in itself, or is it seen simply as a means by which learning is imparted? How does creativity in education link to broader societal intentions?
Social interactions between participants in the learning context	How well are notions of creativity understood between ITE, beginning teachers and school-based staff? Is creativity part of a social discourse in ITE where it is promoted amongst 'communities of learners' rather than being left to individuals to explore?
Social conditions from which learning arises	Is the act of learning seen as in itself a creative process? Do teachers/lecturers encourage trainees/ pupils to see themselves as receivers or creators of knowledge in the learning environment?
Social 'constructions' of learning	How are bodies of knowledge created? (Grossman, Wilson & Shulman, 1989) What values and assumptions do such constructs enshrine? What pedagogic constraints and freedoms do these constructs allow (Sternberg, 1988)? To what extent does creativity form a part of this 'construction'?
Social impact of learning	How well do trainees emulate what they see in university and schools in their own classroom practice? To what extent does society and different cultural beliefs promote and desire genuine creativity?

## The complexities of creativity within ITE

Beginning teachers arrive in higher education with preformed notions of subject and education based on a range of prior subjective experiences from their own education (Bourdieu in Wacquant, 1989). Such experiences will inevitably shape trainees' expectations of themselves, the pupils they teach and their core values of education. The extent to which they have experienced creativity in teaching and learning elsewhere in their life will impact directly on their use of creative pedagogical approaches. Trainees entering primary ITE arrive from a wide range of academic backgrounds and for the cohort considered in this article, details are presented in Table 3.

**Table 3: Trainees' specialist subject areas**

<b>Nature of degree</b>	<b>Number of students</b>
Sciences (Psychology, Sociology, Biology)	44
Creative Arts	24
History and Geography	20
Economics/Business Studies	15
English	13
Education/ Childhood Studies	10
Sports Science	10
Computer Technology	10
Law/Politics	5
Modern Foreign Languages	3
American Studies	3
Maths	1

Academic disciplines differ according to their pedagogical constructs and therefore trainees will vary in their experiences of learning, what they consider to be creative and how they display creativity within that subject. When training on a general primary education course trainees are then required to conceptualise creativity across a wide range of subject areas, some of which will appear very abstract to their prior experiences (subjects such as law, government and politics).

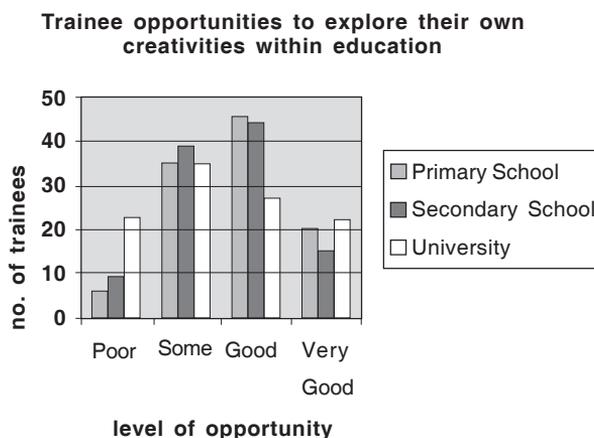
When trainees were asked to comment on the creative practices they had engaged in outside of university life, they varied hugely. Trainees expressed real apprehension about commenting on this question and many of them asked for further clarification on what is meant by a 'creative activity'. Feedback after the questionnaire suggested that they were anxious about how exciting, original or unusual their activities were in relation to their peers. What they considered to be creative, others may consider to be very ordinary. Thirty-seven out of 111 completed questionnaires provided no response to this question and approximately half of this selection commented on the lack of time to be creative because of the heavy demands on the course. Table 4 provides an outline of the 74 completed responses.

**Table 4: Creative activities outside the course**

Activity area	No. of times mentioned
Art: painting/ drawing/photography/ craft and design/ decorating	36
Playing an instrument/ singing/ dancing	34
Writing/ reading	16
Sport	16
Drama and theatre activities	6
Cooking	6
Voluntary activities within religious places	6
Computer-related design	3
Gardening	3
Travelling	2
Story-telling to their children	2
Astronomy/ astrophysics	1
Learning languages	1

Whole cohort lectures with large groups of trainees do not easily allow for creative processes to be explored. Where educators provide trainees with space for collaborative learning opportunities (such as group presentations), communities of learners with a wide range of creative experiences are able to create new and original ideas. For some, these opportunities may represent the first time in their experience and therefore signify originality for them as individuals.

To better establish some knowledge of trainees' prior experiences of creativity, they were asked to indicate on a Likert scale how they rated their creative educational experiences at different stages of education (see Figure 1).



**Figure 1: Trainees' experiences of creativity at primary (5-11), secondary (11-16) and university education**

The opportunities of access to creative pedagogic approaches and practices are thus very limited for a number of trainees ('poor' and 'some' opportunity indicated). It is therefore valuable for teacher educators to:

- study the academic backgrounds and experiences of their cohorts at interview stage and early on in their training programmes;
- explore trainees' extracurricular activities and the possible implications of these data on the way in which they deliver and facilitate their own training on the course;
- consider how trainees are grouped for collaborative activities so that they can draw on a range of creative expertise within their learning and
- consider the training schools in which some trainees are placed based on their prior learning experiences.

The large majority of trainees (86 out of 111 respondents) expressed the belief that creativity is 'very important' at primary level. Such a belief may arise from trainees' feelings that their own primary education was in some ways impoverished by the level of creativity their own teachers employed. Beginning teachers are likely to find themselves naturally distancing creativity and education, as their own experience may only have brought them together in a limited sense. Bourdieu (1990) suggests teachers and the institutions within which they work naturally tend towards conservatism and reproduction. It is therefore likely that without planned intervention during ITE, creativity within trainees' own practice will tend to reflect and reconstruct their own experiences as learners.

Thus trainees for whom creativity is personally important and who have regularly experienced creativity as part of their own education are most likely to value and employ creative processes within their own teaching.

Also significant is the extent to which creativity is valued and employed within the school contexts where they train. If, for instance, creativity is not habitually employed within the schools, beginning teachers may face frustrations and difficulties early on in their training. This can lead to disappointment and disillusionment when faced with classroom environments which are less open, or even reluctant to adopt creative approaches (Wragg, 2005). The introduction of the Primary National Strategy: Excellence and Enjoyment (DfES, 2004) clearly highlights the importance of a 'rich, varied and exciting curriculum which develops children in a range of ways'. To what extent trainees see this in practice depends significantly on the social contexts in which

they are trained. Enthusiastic, beginning teachers are eager to experiment with creative lessons but as beginning teachers may feel cautious as they do not wish to undermine more experienced practitioners who may not be receptive to their ideas.

It is therefore not simply what education at each phase prepares trainees to do, but how transposable what it prepares them to do is within the new school context where they train. For some experienced teachers, change can be threatening where old and tested ideas seem to produce the test results. In certain instances, trainees expressed concerns over teachers confining their creative ideas as they were considered to be 'too adventurous', 'unrealistic' or deemed to 'lead to bad behaviour where the children would lose control'.

## Internalisation and creativity

As established, external encounters are central in the formation of internalised individual behaviours and perspectives. Individual valuations of creativity, for instance, are socially constructed and, therefore, culturally biased. Through a series of transformations, these valuations and assumptions become implicit within the learner through the process of internalisation. The internalisation of learning cannot happen alone, but is built upon effective mediation. Adults, teachers and more able peers within the learning and social environments create the conditions which enable learners to move beyond what they could otherwise achieve alone. The creative manipulation of externality thus enables the internalisation of what would otherwise be inaccessible or incomplete learning.

The significance of these ideas to matters of creativity is evident. Learning is socio-culturally located and a conditioned dialectical activity, encoding certain 'values', including creativity. Trainees' own education and practices encode one set of socio-cultural and pedagogic values which relates *to* but is also distinct *from* the socio-cultural and pedagogic values of the fields within which they act. The meeting of such differing expectational frameworks in relation to creativity is likely to involve students in potential areas of practical and philosophical conflict.

Harold Bloom (1973), in his theory of creative development, identifies a series of six stages through which a writer develops. Each of these stages is conceived in terms of a direct relation with other writings, or models and applies equally well to this discussion of teacherly creativity (see Table 5).

**Table 5: Bloom's stages of creative influence**

<b>Clinamen</b>	Misreading or misprision: the identification of weakness or incompleteness in the model
<b>Tessera</b>	Completion and antithesis: an attempt to "complete" or make up the deficiency in the model
<b>Kenosis</b>	A movement to discontinuity: a positive move away from the model, and advance into individualism
<b>Daemonization</b>	A movement to personalisation: the initial recognition and formation of an individual "voice"
<b>Askesis</b>	Self-purgation: full movement away from the model
<b>Apophrades</b>	The return of the dead: mastery of the individual "voice" and the appropriation of the model

(Summarised from Green, 2004)

Although a simplification of Bloom's complex hypothesis, this provides a useful starting point from which to approach broader notions of creativity. The stages of development outlined by Bloom can be usefully applied to three different facets of creativity identified by Fisher (2004): creativity as generation, creativity as variation and creativity as originality. Table 6 links these facets to Bloom's stages.

**Table 6: Creative development in teachers and learners**

Creativity as generation	<b>Clinamen and tessera</b>	The beginning teacher/learner generates concepts in directly recreative tasks in response to a model – an imitation of "voice"
Creativity as variation	<b>Kenosis and daemonization</b>	The beginning teacher/learner moves on, looking to vary and develop the model
Creativity as originality	<b>Askesis and apophrades</b>	The mature teacher/learner masters personal conceptualisation and is now able to return to the model and use it as a tool with originality

(Fisher, 2004)

Bloom's observations conceptualise individual development entirely through the learner's relationship with an original model, thus returning us to the objective formation of personal, creative habits.

## Creativity in the classroom

Whereas structured and focused teaching approaches are clearly important during the early stages for beginning teachers, the imposition of too rigid a framework is ultimately stultifying and can dampen trainees' imagination. Schemes of work, such as those produced by the QCA (Qualifications and Curriculum Authority) can potentially promote very rigid teaching approaches that are governed by teaching towards objectives and assessment criteria. Barnes (2006, 234) outlines the importance of teachers having opportunities to develop their own creative talents in lesson planning rather than using published schemes so prescriptively. Naturally, many beginning teachers will find the notion of '... a creative curriculum, teaching creative thinking and teaching for creativity' as threatening.

Claxton *et al.* (1996, 59) identify the importance of developing classrooms where pupils can cultivate 'creative habits of mind' – what they refer to as 'creatogenic cultures'. These are environments where sustained creative engagement and response are encouraged and where pupils and teachers value creative and cognitive risk-taking opportunities. In creative classroom communities, pupils and teachers alike will push at boundaries. To establish effective creative communities, teachers first need to come to terms with and become comfortable with their own creativity, which Craft (2000, 105) sees as 'critical to being able to provide for others'. Clearly, the teachers' personal qualities will be significant here. Barnes (2007, 136) highlights creative teachers as being 'playful, enthusiastic, flexible, committed and involved.' He adds that their teaching will be 'personalized to the child, respectful, trusting, diverse and with a clear learning focus'.

Where educators encourage and model dialogic teaching approaches, there are greater opportunities for interactions within the classroom and for pupils and teachers alike to take risks together within the creative learning process. Alexander (2003) outlines the importance of collective approaches where learning is addressed as a group or whole class; reciprocal approaches which encourage consideration of alternative viewpoints; cumulative approaches

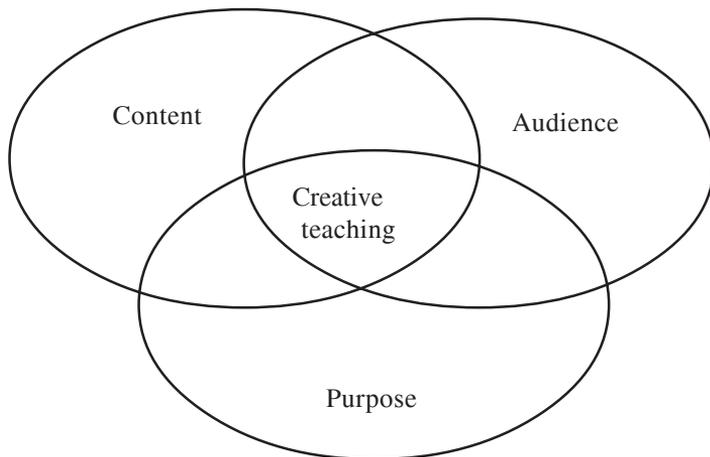
where pupils and teachers build and develop ideas and supportive approaches which allow pupils to take risks. All these factors are fundamental if creative processes are to be effectively fostered.

This also has implications for the processes of ITE, which need to provide sustained opportunities for trainees to consider the meanings of creativity and how this relates to praxis (Peers, 2004). The development of such structures within a collaborative partnership model strengthens connections between academic and practical dimensions of training, which can otherwise become divorced. Where trainees aspire for their pupils to find their wings as creative individuals they must engage them in the creative and exciting processes of taking calculated risks – safe processes in which pupils are free to explore and extend the bounds of their own creativity and imagination. With the pressures of intense, one-year teacher training programmes, teacher educators need to create both time and space for trainees to become creators in their own right. This needs to form the basis for developing creative pedagogic practices for lifelong learning – learning where pupils and teachers enjoy and achieve in their education and feel a sense of real meaning and purpose.

The development of appropriate creative pedagogies within the classroom is a demanding and often time-consuming process, addressing three essential issues:

- content;
- audience;
- purpose.

The synthesis of these three elements constitutes the essential act of creativity in pedagogy, and can be diagrammatically represented as in Figure 2.



**Figure 2: The synthesis of creative teaching**

Any pedagogic encounter, regardless of curriculum area, needs to establish a creative 'dialogue' between the teacher and the learner and, through the pedagogic context thus created, between the learner and the material to be learnt. Sawyer (2006) points to the importance of teachers' abilities to create such learning 'dialogues' through what he calls 'improvisational creativity'. This is effective teacherly mediation in response to arising pupil needs in the classroom. The burden of responsibility for the efficient operation of this dialogue, of course, rests with teachers – and it is precisely here that they need to be most creative. Choices of objective, content, activity, structure and outcome will combine to establish effective conditions for creativity. To

this end, Mellou (1994), rightly talks of how creativity results from interactions between social institutions, cultural domains and individuals. Csikszentmihalyi (1996) takes this further, pointing to the relationship between broader socio-cultural 'macroenvironments' and the 'micro-environments' within which individuals work.

Trainees must be helped to understand that creativity is not necessarily synonymous with originality. Creative pedagogic composition is a process of accretion and alteration, the storing and reassembling of salient ideas, techniques, words and images until they coalesce to form a new creative work. This is also a useful concept to apply to the ways in which pupils learn. Creativity is thus not seen as an isolated event, but more as an on-going process, an integral part of all classroom activity (see Lebor & Ingram, 2007). By targeting teaching at component elements of creativity (such as the formation of images, use of the senses and the employment of metaphor and simile within creative writing, for example) but equally in all other curriculum areas, teachers can begin to facilitate the development of creative awareness and creative skills in their pupils.

## Observation of creativity in schools

With this in mind, trainees were asked to note examples of creative observations within their training schools. Table 7 provides a full summary of their observations.

**Table 7: Trainees' observations of creative practice**

Theme	Examples	No of times
Drama	General drama activities, plays, productions	37
Art	Drawing, painting, craft and design	31
Literacy	Delivering presentations	6
	Imaginary writing	12
	Project work on an area of personal interest	4
	Descriptive writing	4
	Concept maps	1
No creative methods	These respondents noted that they had observed no creative methods in school	24
Themed curriculum days/ weeks	This is where a curriculum topic was explored in depth in all subject areas	19
Design technology	Designing and making physical structures	9
Computer activities	Maths games	8
Dance	Dance to interpret music or a theme	6
Music	Specialist music classes by external teachers	2
	Classroom-based music activities	4
Maths	Oral mental mathematics games	5
Science lessons	Science games and experiments	4
Golden time	Golden time is free time given to pupils as a reward for good behaviour.	3
Trips	Art gallery visits	2

Where trainees identify creative approaches they tend to be located within very specific curriculum domains. Perhaps unsurprisingly, the creative arts and English (albeit in the strictly delimited sense of English represented by literacy) are the areas where such approaches are most frequently employed. This suggests that creativity is present only in limited ways within primary schools and that teachers compartmentalise the areas of the curriculum that they perceive

as susceptible to creativity in teaching. This runs contrary to what Dillon (2006, 73-74) identifies as effective integrated creative practice *across* the curriculum, which promotes a 'pedagogy of connection' or 'integrativism'. Starko (2006) also addresses the dangers inherent in locating creativity solely within certain curriculum areas. If the creative practice that trainees observe is limited, this is likely to have a significant impact on their professional development. Their perceptions of what is possible will often be defined by what they see in practice.

## Conclusions and implications

In concluding, it is clear that teacher educators, beginning teachers and the schools in which trainees are placed must work in partnership to develop and understand notions of creative practice in teaching and learning. The following considerations have arisen as a result of this research:

### Creative environments within ITE

Higher education, in its role as provider of ITE, needs to consider how it facilitates opportunities and provides social arenas where trainees can explore, extend and rehearse their abilities as creators and creative teachers (Wisdom, 2006). Initial Teacher Educators must consider how – in the often unpromising environment of fixed lecture theatres with large cohorts of trainees – they can still create conditions conducive to creativity and dialogic teaching and learning approaches. As Martin (2003) quite rightly points out, comprehensive lectures do relieve departments from valuable resources and offer efficient and cost-effective modes of teaching. However, the trainees' experience of learning can become very passive. In moving towards more creative teaching approaches, it is important that trainees are encouraged to think beyond wanting 'classroom tips/ strategies for teachers' to understanding the pedagogy behind creative practice and how theoretical principles can be applied to the pupils they teach. Where teaching modules build in assessment approaches which require trainees to engage in creative practice at their own level and explain their rationale with theoretical underpinning, trainees are more likely to genuinely understand the notions and complexities of creativity.

### Exploring creativity within cross-curricular modules

"Our experience of the world is cross-curricular. Everything which surrounds us in the physical world can be seen and understood from multiple perspectives" (Barnes, 2007, 1). Cross-curricular approaches allow trainees to explore 'possibility' thinking across subject disciplines (Craft, 2000). Creativity should not be seen or delivered as a separate body of thinking within ITE and the primary classroom but be seen as an integral strand within training and teaching to allow trainees/ learners in the classroom to develop holistic views of creativity across subject domains. Cross-curricular approaches to learning provide opportunities for trainees to take pedagogical risks with creative ideas across a wide range of subject areas. Where modules require trainees to present collaborative ideas in supported and collective environments, trainees are more likely to experiment with new skills and ideas and able to appreciate creativity through the lens of a both a teacher and learner.

### Creative partnerships

In order to work within effective partnership models, it is important that higher education institutions and schools work together to develop mutual understandings of the importance of developing creative approaches in pupils and trainee teachers. Trainees need to be provided with the opportunity to explore creative pedagogies within the context of both higher education, the classrooms within which they work and draw on creative practices from aspects of their own

lives. Schools and ITE need to develop closer relationships where they develop training processes together so that an integrated sense of creativity and curriculum can be better developed and balanced.

## Developing teachers' confidence levels to 'teach for creativity'

"Teaching for creativity involves teaching creatively. Young people's creative abilities are most likely to be developed in an atmosphere in which the teacher's creative abilities are properly engaged." (Robinson, 1999, 103).

Beginning teachers first need to become confident as creative practitioners as it is only then that they can nurture the imaginations of the pupils they teach. Where such empowerment occurs, as Rogers (1970, 139) observes, it will be possible to see in new and creative ways 'the emergence in action of a novel relational product, growing out of the uniqueness of the individual on the one hand, and the materials, events, people, or circumstances of his life on the other.' The most effective means of enabling trainees to become creative pedagogical thinkers is through the exemplification of creative processes by lecturers and teachers – the regular observation of creative processes in others during their training and experimental application of such processes in their own work.

## References

- Alexander R 2003. *New perspectives on spoken English in the classroom*. London: QCA.
- Beatty L 2003. Supporting learning from experience. In Fry H, Ketteridge S, & Marshall, S (eds), *Handbook for teaching and learning in higher education: Enhancing academic practice. Second edition*. London: Kogan Page Limited. 134-147.
- Barnes J 2007. *Cross-curricular learning*. London: Paul Chapman Publishing.
- Bloom H 1973. *The anxiety of influence: A theory of poetry*. Oxford: Oxford University Press.
- Boden MA 2001. Creativity and knowledge. In Craft A, Jeffrey B & Leibling M (eds), *Creativity in education*. London: Continuum.
- Bourdieu P 1990. *Reproduction in education, society and culture* (2<sup>nd</sup> ed). London: Sage.
- Claxton G, Atkinson T, Osborn M & Wallace M (eds) 1996. *Liberating the learner*. New York: Routledge.
- Craft A 2000. *Creativity across the primary curriculum: Framing and developing practice*. London: Routledge.
- Csikszentmihalyi M 1988. Society, culture and person: A systems view of creativity. In RJ Sternberg (ed.), *The nature of creativity: Contemporary psychological perspectives*. Cambridge: Cambridge University Press. 325-339.
- Csikszentmihalyi M 1996. *Creativity*. New York: Harper Collins.
- DFES 2003. *Primary National Strategy: Excellence and enjoyment: Learning and teaching in the primary years*. London: QCA.
- Dillon P 2006. Creativity, integrativism and a pedagogy of connection. *Thinking Skills and Creativity*, 1(2), 69-83.
- Fisher R 2004. What is creativity? In Fisher R & Williams M (eds), *Unlocking creativity*. London: David Fulton. 6-20.
- Green A 2004. Creative writing. In Fisher R & Williams W (eds), *Unlocking creativity*. London: David Fulton. 37-54.
- Grossman PL, Wilson SM & Shulman LS 1989. Teachers of substance: Subject matter knowledge for teaching. In Reynolds MC (ed.), *Knowledge base for the beginning teacher*. Oxford: Pergamon Press. 23-36.
- Guilford JP 1950. Creativity. *American Psychologist*, 5, 444-454.
- Hodgson A & Spours K. 2003. *Beyond A levels: Curriculum 2000 and the reform of 14-19 qualifications*. London: Kogan Page.
- Lebor M & Ingram I 2007. Can creativity be taught? *Teaching Thinking & Creativity*, 22, 70-71.
- Martin P 2003. Key aspects of teaching and learning in arts, humanities and social sciences. In Fry H, Ketteridge S & Marshall S (eds), *A handbook for teaching and learning in higher education: Enhancing academic practice* (2<sup>nd</sup> edition). London: Kogan Page Limited. 134-147.

- Mellou E 1994. Creativity: The transformation condition. *Early Child Development and Care*, **101**, 81-88.
- Peers R 2004. Training for thinking. *Teaching thinking & creativity*, **14**, 60-63.
- Robinson K 1999. *All our futures – Report of the National Advisory Committee on Creative and Cultural Education (NACCCE)*. London: DfEE.
- Robinson K 2001. *Out of our minds: Learning to be creative*. Oxford: Capstone Publishing Ltd.
- Rogers CR 1970. Towards a theory of creativity. In Vernon PE, *Creativity*. Harmondsworth: Penguin 137-151.
- Sawyer R.K. 2006. Educating for innovation. *Thinking Skills and Creativity*, **1**(1), 41-48.
- Starko AJ 2006. *Creativity in the classroom* (3<sup>rd</sup> edition). Mahwah, NJ: Lawrence Erlbaum Associates.
- Sternberg RJ & Williams WM 1996. *How to develop student creativity*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Sternberg RJ 1988. *The nature of creativity*. London: Cambridge University Press.
- Tighe E, Picariello M & Amabile T 2003. Environmental influences on motivation and creativity in the classroom. In Houtz J (ed.), *The educational psychology of creativity*. Cresskill, NJ: Hampton Press. 199-222.
- Vygotsky LS 1978. *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.
- Wacquant LD 1989. Towards a reflexive sociology: A workshop with Pierre Bourdieu. *Sociological Theory*, **7**(1), 26-63.
- Wisdom J 2006. Developing higher education teachers to teach creatively. In Jackson N *et al.* (eds), *Developing creativity in higher education: An imaginative curriculum*. London: Routledge. 183-196.
- Wragg T 2005. Going against the flow. In Wilson A (ed.), *Creativity in primary education*. Exeter: Learning Matters Ltd.

