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## **Chapter 8**

Developing Creative Learning  
through Possibility Thinking  
with children aged 3-7

**Anna Craft, Teresa Cremin,  
Pamela Burnard, Kerry Chappell**

### **CREATIVE LEARNING AND POSSIBILITY THINKING**

Creative Learning has been, in recent years, explored by researchers (Jeffrey, 2005) across Europe. Analysis emerging from empirical work suggests that the *creative* in 'creative learning' signals involvement of pupils in 'being innovative, experimental and inventive' (ibid), and the *learning* signifies that pupils 'engage in aspects of ...intellectual enquiry'. The team suggest that within this process of intellectual enquiry, a significant dimension is around '*possibility thinking and engagement with problems*' (ibid).

In England, the early 21<sup>st</sup> century saw energy invested in conceptualising and developing both learning and pedagogy, in schools and elsewhere, through a range of organisations including Creative Partnerships (Creative Partnerships/DEMOS, 2003, Creative Partnerships, 2007), National College for School Leadership (NCSL, 2004) and the Qualifications and Curriculum Authority (QCA 2005a, 2005b), funded through a variety of government departments. Much of this work has been influenced by the statement proposed by the National Advisory Committee on Creative and Cultural Education, that creativity is 'imaginative activity fashioned so as to produce outcomes that are original and of value' (NACCCE, 1999, p29). It led to the development of a policy framework for creativity by the Qualifications and Curriculum Authority (2005a, 2005b), one aspect of which focused on a conceptualisation of 'imaginative activity' – what NACCCE saw as being at the heart of creativity - which is where this study begins.

The study reported in this chapter draws on a body of literature which posits the notion of 'possibility thinking' at the heart of creativity in education (Craft, 2000, 2001, Jeffrey and Craft, 2004). Possibility thinking is construed (Craft, 2001) as being at the core of creativity, whether individual or collective (Craft, in press). At its most fundamental, it involves the posing, in multiple ways, of the question 'What if?' - and therefore involves the shift from 'what is this and what does it do?' to 'What can I do with this?' and thus has implicit within it, the engagement of learners with what the CLASP team call 'engagement with problems' (Jeffrey, 2005). It involves finding and honing problems as well as solving them, a distinction explored through studies in primary classrooms (Jeffrey, 2004, 2005, Jeffrey and Craft, 2004).

Possibility thinking may be vital to 'high c' creativity. However the focus of our work has been on 'little c creativity', at the other end of the spectrum. This concern with little c creativity occurs in an English cultural context where in 1999 the NACCCE Report advocated that educators adopt a 'democratic' approach, arguing all can be creative, not just the highly talented, domain-shifting, few.

Concrete proposals in that report led to policy development (QCA 2005a, 2005b, DfES, 2003, 2004a, 2004b). From the early 2000s, increasing attention was paid to creativity in the curriculum. The introduction of Creative Development for 3-5 year olds in 2000 and the codifying of creative thinking skills in the national curriculum for 5-16 year olds, was followed from 2005 by at least two key curriculum reviews. Late 2005 and early 2006 the Roberts Review of creativity and the economy (Roberts, 2006) responded to by government (DCMS, 2006) further focused policy attention in creativity in all phases of education from the early years through to higher education.

Common to them all, is the commitment to 'little c' creativity (Craft, 2000, 2001, 2002), i.e. everyday, lifewide creativity as well as the creativity inherent within domains studied as subjects in schools.

Whilst possibility thinking may be just as relevant to adults as it is to children, this chapter discusses what we know about the questioning core of **children's** possibility thinking.

## **AN EMPIRICAL STUDY OF POSSIBILITY THINKING**

The Possibility Thinking Project team sought to identify and document what characterises possibility thinking in creative learning for children aged 3-7. In addition, we aimed to develop innovative methodological ways of identifying and documenting *what* constitutes possibility thinking in the learning experiences of young children, and *how* teachers foster possibility thinking as an aspect of creativity (Burnard et al, 2006).

The study, ongoing at the time of writing (April 2007), commenced in October 2004. We adopted a case study approach, working with three core teachers over time using multiple sources of data to develop understanding of each site: an early childhood centre in London, an infant school in South East England, and a primary school in the English Midlands. The teachers formed part of the research team, working collaboratively with the four researchers based in three Universities. The teachers had been featured by QCA as creative practitioners in video material. Data sources included interviews, participant and non-participant observation, video material (QCA's, and additional material collected specifically for this project), and whole group data surgery sessions using video-stimulated review and other techniques. Naturalistic collaborative enquiry approaches encouraging careful reflection on and reconstruction of practice, sat alongside observation and systematic event recording. The study sought to enrich the thinking and approaches of practitioners and researchers through systematic and reflective documentation (Stenhouse, 1975). The analytical approach was deductive-inductive. We worked deductively in using the existing Possibility Thinking framework (Craft, 2000) and the QCA framework (2005a, 2005b), looking for evidence for the key factors of possibility thinking and the presumed relationships between them from the data. We also worked inductively, identifying emergent themes and categories. In this way we aimed to 'ground' and 'support' our theory-building (Glaser & Strauss, 1967, Strauss & Corbin,

1998), benefiting from the focusing and bounding function of a conceptual framework whilst also enabling new concepts to emerge.

Our focus shifted over time through two stages, from fleshing out in Stage 1 the operational elements of possibility thinking and pedagogy, to fine-grained analysis of children's questions in Stage 2.

## **Operational elements of possibility thinking and pedagogy**

Stage 1 resulted in the identification of a close interplay between children and adults in fostering possibility thinking with children aged 3 – 7 (Burnard et al, 2006, Cremin et al, 2006). The study involved working closely with staff in the three separate settings to investigate both their pedagogic practices and children's learning. The research team identified a number of distinct but interlinked core features<sup>1</sup> of children's and teachers' engagement which are valued and fostered in each setting, in the context of an enabling environment, as follows.

- **Posing questions** – children's questions; both those posed aloud, and others, implied through actions, were documented through close observation of behaviours and deep knowledge of each individual. Children's questions were treated with interest and respect. Posing questions often involved imaginative playful thinking, children in an 'as if' space.
- **Play** - children were offered opportunities to play over extended periods, allowing ideas to develop and combine. Children travelled far in their play, highly motivated by their interests and the development of knowledge. They were often highly engaged, very serious in their playfulness, engaging closely with one another, imagining many scenes, encountering and solving diverse problems. Their play reflected what Sylva et al (1986) describe as high cognitive challenge.

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- **Immersion** - the children were deeply immersed in a loving environment in each classroom. The importance of providing love and support is also highlighted by Bruce (2004), also by writers from the psychoanalytic tradition (Winnicott, 1971; Freud, 1914). The provision of a caring, positive, benign environment in each classroom involved in the study, was notable. Yet in each case overt cognitive challenge was present, deepening imagination.
- **Innovation** – children made strong and playful connections between ideas. The adults working with them closely observed changes in each child’s thinking. They probed children’s growing understandings, offering well-chosen provocations to stimulate the children’s connection-making.
- **Being imaginative** – children engaged extensively in imagining what might be, often inventing imaginary worlds. They were decision-makers about the feasibility of ideas, content of their learning tasks, and ways of conducting them.
- **Self-determination and risk-taking** – children’s deep and agentic involvement was encouraged, as was risk-taking. They worked in safe, secure, supportive environments, expected to exercise independence in making decisions, their contributions valued. Adults encouraged learning from experience as both empowering and generative, enabling children to move with confidence into original and creative spaces.

Stage 1 then, highlighted the significance of the *enabling context*. Each site encouraged playfulness in children and teachers, encouraging self confidence and self esteem. Adults intentionally valued children’s ‘agency’, motivation, engagement. High engagement is vital to quality learning in the early years (Laevers, 1993, Pascal and Bertram, 1997). Teachers offered children time and space to have ideas and see these through. They stepped back, children’s activity leading their pedagogy (see Fig 1).





**Figure 1: Adults' approaches to Possibility Thinking** reproduced from Cremin, T., Burnard, P., Craft, A. (2006), Pedagogy and possibility thinking in the early years, *International Journal of Thinking Skills and Creativity* Vol.1, Issue 2, Autumn 2006, pp108-119

Stage 1 also demonstrated how agentic learning environments supported children's questioning (Burnard et al, 2006). It led us to explore questions more closely in Stage 2, working with video based material from the 4-5 year olds' classroom and the 5-7 year olds' classroom. The activity record (Werner, 1992, Werner & Shoepfle, 1987) was adopted to document and make explicit children's actions and engagement. Micro analysis developed, from detailed transcription of talk and activity by specific children engaged in immersed activity. We hoped that detailed documentation of verbal and non-verbal questioning would illustrate more fully ways in which the questioning core of possibility thinking is manifest in children's classroom activity.

### **Children's questions in possibility thinking**

At the time of writing (April 2007), analysis is in progress, so discussion here is necessarily provisional. Multiple video-recorded episodes are being micro-analysed by one University-based researcher. Peer checking was adopted through triangulated analysis for selected episodes. We distinguish between *question-posing* and *question-responding*, emergent from both verbal and non-verbal 'modalities'.

In exploring question-posing, children asked three different types of questions:

- Leading questions (the overall question),
- Service questions (generated in order to help answer the leading question)
- Follow through questions (often to do with practicalities – eg negotiating use of resources).

Within each, children's questions could be classified on a spectrum from broad to narrow relating to inherent possibility.



In exploring question-responding, children responded by testing, predicting, undoing, accepting, rejecting, evaluating, compensating, completing and repeating.

The analysis provided strong evidence of the significance of some operational elements of possibility thinking confirmed in Stage 1:

- **Being imaginative** – children exercised imagination in all episodes, in play with objects, ideas and each other, going beyond ‘as if’ thinking (talking about or using an object as if it represents something else), to include being aware of unconventionality, making unusual interpretations, stepping beyond the obvious.
- **Self-determination** - again evidenced in all episodes, more obvious where children had greater opportunities for child-initiated, or self-directed, activity; in our data, the older children worked within increasingly tight task structures.
- **Action/intention** - children in these micro-episodes demonstrated powerful intentionality and action flowing from this, perhaps reflecting how far, in these classrooms, they are encouraged to be self-determined. Interestingly early analysis suggests that the older children demonstrate stronger action/intention than the younger children – despite self-determination being slightly less prominent.

So far in the event analysis, the enabling context of play and immersion has been ‘inactive’, in being assumed by the nature of the episodes recorded. Also ‘inactive’ at this stage are risk taking, development and innovation; further re-analysis is ongoing to consider these to further define each and to explore their relationship to the core operational features of possibility thinking.

## IMPLICATIONS

In terms of *classroom practice*, our study so far highlights the significance of a warm and encouraging ethos, and the dilemma of balancing structure and

freedom, adult- and child- initiated learning, in classrooms. Too much structure or adult-determination can restrict children's self-determination and capacity to develop their own ideas. On the other hand total freedom may confuse, and may not enable a child to reach beyond themselves as far as they might. Finding the right balance is challenging; what was remarkable in this study however was the practitioners' skills in noticing how children respond and engage, and their capacity to document and reflect on this alone and with others, adjusting their pedagogy accordingly. From a standpoint of deep respect, noticing the multiple and multi-modal questions which children pose and respond to, seems to be a vital part of this reflective cycle. The co-participative, learner-inclusive approaches we witnessed handed control over the investigation of knowledge back to the child (Jeffrey and Craft, 2004), offering children the opportunity and authority to be innovative, and values their experiences, imagination and evaluation (Jeffrey, 2001). Our study demonstrates how such practices manifest deep involvement and high inclusion.

Integral to achieving this, it seems to us, is reflective practice, in which **teachers stand back**, to consider what children are telling them through their engagement in the classroom. It also involves **documenting these moments** in some way, as a mental snapshot, as actual still or moving images, as notes, or in special circumstances as recordings which may be later played back. Documentation enables us to note and respond to pertinent events, responses and comments. Thirdly, it means **reflecting on what we learn from both standing back and documenting**, in order to appropriately support and stimulate their learning. Standing back however also means being deeply engaged with children's learning, responsive to their ideas, engaging in what Schon (1987) called reflection-in-action. Furthermore, it often means **working with others**, to share perspectives on what is being observed. In our study, classroom teachers worked with university researchers, but in other contexts documenting learning may be done by children as much as by adults, and this shared in discussion in order to take next appropriate (and motivating) next steps in learning. It is important to consider what is done with documentation, and how it might form

part of a shared record. Strategies often used include 'post-its' and other documentation on wall space, learning logs or portfolios, and home-school records. The key point is that in each case multiple ownership is encouraged, in making and using a record of creative learning. Working with other adults in particular also goes some way toward starting a conversation which might reveal some of the differences in opinion raised during the discussion on creativity and culture earlier, about the value and purposes of creativity, and the purposes of it, both among staff but also between staff/practitioners and parents.

## **SUMMING UP**

It appears that in reinforcing children's capabilities as confident explorers, meaning-makers and decision-makers, possibility thinking builds children's resilience and confidence. Vital to creative learning, the potential for developing reflective practice with children aged 3-11 to encourage and nurture possibility thinking, seems unquestionable.

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