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An investigation of how Initial Teacher Education supports the development of primary trainees' understanding and teaching of Philosophy for children and concept cartoons.

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### **Abstract**

The research examines the impact of the university taught sessions in broadening the primary Graduate Teacher Programme trainees' conceptual base in line with The Office for Standards in Education (OFSTED) recommendations. In particular the investigation analyses how Initial Teacher Education supported the Graduate Teachers Programme trainees' understanding and teaching of Philosophy for Children (P4C) and concept cartoons as creative strategies. Philosophy for Children and concept cartoons are viewed as creative teaching strategies in the sense that they enable pupils to develop higher order thinking skills, question assumptions, encourage structured classroom talk and open up possibility thinking.

Using questionnaires, non-directive group sessions, lesson observations and course research assignments, evidence was gathered as to the use of the creative teaching strategies by the trainees in their classroom practice. Thirty nine percent of trainees implemented P4C and fifty seven percent used concept cartoons in their teaching. The results indicate that the university-based teaching programme had an impact but some trainees did not use the strategies because they felt constrained by internal school pressures and external constraints.

To improve the usage of the strategies we intend to strengthen the link with the rationale behind what constitutes effective learning by providing concrete ways in which to realize learning theory in practice.

**Key Words:** Concept cartoons; Philosophy for Children; Creative teaching strategies; Creativity; GTP; Possibility thinking; Talk; Learning; Thinking; Discussion.

## Background

This paper is concerned with an exploration of two 'creative teaching strategies' in the context of a London primary Graduate Teacher Programme (GTP). The GTP is an employment based route into teaching in which the trainees<sup>1</sup> spend four days a week in schools and one day a week at university engaged in a core taught programme. Approximately 14% of the annual 75,000 newly qualified teachers in England come through the GTP route (General Teaching Council, 2010). The Office for Standards in Education (Ofsted) notes that the GTP is successful in 'recruiting good teachers with a high level of professionalism and self motivation' (Ofsted, 2007). 'The Ofsted report on GTP national provision, reviewing the period 2003-2006, points out that an important aspect of the GTP course is the breadth of experience gained from the trainee's immersion in school life. According to our internal Self Evaluation Document from 2009 we discovered that the retention rate of GTP trainees from this primary provider after six years in teaching is 94% which suggests that the breadth of experience we offer is successful. However, the Ofsted report goes on to state that 'GTP trainees' repertoire of teaching strategies is narrow and often remains an area for development' (Ofsted, 2007).

As the provider for a small cohort of twenty six primary GTP trainees, the authors of this paper were particularly interested in the impact of university taught sessions in developing the trainees' conceptual base. The team was also keen to see how these sessions might broaden trainees' teaching strategies. In particular we wished to investigate how ITE supported the development of primary trainees' understanding and teaching of P4C and concept cartoons. The former is a strategy to develop children's thinking and encourage dialogic talking and the

<sup>&</sup>lt;sup>1</sup> GTP providers refer to trainees and not to students, in recognition of the nature of their school-based training.

latter strategy is concerned with presenting children with cartoons in order to encourage debate and reconsider their preconceptions. Such 'creative teaching strategies', the delivery team hypothesised, could put pupils at the centre of learning as problem solvers and communicators rather than as passive recipients of knowledge (Keogh, Naylor and Downing, 2003). As tutors on the GTP delivery team we focused on P4C and concept cartoons as possible mechanisms for broadening teaching strategies and moving trainees away from a transmission type approach to teaching. We envisaged that P4C and concept cartoons would develop trainees' teaching for creativity.

# What is creativity?

Craft and Jeffrey (2008) have suggested that there have been three major factors in a more recent trend towards creativity in primary education: firstly a democratic view in which creativity is seen as both necessary and inherent in humans; secondly an explicit connection made by the government between creativity in the classroom and need for creativity in the broader economy; thirdly, the generation of more creative learners and more cultural cohesion through the use of Creative Partnerships. Creativity is seen as an 'elusive concept' (Craft, 2001, p.12) and has been defined in numerous ways to such an extent that there is now, arguably, 'cultural saturation' (Craft, 2000, p.14). Ofsted points out that the term is widely used with a variety of different interpretations ranging from innate abilities to a set of skills that can be supported (Ofsted, 2010). All Our Futures (NACCCE, 1999) defines creativity as 'an imaginative activity fashioned so as to produce outcomes that are both original and of value' (NACCCE, 1999, p.29). Craft believes that 'creativity is an essential life skill which needs to be fostered by the education system' (Craft, 1999, p.137) and in later work dubs creativity as 'possibility thinking' and also containing the core elements of being imaginative, posing questions and incorporating play (Craft, 2000, p.6). Claxton, Craft and Gardner (2008) make the point that when discussing creativity, attention needs to be paid to the ends as well as the means; in short without wisdom and a Citation:

collective perspective the value of creativity in education may be debatable. Teachers' understanding of creativity tends to vary with a commonly held view that creativity is similar to problem solving. Yet others believe that creativity is associated with lateral or intuitive thinking or the fresh outlook of young children (HMIE, 2006). A report by the Scottish HMIE noted that, 'creativity is possible in all subjects and curricular areas although student teachers and class mentors report a variable awareness of the role of creativity in learning through ITE' (HMIE, 2006). Robinson sees creativity as a 'dynamic process which draws from many areas of a person's experience and intelligence' (Robinson, 2001, p12).

There can be little doubt that such a range of views on the nature of creativity comes from the mix of underlying perspectives that inform the practice of creativity in education. Given the difficulty of defining the concept of creativity, as a delivery team we aimed to encourage our trainees to see teaching for creativity as a collaborative enterprise where children learn best if they take responsibility for their own learning, by being actively engaged in the process. Our intention was to make concrete the notion of creativity by encouraging the trainees to use such strategies as P4C and concept cartoons as mechanisms to extend pupil thinking and understanding. We thought that such an approach fitted well with Black and Wiliam's idea (1998, p.16) that what teachers need is 'a variety of living examples of implementation'.

# **Creative Partnerships: A strategy to develop creativity in schools**

In order to investigate the benefits to children of developing creativity in schools we looked at the Creative Partnership scheme. The Creative Partnership scheme was established in 2002 by the then Government to fund creative professionals to work in partnership with teachers and pupils. Among the recommendations which Creative Partnerships made were that creativity should

become a core principle and be incorporated into Every Child Matters policy<sup>2</sup> (Great Britain. Parliament. House of Commons, 2003).

The House of Commons Education and Skills committee reported that Ofsted's review of Creative Partnerships in 2006 was broadly supportive of the scheme, commenting that most creative partnerships were effective and the programme helped the development of personal and creative skills (Great Britain. Parliament. House of Commons, 2006). In July 2010 Creative Culture and Education (CCE) stated that PricewaterhouseCoopers auditors had examined data on Creative Partnerships. The auditors concluded that for every £1 invested the partnership delivered benefits of £15.30 to the economy. The same survey showed that pupils involved with Creative Partnerships achieve on average GCSE grades 2.5 'better than their peers in similar schools' (CCE, 2010).

# Two specific teaching strategies

As the GTP delivery team, we decided to broaden the range of teaching strategies taught on the course, in line with Ofsted (2007, p.15) recommendations. To accomplish this task we felt that fostering two particular approaches, P4C and the use of concept cartoons, were more likely to develop teaching to promote creativity, in the sense of promoting more open ended tasks and more open questions in which the teacher and the pupils would be involved in a co-construction approach to learning (Watkins, Carnell and Lodge, 2007). Both approaches carry risks such as the danger of pupils going off task, the possibility of curriculum coverage being compromised, a possible lack of

<sup>&</sup>lt;sup>2</sup> The aim of the Every Child Matters programme is to give all children the support they need to:

be healthy

stay safe

enjoy and achieve

make a positive contribution

achieve economic well-being

inclusivity and the role of the teacher changing to be more of a facilitator rather than a transmitter of knowledge. In this sense we viewed both methods as relatively creative approaches to teaching since P4C and concept cartoons questioned 'the taken for granted', are more likely to develop higher order thinking skills, and expose pupils to other children's ideas. In short, we felt that using such strategies was more likely to develop pupils' critical consciousness and open up 'possibility thinking' (Craft, 2000, p.6) and as a result develop a more creative approach to teaching and thus widen the GTP repertoire of teaching strategies, as recommended by Ofsted (2007). We were aware from the outset however that the focus on creativity raises specific challenges such as ensuring a reasonable balance between having a structure and at the same time allowing freedom in learning, curriculum and pedagogy. In addition, as Craft (2008) suggests there is also a tension between the more managed approach of the older generation of teachers and the more evolutionary approach of a social networking generation.

# Philosophy for Children

P4C was initially developed by Professor Matthew Lipman (Lipman, 2003) and his associates at Montclair University in the late 1960s. The delivery team saw P4C as a method for developing a classroom community of enquiry. P4C also helped develop active listening, reflection and the ability to change one's views in response to other opinions. Other benefits included the encouragement of pupil dialogue and developing higher order thinking skills. The Society for Advancing Philosophical Enquiry and Reflection in Education handbook (SAPERE) suggests that there are two clear aims of P4C: one is to 'develop understanding and good judgment through critical examination of meaning of words, facts of the matter, personal feelings, views and values'; another clear aim is to build a sense of community through paying proper respect to differences of interpretation, beliefs, feelings, views and values (SAPERE, 2007). The handbook goes on to outline

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various practical strategies which can be used to carry out these aims in the classroom by developing communities of enquiry i.e. the pedagogy of P4C.

We were aware that P4C has been criticised for being a watered down version of academic philosophy (Hand, 2008) and that other critics such as Suissa (2009) argue that P4C focuses too narrowly on truth, failing to address the question of meaning in life. Fox (2003) argues that children are doers, not thinkers, and will have limited patience and perseverance with a classroom activity that demands long periods of inaction. However, as a delivery team we thought that learning could be defined as an activity of making meaning and so teachers need to provide opportunities for children to talk within a structured context in order to extend thinking and understanding. P4C we felt was one practical strategy which allowed the learners to be active and teachers to publicly present themselves as learners.

# **Concept Cartoons**

Concept cartoons are cartoon style drawings about everyday events with which children would be familiar. Naylor and Keogh (1999) developed the cartoons as a science and mathematics assessment and teaching tool particularly for dealing with common misconceptions and as a starting point for investigations. The cartoons take pupils' ideas into account and present children with a number of set alternatives as a way of beginning discussion. The minimal use of language and the use of visuals lend themselves to inclusivity. Students are encouraged to debate the offered alternatives and to give reasons for their choices in order to access their thinking processes and possible misconceptions. The discussion around the cartoons stimulates pupils to listen to each other's ideas and reconsider their own preconceptions. As with P4C, the delivery team view was that concept cartoons provided a very practical mechanism for the trainees to move away from a reception type delivery and instead encourage children to become actively involved in their own learning.

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### The research

We began the research in the autumn term 2009 when all the trainees were involved in a primary school visit to see some exemplary P4C practice in terms of teaching for creativity. In addition, trainees spent one of their training sessions discussing P4C and being involved in P4C activities so that trainees could appreciate and understand the impact of P4C on children's learning. With concept cartoons, the trainees spent a session discussing and using the cartoons as learning aids and also attended a session led by Brenda Keogh, joint author of concept cartoons. Subsequently, the GTP delivery team led similar activities with the trainees' mentors in order to raise awareness of the course content and the potential impact these strategies have on pupil learning. In terms of the university-based programme the delivery team modelled both processes for the trainees. We decided that the key research question was to investigate the impact of university-based teaching of P4C and concept cartoons on trainees' practice and the educational impact of these two strategies on children's learning. We used qualitative research methods, questionnaires and non-directive interviews to collect our data.

# **Research methodology**

At the end of the academic year 2009/10 we devised two simple questionnaires as a practical method to collect data in a standardised format. Each questionnaire asked seven questions. Three questions were closed and the remaining four were open in order to allow an opportunity for trainees to expand their responses. The questions were designed to ascertain whether the trainees had used either P4C or concept cartoons in their teaching. We also asked whether they had been formally observed using the strategies to check on the veracity of their response and also to gain another view on the success, or otherwise of the strategies. Other questions asked for the trainees to assess whether the strategies had any school impact in terms of the strategies being adopted by other teachers. Further questions asked for the trainees' views on Citation:

the benefits and limitations of the strategies in terms of pupils learning and on their own role as a teacher/facilitator. The trainees were also asked whether they would use the strategies in the first year of teaching. In addition, we were interested to find out why they had not used the strategies so we could ascertain the constraining factors in order to support future planning.

The return rate for the questionnaires was 88%, which represents 23 out of 26 trainees. Three of the trainees were absent from the session in which the questionnaire was administered. From the outset we considered the ethical principles involved in the research. To this end we gained informed verbal consent from the participants. We made it clear that no one would be identified or presented in an identifiable form. We also guaranteed anonymity in the sense that the delivery team would not be able to tell which responses came from which trainee. In addition, we assured confidentiality for all participants (Sapsford and Jupp, 1996, pp.318-319).

The data collected from the questionnaires was detailed and provided the delivery team with interesting insights into the trainees' thinking about the two teaching strategies; P4C and concept cartoons. The small size of our sample limits the generalisations that can be made from our research. However, certain aspects stand out in the responses: firstly the constraints of the workplace environment on the ability of the trainees to experiment; and secondly, the willingness of the class teacher/mentor to allow the trainees to try out the strategies. Such reluctance is understandable given the tension between creativity and the emphasis on assessment and also finding the balance between structure and freedom in learning, curriculum and pedagogy.

Using the information gleaned from the questionnaires we carried out 'non-directive' group discussion with two groups of eight trainees. In this way we were able to encourage the trainees to articulate their views in a group learning

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context. The group interviews took forty five minutes during which time the delivery team took notes on the trainees' responses. The first group had used either P4C and/or concept cartoons in their teaching. With this group the focus of the discussion centered on the benefits of the teaching strategies and the difficulties encountered. For a more balanced view, we conducted a group discussion with a second group who had not used either strategy in their teaching. The discussion centered on the main reasons why the trainees had not utilised either P4C or concept cartoons as teaching strategies. The questionnaires and the interviews were administered over a two week period in June 2010.

We also used evidence from trainees' evaluations of their own teaching, in which they had taught P4C or concept cartoons. This evidence was particularly useful when considering the strategies impact on pupil learning, in the view of the trainee. Evidence from four GTP course research assignments on P4C and concept cartoons provided additional data. The use of multiple methodological practices to gather evidence was a deliberate strategy to add depth and rigour to the enquiry (Flick, 2002, p.229).

# Research findings

The question arose as to whether the teaching of P4C and concept cartoons had any impact on the GTP trainees. Prior to the start of the programme, an audit of partner schools showed that of the 24 schools within the cohort, two schools were using concept cartoons and only one school had embedded P4C within its practice. However, as noted above both strategies were taught on the course and the partner school using P4C was visited by all students. The results of the questionnaires completed by students at the end of the academic year are detailed in Table 1 and Table 2 overleaf.

	Number of trainees	% of trainees
Had taught using concept cartoons	13	50%
Had not taught using concept	10	38%
cartoons		
Not known	3	12%

**Table 1. Concept cartoons** 

	Number of trainees	% of trainees
Had taught p4c	9	35%
Had not taught p4C	14	54%
Not known	3	12%

Table 2. Philosophy for children (P4C)

As a general observation, if the strategies had not been taught by the delivery team then it is highly unlikely that trainees would have had the opportunity to use such creative strategies as they would have been unaware of their existence.

One trainee produced a research project on pupils' writing skills in Science in which concept cartoons featured prominently. As a major part of the research she focused on developing a dialogic approach to teaching Science. To develop the children's analytical writing, she decided to use Alexander's notion of teaching talk, learning talk and interactive talk (Alexander, 2006). As part of her teaching talk she introduced a pre-teaching key vocabulary. As part of learning talk and interactive talk she introduced concept cartoons. The cartoons provided a focus, a context and a purpose for the discussion. Through the vehicle of the cartoons she encouraged the children to explain why they picked a specific solution suggested by the cartoon characters and also why they rejected other solutions suggested by the same characters.

She argued that the neutral nature of the cartoon characters allowed the pupils to take more risks, since the characters were seen as non judgmental. The concept cartoons also appeared to encourage the children to use and develop their thinking skills rather than just writing descriptively, as they had done previously. The trainee sampled pupils and assessed them against the Assessment Focuses (AF) within the Assessing Pupil Progress (APP) system (Great Britain, Department for Children, Schools and Families, 2010). The sample of children initially scored low on AF1, thinking skills and AF4, drawing conclusions, at the beginning of the Science module. On the other hand they scored well on AF3, presenting data, a more descriptive skill. After encouraging a dialogic approach over the period of the Science module by focusing on teacher talk, learning talk and interactive talk the students improved on AF1 (thinking skills) and AF3 (drawing conclusions). Using APP assessment she concluded that concept cartoons helped to develop higher order thinking skills in the children and moved pupils away from a more passive approach to thinking and learning. This trainee was also observed teaching and the lesson outcome was judged to be outstanding according to Ofsted derived consortium grading criteria. Within a group discussion of the trainee's research, the trainee stated that the lesson she had learnt as a teacher was 'the need to step back and empower her students through the use of a dialogic approach'. In her questionnaire response the trainee elaborated on this point by stating that 'children were able to probe deeper into the understanding of the topic and become more independent of the teachers' (Debernadis, 2010). The general consensus from the concept cartoon questionnaires were that the cartoons provide a starting point for thinking and had the advantage of being inclusive. One respondent stated that the cartoons were useful in 'elucidating widely held misconceptions with multiplication and division as well as in science.'

The fact that 50% of trainees had used concept cartoons as opposed to 35% of trainees using P4C is understandable in the sense that published concrete **Citation**:

examples of cartoons are readily available. The cartoons were seen as particularly useful in addressing misconceptions in Science by giving pupils a structure around which they could hinge their discussion and provoke their thinking. Although one respondent pointed out that the cartoons might limit children's thinking to believing that the solutions offered in the cartoons were the only ones available to answering the problem. Another respondent stated that 'the children thought the views expressed were options to pick from rather than possible misconceptions'. Trainees in the group discussion also commented that the cartoons gave the pupils a starting point for discussion with their peers, were very versatile and could easily be adapted for different year groups. One trainee teacher commented that 'concept cartoons give you a starting point and allow you to assess what children know.'

P4C on the other hand was generally seen as a riskier approach. When using P4C it was far easier for the pupils to go off task, resources were less readily available and the trainees had limited experience in carrying out this strategy. In addition, trainees thought that P4C was more suitable for children in KS2 rather than KS1. In questionnaire responses and in the group discussion, trainees commented on the need for more training. The trainees who had not used P4C cited reasons such as the lack of time, lack of confidence, the lack of school support for such initiatives and having no designated time on the school curriculum. One trainee remarked: 'In my school the daily structure is very much about delivering the core subjects and ensuring NC contents are covered.' Another trainee wrote: 'I wasn't 100% confident teaching it as I felt very nervous and unsure. The lesson was overly long; everything took a lot longer than expected.' Such reservations are in line with the view put forward by Ofsted 2003) that some teacher's lack of subject knowledge, as distinct from pedagogical knowledge, may make them less likely to develop student autonomy.

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In the group discussion one trainee commented that doing 'P4C was a daring step'. The trainee went on to say that P4C helped her gain a new insight into children's thinking. Another respondent commented that 'the children really enjoyed being in control of what they discussed' and a third trainee stated that 'P4C developed children's speaking and listening skills-questioning, justification, curiosity, reasoning. Children also had the chance to think collectively through talk and broaden and challenge each other's views'.

### Conclusions

The research examined the impact of the university taught sessions in broadening the trainees' conceptual base and also the impact which the strategies of P4C and concept cartoons had on children's learning. Our rationale for using the two strategies was based on enabling the trainees to engage children in high quality talk and also giving children ownership of their own learning. The trainees who had used P4C and concept cartoons have fed back that pupils were more engaged in their learning, have richer ideas, deeper understanding of concepts and demonstrate more possibility thinking. In terms of P4C and concept cartoons the trainees stated in their questionnaire responses that both strategies had limited school impact because of constraining factors such as curriculum coverage pressures and prescribed curriculum content. The trainees' views on such external constraining factors are consistent with the findings of MacBeath (2008, p.2) that teachers feel overtaxed by too many initiatives and overloaded with a prescriptive curriculum and as a result have little time for discussion.

As a delivery team we are now aware that trainees' potential for using creative strategies such as P4C and concept cartoons will be partly determined by workplace constraints such as the age group of their pupils and the willingness of their class teacher or mentor to allow experimentation as part of their learning on the GTP. Nevertheless in reviewing the impact of our current practice we have Citation:

decided to encourage the use of creative strategies by strengthening the link regarding the rationale as to what constitutes effective learning and encouraging the trainees to make their own views about learning more explicit (Berry, 2009, p. 307). We will extend the context in which concept cartoons are used beyond Science to subjects such as Mathematics and Personal and Social Education. Such an approach fits with Black and William's assertion that teachers are unlikely to implement 'attractive sounding ideas' as general principles, 'what they need is a variety of living examples of implementation' (Black and William's (1998, p.15).

## **Recommendations and Next Steps**

Berry (2009, p. 305-318) suggests that teacher educators require more knowledge than practising teachers but have little formal training for their role as teacher trainers. The development of professional self understanding therefore is part of an ongoing process which can be promoted through self awareness. As the delivery team of the GTP course we need to regularly question whether our teaching methods are effective and we see this research project as part of this process of self development. In an attempt to broaden our trainees' teaching strategies in line with Ofsted recommendations we have tried to encourage the use of P4C and concept cartoons as creative approaches. The word 'Creative' is used here in the sense that these two strategies encourage structured high quality talk and pupil participation at a time when the key strategies in Literacy and Numeracy limit pupil autonomy.

As a result of the research findings we have become more aware of the need to take account of the school based constraints in our teaching sessions. To counteract these constraints we see the need to incorporate the mentors into the teaching and learning benefits of using such strategies as P4C and concept cartoons. In addition, we have devised a pro forma, as part of our evaluative process, which aims to formally capture, in a more systematic way, the impact of Citation:

the teaching programme each half term. This research on creative strategies has also played an important role in the delivery team's ongoing professional self development by improving our self awareness through reflective practice.

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