7 Creativity in pre-school teachers' education

Maria Teresa dos Santos and Maria do Céu André

Introduction

When addressing the issue of creativity in pre-school education it is of utmost importance to consider the role of the professionals and their own education.

Studies on the lives of many creative people in different areas of expression point out that school (even high school) had little effect on their creative potential and in many cases the academic failure was evident (e.g., Einstein, Picasso) (Csikszentmihalyi, 1996).

This raises the question of the possibility to educate for creativity at the formal systems of education and represent a challenge for those dedicated to teachers' training.

Initial training courses are the first step to socialize within the profession, therefore to develop a theoretical and practical body of knowledge that makes it possible to start building a personal repertoire which needs to be permanently reconfigured throughout one's career.

In many of the educational systems, the courses' curricula (from elementary to high education) are built within a linear and disciplinary logic presenting knowledge trimmed in shelves where the contents of one area seldom has contact with another and where some are given a top position, like language, mathematics, science, while for others, mainly arts, the consideration is usually minor.

Delors (as cited in Martins 2004, p. 300) expressed: "Educational systems are formal, often accused, rightly, of limited personal development, imposing on all students the same cultural and intellectual model, without taking into account the diversity of individual talents. Increasingly tend, for example, to prioritize development of abstract knowledge, to the detriment of other human qualities like imagination, (...) the sense of the beautiful (...)".

The educational reforms of the 80s and 90s in most European countries brought some hope to the development of creativity due to the emphasis put on the constructivist perspective of learning processes, either in children or adults that would require a different approach to teaching and learning, centred essentially on the learners' active role in the process and not so much on the contents. As stated by Santos, Nuñez and Tavares (2010) this focus on content overloads students with information and therefore does not allow them to reflect on relevant issues and to think creatively.

The conclusions of the European Council meeting (2008/C - 141/10)

on the subject of promoting creativity and innovation through education and training, state:

- (..) beyond their essential tasks of ensuring the acquisition of key competences and providing the knowledge triangle with a solid skills base, education and training systems can play a fundamental role in the development of creative and innovative capacities as key factors in enhancing future economic competitiveness and promoting social cohesion and individual well-being;
- (...) starting at school level, education systems need to combine the development of specific knowledge and skills together with that of generic capacities linked to creativity, such as curiosity, intuition, critical and lateral thinking, problem solving, experimentation, risk taking and the ability to learn from failure, use of the imagination and hypothetical reasoning, and a sense of entrepreneurship; (p.17).

Europe established 2009 as the year for creativity, inspiring many educational documents with reflexes in the goals of European school curricula. In spite of this movement, nowadays, in many of those countries the political guidelines seem to go in the direction of back to basics. From top administration to the level of classroom, the raising measures of control and bureaucracy in the obsessive pursuit of school ratings, academic success, and evaluation procedures are strong constraints to the development of creativity. The key words are results and efficiency with the least resources and cost, which most of the time are attained by imposing the same rhythm of learning, a model of thought, passivity and uniformity.

The type of thinking, often encouraged in school, is especially linear and convergent while more affective and social personality dimensions are underestimated. Other components of cognition, like creativity, intuition or imagination, are less valued in terms of content and process (Martins, n.d., p. 302, quoting Almeida & Mettrau, 1994).

Sæbø, McCammon and O'Farrell (2006, p. 4) argue that "Despite the fact that educational documents make claims for creativity in education and give several reasons for implementing creative teaching and creative learning in schools, most schools retain too many features which are fundamentally uncreative (Lucas, 2001; Sæbø, 2003). Most current practice appears to reflect outmoded traditional practices emphasizing positivist views of learning driven by standardized testing".

In the opinion of Ferrari, Cachia and Punie (2009) the recognized benefits of creativity to society and individuals, the growing educational interest for the subject, the efforts to bring it to a more central position, have been "overshadowed by other demands on teachers' and students' schedules".

Therefore, some tensions and hidden agendas on the issue of creativity and teaching-learning processes can easily be found. Nevertheless,

reflection must be done on pre-school teachers' training and their essential role on the development of creativity in childhood education.

The complexity of teaching-learning processes

The pedagogical act is a complex one which requires a great number of skills from the professional who needs to be prepared for a practice that is not characterized by certainty. The improvisation is also part of teachers' activity and like a jazz musician he must be attentive and be able to read the different "instruments" and "tunes" played by children in order to have a dialogue with them at a profound level.

To develop the ability to learn with experience, to question and reflect, to discover other paths, to come up with new solutions is something which training activities should pursue.

Contributing to building professional projects that are rooted in personal development - contextualized meaning and personal significance - is a main goal of teacher training models which have, during the last 20 years, stressed the relevance of preparing reflective practitioners, who are able to understand, relate, organize, and give meaning to what they do, adjust to multiple demands of modernity and especially overcome the challenges of learning to think and learning to learn (Gómez,1992; Perrenoud, 1993; Schön,1992; Silva, 2008; Woods, 1991; Zeichner, 1992).

Usually, creativity has been a peripheral area of study in teacher training curricula, either in initial or in-service courses and when it is considered, the content-centred perspective and the methodological strategies used, lead frequently student teachers to receive information passively, mechanically and de-contextualized from the realities of their future practice (Oliveira, 2011; Santos, Nuñez & Tavares, 2010; Silva, 2008).

The fact that teachers have a long socialization in schools (first as students and then as teachers) is also seen as a constraint to creativity development and has contributed quite often to the "weakening of intellect" and consequently to alienation and lack of reflection from teachers on their professional field (Woods, 1991).

In such a scenery, how can we ask a teacher to be able to open the disciplinary boundaries of school knowledge, and transform it making the integration, the (re) connection or to show openness, flexibility to the multiple problems he/she will be facing during his/her practice.

The conclusions of the European Council meeting (2008/C 141/10, p. 17) stress the relevance of the teacher's role "in nurturing and supporting each child's creative potential (...) by exemplifying creativity in their own teaching" and exerting teacher education institutions to contribute to the development of the knowledge and skills seen as crucial.

It seems evident for many researchers that if, in their training, teachers

were encouraged to be creative and aware of the importance of creativity in the formation of the person as well as having known pedagogical practices that stimulate creativity, the more easily they can apply those competences to their class and school environment (Castro & Fleith, 2008; Cramond, 2008; Fryer, 1996, 2008; Oliveira, 2011; Prado, 1987, 1999; Romo, 1997, 2008).

Oliveira (2011) supports the view that the engagement of creativity in the learning process of teacher training will form not only someone with a creative vision and an agent of change, but also a person of ethical sensitivity and political consciousness.

However, as Silva (2008) reminds us the transfer of knowledge acquired in training to the practical context of performance constitutes one of the most difficult problems to overcome in the training of teachers in general and though it is believed that such an achievement is possible, there are limitations.

The pedagogical arena is a complex field of work where most of the problems of the political, economic, social and cultural contexts are reflected and many aspects of the different levels - from the educational system to the class - can interfere in the teachers' desire to create.

In a fast developing world which demands many different skills from teachers, there is a special need to create conditions for their personal self-improvement linked with their professional development. This requires time for inner reflection, psychological maturity that makes it possible to look at others in a more open, intuitive, free way, especially the young children they are going to work with.

In this perspective, Alencar (1996) cit. in Martins (n.d.) states that there is a need to rethink the system of education and build a platform for creativity, in which the skills related to creative thinking and strengthening of personality attributes that foster creative expression must be developed, as well as to immunize students against diseases that can undermine their creative energy, like fear of failure or apathy.

Developing creativity in pre-school teachers' education

Several authors refer to the influential document of the British National Advisory Committee on Creative and Cultural Education (NACCCE, 1999), which fed into the review of the United Kingdom National Curriculum (Jeffrey & Craft, 2004; Sæbø, McCammon & O'Farrell, 2006; Tracey, 2011)

The NACCCE report (1999) makes a distinction between teaching creatively and teaching for creativity. Teaching creatively is related to teachers' use of imaginative strategies to make the learning process more interesting and appealing, while teaching for creativity focuses on

intentional forms of developing young people's own creative thinking.

Jeffrey and Craft (2004) question such distinctions, since they support the view that teaching for creativity can occur spontaneously, and suggest that the focus should be on creative learning rather than on creative teaching. Accordingly, the assumption that the two processes of teaching creatively and teaching for creativity are closely related, needs further explanations focused not only on the studies which examined some established features of creative teaching such as those developed by Woods (1990, cit by Jeffrey & Craft, 2004) like innovation, ownership and control and relevance, but also a focus has to be put on the effects of creative teaching on learners as most recent research emphasizes.

The authors present a case study of an early years' school they have followed and where both concepts were evident: "The approach highlights and prioritises the 'agency' of the learner in the teaching and learning process and might be contrasted with a 'child considerate' approach (Jeffrey 2001a) that views the child as an organism that needs nurturing rather than being democratically included. We suggest that teaching for creativity could involve generating a 'learner inclusive' pedagogy, where the learner is encouraged to engage in identifying and exploring knowledge." (Jeffrey & Craft, 2004, p. 14).

As stated by Sæbø, McCammon and O'Farrell (2006, p. 5) quoting Craft (2005, p. 131) "Creative teaching is regarded as a key component in all good teaching, but it does not guarantee that the children are developing their own creative potential nor does it guarantee that a teacher's own creativity is applied with clear ethical guidance; creative teachers may, in fact, diminish the creativity of others around them, or possibly do great harm, either to students or to other teachers".

In order to avoid the dangers figured by the authors there is a need to provide opportunities to engage teachers in creative learning themselves so that they might understand the processes involved.

Lucas (2001), cit. by Sæbø, McCammon and O'Farrell (2006) sustains that in order to foster creativity in schools two areas need to be developed: teacher's understanding of learning how to learn, respecting the unique individuality of the learner and a more structured intervention by creative mentors and teachers.

As expressed by Fisher (2004, pp. 14-16) cit. by Sæbø, McCammon and O'Farrell (2006, p. 6) "to transform education to foster creativity, it is necessary to build creative capacity both in students and in teachers as individual learners. The most important keys to individual creativity are:

- Motivation which is the key to creativity. The things we want to do, we feel passionate about; they engage us and are fed by internal encouragement.
 - Inspiration which means being inspired by oneself or by others,

getting fresh input and lots of knowledge and stimulating curiosity by being more observant and asking more questions.

- Gestation that is allowing time for creative ideas to emerge. We need time to think things through on conscious and unconscious levels. Creative insights often result from processes that are unconscious and lie below the level of awareness.
- Collaboration because we normally are more creative when we have others to support us. The learning environment in school needs to open up for ideas to be created, examined, shared and tried out, and for this we need creative partners."

A common feature to most of these authors is the relevance they put on the person as a learner (either teacher or child) in a context that allows for the relation with others in a stress-free, inspiring environment where creativity is reflected in everyday life as a way of thinking and acting, which brings joy from every individual and collective achievement and celebrates diversity.

Learning processes are a result of personal appropriation and reconstruction where mind and body (as taught by ancient Greek philosophers) have to work together. If this is recognized easily in young children, the same is not the case for adults, thus teacher training courses tend to underestimate such relationships for the education of a sensitive aesthetic and ethic being, overvaluing the technical aspects of the profession.

Kleiman's research (2008, p. 216) emphasizes that the experience of creativity in learning and teaching among lecturers of higher education courses, show a perspective essentially linked to the importance of creativity - "creativity-as-transformation" and in relation to "personal and/or professional fulfilment" and adds: "Another potentially significant finding is that whilst for the institution (and even the government) creativity is the means to an essentially productive (and profitable) end, for those engaged at the whiteboard, engaging in creative processes and producing creative outcomes is very much about personal and professional fulfilment, and escaping from or at least resisting the constraints and frustrations of daily academic life."

Providing rich environments for the improvement of pre-school teachers' creativity during initial and in-service training is a challenge for those responsible for curricula organization and development. Having as a source the knowledge and understanding of universal and national cultures' heritage, as well as the knowledge of development and learning and the different means of expression will make possible the emergence of original activities and products, where processes should play a central role.

Promoting a sense of community is also of undeniable value for the pleasure of creating together where risk taking can be shared and therefore reducing the anxiety connected with the fear of failure and that of academic and social comparison, so much cheered in our societies.

Such an approach will require adults and children that feel free to express in a variety of languages and feel confident about their own potential to uncover, transform reality and bring to light new possibilities of interpretation.

All these principles do not happen in a void but in physical spaces which should be taken into account and Tracey's study (2011, p. 6) based on the experiential module Creativity in Practice for Educators shows the relevance of the spaces in which creativity occurs and where participants are offered opportunities to engage in arts-based activities to develop the understanding of their own creativity, as well as that of their practice.

Inspired by Boden's framework (2004) of creativity as a process of engaging with conceptual spaces, Tracey (2011, p. 6) presents the referred author differentiation between "three types of creativity: combinational, which involves the juxtaposition of dissimilar concepts; exploratory, which refers to conceptual explorations of the thinking styles and frameworks of fields of knowledge and enquiry; and transformative, which results when the process of exploration generates new ways of thinking and ideas".

The activities promoted within this training module revealed that teachers gained in confidence, in awareness to plan and organize creative activities in relation to the physical learning environment (real or imaginary) and expanded their reflection, through a variety of arts-based resources like collage, creative writing, three-dimensional artwork such as self-boxes (in which images are gathered to represent aspects of teacher identity, Leitch, 2008, cit. by Tracey, 2011). Tracey suggests also that for initial teacher education opportunities for the exploration of digital spaces should be offered.

The data collected from this research has shown an increasing sense of self-control among those involved as expressed by Tracey (2011, p. 15) "(...) it appears that the teachers are coming to see themselves as quilt makers, responsible for constructing and managing spaces for creativity in their practice".

It is this kind of self-confidence that teacher training proposals have to be able to promote, thus generating an educational culture for creativity which can overtake the traditional way of pedagogical work still pervasive in most schools where processes and products of creativity are less valued compared with the results of reproduction of knowledge (Ferrari, Cachia & Punie, 2009).

Among researchers there is a great unanimity regarding the fundamental role of teachers towards the aimed changes in formal education contexts, usually more conservative and rigid than non-formal settings.

In spite of the increasing knowledge and understanding of creativity in

education, both theoretical and practical, the multidimensionality of the concept, the specificities of individuals and social and cultural contexts where it occurs, the diversity of languages and media through which it is expressed, there are common traits and convergent ideas about the features that are essential for the promotion of creativity.

Personal characteristics, knowledge, media and contexts have to be taken into account in educational settings and the main goal, either for adults or young children's education will be to develop positive attitudes to learn in unconventional ways and keep an inquiring mind towards what happens around them.

Burnard et al. (2006) reveal the importance of an adult-child coparticipative approach that illuminates what they define as "possibility thinking" - a type of thought that answers the question "what if" and generate a great number and diversity of ideas. "Possibility thinking" guides action and leads to a strong engagement of children and adults through questioning, play, making connections, being imaginative and selfdetermined.

It is then put into evidence that a content approach to teachers' training curricula is a very limited one and a move is needed towards a more global and integral perspective centred on pre-school teachers learning and reflective processes to promote student teachers' and professionals' personal development while developing a wide range of pedagogical knowledge and skills.

Cremin, Burnard and Craft's (2006, p. 11) study case on pedagogical approaches to possibility thinking in young children has shown a kind of "invisible" pedagogy where "the teachers positioned themselves off-centre stage and promoted learning through the children's self-chosen activities and interests within broadly conceived subject domains. Whilst not afraid to use direct instruction and teacher-led work where necessary, they sought to balance teacher and child-led initiatives, explicitly fostering a sense of possibility and agency in their young learners. In addition, they created the time and space for children to explore their environment and the materials provided, encouraging both actual and mental play (Joubert, 2001). The features of this distinct pedagogic practice appeared to promote and foster the children's full engagement in problem solving - problem finding activities and thus supported their development as young possibility thinkers."

Such a pedagogical model should also be adopted in most higher education contexts that aim to form and educate pre-school teachers, given the role they are called to perform in young children's development.

Final reflections

In his book "Out of our minds: learning to be creative", Ken Robinson (2011) identifies three related tasks in teaching for creativity: encouraging, identifying and fostering.

The first step in teaching for creativity in any field is to encourage students to believe in their creative potential and to promote their confidence to try.

The second task is to support students in identifying their own creative strengths, in other words to discover their creative capacities.

The third role for the teacher is to foster: this means to help students in developing skills (like self- confidence, independence, etc.) that enable them to be more effective in dealing with problems and objectives.

The overwhelmed load of information and high pace of modern societies can be strong constraints to creativity development.

Time and space need to gain other dimensions if the desire is to form educators who are able to relate and connect with others and with different domains of knowledge – theory and practice; educators who can think in a divergent way, who are not afraid to experiment and improvise, who can visualize their profession not only as science and technique but as art, where many pedagogical situations can be lived with elegance, beauty and enthusiasm which are characteristics of all creative processes.

Creativity calls for holistic thinking that mobilizes what is inside and what is outside both of the individual and the formal educational institutions, thus there is a need to promote a rich cultural learning environment that provides the field for the learner's potential development.

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