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# **Developing Young Children's Creativity Through the Arts:**

**What Does Research Have to  
Offer?**

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# **Developing Young Children's Creativity Through the Arts: What Does Research Have to Offer?**

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## **Introduction**

In September 2000, the Arts Council of England commissioned the National Foundation for Educational Research to carry out a 'scoping exercise' into creativity and child development. The intention was to undertake an exploration of the field, rather than a detailed literature review.

This paper sets out to provide an overview of the current state of research and thinking on the relationship between the arts and creative development in young children (aged three to six years). The main purpose of the exercise was to identify issues, gaps and priorities for further research.

This was a complex and challenging task, given the broad-ranging nature of the enquiry and the limited time in which to carry it out. There were many possible lines of enquiry, and each one began to grow offshoots which quickly intertwined with others. It was therefore necessary to adopt a fairly strict, logical process for searching and selection in order to keep focused on the main issues. This paper and accompanying bibliography summarise the outcomes of the process.

## **Why look at this now?**

Creativity is increasingly gaining recognition as a human characteristic that can and should be developed through education. It is viewed as important not only for personal development and fulfilment, but also for its contribution to economic growth. The recent report from the National Advisory Committee for Creative and Cultural Education (Robinson Report, 1999) made a number of detailed recommendations designed to support the recognition and development of creativity within the formal and informal education system.

Creativity has recently been given official recognition as one of the overarching aims of the curriculum in English schools.

*The curriculum should enable pupils to think creatively and critically, to solve problems and to make a difference for the better. It should give them the opportunity to become creative, innovative, enterprising and capable of leadership to equip them for their future lives as workers and citizens. (QCA, 1999b, p.11.)*

There have been a number of recent developments in educational provision for young children, as part of the Government's National Childcare Strategy. These include Early Years Development and Childcare Partnerships, Early Excellence Centres and Sure Start. The Government has published a curriculum for the early years of education (QCA, 1999a), and has defined a 'Foundation Stage' for children aged from about three to six years.

The early years curriculum is divided into six main areas of learning, one of which is creative development. According to guidance produced by the Qualifications and Curriculum Authority (1999a and 2000) this area includes developing children's knowledge and understanding in art, music, dance, role-play and imaginative play, and helping them to make connections between areas of learning.

Early childhood may be considered to be a crucial time for the development of creativity. Yet there is still much to learn about the components of creativity and how a child's early environment, opportunities and experiences serve to enhance or stifle creative development.

### **Why focus on the arts?**

The association between the arts and creativity has given rise to much debate. The Robinson Report (1999) suggested that, while there were strong links between the expressive arts and creativity, viewing creativity as solely or mainly the province of the arts was unhelpful because it could lead to a denial of the role of creativity in other areas, such as science, mathematics and business.

It is not our intention to question the role of creativity in areas outside the expressive arts. However, the Arts Council of England has a legitimate interest in considering the role of the arts in fostering the creative development of young children, and this formed the focus for the scoping exercise described below.

### **What did we do?**

The scoping exercise entailed a search of bibliographic databases listing educational and psychological research literature. We used a range of keywords to search for literature on creativity, arts education and young children (further details of the searches are given in the appendix). The initial searches revealed a practical problem for the scoping exercise: although using a range of keywords was helpful in ensuring that relevant material was not overlooked, it generated so much material that we were in danger of becoming overwhelmed. We therefore decided to focus on the more recent material. Nevertheless, even limiting most of the searches to material produced after 1988 generated over 1200 entries.

In order to select the literature of most pertinence to the study, we decided to focus on research and theory relating most clearly to young children's creativity and creative development. This meant that most purely descriptive, 'opinion', and policy pieces were excluded. Because the exercise was concerned with creativity in a broad sense, we excluded studies of children's artistic development (e.g. comparing the different approaches to drawing adopted by 'novices' and 'experts'), and also studies focusing exclusively on highly creative individuals (e.g. retrospective studies of the lives of people who 'made a difference' in their field). Studies of young children's creativity in relation to specific non-arts contexts (such as science, mathematics or computing) were also excluded from the selection.

Each of the 1200 entries were considered in turn, and 67 articles, reports and books were selected for further consideration. (These are described in the accompanying bibliography.) In most cases, we worked from the abstracts contained in the databases, but we also obtained some of the most influential and relevant material for more detailed examination.

## **What did we find?**

The scoping exercise identified a wide range of material dealing with a variety of issues and themes. These were organised into three main categories, namely: theories of early childhood and creativity; individual research studies; and theory into practice. The main areas covered in each of these categories are summarised below.

### **Theories of early childhood and creativity**

The material identified in this category focuses on theory and the findings from major reviews of research. It included literature dealing with the following areas.

- An examination of different approaches to early childhood education in relation to their emphasis on creativity (e.g. High Scope, Montessori, Vygotski, Reggio Emilia).
- Theories of intelligence and cognitive development and their relationship to creativity (e.g. Gardner's theory of multiple intelligences, Sternberg's triarchic theory of thinking).
- Approaches to arts education and their implications for creativity (e.g. Discipline-Based Arts Education, Arts Propel).
- Reviews of research evidence on the 'transferable effects' of arts education.
- Theories and overviews of research into creativity, creative development and enhancing creativity through education.
- The assessment of creativity in young children.

### **Research studies of creativity and early childhood**

This second category of material comprised accounts of research into creativity, early childhood and the arts. The purposes and methods of these studies varied, as did the art-forms involved. However, the most common art-forms investigated were: music; drawing; clay; and, in one case, puppet theatre.

Most of the research focused on one or more of the following areas.

- Documenting the outcomes of interventions aimed at teaching young children creative skills (some of which used an experimental design whereby the results of a treatment group were compared with those of a control).

- Documenting the outcomes of arts programmes/resources for children's creativity.
- Assessing specific aspects of young children's creative abilities (e.g. children's ability to use metaphor or to draw imaginary objects).
- Comparisons of creativity in different groups (e.g. comparing the capabilities of older and younger children).
- Looking at the relationship between aspects of creative process and outcome (e.g. correlating children's private speech and creative products)
- Assessing the validity and reliability of creativity tests.

### **Theory into practice**

The scoping exercise deliberately focused on research and theory, rather than on accounts of practice. Purely descriptive pieces were therefore excluded, except where the authors took a more analytic or evaluative approach, and/or where the content was considered to be of particular interest to the scoping exercise. The following types of material were included in the third category of 'theory into practice'.

- Reflections from practitioners about their experience of adopting Reggio Emilia approaches in their own classrooms.
- Practical guides designed to help teachers and early childhood workers to develop young children's creativity.
- Practitioner accounts of strategies considered to be successful in developing creativity in young children.

## **What are the main issues arising from the scoping exercise?**

The selected pieces relate specifically to the intersection of creativity, the arts and young children within educational settings.

The main issues arising from the scoping exercise are as follows:

- What is creativity?
- How does the concept of creativity relate to young children?
- How does creativity develop as children mature?
- How is creativity assessed?
- Encouraging creativity: what is the role of early childhood settings?

### **Defining creativity**

A quick overview of the field leads to the conclusion that creativity is not easily defined and that there is considerable debate about the definition of creativity. So our first issue concerns the definition of creativity and its application to young children.

Creativity entails the 'three P's' of a *person* engaging in a creative *process*, which produces a creative *product* (Barron, quoted in Dust, 1999). Originality is usually identified as one of its key characteristics. Originality may be described as the ability to come up with ideas and products that are novel, if not unique. Most theorists also agree that the creative process involves imaginative activity, the ability to generate a variety of ideas (productivity), problem-solving (application of knowledge and imagination to a given situation), and the ability to produce an outcome of value and

worth. Some would go further, arguing that the product must be correct, practical, useful, and/or of artistic quality (Mar'1, quoted in Dust, 1999).

Where the definitions of creativity diverge most strikingly is the extent to which their proponents are attempting to identify creativity as a generic human characteristic, or to define what makes highly creative people special and different from others. This is the distinction between what the Robinson Report (1999) calls the 'democratic', as opposed to the 'elite' definition of creativity. Gardner (1999), clearly adopts an elite definition of creativity when he argues that truly creative people are those that make a difference to a domain (e.g. science, social science, music or art). This type of 'Big C' creativity is reserved for very few individuals.

Many of the writers on creativity are concerned to differentiate the concept of creativity from that of intelligence or talent. This is a complex argument, and there is not space in this short paper to enter into the debate in any depth. Briefly stated, creativity has been shown to be distinct from intelligence (children scoring high on intelligence tests are not necessarily highly creative). Talent usually refers to the possession of a high degree of aptitude and skill in a given area (such as music or mathematics), but would not necessarily imply a high degree of originality or an ability to demonstrate creative abilities outside the specific area.

### **Creativity in young children**

When considering young children, it is appropriate to adopt a broad, democratic definition of creativity. In this way, each child can be considered to have creative potential and to be capable of creative expression (although not to an equal extent).

For young children, the criterion of uniqueness in relation to a domain is inappropriate. It is important to consider each child's creative abilities in relation to their personal stage of development. For example, a young child's work may not be considered original when judged against larger norms, but may be adaptive and original for that particular child and/or in relation to children in the peer group (see Dust, 1999 and Meador, 1992). Meador quotes Amabile who argues that the main reference point for judging creativity in young (pre-school) children should be the children themselves: *'In order to be novel, the words or act must be unique "within the child's repertoire of behaviour." The criterion of appropriateness is met if the action is "pleasing or communicative or meaningful" to the child.'* (Meador, 1992, p.164.) Malaguzzi also places the emphasis on the views of children: *'They are the best evaluators and most sensitive judges of the values and usefulness of creativity.'* (Malaguzzi, 1993, p.75.)

Another suggestion for adapting the notion of creativity to suit young children is made by Tegano *et al.* (1991). They argue that when judging the creativity of young children, it is appropriate to place more emphasis on the creative process than on the product: *'Because young children do not always have the skills to make a creative product.'* A similar point is made by Malaguzzi who says: *'Creativity becomes more visible when adults try to be more attentive to the cognitive processes of children than to the results they achieve in various fields of doing and understanding.'* (Malaguzzi, 1993, p.77.) This is an interesting comment coming from the driving force behind the Reggio Emilia approach, which has impressed so many people with the quality of creative 'products' generated by young children.

## **How does creativity develop?**

Some of the pieces of research identified in the scoping exercise have considered the way in which creativity develops in children. Most theories of child development view the young child as highly creative, with a natural tendency to fantasise, experiment and explore their physical and conceptual environment. However, this high level of creativity is not necessarily maintained throughout childhood and into adulthood. For example, Meador (1992) presents evidence that creativity (as measured by divergent thinking tests) declines when children enter kindergarten, at around the age of five or six. There would also appear to be a 'break' in creativity at the time of puberty (Albert, 1996).

Runco (1996) summarises the views of a number of theorists on developmental issues in creativity. He explains that there is disagreement among them about the stage at which children can be said to be truly creative, and that this relates to the definition of creativity being adopted. For example, while many would argue that creativity has its origins in early childhood, some argue that true creativity (i.e. the ability to be original in relation to the domain) does not appear until adolescence. Runco explains that longitudinal research on developmental trends in creativity suggest both continuities and discontinuities throughout an individual's lifespan. He argues that this uneven development may be related to the nature of creativity as resulting from a complex of attributes. Uneven development may result from the fact that certain traits and talents within the complex develop at different rates and are influenced by each individual's environment and life chances.

## **How is creativity assessed?**

Creativity may be assessed informally by parents and early childhood workers, or more formally using tests or expert judgements. There are a variety of tests in existence, but the most common are the so-called 'alternative uses' test, whereby the test subject is asked to think of as many uses as possible for a common object, such as a brick (Torrance, 2000). These tests assess divergent thinking and are usually scored in relation to both the quantity and the quality (novelty) of the answers. Runco (1990) argues that such tests, while not claiming to assess creativity itself, are useful in the *prediction of creative performance*. They have also been shown to be appropriate for use with young children.

An alternate strategy for identifying creativity, sometimes employed in research, is for experts to judge the creative products of young children, using specific criteria. This approach is most commonly used to evaluate the impact of a particular initiative. Researchers have also used videotapes or direct observation to study children's creativity (for example by observing children engaging in imaginative play).

## **Encouraging creativity in young children**

Most writers on creativity would seem to agree that it is possible to encourage or indeed to inhibit the development and expression of creativity in young children. The finding highlighted by Meador (1992) that children are apparently more creative before they enter kindergarten would seem to lead to the question of whether this is a natural consequence of maturation and socialisation, or whether the kindergarten experience somehow caused the observed decline.

In order to consider the way in which creativity may be fostered in educational settings, it may be helpful to identify some of the components of creativity in young children. There is clearly more involved than purely cognitive functioning. Hill (1992) refers to the work of Rhodes, who identified four components of creativity, namely: people – their traits and characteristics (including such aspects as gender and family background); the thinking processes they use; the products or outcomes they produce; and the nature of the environment in which creativity occurs.

Russ (1996) sets out a model to explain the relationship between creativity and affective (i.e. emotional) processes. While too detailed to reproduce in full, this model suggests that the following three elements are involved:

- **global personality traits**, such as self-confidence, tolerance of ambiguity, motivation and curiosity;
- **affective processes**, such as affective fantasy in play, pleasure in challenge; involvement in tasks and tolerance of anxiety;
- **cognitive abilities** involved in creativity, such as divergent thinking, ability to ‘transform’ thinking (e.g. by reordering information or shifting thinking ‘sets’); persistence, sensitivity to problems, breadth of knowledge and evaluative ability.

The literature contains numerous examples of advice and guidance for those interested in enhancing children’s creativity. Mellou (1996) suggests that young children’s creativity can be nurtured through educational settings in three respects: the creative environment; creative programmes; and creative teachers and ways of teaching. A brief overview of recommendations in relation to these three aspects, is given below.

Fundamental to the **creative environment** is the encouragement of children’s play. Play is strongly featured in many of the discussions about creativity in young children, and indeed older children and adults are often encouraged to engage in playful thought processes in order to facilitate creative thinking. Imaginative play (including role play) and free choice of activities (designed to encourage selection, intrinsic motivation and persistence) would seem to be key components of the early childhood setting in relation to creativity (see Mellou, 1994a; Tegano *et al.*, 1991; Prentice, 2000; Russ, 1996). Mellou (1996) quotes Lytton’s analysis of the opportunities for creativity in a nursery school environment, drawing attention to the open-ended nature of activities such as dramatic play, painting or modelling. Prentice suggests that: *‘For creativity to flourish in an educational setting, it is necessary for learners to be actively involved in the process of their own learning.’* The stimulation offered by the child’s physical environment is also important, as Runco (1990) points out. Another of the issues highlighted in the literature is the need for children to be given sufficient and sustained periods of time in which to develop creative projects (Edwards and Springate, 1995; Malaguzzi, 1993; QCA, 2000; Robinson Report, 1999).

Can creativity be taught through **creative programmes**? The results from research in this area would seem to suggest that it is possible to enhance children’s creative skills through specific teaching programmes, including arts-based ones (see Scope, 1999). However, conclusions from two reviews of research into the transferable effects of arts education have concluded that the impact of arts programmes on children’s creativity is not yet proven (Winner and Cooper, 2000; Sharp *et al.*, 1998).

Nevertheless, a small number of recent intervention studies identified in this review claim to have found positive effects of arts programmes on creativity in young children (Anderson and Yates, 1999; Mendecka, 1996; Ulfarsdottir and Erwin, 1999). The apparent contradiction probably arises from a lack of sufficient high-quality research, and the possibility that arts activities do not necessarily lead to enhanced creativity. It appears important to be specific in relation to the aims of the arts programme in relation to creativity and to consider the suitability of the measures used to assess whether the desired effects have taken place.

**Creative teachers and creative teaching** are key components in fostering creativity in young children. Many writers (such as Craft, 2000; Edwards and Springate, 1995; Mellou, 1996; Tegano *et al.*, 1991; Runco, 1990) highlight the role of the teacher in providing the optimum balance between structure and freedom of expression for young children. It is argued that teachers and other early childhood workers can encourage creativity by behaviours such as asking open-ended questions, tolerating ambiguity, modelling creative thinking and behaviour, encouraging experimentation and persistence and praising children who provide unexpected answers. Malaguzzi (1993) makes a number of observations about the optimum conditions for developing creativity in children's daily experience, including an emphasis on interaction with adults and peers: *'The most favourable situation for creativity seems to be interpersonal exchange, with negotiation of conflicts and comparison of ideas and actions being the decisive elements.'*

Adults, therefore, can act as supporters and coaches, facilitators and models of creativity for children. On the other hand, adults can also stifle opportunities for creativity by being overly didactic or prescriptive (Tegano *et al.*, 1991; Malaguzzi, 1993), by eliminating fantasy and by having limited expectations about what young children are able to achieve (Prentice, 2000; Torrance quoted in Mellou, 1996).

### **The role of professional artists**

The QCA guidance for the Foundation stage (QCA, 2000) suggest that, in order to facilitate creative development, young children should have opportunities to work alongside artists and other creative adults.

In the pre-schools of Reggio Emilia, educators encourage young children to engage in extended projects. Children are encouraged to use drawings as a 'graphic language' to record their ideas, feelings and observations. A key part of Reggio Emilia settings is the existence of spaces which are 'rich in materials, tools and people with professional competencies' (Malaguzzi, 1993). These spaces, known as 'atelier', are designed to be places in which children's different languages can be explored by them and studied by their teachers and others in a peaceful atmosphere.

## **Gaps and priorities for further research**

This section sets out to identify some of the gaps in the research resulting from the scoping exercise and to suggest some priorities for further research. These could form the basis for consideration by the Arts Council of England in partnership with other agencies. We have identified six areas which, although by no means exhaustive, seem to be the most clearly related to the current brief.

The scoping exercise found very little recent material originating in this country. Although research and theory from other countries is of considerable value, the interests of researchers and the cultural contexts in which they operate are different from our own. Given the Government's recent emphasis on creativity as an aim for the educational system as a whole, and the identification of creative development as a specific area within the Foundation Stage, it would seem imperative to carry out some research aimed at discovering more about creative development in young children in an English context.

### **1. Research demonstrating how early childhood settings can foster young children's creativity**

As this paper has illustrated, there is no shortage of advice for early childhood workers on how to foster children's creative development. However, what does appear to be lacking is well-documented, practical examples of successful initiatives by early childhood practitioners in this country. The Arts Council of England should therefore consider setting up an action-research project, in which early childhood practitioners with an interest in enhancing creativity would volunteer to participate. Participants would be provided with briefings on research and practice likely to enhance aspects of creativity. They would work with 'critical friends' to examine their current provision and decide what action they would like to take. Research and evaluation under professional guidance would be planned into the project, so that evidence could be provided on the success of the interventions in enhancing creativity.

### **2. Research into the contribution of arts activities to the development of young children**

Recently, a major research study has shed light on the effects and effectiveness of arts education for secondary students (Harland *et al.*, 2000). Similar research should be undertaken to gather views (from children, teachers and parents) about the impact of arts activities on young children. Such a study would illuminate the contribution of specific art-forms to children's development, including creative development, and on the features of good practice in arts provision for young children.

### **3. Research into the effectiveness of specific arts initiatives in fostering young children's creativity**

The research evidence could be interpreted to suggest that arts activities are not necessarily successful in making significant improvements in young children's creativity. This proposed research would investigate the impact of interventions designed specifically as a means of promoting creative development through high-quality arts experiences. The research would seek to establish: whether arts activities can have a proven impact on creativity; and what are the key features of the programmes concerned. The proposed research would need to utilise an experimental design, preferably with some form of random allocation of participants to the programme under investigation.

### **4. Research into the role of professional artists working with young children**

Despite the encouragement in official guidance (QCA, 2000), there appears to be little published research evidence on the impact on young children's creativity of working

with professional artists. A recent survey (Simpson, 2000?) received 96 responses from arts organisations in England committed to working with under fives, and documented examples of innovative schemes involving arts organisations working with young children. There are clearly numerous other individual artists who work with young children. Research could usefully evaluate the work of artists and arts organisations in this area, with a particular focus on the impact of professional artists in fostering young children's creativity and the identification of good practice in this area.

## **5. Longitudinal research into creative development**

Longitudinal research is the most suitable design for investigating trends in development over time. This research could investigate the degree of divergent thinking in a sample of young (pre-school) children and seek to identify which characteristics of the child, their family and their early childhood settings are most clearly related to changes in divergent thinking.

## **6. A comparative study of creativity in the arts and other domains**

This study would investigate whether and how creativity as expressed through arts activities differs from creativity in other domains (such as mathematics and science). It would seek to establish which aspects of creative experience are common, and/or transferable and which may be subject-specific.

## **Cross-cutting issues**

We recommend that the Arts Council of England ensures that the following are included within any funded research programme.

- Young children with different characteristics (e.g. gifted and talented, disadvantaged children, children from different cultural backgrounds, children with special educational needs).
- A variety of art-form areas.
- A consideration of the interaction between different components of creativity (e.g. cognitive, affective and behavioural).

## **Concluding remarks**

The scoping exercise identified a great deal of material on creativity, some dealing with creative development in young children, and relatively little dealing with creative development of young children through arts activities. This paper has attempted to highlight the main issues arising from research and theory and identify gaps in order to suggest an agenda for future research. Further details on each of the selected studies is provided in the accompanying annotated bibliography.



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## Appendix: Search Strategy for the Scoping Exercise on Developing Young Children's Creativity through the Arts

Staff in the NFER Library carried out searches using a number of databases. In most cases, the searches were conducted for material produced from 1988 onwards. We searched for English-language, published (and unpublished) literature.

### 1. BRITISH EDUCATION INDEX

#### Terms relating to creativity

- #1 Creativity
- #2 Creativity Research
- #3 Creativity Measurement
- #4 Creative Writing
- #5 Creative Thinking
- #6 Divergent Thinking
- #7 Art Education
- #8 Arts Education
- #9 Dance
- #10 Drama
- #11 Music
- #12 Poetry
- #13 Performance Arts
- #14 Artistic Ability
- #15 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14

#### Terms relating to age group (3 to 6 years)

- #16 Preschool Children
- #17 Preschool Education
- #18 Early Childhood Education
- #19 Nursery School Education
- #20 Young Children
- #21 Primary Education
- #22 #16 OR #17 OR #18 OR #19 OR #20 OR #21

#### Creativity and 3 to 6 year-olds

- #23 #15 AND #22

### 2. CHILDDATA

#### Terms relating to creativity

- #1 Creativity
- #2 Creative Writing
- #3 Creative Thinking
- #4 Creativity Research
- #5 Creativity Measurement
- #6 Divergent Thinking
- #7 Art Education

- #8 Arts Education
- #9 Performance Arts Education
- #10 Art
- #11 Dance
- #12 Drama
- #13 Music
- #14 Poetry
- #15 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14

**Terms relating to age group (3 to 6 years)**

- #16 Preschool Child
- #17 Preschool Education
- #18 Nursery Schools
- #19 #16 OR #17 OR #18

**Creativity and 3 to 6 year-olds**

- #20 #15 AND #19

**3. ERIC**

**Terms relating to creativity**

- #1 Creativity
- #2 Creativity Research
- #3 Creative Thinking
- #4 Creative Writing
- #5 Divergent Thinking
- #6 Art Education
- #7 Artistic Ability
- #8 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7

**Terms relating to age group (3 to 6 years)**

- #9 Preschool Education
- #10 Early Childhood Education
- #11 Nursery Schools
- #12 Elementary Education
- #13 Kindergarten
- #14 Kindergarten Children
- #15 #9 OR #10 OR #11 OR #12 OR #13 OR #14

**Creativity and 3 to 6 year-olds**

- #16 #8 AND #15

## **4. PSYCINFO**

### **Terms relating to creativity**

- #1 Creativity
- #2 Creativity Measurement
- #3 Creative Writing
- #4 Creative Thinking
- #5 Creativity Research
- #6 Divergent Thinking
- #7 Art Education
- #8 Arts Education
- #9 Performing Arts
- #10 Artistic Ability
- #11 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10

### **Terms relating to age group (3 to 6 years)**

- #12 Preschool Age
- #13 Kindergarten Students
- #14 Nursery School Students
- #15 Infancy
- #16 Childhood
- #17 Elementary School Students
- #18 Childhood
- #19 #12 OR #13 OR #14 OR #16 OR #17 OR #18

### **Creativity and 3 to 6 year-olds**

- #20 #11 AND #19

## **5. INTERNET**

The ERIC Clearing House on Elementary and Early Childhood Education was searched under REGGIO EMILIA