

Art in Early Childhood

Art and art in Early Childhood: What Can Young Children Learn from “a/Art activities?”

Anna M. Kindler
University of British Columbia, Canada

Justifying art activities in early childhood education seems like a trivial task. Everyone knows that young children love to draw, dip their fingers in paint or squeeze playdough to create images and forms that only those with hardened hearts would find difficult to appreciate. Children seem happier when they have access to art materials and supplies than when they are denied such opportunities, and usually they do not need much invitation to spontaneously take advantage of these offerings. The outcomes of children’s “art play” tend to fascinate adult audiences – and adults: from artistically naïve parents, through psychologists and therapists, to researchers specifically studying artistic development – have long attempted to understand their significance and meaning. Early childhood classrooms are cheerful and require minimal budgets to decorate with the abundance of children’s art. Early childhood parents and teachers also trust, or at least hope, that there are some significant formative benefits to children from their engagement in art activities, such as development of creativity.

On the intuitive level, there is significant merit in setting up art centres in preschool classrooms and allowing children to play with art materials. There is something good about it. If one is willing to accept, and most early childhood educators today do, that learning through play is one of the most effective strategies in educating young children– than art activities, with all the spontaneous attention that they draw, enjoyment that they generate and facility with which they can be implemented in early childhood settings seem strongly justified as a core element in ECE practice. Yet, some questions can, and perhaps should be asked: What exactly are the children learning, and how do the organization and design of specific activities and the teacher’s role contribute to the achievement of worthwhile educational outcomes?

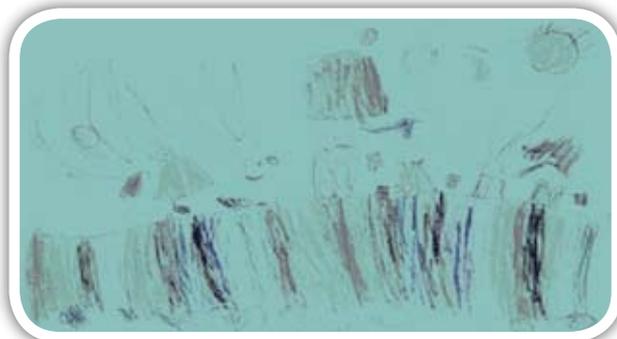


Figure 1

I believe that art educators have not always been very clear nor persuasive in their answers to these questions. Broad references to “artistic learning” have frequently been thin on defining the essence of such learning while taking it for granted that activities that involve children manipulating materials similar to those that artists have historically used and exploring pictorial means for the purposes of representation, have something to do with this process. It has also often been assumed that these forms of engagement contribute to some broader gains transferable to other domains of human endeavor. In the Spring of 2006, I attended a UNESCO conference in Portugal focused on the benefits of the arts, and I have left this event with an uncomfortable feeling. On the one hand, I was very inspired by the energy, commitment and sense of conviction by the advocates of the arts, but on the other, I remained seriously unconvinced that art (or even the arts) were indeed the answer to all the world’s ills, as some of the presenters suggested. I was struck by the level of generality in the discourse and the lack of attention to the details that could, in my view, build a much stronger rationale for the arts - and - even more importantly, help teachers and parents focus their efforts and resources on what could lead to the achievement of most worthwhile and realistic goals.

Although a number of scholars have attempted to articulate more clearly both the nature and the benefits of learning in and through art (e.g., Eisner, 2002), it seems that among art education practitioners the emphasis has often rested on rather lofty but broad assumptions. In this paper, I will try to challenge some of the long standing claims about the overall “goodness” and relevance of art in education – not to argue against the engagement of young children in “art” activities but rather to seek clarity on what we are (or may be) trying to achieve in early childhood art education as we attempt to cater to the developmental needs of a child in a domain that is concerned with the visual and with the ever-evolving concept of human artistry.

The confusion, stemming from its casual use, about the meaning of the term “art”(at least in the English speaking world) – from a discipline as defined by its experts, to any, even most naïve, forms of human engagement with the visual – has made it very difficult to define artistic development in any meaningful ways.

If one understands art as a field of serious professional creative activity, which is a subject to review and assessment by those who possess the relevant expertise and experience to make such determinations – then the idea of artistic development has to be related to the attributes and features which characterize artistic production of recognized artists and the expectations of the “custodians” of the artistic domain. If one understands art as any form of human pictorial activity – than the definition of artistic development becomes both impossible and unnecessary in the absence of any criteria that would allow to define a direction (or directions) of progress. Somewhere between the two extremes, there is a possibility of defining art as those forms of pictorial activity that conform to some broad criteria of quality – with the notion of artistic development tied to the development in the ability to create pictures that demonstrate progress along these selected dimensions. Needless to say, the community of art critics, art historians, museum and gallery curators subscribe to the former definition.

I would argue that in art education, we have moved increasingly closer to adopting the latter – which has seriously complicated our ability to be explicit and clear about

our goals and achievements. Early in my graduate education I remember taking a course with Kenneth Lansing – a student of Victor Lowenfeld – who insisted on the importance of art teachers having a clear understanding of what art is and what distinguishes it from other human endeavors. He was not suggesting that all art teachers should adopt a single particular stance, nor had advocated the need for a closed definition of art – but rather argued that in the absence of an understanding of what some of the crucial attributes of the concept are, it is impossible to meaningfully engage in the teaching of art. Some twenty years later, examining this issue from the perspective of my practice and research in art education, I am persuaded more than ever of the value of Lansing’s teaching.

I should preface this paper by clearly stating, that especially in the contemporary contexts where visual imagery other than “recognized” art has become so prevailing, so influential and so seductive in the lives of even very young children, I fully support and encourage early childhood contribution to the development of broadly defined children’s representational competencies, including those that make use of graphic repertoires. My focus in this paper on artistic development does not suggest my lack of interest in children’s learning about visual culture and developing abilities to be its intelligent consumers. I believe, however, that artistic learning is still of great value and importance in early childhood – yet, this specific focus has largely slipped the attention of curriculum makers and teachers – due, at least to some extent, to the lack of conceptual clarity about what exactly we want to nurture and develop through our involvement in the educational process.

My paper, therefore, consists of two parts. Firstly, I attempt to define the concept of artistic development in a close relationship to the world of “acclaimed art.” I thus try to provide a framework for the understanding key factors that contribute to artistic development and then use this framework to consider educational implications.

Secondly, with the concept of artistic development operationally defined, I suggest some dimensions of artistic growth that can, and - in my view - should be nurtured in early childhood art education and point to the ways in which such development is relevant to much broader than only “artistic” contexts. By doing so, I hope to signal that developing artistically serves well not only those children destined for artistic futures, but also those who will be consumers of art, and more broadly, of visual culture.

What is the meaning of “artistic development?”

A good starting point for this discussion would be to look at some theories that have been proposed to outline it. One of the most influential theories was proposed by Victor Lowenfeld’s (1934). It defines artistic development as a staged progression from what Lowenfeld referred to as uncontrolled scribbles to forms of pictorial representation which increasingly conform to the requirements of visual realism. Although it would be hard to argue with Lowenfeld’s observations that human pictorial production in early childhood years normally has visual attributes of random and undifferentiated marks and that there seems to be an inborn impulse towards forms of representation which allow to capture meaning in ways that can be socially shared (and visual realism is clearly a graphic convention that lands itself to this purpose) - the stage theory has a serious shortcoming in terms of its power to define development in

art.

The key problem is that the world of art has long abandoned visual realism as a likely endpoint in the development of artistry. So while Lowenfeld's theory tracks a possible progress along a specific trajectory in pictorial representation, it remains distant from the world of art and fails to account for development of artistic talent and competence of artists who are our contemporaries. It also focuses on two-dimensional representation and, essentially, a graphic vocabulary, paying little attention to any other attributes – such as quality of thought, for example, that arguably is not inconsequential in artistic creativity. These limitations make Lowenfeld's theory not very useful for the purposes of helping us capture the complex nature of artistic development.

Another influential theory proposed by Jessica Davis, Howard Gardner and Ellen Winner (Davis, 1991, 1997a, 1997b; Gardner & Winner, 1982), has a much closer, explicit connection to a specific movement in art. The U curve model posits that development of artistry does not proceed in a linear fashion nor that it involves improvement over time. What these researchers observed, and Davis later demonstrated in a controlled experiment is that artistic capacity of young children is superior to that of older youth and that the natural developmental pattern leads towards a demise rather than improvement in artistry, except in the cases of very selected, particularly talented individuals. In Davis's experiment, the link between the U-curve theory and the world of art has been asserted by the use of a set of criteria to determine the quality of artistic production that was assessed by expert judges based on Goodman's aesthetic protocol (Goodman, 1968). This protocol very clearly reflected an aesthetic value system corresponding to the modernist artistic heritage. In this case, the alignment with a particular artistic tradition constituted both an asset and a limitation. On the one hand, it brought the consideration of artistic development much more closely to the realm of values and interests of the world of art, but on the other, by making this connection to a particular artistic framework it weakened the universality of the theory in the broader context of the changing world of art.

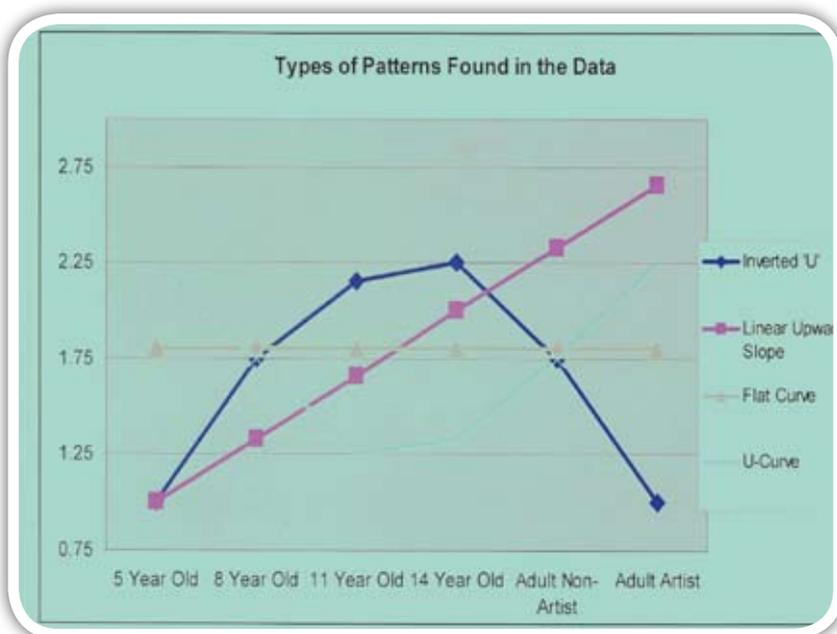


Figure 2

This consequence was well demonstrated in further studies conducted in cross-cultural contexts (e.g., Kindler, 2001; Kindler, Liu, Pariser & van den Berg, 2003; Kindler, Pariser, van den Berg, Liu, 2002; Kindler, Pariser, van den Berg, Liu & Dias, 2002; Pariser and van den Berg, 1997) which revealed a range of “developmental” patterns through a sorting task that originated from Davis’ study. As shown here in the results from our research project conducted in Taiwan, these patterns ranged from the U-curve to an inverted U, with a straight upward sloping line characterizing the majority of responses.

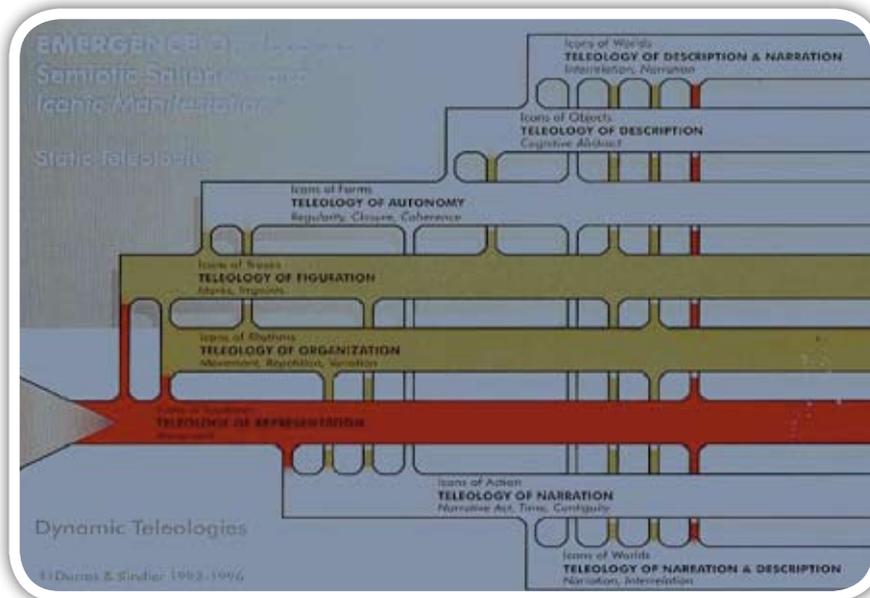


Figure 3

Repertoire theories of artistic development (e.g., Kindler, 1999; Kindler & Darras, 1994, 1997, 1998; Wolf, 1994; Wolf and Perry, 1988) which suggest multiple rather than a single path towards development in pictorial representation, while accounting for development in a much wider range of artistic realms (and thus being more robust from a cross-cultural perspective) have, by design, shone away from distinctions between the artistic and the non-artistic imagery. Their focus has been on the understanding of pathways in the development of pictorial representation regardless of its classification into the category of art. Such theories remain very useful to the field of art education – especially as it attempts to re-define itself and consider inclusion of a full spectrum of imagery that permeate visual culture of contemporary societies. However, they are deficient as theories of artistic development because of their broad focus.

In recent years, drawing on creativity research (e.g., Csikszentmihalyi, 1988, 1990, 1999), I have proposed an alternative theory of artistic development based on a systems approach (Kindler, 2003, 2004, 2006). This theory explicitly links development in pictorial representation at a level of an individual with changes that occur over time within the domain of art itself. It suggests that artistic development is a relational, dynamic concept, constantly in flux and constantly in the process of redefining. On the one hand, psycho-biological development, social learning and experience impact on an individual’s representational ability and his or her ways of engagement with ideas as well as techniques and materials that are vehicles of pictorial representation. But growth in these abilities, including an increasing proficiency in the exploration and

use of pictorial repertoires is not necessarily tied to artistic success – or development of those forms of expression that fit the art discourse. In other words, neither the growth in the quantity of pictorial repertoires that one has mastered, nor the depth of competencies in selected repertoires can serve as good predictors of artistic accomplishment. In order to connect these developments that involve changes within an individual to the concept of art, one needs to place them within the context of the art domain – not an easy task with this domain shifting and expanding in ways that are both hard to predict, difficult to precisely track and occurring at a speed where a paradigm shift can take place several times within a generation. This is why any model that accounts for this dependency in defining artistic development is difficult to represent within a two dimensional, static space. It calls for more complex representations – with animation being particularly useful to emphasize change over time.

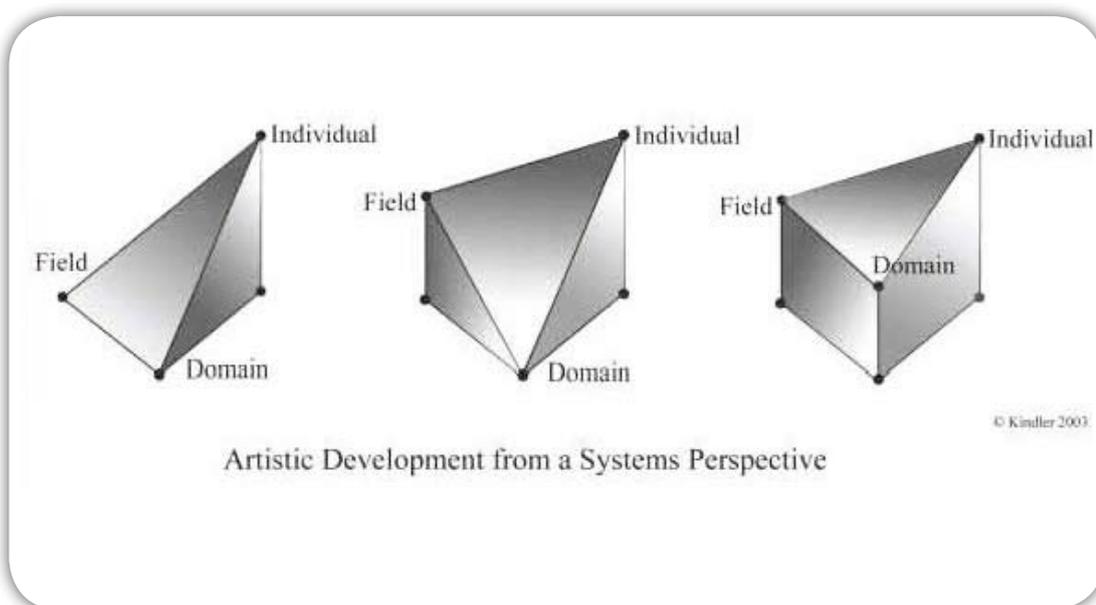


Figure 4

In similar ways in which Csikszentmihalyi recognized the importance of the domain and the field (the latter defined as a community of experts or custodians of the domain, who both maintain it and have the power to shape it) to the concept of human creativity, the field and the domain are central in the systems' approach to development in art that I have proposed.

In summary, I have so far argued that conceptual clarity about what we mean by artistic development is of great significance to any considerations of curriculum and pedagogy in early childhood art education. I have outlined limitations of some of the long standing theories: including the stage theory, the U-curve model and the repertoire theory, and have argued that, as opposed to more broadly the development in pictorial representation, artistic development cannot be defined nor explored in a detachment from the world of art. Recognizing the shifting nature of the world of art, I have proposed a theoretical framework that recognizes the dynamic interplay between the three key variables: the individual, the field and the domain, in conceptualizing artistic growth.

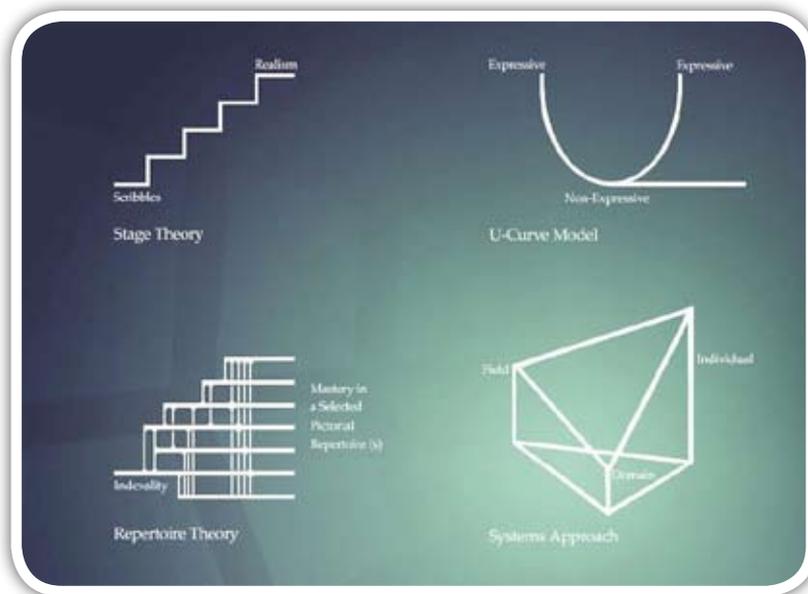


Figure 5

This brings me to the second part of my paper:

How can this development be nurtured and what role do early childhood art education may play in this process?

A systems approach to artistic development makes it challenging to identify specific, stable axis of artistic growth. One has to acknowledge this because the concept is in a constant flux and it will never be possible to come up with a stable and consistent list of dimensions along which the developmental progress could be tracked over time. Furthermore, identification of these dimensions needs to be informed by what we know about art and artistry and responsive to the changes in this knowledge. I have, therefore, suggested that one of the important sources of information regarding what really matters in artistic creativity are contemporary artists themselves: those who actively contribute to the domain in our day and age.

Traditionally, we have relied heavily on psychologists and educators who, based on their knowledge of the workings of human mind, observations of children’s pictorial behavior and some understanding of what matters in art for their contemporaries, were suggesting developmental trends and patterns. While these researchers’ insights into the former domains were profound, they were not equally informed in the latter. This, in my view, has contributed to the discontinuity between the discourse on artistic development and the world of art. Furthermore, it has focused attention specifically on the development in pictorial representation which landed itself to investigations using scientific methods traditionally employed in psychology.

I believe that in order to bridge this gap, it is important to complement this body of work with studies that involve artists reflecting on the nature of artistic development and identifying, from their own experience features and attributes that have made their artistic success possible. Consequently, with support of my colleagues in Hong Kong: Drs. Victor Lai Ming Hoi and Ma Kwai Shun, I conducted a study involving participation of selected contemporary Chinese artists (Kindler, Lai & Ma, 2002; Kindler, 2005) .

The artists were invited to join the study based on the records of their accomplishment and we were careful not to privilege any particular artistic medium or style. Thus our informants' pool included artists who produced traditional Chinese paintings, as well as artforms such as cartoons and installations. We considered these artists, for the purpose of our investigations, as "artistically developed" who had gone through a fairly complete developmental process in art. The study involved semi-structured interviews where the artists were asked to reflect on the nature of their artistry, suggest key abilities, competencies or skills that fund artistic development and comment on the key factors, both internal and external, that accounted for their artistic development. While we are not claiming that we have found ultimate answers to the questions regarding the underlying factors of artistic development – as no limited collection of case studies ever could - we were struck by the consistency with which some attributes that could be considered as possible "axis" of artistic development have emerged in the responses of our informants. Most revealing was the fact that only one of these frequently mentioned dimensions related specifically to the development in pictorial representation, confirming our suspicion about the serious limitations of some prevailing developmental theories that attempt to describe development in art.

I will focus here only on two dimensions which emerged in this study that are most relevant to art education in early childhood years (for additional information please see Kindler, 2005)

Visual sensitivity/imagination

Visual acuity and sensitivity, and the ability to carefully and imaginatively attend to the natural and human made environment have been a constant theme in the responses of the artists. They claimed that development of visual sensitivity is foundational to creative performance in visual arts, no matter what form it may take. The second dimension was related to the pictorial ability within a medium – with a focus on technical proficiency. Interestingly, and perhaps predictably, it has not referred to development in any specific pictorial repertoire (such as optical realism, expressionism, etc.) but rather to a level of mastery of any pictorial repertoire – including those that do not involve traditional media of representation. Our interviewees specifically pointed to the significance of the artists' profound understanding of the full potential of the medium, his or her "control" in its use, and the impact that it has on unleashing one's creative ideas.

These case studies confirmed my predictions that our traditional thinking about artistic development in art education has, at least to an extent, missed the point. The focus on the graphic production took us away from qualities that are paramount to development in art and which extend beyond the ability to produce images with the use of conventional tools of pictorial representation. This preoccupation with the end product (the image and its pictorial qualities) – and the psycho-biological facilities that made its creation possible - has also contributed to the polarity that has surfaced between "the ideas" and the "art making," and lead to a polarizing rather than synergistic emphasis on "the why" and "the what" of art and children's pictorial production.

I should mention here that another dimension that emerged from this study was related to the artists' ability to discern between the trivial and the extraordinary, attend

to cognitive nuances within generalities and to comment on the world in ways that are free of superficiality and reflect profound understandings - even if expressed in lighthearted ways. In summary, the three dimensions that emerged from the study can be summarized as follows:

Visual imagination/sensitivity

Understanding of the pictorial medium/technical proficiency

Cognitive discernment/"artistic thinking"

Although some qualities that found the cognitive discernment that the artists referred to and which enable development of "artistic thinking" or "artistic frame of mind" likely draw on early childhood experiences, many may require frames of reference broader than what very young children have at their disposal. Consequently, I will focus here only the first two dimensions which I believe can very effectively be nurtured through art education in early childhood years. I will try to provide examples of "art activities" that would support this goal.

Developing visual sensitivity and imagination in early childhood years

An important point to make here is that development of such sensitivities does not have to be related to drawing, painting, nor, for that matter, producing any tangible pictorial outcomes. Much of the learning can be accomplished simply by drawing children's attention to visual phenomena, nurturing their inborn visual curiosity and building on their early representational efforts, even as rudimentary as indexicality (see Kindler and Darras, 1994, 1997)

Whether in the context of visual discoveries that can happen when milk is accidentally spilled on a tray, or more structured "discovery walks" when children's attention is purposefully focused on noticing nuances in their lived environment, this dimension of artistic development can be nurtured by thoughtful teachers who can convey even to the youngest children the richness of tints and shades of a single colour, encourage them to re-interpret visual experience by looking for imaginary creatures in cloud formations, or attend to details and particularities that allow to classify visual experience in multiple ways.

Games that focus visual attention and call for discerning specific visual attributes in complex visual contexts are also conducive to the development of visual acuity. And so is a study of photographs and artworks that are good exemplars of visual complexity.

Another category of activities could be described as developing visual sensitivity in ways that involve some pictorial activity. These can occur simultaneously, like in this example where children are asked to "trace" on a transparent plane their observations. The purpose is not to create a drawing, but rather to help focus and structure the process of visual analysis.



Figure 6

Dictation drawings, where the child is asked to verbalize his or her observations and then record them in a pictorial form helps note nuances and details that would unlikely emerge in spontaneous drawings. Again, the focus here is on stimulating visual attentiveness to the environment and not on the product itself – as attractive as it eventually can be. The teacher may help in this task by recording the observations and stimulating articulation of details by asking questions and then reading the list back to the child when he/she is ready to draw.



Figure 7

“Play and draw” activities encourage children to use their imagination and observation skills and integrate them into play. Drawings allow for elaboration on environments in which the play takes place.

Proficiency in the use of art media



Figure 8

When I consider development of technical abilities or foundations for acquiring proficiency in the use of art media in early childhood years I am well aware of the constraints within which one needs to frame such ambitions. On the one hand, there are some sensory-motor as well as cognitive limitations that need to be recognized – and on the other hand early childhood classrooms’ physical settings, available resources as well as safety concerns restrict the range of media and techniques to which children can be exposed. There is also the issue of the teachers’ own competencies and zones of comfort in introducing art techniques and processes – an issue that early childhood teacher education ought to consider. Having said this, it is neither irrelevant nor inappropriate nor impossible to start building children’s competencies in the use of pictorial media early in their lives. What it takes is a shift in thinking about children’s capability to benefit from an early introduction to art media, an identification of learning goals related to these experiences, and careful planning of the teacher’s role in this process.

Developing art media competencies in early childhood years

Let me offer an example that demonstrates both – the magnitude of the gain and the possibility of significant enrichment of students’ experience when early childhood art activities are designed with a consideration for learning about the medium itself, its possibilities and limitations. I chose to share with you an example that involves a three dimensional medium – clay. I am talking here about “real” clay – not playdough or plasticine – as I believe that allowing children to experience media in their “adult” rather than “kiddie” versions is an important step in inducting them into the world of artistic performance – and allowing them to learn about properties of artistic media that may have relevance to them later in their lives.



Figure 9

When children are provided with clay they do not need much invitation to play with it. Most will spontaneously discover clay’s representational potential and before long the teacher would know he or she will be presented with snakes or pancakes and, with little encouragement, these rudimentary forms will grow into three-dimensional renditions of people. Working in such a small scale makes it, however, very difficult for children to learn about properties of clay such as full range of its plasticity or its weight carrying limits, making it impossible to explore ways in which one can work in the

round and constrains possibilities of form differentiation. By providing simple support structures, and larger quantities of clay (which, if properly stored can be recycled significantly moderating the costs involved) the opportunities to learn about the medium become greatly increased.



Figure 10

Children can experientially discover what is and is not possible when working with clay, and with the assistance of a teacher experiment with solutions that allow them to get a firm grasp on the representational potential of clay.

Although the outcomes of these experiences with clay are significantly more appealing than the simple three-dimensional forms that we typically see when young children manipulate three dimensional materials such as plasticine or playdough, my focus extends beyond these "improved deliverables" to the gains that reside within the children themselves. These "art activities" with clay provided them with first steps in a journey of learning about properties of a medium that adult artists use for their creative purposes; about constructing a three dimensional form that calls for consideration of multiple points of view; and about the nature of creative process that unfolds over time, rather than being compressed into a single art-making session. These activities also afforded an opportunity for the children to translate representational ideas and intents with a significantly greater degree of flexibility and control.

I remember that when we first started working with young children (3 to 8 years old) using clay, some of my student teachers were skeptical about the intended outcomes. They worried that young children would find clay less attractive than traditional 3-D preschool "art materials" because of its bland colour; they were concerned that the increase in the scale of the project and the magnitude of the sculpting task would tire children and frustrate them; and they thought that children would not be able to sustain interest in a project that would require several sessions to complete. These worries were quickly dispelled by the enthusiasm with which this experiment was received by the children who recognized new possibilities that this medium presented and readily took advantage of them. As they were having a great time they were acquiring understandings and skills that contributed to their artistic development.

In this paper, I have argued that the concept of artistic development needs to be

defined before one could make a purposeful contribution to it in early childhood art education. I have emphasized its relationship to the world of art and have argued that a systems approach is necessary to come up with a useful framework and that it requires new sources of knowledge. I have then tried to articulate some dimensions of artistic development and have suggested a possibility of re-framing "art activities" in early childhood to cater to such developmental needs. I will not pretend that I have exhausted the topic, nor that my advice is specific enough to take it and directly implement it in an early childhood classroom. But I hope that I have raised questions and sufficiently challenged some long standing assumptions and practices to inspire you to consider alternative possibilities to traditional early childhood art activities that could perhaps be more conducive to artistic development of young children.

(Author's note. This paper is based on a Keynote Address at the 2nd International Art in Early Childhood Conference, University of New England, Armidale, Australia.)

Bibliography

Csikszentmihalyi, M. (1988). Society, culture and person: a systems view of creativity. In R. Sternberg (Ed.) *The nature of creativity*. Cambridge: Cambridge University Press. 325-339.

Csikszentmihalyi, M. (1990). The domain of creativity. In M. A. Runco & R. S. Albert (Eds.) *Theories of creativity*. Newbury Park, CA: Sage. 190-212.

Csikszentmihalyi, M. (1999). Implications of a systems perspective for the study of creativity. In R. Sternberg (Ed.) *Handbook of creativity*. Cambridge: Cambridge University Press. 313-335.

Davis, J. (1991). *Artistry lost: U-shaped development in graphic symbolization*. Doctoral dissertation. Harvard Graduate School of Education.

Davis, J. (1997a). The "U" and the wheel of "C:" Development and devaluation of graphic symbolization and the cognitive approach at Harvard Project Zero. In A. M. Kindler (Ed.) *Child development in art*. (pp. 46- 58). Reston, VA: National Art Education Association.

Davis, J. (1997b). Drawing demise: U-shaped development in graphic symbolization. *Studies in Art Education*. 38(3). 132-157.

Eisner, E. (2002). *The arts and the creation of mind*. New Haven: Yale University Press.

Gardner, H. & Winner, E. (1982). First intimations of artistry. In S. Strauss (Ed.) *U-shaped behavioral growth*. New York: Academic Press.

Goodman, N. (1968). *Languages of art*. Indianapolis: Bobbs-Merrill.

Kindler, A. M. (1999). "From endpoints to repertoires:" A Challenge to art education. *Studies in Art Education*. 40(4). 330-349.

Kindler, A. M. (2001). From the U-curve to dragons: Culture and understanding of artistic development. *Visual Arts Research*. 26(2). 15-29.

Kindler, A. M. (2003). Responding to the changing landscapes of art and childhood: A systems approach to artistic development. John Landrum Bryant Lecture. Harvard Graduate School of Education. Harvard University, Cambridge, MA.

Kindler, A. M. (2004). Researching Impossible? Models of artistic development reconsidered. In E. Eisner and M. Day (Eds.) *Handbook of Research and Policy in Art Education*. Reston, VA: NAEA.

Kindler, A. M. (2005). Creativity and arts education: A discourse informed by perspectives of three contemporary artists. *International Journal of Arts Education*. 3(2). 88-118.

- Kindler, A. M. (2006). Composing in visual arts. In L. Bresler (Ed.) *International Handbook of Research in Arts Education*. Kluwer/Springer Academic Publishers.
- Kindler, A. M. & Darras, B. (1994). Artistic development in context: Emergence and development of pictorial imagery in early childhood years. *Visual Arts Research*. 20(2). 1-13.
- Kindler, A. M. & Darras, B. (1997). Map of artistic development. In A. M. Kindler (Ed.) *Child development in art*. Reston, VA: NAEA.
- Kindler, A. M. & Darras, B. (1998). Culture and development of pictorial repertoires. *Studies in Art Education*. 39(2). 147-167.
- Kindler, A. M., Lai, V. M. H., & Ma, K. S. (2002). Artists as sources for concept formation. Research proposal. Hong Kong Institute of Education.
- Kindler, A. M., Liu, W. C., Pariser, D. & van den Berg, A. (2003). A cultural perspective on graphic development: Aesthetic assessment of local and foreign drawings in Taiwan. *Research in Arts Education*. May (5). 23-47.
- Kindler, A. M., Pariser, D., van den Berg, & Liu, W. C. (2002). Visions of Eden: The differential effects of skill on adults' judgments of children drawings: Two cross-cultural studies. *Canadian Review of Art Education*. 28(2). 15-29.
- Kindler, A. M., Pariser, D., van den Berg, A., Liu, W.C. & Dias, B. (2002). Aesthetic modernism, the first among equals? A look at aesthetic value systems in cross-cultural, age and visual arts educated and non-visual arts educated judging cohorts. *International Journal of Cultural Policy*. 8(2). 135-152.
- Lowenfeld, V. (1943). *Creative and mental growth*. New York: Macmillan.
- Pariser, D. & van den Berg, A. (1997). The mind of the beholder: Some provisional doubts about the U-curve aesthetic development thesis. *Studies in Art Education*. 38(3). 158-178.
- Wolf, D. (1994). Development as the growth of repertoires. In M. B. Franklin & B. Kaplan (Eds.) *Development and the arts*. (pp. 59-78). Hillsdale, NJ: Laurence Erlbaum.
- Wolf, D. & Perry, M. (1988). From endpoints to repertoires: Some new conclusions about drawing development. *Journal of Aesthetic Education*. 22(1). 17-34.

About the Author

Professor Anna M. Kindler received a master's degree in Industrial and Graphic Design from the Academy of Fine Arts in Warsaw, Poland followed by a master's degree and doctorate in Art Education from the University of Illinois, Urbana-Champaign, USA. She has authored over one hundred publications and gained international recognition for her research on artistic development and social cognition of art. A former art teacher, and a long time university professor and practicing artist, Dr. Kindler has been recognized for her contributions to art and art education through numerous awards, including the Sam Black Award, the Lowenfeld Award and the Ziegfeld Award. She is also a Distinguished Fellow of the National Art Education Association (NAEA). In the early 2000s, Dr. Kindler served as Dean of the School of Creative Arts, Sciences and Technology at the Hong Kong Institute of Education. She is now Vice Provost and Associate Vice President Academic Affairs at the University of British Columbia, Vancouver, Canada.