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Students with Artistic Talent in Hong Kong: How Might They Be Identified?

David W. Chan
Department of Educational Psuchology
The Chinese University of Hong Kong

The identification of children with visual arts talent in the Hong Kong school setting presents a challenge to educators and practitioners because artistic talent could be manifested in many ways and in different visual arts media. A sequential identification procedure that involves nominations, behavioral ratings, and drawing tasks is then discussed in light of an overview of the origins of artistic talent, the characteristics of artistically talented children, and the developmental trajectory of artistic talent among children and adolescents. The possible adaptations of Clark's Drawing Abilities Test and the development of an impossible figures test for identifying visual arts talented students are also discussed.

Key words: visual arts talent, arts education, talent identification, Hong Kong

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Correspondence concerning this article should be addressed to David W. Chan, Department of Educational Psychology, Faculty of Education, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong. E-mail: davidchan@cuhk.edu.hk.

Historically, the Hong Kong education system placed less value on arts than academic education. Very often, talents and abilities were promoted only in predominantly academic areas, and arts education was made peripheral to this enterprise. This practice of dichotomizing arts and academic abilities often results in programs where arts are not valued in the education of students (including high-ability students) who will have little exposure to the arts and few opportunities to express their abilities in expressive areas. In recent years, education reform efforts aimed to promote students' whole-person development have brought into focus the contribution of arts education to the aesthetic development of students (Curriculum Development Council, 2002a). In addition, it is also realized that the arts offer much to support the academic achievements of students (see Murfee, 1995; Ruppert, 2006; Yu, 2001). Specifically, it is realized that students need to be educated to use their imaginations and spatial abilities in problem solving without relying solely on their mathematical or verbal skills. Conversely, it is also acknowledged that an artist working, for example, as a graphic designer needs to use visual thinking, mathematics, language arts, and personal skills effectively (see Clark & Zimmerman, 2004).

In the recent Hong Kong school curriculum reform, arts education is defined as one of the eight key learning areas, among Chinese-language, English-language, mathematics, personal-social-and-humanities, science, technology, and physical education (Curriculum Development Council, 2002b). The new Arts Education Key Learning Area Curriculum Guide, in parallel to all key learning areas, articulates four learning targets aimed to develop creativity and imagination, to develop skills and processes, to cultivate critical responses, and to understand arts in context. To achieve these targets, integrated learning activities across different art forms (visual arts, music, drama, dance, media arts) are suggested. The emphasis is on allowing students to experience arts by active student participation that involves learning to think through discovery and inquiry, learning to perform and create, and learning to appreciate and appraise their own and others' artworks.

In arts education in Hong Kong, the predominant art forms specified in the new as well as the old curriculum are music and visual arts. As the renewed emphasis on whole-person development has generated strong interests in nurturing musical and artistic talents, the need to identify musical and artistic talents becomes particularly relevant. In identifying musical talent, nominations and behavioral observation ratings by teachers and parents could be a starting point, followed by musical aptitude testing based mainly on aural discrimination, performance in an audition setting, and observation of students' creative interpretation in performance, improvisation, and composition on musical tasks (see Chan, 2006). Accordingly, the musical talent identification procedures could be made more systematic and sequential. In contrast, the identification of artistic talent could be more challenging, as visual arts talent could be manifested in many ways, in different visual arts media, and as one considers processes or potential, performances or products, creative expression, problem-solving skills, abilities to produce adult-like products, or personality characteristics and values (see Clark & Zimmerman, 2004). While a conclusive definition of talent in visual arts, to be used to identify students for school enrichment programs, is not possible or even desirable, an understanding of the origins of artistic talent, characteristics of artistically talented children, and the developmental trajectory of artistic talent could be enlightening and helpful in designing and formulating identification procedures.

Origins of Artistic Talent

The lay person generally considers artistic talent or talent in visual arts as innate (Winner, 1996). In sharp contrast, some cognitive psychologists have argued that high achievement in visual arts is due to motivation, hard work, perseverance, and deliberate practice or goal-directed work on what is difficult (Ericsson, Krampe, & Tesch-Romer, 1993; Howe, 1990; Howe, Davidson, & Sloboda, 1998). Despite the controversy, it is generally acknowledged that hard work and practice are necessary for the development

of any talent, including talent in visual arts. Winner (1989) cited the example observed in urban preschools and elementary schools in China where Chinese children learn to draw through explicit and step-by-step instructions from the age of three, leading to a high level of drawing skills through intensive work or deliberate practice. However, there is evidence against the claim that high achievement in drawing is due simply to effort and motivation (Winner & Martino, 2000, 2003). The primary argument is that the developmental course of drawing differs qualitatively for talented versus typical children. In summary, there is no evidence that hard work and practice are sufficient, and thus the ruling out of an innate component to artistic talent seems to be unwarranted. Indeed, Winner (1996) argued that the emergence of artistic talent at an early age as well as the achievement of high levels of artistic skills prior to formal training are pieces of indirect evidence for an innate component.

Characteristics of Artistically Talented Children

Winner (1996) described artistically talented children or children with talent in visual arts in three aspects, reminiscent of the characteristics of academically gifted children. First, they are precocious. They are more advanced than typical children in drawing milestones, and they learn more rapidly in drawing. Second, they are involved intensely and show the passion and ability to focus sharply in visual arts, often producing a large amount of work over a sustained period of time (Golomb, 1992; Milbrath, 1998; Pariser, 1997). Third, they not only learn faster than ordinary children but they also learn differently. They learn virtually on their own, requiring very little adult scaffolding, and they often solve problems in the arts domain in novel, creative, and idiosyncratic ways.

Artistically talented children also draw in a qualitatively different way. Their drawings are said to be characterized by realism, thematic specialization, and advanced compositional strategies or spatial rendering (Winner & Martino, 2003). Specifically, realism can be considered a core

indicator of artistic talent. It is the ability to draw realistically at an earlier than average age, drawing recognizable shapes at the age of two, at least one year before this skill normally emerges. Studies of adult artists testify that the ability to draw realistically at an earlier than average age marks their childhood works. Gordon (1987) studied the childhood works of 31 Israel artists and found that they all could draw realistically. Sloane and Sosniak (1985) interviewed 20 sculptors and found that most of them recalled drawing realistically at an early age. A similar conclusion is reached by Milbrath (1998) who, in a longitudinal and cross-sectional study of talented young artists, followed eight artistically talented children over ten years, and also compared a group of artistically talented children between ages 4 and 14 to a normal control group.

Based on her findings, Milbrath (1998) noted that a clear sign of artistic talent is the ability to use line to stand for edge, in contrast to the use of line to stand for thing in typical children. Milbrath (1998) further maintained that artistically talented children are guided by "figurative" (representation) rather than "operational" (interpretation) processes, seeing the world less in terms of concepts and more in terms of shapes and visual surface features. Accordingly, typical children tend to draw what they know about objects whereas artistically talented children override what they know and depict what they see. Thus, artistically talented children are able to capture the precise shapes of objects and the correct proportions of figures, add true-to-life details, and represent the illusion of volume and depth, yielding adult-like, differentiated, and complex images (see also Feldman, 2000). However, while artistically talented children use perspectival techniques at an early age, showing figures in unusual positions (e.g., three-quarter views of faces, back views, profiles) as well as figures distorted and foreshortened by perspective, their drawings show mixed viewpoints. It appears that they are not able to make drawings with one single coordinated point of view until their adolescent years (Winner & Martino, 2003).

Despite the accumulating body of evidence, early realism as an indicator of artistic talent could well be culturally determined. From the Renaissance

to the twentieth century, artists in the West have striven to capture the illusion of space, volume, and depth (Gombrich, 1960). However, stories in the East could be different. An example is provided by the Chinese artistic prodigy, Wang Yani, who painted in the Chinese brush and ink style at an adult-like level in the preschool years (Zhensun & Low, 1991). Wang Yani does not draw or paint in a realistic style, but rather in the style of classical Chinese painting. Indeed, Wang Yani developed a sense of the adult art world at the age of four, and could create the kind of art valued in the Chinese culture. Karpati (1997) provided further evidence that too high a value has been placed on early realism as a sign of artistic talent. She found that talent in design and construction did not predict a high level of ability to draw realistically, leading to the conclusion that different aspects of artistic talent could be unrelated, and the ability to draw realistically could be only one sign of such talent. Thus, it appears that at the heart of artistic talent is the ability to master cultural conventions at an early age.

Apart from early realism, it is said that thematic specialization is another characteristic of drawings of children talented in visual arts (Pariser, 1997). Very often, many artistically talented children seem to adopt an approach of research and experiment. In their drawings, they explore a single theme over and over again, and this repeated practice in drawing one kind of subject makes them far more skilled in drawing their favorite subject than in drawing other subjects. Thus, Pariser (1997) suggested that the work of artistically talented children is "thematically specialized." On the other hand, rather than being interested in experimenting with form and design, artistically talented children are often more interested in inventing imaginary settings and fantasy characters in their drawings which depict episodes in the lives of these invented characters, and in the process, produce countless drawings through which they gain fluency and technical skills (Wilson & Wilson, 1976).

Regarding spatial rendering, there is conflicting evidence about whether the compositional strategies of artistically talented children are advanced when compared to those of typical children. Pariser's (1999) analyses

suggested that artists like Picasso, Lautrec, and Klee were not more advanced in this area. However, Golomb (1992) found that artistically talented children are more likely to organize their drawings based on the principle of asymmetrical balance, while typical children tend to use the more obvious strategy of symmetrical balance. In the same vein, Milbrath (1998) also found that artistically talented children can use asymmetrical balance where different dimensions such as color and size are used as counterbalances (e.g., large size and heavy color). Milbrath (1998) further hypothesized that artistically talented children attend closely to the act of drawing, and thus can judge the visual weights of shapes, colors, empty spaces, and directional lines, and they react to what they see by placing elements in locations that counterbalance elements already drawn to achieve a stable organization.

The Development of Artistic Talent

Unlike the development of academic talents, the school appears to play a less important role than the family and the community in the development of artistic talent, and artistically talented children usually do their best and most inventive work out of school (Hurwitz, 1983; Wilson & Wilson, 1976). While artistically talented children usually come from supportive families, they rarely receive formal training in arts from school, partly because it is believed that, at least in the West, such tutelage may be unnecessary and could be potentially damaging to artistic talent (Gardner, 1980). However, Winner and Pariser (1985) found that the artists they interviewed reported that what crystallized their identity as young artists was the recognition of their talents by a professional artist.

In a study that examined the normal course of artistic development among children, Davis (1997) elicited drawings from 140 participants that included children aged five, eight, and eleven as well as adolescents and adults with and without artistic talent. The findings indicate a decline in aesthetic properties of drawings after aged five, a decline which stabilizes and does not rise again among adolescents and adults with no artistic talent,

yielding an L-shaped curve. However, a strikingly different trajectory was found among adolescents and adults with artistic talent. There is a rise in scores on aesthetic properties of drawings that results in a U-shaped curve. Thus it seems that artistic abilities tend to be high in the preschool years, decline in the elementary school years, and rise again in the adolescent years, but only for those with visual arts talent.

In comparing the developmental trajectory of drawing in talented versus typical children, Milbrath (1998) found that talented drawers not only are more attuned to the visual properties of what they draw, but they also show much more variability in their drawing, being able to produce some drawings at higher levels of development. Milbrath (1998) further argued that variability occurs because talented drawers keep posing challenges for themselves, and their desire to solve difficult drawing challenges might arise from their talent in attending to the figurative properties of the world.

The Identification of Artistic Talent

The focus on whole-person development not only stimulates current interests in the development of diverse talents in students but also brings particular relevance and importance to the identification of artistically talented students, an area that needs more attention through research. It is also noted that students may have multiple gifts and talents in several domains (mathematics and music) or in several arts areas (visual arts and dance), or may have specializations within one area (painting or sculpting). In this connection, Gardner's (1983, 1999) theory of multiple intelligences provides a useful framework for the identification of different talents (see also Chan, 2001). For example, music educators have embraced Gardner's concept of musical intelligence as an important theoretical conception. In contrast, there is no strong support in the visual arts, perhaps because there is no identified visual arts intelligence in Gardner's approach. Rather, it is said that there is no separate artistic intelligence because each intelligence can be directed toward artistic ends.

Despite the intense interests in identifying artistic talent among children, there are few available assessment instruments yielding scores indicative of superior art abilities (Clark & Zimmerman, 2004). Clark and Wilson (1991), for example, have reviewed some of these tests, and found them unsuitable because of the dated nature of illustrations and scoring methods used in these tests, and because these old tests were never intended as diagnostic of superior abilities in the arts. Therefore, it is no surprise that the common and frequently used identification procedures in identifying artistically talented students for admission to programs employ multiple criteria that generally include self nomination, a portfolio or recorded performance, and an interview. Sometimes, informal art tests and classroom teacher nomination are also included (Clark & Zimmerman, 2004).

In view of the lack of suitable identification or assessment instruments, Clark (1989) developed Clark's Drawing Abilities Test (CDAT) for screening and identifying students talented in visual arts for admission to the Indiana University Summer Art Institute. In the test, four drawing tasks are chosen because drawing with pencils or crayons is considered the most frequently exercised art activity and therefore the least intimidating to children for a testing situation. The four drawing tasks are: Draw an interesting house as if you were looking at it from across the street; draw a person who is running very fast; make a drawing of you and your friends playing in a playground; and make a fantasy drawing from your imagination.

These tasks are grounded in previous research, and are considered fundamental to art abilities by visual arts teachers (Clark & Wilson, 1991). Specifically, the tasks call for the demonstration of very different abilities, skills, and expressive responses (Clark & Zimmerman, 2004). The house drawing task requires depicting perspective, textures, meaningful shapes and sizes, and recognizable details. The running-person drawing task requires portrayal of actions, as well as body proportions and recognizable details. The persons-in-playground drawing task requires portraying figures accurately, composing in receding space, and grouping figures in that space. The fantasy drawing task provides opportunities for participants to use their

imaginations to portray what they wish, the things they know and can draw well. A set of criteria have been formulated for scoring these tasks in terms of originality, expressiveness, and creative solutions as well as drawing skills.

Apart from the use of drawing tasks, another promising approach in assessing and identifying visual arts talent draws on research studies by Winner and her colleagues on the association of dyslexia with visual-spatial ability (Von Karolyi, Winner, Gray, & Sherman, 2003; Winner, French, Seliger, Ross, & Weber, 2001). Based on the observations that individuals with dyslexia report visual-spatial strengths, and findings of elevated incidence of dyslexia in certain visual-spatial professions, it was hypothesized that a global visual-spatial task testing the speed of recognition of impossible figures might provide an indicator of visual arts talent. Impossible figures or objects contain surface or edge violations that prevent them from existing as three-dimensional structures (see Carrasco & Seamon, 1996). Thus, an impossible figure task might offer a promising lead to the assessment and identification of artistic talent.

Identifying Students with Visual Arts Talent in Hong Kong

In regular academic programs of pre-university education in Hong Kong schools, the visual arts of drawing, painting, sculpting, designing, and collage are often integrated into primary school classrooms. As students grow older, however, such activities are typically omitted from their studies in secondary schools where the emphasis is on academic achievement and performance on public examinations. Consequently, the value of visual arts programs has all along been underemphasized, and teachers might have different orientations to the visual arts curriculum (Wong & Cheung, 2002). While there is much to be explored in employing the arts as instructional tools across the curriculum, the need for nurturing students with artistic or visual arts talent should receive due attention.

Invariably, parents and teachers are probably the first to notice visual arts talent in children. Since the crystallizing experience is often associated

with the talent recognition of a professional artist (Winner & Pariser, 1985), it seems important that strong links should be fostered between mainstream primary or secondary schools and schools with professional arts programs, such as the Hong Kong Art School, which is a school of visual arts established by the Hong Kong Arts Centre. The Art Education Reaching-Out to Schools Program (1999–2001) whereby Hong Kong artists and school teachers were brought together in workshops aimed to help teachers employ different art media in educating children is also exemplary. The program served to raise awareness among teachers to become sensitive to students' artistic talent (Wong, Au, & Lau, 2005). Nonetheless, to ensure that artistic talent will not remain unrecognized, planning on a systematic identification procedure warrants careful consideration.

For behavioral observation ratings, the Chinese versions of the *Scales for Rating the Behavioral Characteristics of Superior Students* (SRBCSS; Renzulli, Smith, White, Callahan, & Hartman, 1976) have been in use in Hong Kong for some time. This instrument includes ten rating scales designed to obtain teacher ratings on student behaviors in various areas, including art, music, drama, and communication. The *Artistic Characteristics Rating Scale* from the SRBCSS includes eleven items assessing students' interest and commitment in visual arts activities, creative artworks, and their keen observation and sensitivity to environment. The Chinese versions in use have separate parent and teacher versions, but the artistic characteristics scale has not been translated or included for general use, and translation work needs to be done to cover the visual arts area.

Based on parent or teacher nominations and behavioral ratings, which should be inclusive rather than exclusive, a drawing abilities test could be the next logical step. In this connection, the CDAT (Clark, 1989) appears to be the test of choice, and has been used in research studies in schools in Hong Kong (Ka, 1999). The obvious drawback is that the test requires an expert judge's subjective judgment on the performance of the participant to be scored according to specific criteria when the testing is intended to go beyond a specific admission exercise with an artist serving as a judge.

Therefore, some adaptations on the scoring to reduce subjective judgments on the artwork sample might help make the test a convenient screening tool to provide information on top of nominations and behavioral ratings. On the other hand, the conjecture that children talented in visual arts might score higher than typical children in a global visual-spatial task that tests the speed of recognition of impossible figures needs to be more fully investigated. If this conjecture receives empirical support, an impossible figures test might be developed to help identify children with visual arts talent in the sequential identification procedures. Nonetheless, it is recognized that in identifying artistically talented students, there is no substitute for observation and judgment on students' performance in drawing tasks and other tasks in other arts forms by specialists and experts in the field. It is hoped that, with the development of appropriate screening tests and the formulation of a sequential identification procedure, students with artistic talent can be more readily identified, and their visual arts talent will not remain unrecognized and undeveloped in Hong Kong schools.

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