Giftedness and Identification[1]

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Abstract
An athletic analogy can be used to help address issues related to the definition and identification of students in gifted education. Gifted athletes are those who are capable of outstanding performance within an athletic domain. This view of giftedness reflects Gardner's (1983) definition of intelligence. And, while standardized measures indicate specific attributes which may enhance performance, students with outstanding talent are identified by their performance within the context of a specific domain. Thus, a more holistic concept of giftedness and a matching procedure for identification should be applied in order to help develop a wider variety of talents.

Keywords
giftedness, identification

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Wrestling with the Concept of Giftedness

The article (a) uses an athletic analogy to understand and articulate a more holistic view of giftedness, (b) makes four recommendations for identification based on this holistic view, and (c) provides a brief description of a method for identification that is consistent with these recommendations that being the method described in the Schoolwide Enrichment Model (Renzulli & Reis, 1997). The goal in writing this article is to reinforce the movement away from the exclusionary use of standardized measures in defining and identifying students with outstanding potential.

The Problem

Although expanded or more inclusive definitions of intelligence have been around for over 30 years, many gifted education programs are still created around the notion that intelligence is a single, specific entity that can be measured and quantified (Hunsaker, Abeel, & Callahan, 1991; Richert, 1997). Here, students are identified for gifted education programs based solely on their scores from achievement and mental ability tests (Aamidor & Spicker, 1995; De Lieon, Argus-Calvo, & Medina, 1997; Richert, 1997). These scores are distributed along a linear continuum and the top 2-5% are selected for special gifted education programs. But as Gardner (1995), and others have stated, the types of tests used here rely primarily on linguistic and mathematical-logical thinking activities that are separated from any meaningful context. Thus, this approach also offers a very narrow definition of what intelligence is (Armstrong, 1994; Gardner, 1995) and hence; what giftedness is.

Most definitions of gifted and talented children recognize five areas: general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, and visual and performing arts. The definition below is from U.S. Department of Education (1993):

> *Children and youth with outstanding talent perform or show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment. These children and youth exhibit high performance capability in intellectually, creative and/or artistic areas, possess an unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor* (http://www.ed.gove/pubs/DevTalent/part3.htrr).

Note that this definition does not say that intellectual ability is of more importance than the visual and performing arts, creative thinking, specific academic aptitude, or leadership. The words *and/or* in the second sentence of the definition above indicates that all these types of talents or attributes are of

equal importance. It is possible, and indeed probable, that prodigious talents will show up in just one of these areas. Yet, the majority of attention in gifted education is still given to the intellectual areas, even though there is little agreement as to what exactly intelligence is (Davis & Rimm, 1998; Richert, 1997).

A Solution: An Analogy

The following athletic analogy might help to put the concept of giftedness and intelligence in perspective: Physical traits or abilities, such as strength and speed, are to outstanding athletic performance as cognitive traits or abilities, such as memory and mathematical reasoning, are to outstanding intellectual performance. That is, in both athletic and intellectual pursuits there are traits that have the potential to enhance one's ability to perform at high levels; however, these traits vary as widely as the variety of pursuits in these areas. Thus, it would be limiting to define one's potential based on a narrow set of attributes. This analogy is elaborated below.

Definition: Problem-Solvers

A gifted athlete is one who is capable of and has displayed outstanding performance in an authentic athletic setting. This view reflects Gardner's (1983) description of intelligence as the ability to solve problems or to create things that are valued in one or more cultures. However, outstanding athletes come in many shapes and sizes, from a tiny gymnast to a large sumo wrestler. Because different sports require different traits, it would be limiting to try to define a gifted athlete in terms of specific physical traits or abilities such as strength, quickness, endurance, speed, jumping ability, hand-eye coordination, balance, concentration, depth perception, or precision.

In the same way, intelligence or problem-solving comes in many forms. It is equally as limiting to define intellectually gifted individuals by their ability to perform on tests that offer a very myopic selection of problems to be solved. However, by merging Gardner's (1983) conception of intelligence and the U.S. Department of Education's (1993) definition of gifted and talented children, a more broadened definition of giftedness can be created. Thus, a gifted individual might more accurately be defined as one who demonstrates the ability to solve problems, create products, or perform at remarkably high levels of accomplishment. These problems, products, or performances can occur in all areas including the visual and performing arts, various academic areas, leadership and interpersonal endeavors, in tasks involving creativity and invention, or other areas.

Identification: Problem-Solving Performance

Gifted athletes are identified by their performance or by their ability to use

specific traits within the context of the sport in which they are participating. Imagine how absurd it would be if a wrestling coach were to use scores from a standardized weight lifting measures to determine who would be on the wrestling team. While these kinds of measures may be valuable in identifying certain athletic attributes or abilities, these attributes are neither necessary nor sufficient for outstanding wrestling performance.

In the same way, standardized ability and achievement tests measure certain cognitive attributes that may enhance one's ability to perform in various domains; however, these traits (loosely referred to as intelligence) are neither necessary nor sufficient for solving problems or creating products outside a school environment (Richert, 1997). Does that mean standardized tests are useless? No. It simply means that standardized tests are limited in what they measure and predict (Gardner, 1995), and should always be used in conjunction with other types of measures when determining students' ability or potential to perform (Davis & Rimm, 1998; Piirto, 1994; Richert, 1997). These other types of measures may include teacher observations, checklists, students' products or performances, past honors or awards, rating scales, peer nomination, self-nomination, writing products, as well as standardized ability and achievement tests.

Recommendations

Based on the athletic analogy described above, four recommendations are made here for identifying students for participation in gifted education programs:

1. Create activities and experiences in a variety of areas so that students' talent potential might be displayed or discovered. This is similar to the Type I activities in Renzulli's Triad Enrichment Model (Renzulli & Reis, 1997). Here, students are exposed to a variety of subjects and are provided opportunities to perform skills in the visual arts, drama, dance, creative writing, technical writing, the sciences, the humanities, creative thinking, inventing, leadership, interpersonal skills, and other areas. Sternberg (1996), suggests the best predictor of future performance is past performance, thus, performance opportunities are one of the best ways to begin to recognize and identify students' talents.

2. Make methods of identification consistent with the school's definition of giftedness. It is sometimes falsely assumed that there is a universal conception of giftedness and intelligence. There is not. An agreed-upon definition of giftedness must precede any discussions related to methods of identification. Schools must be clear on what it is exactly that is being identified. If a definition similar to that of the U.S. Department of Education (1993) is used, then all facets of that definition must be honored, including the arts, creativity, specific academic areas, and leadership.

3. Recognize creative thinkers. Gardner and Wolf (1994) define the creative individual as "one who can regularly solve problems or fashion products in a domain in a way that is initially original but that ultimately is accepted in one or more cultural settings" (p. 52), a definition that sounds very similar to Gardner's description of intelligence. Thus, the line between intelligence and creativity becomes blurred when both cognitive traits are seen as having equal importance in solving problems and creating products (Sternberg, & Lubart, 1991). Indeed, Sternberg's (1996) triarchic theory of intelligence recognizes three types of thinking that work together: (a) creative thinking which is the ability to generate ideas and make associations, (b) evaluative thinking which is the ability to monitor executive processes and analyze and appraise ideas, and (c) pragmatic thinking which is the ability to recognize the context of the situation and adapts the idea to that context. Recognizing this, any system of identification should include opportunities for students to demonstrate their ability to create, design, produce, synthesize, generate, and make associations.

4. Use products and performances as one type of identifying criterion. Identification for any type of special programming requires more than one type of measure or criteria (Davis & Rimm, 1998; Richert, 1997). Besides standardizes tests, students, teachers, or parents should be encouraged to make a case for inclusion by gathering evidence to support the need for special programming opportunities. This evidence may include documentation of an outstanding product or performance with any of the following: outstanding inventions, stories, dance routines, video documentaries, poetry, computer programs, web sites, comedy monologues, dramatic performances, inquiry, scientific experiments, visual art, mathematical performance, musical performance, leadership, or the design and implementation of unique school or community programs.

Identification in the Schoolwide Enrichment Model

A method of identification that is consistent with the recommendations above is that described in the Schoolwide Enrichment Model (Renzulli & Reis, 1997). Here, six steps are used to identify students to participate in a talent pool:

Step 1 - Test Score Nominations. Students who score at or above the 92nd percentile on some form of a standardized test or subtest are automatically included in the talent pool. This allows students who score high on one portion but not on others to be admitted. It also guarantees the inclusion of traditionally bright students and gifted underachievers. These students should make up about half of the talent pool, leaving room for those whose talents may not be reflected in standardized scores.

Step 2 - Teacher Nominations. Classroom teachers are also allowed to nominate

students who display gifted behaviors that may not be picked up on a standardized test. Teachers here are asked to look for behaviors or characteristics not picked up by test such as high levels of creativity, interest, task commitment, or special abilities. These students are also automatically included in the talent pool.

Step 3 - Alternative Pathways. In this step, gifted behavior is recognized by self-nomination, parent nomination, peer nomination, product or performance evaluation, or any other procedure that recognizes special talents and abilities. Inclusion in the talent pool here is not automatic, rather, students' nominations here are reviewed by a screening committee.

Step 4 - Special Nominations (safety valve #1). Here, a list of students who have been nominated using steps 1-3 is circulated to all teachers who then have a chance to nominate students not listed. This allows resource specialists and previous year teachers to nominated students. Nominations here are also reviewed by a screening committee.

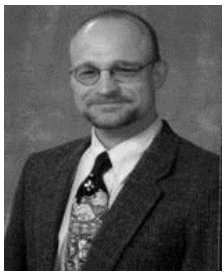
Step 5 - Notification of Parents. In Step 5, a letter is sent home notifying parents of their child's inclusion in the talent pool for that year and describing all aspects of the program.

Step 6 - Action Information Nomination (safety valve #2). As teachers or enrichment specialists observe situations where one or more students display behaviors that might indicate high levels of interests, task commitment, or creativity, they fill out a short memo called an Action Information Message. This memo indicates the date, students, and activity. These memos serve as a form of data to be reviewed by a screening committee.

Final Thoughts

After all that has been written on intelligence in the last years, many schools are still relying solely on quantitative data from standardized achievement or ability tests to define and identify students with outstanding potential. This practice reflects a very narrow view of what intelligence and giftedness might be and fails in helping to develop the potential of many students. The athletic analogy can be used to help teachers and parents understand intelligence and giftedness. It is hoped that this new understanding will lead to more holistic and inclusive views of these traits and that a school's identification procedures are closely aligned with this view.

Biodata and Contact Addresses of the Author(s)



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References

Bruner, J. (1977). *The process of education.* Cambridge, MA: Harvard University Press.

Chi, M.T., Feltovish, P.J., & Glaser, R. (1981). Categorization and representation of physics problems by experts and novices. *Cognitive Science, 5,* 121-152.

Corpley, A. (2000). Defining and measuring creativity: Are creativity tests worth using? *Roeper Review, 23*, 72-79.

Csikszentmihalyi, M. (1994). The domain of creativity. In D. Feldman, M. Csikzentmihalyi, & H. Gardner (Eds.). *Changing the world: A framework for the study of creativity*. Westport, CT: Praeger Publishing.

DeGroot, A.D. (1965). *Thought and choice in chess*. The Hague: Mouton.

Davis, G.A., & Rimm, S.B. (1998) *Education of the gifted and talented* (4th ed.). Needham Heights, MA: Allyn and Bacon.

Feldman, D.H., Csikzentmihalyi, M., & Gardner, H. (1994). *Changing the world: A framework for the study of creativity*. Westport, CT: Praeger Publishing.

Feldhusen, J.F. (1995). Creativity: Knowledge base, metacognitive skills, and personality factors. *Journal of Creative Behavior, 29,* 255-268.

Gallagher, J.J., & Gallagher, S.A. (1994). *Teaching the gifted child* (4th ed.). Needham Heights, MA: Allyn and Bacon.

Gardner, H. (1994). *Creating minds.* New York: Basic Books

Lipshitz, A., & Waingortin, M. (1995). Getting out of ruts: A laboratory study of a cognitive model of reframing. *Journal of Creative Behavior, 29*, 151-172.

Lynch, M.D. & Harris, C.D. (2001). *Fostering creativity in children, K-8*. Boston, MA: Allyn and Bacon.

Marzano, R.J., Brandt, R.S., Hughes, C.S., Jones, B.F., Presseisen, B.R., Rankin, S.C., & Suhor, C. (1988). *Dimensions of thinking*. Alexandria, VA: The Association for Supervision and Curriculum Development.

Maslow, A. (1971). *The farther reaches of human nature.* New York: Viking Press.

Maslow, A. (1968). Toward a psychology of being (3rd ed.). New York. John Wiley and Sons, Inc.

May, R. (1975). *The courage to create.* New York. Norton.

Miller, J. (2001). *The holistic curriculum* (2nd ed). Buffalo, NY: University of Toronto Press

Naglieri, J. & Kaufman, J. (2001). Understanding intelligence, giftedness, and creativity using PASS theory. *Roeper Review, 23*, 151-156.

Noddings, N. & Shore, P.J. (1984). *Awakening the Inner Eye: Intuition in Education.* New York: Teachers College Columbia University.

Piirto, J. (1994). *Talented children and adults: Their development and education*. New York: Macmillan.

Rogers, C. (1961). *On becoming a person.* Boston, MA. Houghton Mifflin Company.

Starko, A. J. (2005). *Creativity in the classroom: Schools of curious delight* (3rd. ed). Mahwah, NJ: Lawrence Erlbaum.

Sternberg, R.J. & Grigorenka, E. (2000). *Teaching for successful intelligence.* Arlington Heights, IL: Skylight Professional Development.

Sternberg, R.J., & Lubart, T. (1991). Creative giftedness: A multivariate investment approach. *Gifted Child Quarterly, 37*, 7-15.

Sternberg, R.J. Williams, W.M. (2002). *Educational psychology*. Boston, MA: A Pearson Education.

Swartz, R.J., & Perkins, D.N. (1990). *Teaching thinking: Issues and approaches*. Pacific Grove, CA: Midwest Publication.

Torrance, E. P. (1993). Understanding creativity: Where to start? *Psychological Inquiry, 4*, 232-234.

Torrance, E.P. (1999). *Torrance Test of Creative Thinking: Norms and technical manual.* Beaconville, IL. Scholastic Testing Services.

Wallas, G. (1926). *The art of thought*. New York: Harcourt,