

The Talent Assessment Process in Dance, Music and Theater (D/M/T TAP)  
New Research on the Assessment and Identification of Talent in Young People

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Introduction

In an era of unprecedented testing, few schools have the means to assess student performance or potential beyond strictly verbal or mathematical means. While many educators across the country accept the broader view of potential described in Howard Gardner's Theory of Multiple Intelligences (Gardner, 1983), Renzulli's Three-Ring Conception of Giftedness (Renzulli, 1978) and Sternberg's Triarchic Theory of Intelligence (Sternberg, 1988), testing and identification of talent continues to ignore artistic abilities and focus on a relatively narrow range of skills involved in taking standardized tests. (U.S. Department of Education, 1993; Richert, 1992). The absence of valid and reliable assessment processes in the arts and the decreasing availability of arts instruction often leads teachers and parents to overlook the creative and artistic abilities of their children which can be critical keys to help students learn and achieve success both in and outside of school.

Since 1983, ArtsConnection, a New York City arts-in-education organization has developed new processes for the assessment of talent in dance, music, and theater. Supported by two Jacob Javits Gifted and Talented Students Education Program grants from the US Department of Education, these processes provide schools with the tools to systematically assess the artistic talents of students, including those who have had no prior formal arts instruction. The process has been shown to be valid and reliable and has proved equitable for students of various backgrounds, language proficiencies, and academic standing. It is inclusive of students from self-

contained bilingual and special education classes who are frequently ineligible for gifted programs and whose positive potentials are rarely recognized in school. This approach is a significant improvement on existing methodologies that are based on the traditional audition format or that use written instruments -- methods that have built-in bias toward students with prior instruction or who excel on written tests (Holt, 1978; Abeel, Callahan, and Hunsaker, 1994).

The Talent Assessment Process (TAP) is based on the belief that all children are potentially talented. More than a simple identification or selection system, the process provides the opportunity for classroom teachers and arts specialists to observe students engaged in artistic activities and to identify a range of artistic and creative abilities in all students. TAP can be used to identify students use are ready for advanced arts instruction as well as to recognize talents, intelligences, interests, and learning styles which can aid teachers and parents in the selection of appropriate instructional experiences and strategies for their children.

TAP has been used in a wide variety of school settings and grade levels and with a variety of artistic styles and techniques. Rather than a single set of activities, the curriculum for the identification process is created by individual arts specialists using the frameworks developed by ArtsConnection. This approach allows the assessment items and format to be responsive and adaptable to the cultures and backgrounds of students and instructors as well as to the specific goals and objectives of the school.

Research over a 10 year period has shown the process to be an excellent predictor of success in advanced instruction. In conjunction with arts instruction and professional development for teachers, the process has also proved to help artistically talented, low achieving students improve their academic performance (ArtsConnection, 1996; Baum, Owen, & Oreck, 1996; Oreck, Baum, & McCartney, 1999). These results demonstrate the benefits of identifying

artistic abilities and creating opportunities for collaboration among artists and classroom teachers in authentic, performance-based, assessment processes.

### The Challenge of Defining Artistic Talent

In order to create an educational assessment system appropriate for use with diverse populations and flexible enough to be administered by arts teachers with various styles and techniques, it was necessary to find criteria that would encompass a wide range of abilities and would provide a valid prediction of success through training. While the words to describe talent may be elusive, extensive expertise is unnecessary to recognize an inspired performance or a charismatic performer. The essential elements of talent are communicated through emotional and personal qualities, as well as through technical mastery. Many of our most accomplished artists consider attributes such as perseverance, expressiveness, and creativity as important as technical skills (Subotnik, 1995). Few assessment or audition processes have the means to factor in these essential characteristics of talent.

The definitions of talent used in the TAP system were developed by artists from a variety of artistic styles and techniques. They describe behavioral indicators of general talent in the art form and are designed to be used and understood by both professionals and non-experts. Dance talent in this conception is not limited to people with lean, flexible bodies. Music talent is not defined simply by a pleasing voice or the ability to recognize pitches. Theater talent does not rely exclusively on students' verbal facility and vocal production.

The criteria for music, dance, and theater can be grouped within three major categories. These categories, arrived at independently by groups of specialists (ArtsConnection, 1993) in the three disciplines, correspond directly to the Renzulli Three Ring Conception of Giftedness (Renzulli, 1978). In this definition, talent is an interaction of three clusters of traits: above average ability, creativity, and task commitment. Ability must be above average, not necessarily

prodigious. The student needs a basic proclivity toward an area to excel in it, but equal emphasis is put on the child's creativity and task commitment, which can lead to creative/productive accomplishment and the realization of gifted potential (Renzulli and Reis, 1985). The artists overwhelmingly verified the relevance of this three part definition in their professional and educational experience.

Giftedness, in Renzulli's conception, is defined as a behavior rather than a permanent state of being. Gifted behaviors can emerge in different combinations at different times, and each individual has a unique profile of talent. This broad definition underscores the relationship of artistic talent to other areas of gifted behavior and provides a rationale for the inclusion of artistically talented students in programs for the gifted. The lack of proven and reliable assessment processes in the arts, however, has hampered the ability of schools and arts specialists to support the identification of artistic talent along with traditional academic abilities.

This definition does not specify which characteristics can be developed and which are innate or permanent conditions. The TAP results clearly demonstrate that many of the attributes commonly measured by tests in the arts, such as the ability to replicate rhythms or discriminate pitches in music, can be improved to a much greater extent than is generally acknowledged. A definition which reduces talent to discrete skills overlooks the essential integrative qualities that make art.

#### Considerations in the Creation of the Identification Process

The development of an identification process that is research-supported, simple, and flexible enough to be used in a variety of school settings required the creation of both assessment methods and supporting program components. TAP was designed to function both as an assessment of innate potential and an audition to evaluate students' readiness for advanced instruction. It supplies the necessary introduction to the art form and equalizes some of the

advantages of prior training. It also gives students and teachers an experience of the demands and potential rewards of further training. Considerations in the creation of the process were:

- How to equitably and reliably identify potential talent in students with different language abilities, body types, and learning styles.
- How to describe gifted behaviors in language that is understandable by experts and non-experts.
- How to allow students to demonstrate creativity within the structure of the assessment.
- How to assess special populations including bilingual, learning disabled and emotionally disturbed students on equal footing with students in regular classrooms.
- How to train classroom teachers to recognize specific aspects of artistic ability as professional artists do.
- How to help peers develop pride and support for artistically talented students and minimize jealousy or resentment about special activities.
- How to encourage and educate parents to recognize the artistic talents of their children and actively support their arts training.
- How to conduct appropriate arts assessment in schools given practical challenges including limited space, schedule conflicts, lack of teacher availability, and few available resources.

#### D/M/T TAP Overview

The TAP uses a multi-session format involving multiple observers. Through a series of four classes students have the opportunity to explore various aspects of the art form, engage in improvisation and problem-solving activities, receive instruction and feedback, and demonstrate their determination and desire. These qualities transcend the category of skills; they are integral to all artistic endeavor.

TAP was tested extensively by ArtsConnection in its Young Talent Program in grades two through six and has been successfully adapted for use in grades seven through twelve. In the Young Talent Program each fourth grade class, including self-contained special education and bilingual classrooms, participate in four classes in one art form in order to select approximately

25 students for an advanced instructional program. If multiple art forms are offered, students participate in four sessions of each discipline. A shortened version of the process is repeated in fifth and sixth grade to provide subsequent opportunities for selection. Advanced instruction is held once or twice a week, once as a pull-out activity during the school day and once after school. At the start of the class series the design of the program is thoroughly explained to the students so that they understand they will have future opportunities for participation in the advanced group if they are not chosen during the initial process. This helps maintain interest, decrease anxiety, and motivate the students to persevere in subsequent years.

The annual, multi-session assessment process provides students with a basic introduction to the art form in a relaxed, but stimulating atmosphere. This introduction equalizes some of the advantages of prior arts instruction and allows the observers to assess students' progress, motivation, and ability to take and use feedback. The instructors vary the central focus of each class, the progression of exercises, the spatial arrangement and groupings of students, the verbal and non-verbal instruction, and the rhythms and styles presented.

Observers use a written observational checklist to note outstanding behaviors in eight (music), ten (dance), or four (theater) categories while observing students in a variety of activities over the class series, usually conducted once a week for five weeks. Selection for the core training program is based on three factors: 1) the sum of marks on the Observation Tally Sheet over the class series, 2) the average of the weekly overall ratings, and 3) a consensus of the observers, arrived at through discussion. The process thus relies on systematic, observationally grounded assessments of physical, intellectual, and emotional factors, rather than on strict numerical scores.

#### Instructors and Observers

Two arts instructors are recommended to administer the assessment because of the

difficulty of instructing and scoring simultaneously. Two trained instructors alternating between observing and teaching offer different expert insights into students' performance and provide a variety in teaching styles that helps to reliably evaluate students' responses to instruction. In the Young Talent Program, whenever possible, the instructional team paired a male and female, representing different cultures and artistic styles. A minimum of three observers complete the assessment instrument -- the two arts instructors and the classroom teacher. Additional observers may participate in the scoring and post-class discussion but only those who have been present for all sessions contribute to the final talent profile and identification.

#### Instrumentation

Each observer completes an Observation Tally sheet for each session. Students wear name tags and their names are printed alphabetically on two sheets, one for boys and one for girls. When an observer notices an outstanding behavior a plus mark ( + ) is placed next to the criteria listed in the student's box on the Observation Tally Sheet. The marks from each observer are added together to arrive at the total score for each criteria. Marks cannot be erased and negative marks are not scored. Additionally, each observer arrives at an overall rating (1-5) for that session, which is placed in the student's box. Through the overall rating, the observer's intuitive senses are factored into the process which acknowledges students who excelled in a single area but who had a low total of notices for the session. Using this overall rating as a conditional selection, freed from the responsibility of making an immediate final judgement, the observers are able to weigh and summarize their observations and then check their conclusions in subsequent classes.

Immediately following each class, the panel holds a 5-10 minute conversation while the students work quietly or are escorted to the classroom or library. Each child in the class is mentioned in the discussions every week. The discussions give the artists and classroom teachers

a chance to share their points of view and add relevant information. This process generally produces a clear consensus among the observers after five sessions.

The discussion is a critical element in training classroom teachers to understand the criteria, vocabulary, and approaches used by the artists. Sharing information about the children leads to a deeper understanding and appreciation of all of the students by both the teachers and the arts instructors. After a few sessions, even teachers who are very insecure about their artistic expertise become more confident in their ability to recognize artistic behaviors. As a result, teachers become more invested in the program and more supportive of their students' participation.

While TAP has been administered successfully with students from second grade to high school, fourth grade was chosen for both developmental and programmatic reasons. Nine-year-olds are ready to make choices about their own interests and the activities they want to pursue, but remain open to trying new things. Limited by budget considerations to a three year progression of advanced classes, the Young Talent Program is directed at upper elementary grades to prepare students to apply for scholarships and attend magnet junior high schools and pre-professional training programs as they graduate from elementary school.

#### Research Questions

The processes in dance, music and theater each underwent an initial three-year development and testing period. The research focused on four guiding questions:

1. Is this a valid definition of talent in the discipline?
2. Is the process fair and equitable to students of different ethnicities, genders, language abilities, and academic standing, including those in special and bilingual education classes?
3. Is the process reliable? Do the observers agree with each other and are their observations corroborated by independent experts?
4. Can classroom teachers learn to recognize the talents of their students as arts experts do?

## Results

### Content Validity Evidence

Content validity evidence for the instruments was obtained during the development phase. D/M/T TAP was originally designed by ArtsConnection's project directors based on 10 years of experience with over 15,000 students in New York City public schools and on Renzulli's (1978) conception of giftedness. The observational items and their definitions were reviewed and revised by panels of six professionals in each of the three art forms. Initial pools of 18 (dance), 16 (music), and 8 (theater) items were tested and reviewed by additional arts experts as well as specialists in gifted, bilingual and special education and a psychometrician to arrive at the final ten items for dance, eight for music and four for theater.

### Construct Validity: Factor Analysis

Principal factor analyses were run for each of the art forms summed over the entire assessment process. In music a single factor emerged, explaining 91% of the item covariation. In dance a single factor accounted for 89% and theater delivered a single factor that explained 97% of covariation (alpha internal consistency estimate = .86). The high correlations of all of the items suggest valid and unified definitions of talent. The high level of correlation also suggests that all of the multiple items would not be needed to identify a talented student. However, the other primary goal of the process — to help teachers recognize artistic behaviors in all students — requires this level of specificity and differentiation. Loadings for the three art forms are listed in Table 1.

Table 1  
Factor Loading for Dance, Music and Theater

<b>Dance</b>		<b>Music</b>		<b>Theater</b>	
<i>Item</i>	Loading	<i>Item</i>	Loading	<i>Item</i>	Loading
Coordination and Agility	.90	Perception of Sound	.91	Imagination	.89
Memory and Recall	.89	Ability to Focus	.90	Collaboration	.78
Physical Control	.88	Expressiveness	.89	Physical Awareness	.76
Movement qualities	.86	Rhythm	.88	Focus	.68
Ability to Focus	.82	Enthusiasm	.82		
Expressiveness	.82	Coordination	.82		
Rhythm	.81	Composition/Improvisation	.79		
Spatial Awareness	.80	Perseverance	.75		
Improvisation	.72				
Perseverance	.61				

#### Construct Validity: Discriminant Evidence

For discriminant validity evidence, demographic information as well as student scores on the Metropolitan Achievement Tests math NCE (normal curve equivalent) scores (MAT- Math) (Prescott, Balow, Hogan, & Farr, 1985/6; Hogan, 1986); Degrees of Reading Power NCE scores (DRP) (N.Y. State Dept. of Education and Touchstone Applied Science Associates, 1981); and the Piers-Harris Self-Concept measure (Piers, 1984) were used. These standardized instruments are widely used in academic communities. Only the TAP results were significant ( $p < .001$ ) in predicting group membership. In dance they explained 65% of the variation in group

membership, in music 61%, and in theater 55%. According to Cohen (1988), these are very large effect sizes. Correlations between arts talent and reading and math scores ranged from .08 to .25 ( $r^2$  from .01 to .06), showing little connectedness between these constructs. The small magnitudes of these correlations support the theoretical divergence of academic achievement and artistic talent.

Reading scores for identified students ranged from the second to the ninety-ninth percentile, with over half (62%) falling into the bottom two quartiles. This generally reflects the test performance of the schools as a whole. Fewer than 20% of students identified through this process would have been recognized for gifted and talented programs using strictly academic criteria. The students identified as talented in the arts are representative of the overall school populations and reflect a range of cultural backgrounds and academic levels including students from self-contained special education and bilingual classes.

Table 2 presents the demographics and academic test score for the identified students.d theater.

Table 2  
Demographics and test score profile of identified students

TOTALS	N	ETHNICITY					GENDER		TEST SCORES IN QUARTILES (NCE)							
		His	Blk	Oth	Wht	As	F	M	1-25 Math / Read		26-50 Math /Read		51-75 Math / Read		76-99 Math / Read	
Identified Students	389	119	212	33	21	4	226	163	28	51	82	72	81	75	35	36
%	100	31	54	9	5	1	58	42	17	22	35	33	33	29	15	16

### Reliability Evidence.

Reliability evidence was gathered over the five week period for the classroom teacher and the two teaching artists. Agreement between the artists and classroom teachers improved each week, reaching a moderate to high level by week four (.67 for music, .82 for dance, and .74 for theater) showing that teachers could independently identify both the selected and not-selected groups as the arts experts did. Blind review by independent arts experts after one and two years

of training strongly verified the accuracy and validity of the original selection. Table 3 presents interrater reliability estimates for the three art forms.

Table 3  
Interrater reliability estimates for Music, Dance and Theater processes

	<b>Music (n=227)</b>		<b>Dance (n=192)</b>		<b>Theater (n=134)</b>	
<b>RATER</b>	<i>A</i>	<i>B</i>	<i>A</i>	<i>B</i>	<i>A</i>	<i>B</i>
<b>A-Artist</b>	---		---		---	
<b>B-Artist</b>	.654	---	.782	---	.716	---
<b>C-Teacher</b>	.672	.788	.813	.817	.737	.545

Raters A and B were the arts experts and C was the classroom teacher. The relatively lower level of agreement between the two theater artists may be explained by the greater active involvement of the artists in the activities during the identification classes.

Additional construct validity evidence was gathered by collecting new ratings on Identified and Not Identified students two years after the original identification process. A random sample of Identified and Not Identified students from the Year 2 audition process participated in a new talent assessment. The random selection aimed for a 30% nonproportional sampling (i.e. equal sample sizes) of Identified and Not Identified students. The new audition was rated by professional artists unfamiliar with the Talent Beyond Words program. A Hotelling  $T^2$  was used to compare Identified and Not Identified students on all ratings simultaneously. Large overall differences were seen between scores of Identified and Not Identified students (*Dance* --  $T^2 = 29.01, p < .0001$ ; *Music* --  $T^2 = 32.80, p < .0001$ ; *Theater* --  $T^2 = 36.88, p = .004$ ). Univariate *t*-tests were used as a *post hoc* probe of the significant  $T^2$ . To protect against inflated Type I error rate, a Bonferroni correction was applied to the alpha value: the nominal alpha of

.05 was divided by 8 (consecutive *t*- tests), to give a new alpha of .006. The *t*-tests show that Identified students received higher ratings in all categories. Most strikingly, Not Identified students who had been rated very close to the Identified group two years before were now indistinguishable from other Not Selected students. This finding provides strong evidence for the need to identify talent and develop talent or lose it.

### Discussion

The research has provided strong evidence for the reliability and validity of the process in all three disciplines. The process proved to be equitable to students of different cultural backgrounds and language abilities. The students selected for advanced instruction represent a full range of students and classes in the schools, including those in self-contained special education and bilingual classrooms. The results were not correlated with tests scores in reading or math. Classroom teachers were able to identify the talents of their students as the arts experts did, reaching a high level of reliability by the fourth week of observations.

This research has generated particular interest from the Arts, Gifted and Talented, Bilingual, and Special Education fields because of the lack of existing data in these areas. Most previous research has been conducted in affluent environments where students have parental support and ample opportunities for their talents to be recognized and developed. This study, conducted in inner city schools with diverse populations, provides schools with the first reliable, systematic model for assessing artistic talent. In addition, it provides an equitable method to select students for advanced arts training.

The difficulty of defining and assessing artistic potential has helped to perpetuate the attitude that artistic talents are secondary and insignificant compared to other, more easily quantifiable characteristics. This belief hinders the inclusion of the arts into a school's

curriculum. The standard audition process reinforces the conception that artistic talent is subjective, largely mysterious, and relatively rare. After 17 years of development and six years of research the results of the ArtsConnection processes demonstrate that artistic talent can be assessed and a reliable prediction of success through training can be made, even in students who have had no prior arts training. Most importantly, the process provides a vehicle for heightening awareness and appreciation for multiple intelligences, learning styles and aptitudes on the part of teachers, parents and students themselves.

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