Access
and
Equity:
Module 2

A Deep Dive
into the Uses of
Multiple
Criteria

Revised August 8, 2016

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Welcome to Module 2. What should we consider when identifying children for highly capable programs and services? This is one of the most difficult questions to answer in the field of gifted education today. The research and standards regarding best practices in identification include "the use of multiple criteria" when designing procedures and processes for the identification and selection of students who may benefit from highly capable services. In this session, we will unpack what is meant by "multiple criteria" – not only what is considered multiple criteria, but also how to use the many and varied sources that are collected to determine a student's educational needs.

Description of Module: Multiple Criteria

This module introduces participants to the importance of using multiple criteria for identifying students' strengths and learning needs to design services that match their identification. Participants explore various instruments, tools, and procedures that optimize the match between identification and services. Most importantly, this module emphasizes the need to collect, document, and use data to guide decision making for access and equity to highly capable services.

This module aligns with the following NAGC-CEC Teacher Preparation Standards in Gifted Education- Standard 4: Assessment (NAGC, 2013).

1. Professionals must be knowledgeable about how multiple methods of assessment and data sources guide effective educational decisions about the identification and services for highly capable students.

2. Professionals should become knowledgeable about measurement principles and practices to interpret results to guide educational decisions for individuals identified as highly capable.

3. Professionals collaborate with colleagues and families in using multiple types of assessment information to make identification and learning progress decisions and to minimize bias and assessment decision-making.

4. Multiple criteria assumes a gathering of data from multiple perspectives which provides a more holistic view about the types of services that would best serve students identified as highly capable.

Upon completion of this module, participants will be able to use multiple criteria during the identification process, which leads to appropriately designed highly capable services that address students' learning needs.

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This module highlights the importance of using multiple criteria and assessment sources by which students can enter the identification pool for consideration at various points in their school careers. By using multiple pathways in the identification process, a more holistic view of students' gifts and talents can be brought to the attention of the Multidisciplinary Selection Committee, who will also make suggestions as to the types of services that would best serve students identified as highly capable. Program personnel should consider several sources of data in determining who will receive further consideration since these multiple measures provide a more comprehensive profile of a student's strengths. It is also important to recognize that talent can be latent, which suggests that a child who may have not exhibited gifted behaviors in second grade, for example, may emerge as very talented in fourth grade and should merit consideration for placement. Exemplary practices in identification recommend not only the use of multiple criteria, but also call for ongoing identification by designing a means through which students whose talents emerge after the first screening and identification take place can be given consideration for receiving highly capable services at another given point in a student's academic career.

This module aligns with the following NAGC-CEC Teacher Preparation Standards in Gifted Education-Standard 4: Assessment (NAGC, 2013).

1. Professionals must be knowledgeable about how multiple methods of assessment guide effective educational decisions about the identification and services for highly capable students.
2. Professionals should become knowledgeable about measurement principles and practices to interpret results that guide educational decisions for individuals identified as highly capable.
3. Professionals collaborate with colleagues and families in using multiple types of assessment information to make identification and learning program decisions and to minimize bias and assessment decision-making.
4. Multiple criteria assumes a gathering of data from multiple perspectives which provides a more holistic view about the types of services that would best serve students identified as highly capable.

Reference:

National Association for Gifted Children and Council for Exceptional Youth (2013). *NAGC-CEC teacher preparation standards in gifted education. Washington, DC: NAGC*. Retrieved on July 17, 2013 from https://www.nagc.org/resources-publications/resources/national-standards-gifted-and-talented-education/nagc-cec-teacher-0

Access and Equity

Callahan, Renzulli, Delcourt, & Hertberg-Davis (2013) state, "A comprehensive and defensible identification plan will recognize developmental differences in children" (p. 85). The use of multiple criteria provides us with several pathways to bring student strengths and talents to our attention. Much too often, unfortunately, final decisions about the identification of a student for highly capable programs comes down to how well a student has performed on only one measurement tool, rather than the consideration of several sources of data to determine who needs further evaluation or advanced learning opportunities. Not using multiple sources of data for selection of students for highly capable services results in bias in the identification process.

There are two main reasons to use multiple criteria: The first reason may be too obvious – No ONE instrument, or measure, or work sample can demonstrate accurately the learning needs of an individual. The second reason relates to access and equity --- using only standardized test scores, on either aptitude or achievement tests, create biased access to programs. The research emanating from the National Center for Research on Gifted Education reports that if you are poor, speak another language as your first language other than English, or are a person of color, you are highly unlikely to enter into a gifted program. This demonstrates the inequities in the identification systems that have historically dominated the U.S. education system.

References:

Callahan, C. M., Renzulli, J. S., Delcourt, M. A. B., & Hertberg-Davis, H. L. (2013). Considerations for identification of gifted and talented students: An introduction to identification. In C. M. Callahan & H. L. Hertberg-Davis (Eds.), *Fundamentals of gifted education: Considering multiple perspectives* (pp. 83-91). New York: Routledge, Taylor and Francis Group.

These are the major objectives for this module:

1. Articulate the relationship between multiple criteria and equity and access to highly capable services.

2. Examine critically current district methods and practices used to identify strengths of students for highly capable services.

3. Explain how multiple criteria should inform procedures for screening and identifying students for highly capable services.

4. Describe the types and purposes of assessment tools used to make appropriate decisions about the educational needs of students.

5. Use multiple assessment tools for identifying students' strengths, interests, and educational needs appropriately with knowledge of the limitations and intent of the various types of instruments.

Washington State Definition

Highly capable students are students who **perform or show potential** for performing at significantly advanced academic levels when compared with others of their age, experiences, or environments. Outstanding abilities are seen within students' general intellectual aptitudes, specific academic abilities, and/or creative productivities within a specific domain.

WAC 392-170-035

As a reminder, the Washington State definition of highly capable students includes both students **who perform or show potential** for performance at significantly advanced academic levels. Inherent in the definition, are the areas in which students may show their strengths: intellectual aptitudes, specific academic abilities, and creative productivities. These areas also point to varied data sources that can be used to indicate students' strengths.

055 – Assessment Process for Selection as Highly Capable Student.

1. Students nominated for selection as a highly capable student, unless eliminated through screening as provided in WAC 392-170-045, shall be assessed by qualified district personnel;

2. Districts shall use multiple objective criteria for identification of students who are among the most highly capable. There is no single prescribed method for identification of students among the most highly capable; and

3. Districts shall have a clearly defined and written assessment process.

The actual language in the WAC says, "Districts shall use multiple objective criteria for identification of students who are among the most highly capable." Notice the word "objective" – How do we ensure that a teacher's referral is objective data and not a subjective evaluation of a student? How can we be sure that one instrument does not bias who will be served in a highly capable program? These and other questions must be explored in order to achieve our goal of providing access and equity for students who require advanced learning services. As a result of viewing this module, we hope you will be able to critically evaluate your current identification practices and work to improve your district's plan for identifying students for advanced learning services.

Picture Source: **https://pixabay.com/en/question-question-mark-request-1422602/**
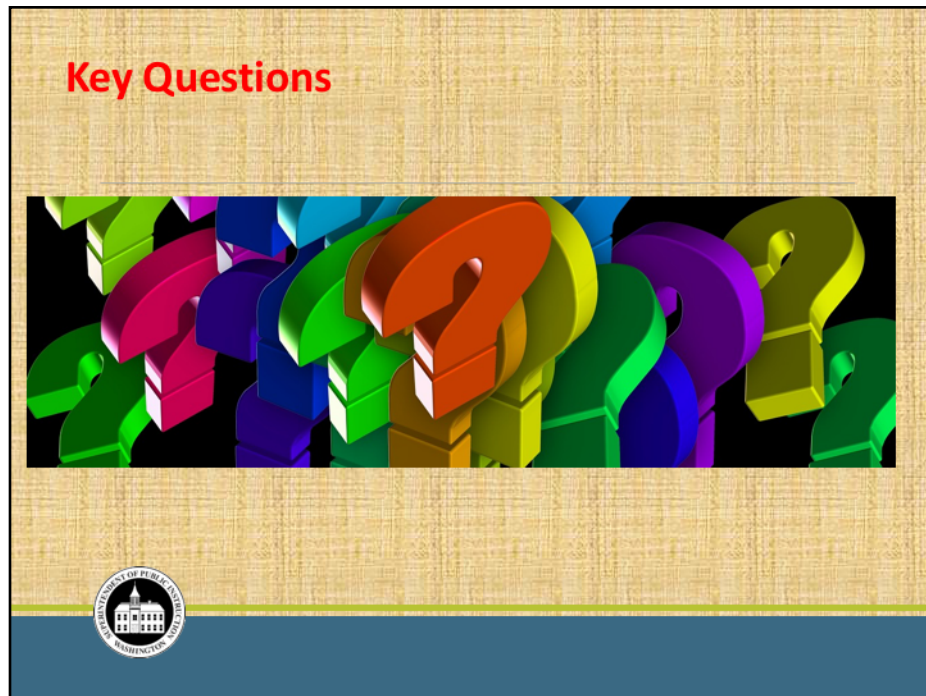
These questions are common questions district personnel need to address before designing their identification process for their highly capable program.

1. What constitutes the multiple criteria you will use to guide your decision making identification processes?
2. Why do you look at different pieces of evidence and how might this information help you to build student profiles to support the educational decisions you will make to guide student learning.
3. Is your district struggling with the mandate to use multiple criteria in your screening, assessment, and identification decisions? If so, what changes can be made?
4. Are there wrong and right ways to use multiple criteria for selection of students for services in highly capable programs?
5. Can cut-off scores be used for screening students as sole indicators for further evaluation?
6. Can districts use three out of four data points to identify students if none of the data points include an ability test?

Key Understandings about Identification

Before we continue our discussion about the use of multiple criteria, it is important to review the key understandings about identification, which include:

1. The purpose of identifying students as highly capable is to match student strengths to student services that support them as continuous learners.

2. Most highly capable students have learning needs for challenge and continued growth.

3. Identification is about identifying students for services and not about labeling a child. We are identifying students for the services they need based on assessment data. The emphasis should be placed on the educational continuum of services K-12 that particular students will require that exceed the instructional levels of their chronological peers.

4. Students' educational needs often change and services will continually need to be reviewed to ensure a proper match between the services and their academic and social needs.

Callahan, Renzulli, Delcourt, & Hertberg-Davis (2013) bring to our attention that, traditionally, the process of identification has focused on selecting students and labeling them gifted, when a better approach would be documenting specific student strengths by preparing student profiles that direct our efforts toward designing appropriately matched student services aligned to these strengths.

References:

Callahan, C. M., Renzulli, J. S., Delcourt, M. A. B., & Hertberg-Davis, H. L. (2013). Considerations for identification of gifted and talented students: An introduction to identification. In C. M. Callahan & H. L. Hertberg-Davis (Eds.), *Fundamentals of gifted education: Considering multiple perspectives* (pp. 83-91). New York: Routledge, Taylor and Francis Group.

Other Resources:

Delcourt, M. A. B. (2007). The effects of programming arrangements on the achievement and self-concept of gifted elementary school students. *Gifted Child Quarterly, 54*, 350-381.

Field, G. B. (2009). The effects of the use of Renzulli Learning on student achievement in reading comprehension, reading fluency, social studies, and science: An investigation of technology and learning in grades 3-8. *International Journal of Emerging Technologies in Learning, 4*, 29-39.

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Gardner, H. (1983). *Frames of mind: The theories of multiple intelligences*. New York: Basic Books.

Renzulli, J. S., & Reis, S. M. (1997). *The Schoolwide Enrichment Model: A how-to guide for educational excellence* (2nd ed). Waco, TX: Prufrock Press.

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journals.org/ijet/article/viewArticle/126.

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WAC Addressing Identification Procedures
(28A.185.030)

•Referrals based upon data from teachers, other staff, parents, students, and members of the community. Assessment shall be based upon a review of each student's capability as shown by multiple criteria intended to reveal, from a wide variety of sources and data, each student's unique needs and capabilities. Selection shall be made by a broadly-based committee of professionals, after consideration of the results of the multiple criteria assessment.

In this section of the WAC, we see that the intent of the law is to include not only multiple ways of assessing student strengths, but also from multiple perspectives, and that the decision to identify also includes a committee of professionals who will serve on the Multidisciplinary Selection Committee. The purpose of a team is to examine the body of evidence upon which to decide who needs highly capable services. The evidence must include the use of multiple types of measures and data sources.

This committee shall consist of:

1. A special teacher: By definition this is a teacher who has training, experience, advanced skills, and knowledge in the education of highly capable students. Areas of competency should include: identification procedures, program design and delivery, instructional practices, student assessment, and program evaluation. If such teacher is not available, then a classroom teacher shall be appointed;

2. A psychologist or other qualified practitioner with training to interpret cognitive and achievement test results;

3. A certified coordinator/administrator with responsibility for the supervision of the

district's program for highly capable students; and

4. Such additional professionals, if any, the district deems desirable.

It is often the work of the Multidisciplinary Selection Committee to examine the body of evidence and may make the following determinations:

1. Notify parents of testing and selection of students for program services;
2. Identify students to receive highly capable services aligned to students' profile of strengths and interests;
3. Inform families about the types of services their child(ren) will receive as a result of being identified for highly capable services;
4. Determine that the data collected do not support the identification of a particular student at this given time and notify parents; and
5. Determine if a student should be referred for further assessment if a student is twice-exceptional.

Multiple – Many
- **Criteria** – multiple instruments and data points
- **Input Sources** –teachers, parents, community, and students.
- **Decision Team**– multiple roles, knowledgeable in different areas

So, when we break down the word multiple, we are not only talking about multiple criteria, but we are also identifying multiple sources of input and seeking input from multiple decision-makers. These ideas help to make our identification processes more responsive and pliable to multiple perspectives of giftedness as viewed by the data collected, numerous individuals who may have knowledge about a particular child's advanced talents and skills, and through the diverse perspectives of those who must collaborate with each other as student profiles of talent are revealed and services are aligned to serve and respect the academic and social needs of these students.

Equal Access Begins with Referral

Referrals are solicited from a **variety of sources**. Referrals are based upon data from teachers, other staff, parents, students, and members of the community. (28A.185.030)

From the very beginning of the Identification process, the law requires districts to include a variety of sources for referrals and notification announcements to inform the public about the policies and procedures used in the identification process to identify highly capable students, which include:

1. Annual public notification of parents and students shall be made <u>before any major identification activity.</u>
2. The notice shall be <u>published or announced in multiple ways</u> in <u>appropriate languages</u> to each community in school and district publications or other media, with circulation adequate to notify parents and students throughout the district.

<u>During the Referral Phase</u> of the identification process, referrals are solicited from a variety of sources. Referrals are based upon data from teachers, other staff, parents, students, and members of the community. (28A.185.030)

     1. The purpose of this statement is to ensure that all students who might have potential in related areas of giftedness defined by the district are referred.

     2. This open-process of referrals better ensure that we pay close attention to students who traditionally have been underrepresented in gifted

programs. These groups may include students with disabilities and other learning challenges, are culturally and linguistically diverse, or experience economic challenges that prevent the opportunity to access high quality educational experiences.

3. Referrals from a variety of sources will provide the means through which a student's talent will be brought to the attention of the identification and selection teams.

4. Professional development should be provided to educators about this referral process. Research suggests that teachers identify more children when they are provided with training in understanding the academic and social needs of highly capable students (Gear, 1978).

5. At the end of the referral phase, schools should have a large pool of applicants, who will proceed to the second phase of identification, which is screening.

Equal Access in Assessment

Assessment shall be based upon a review of each student's capability as shown by multiple criteria intended to reveal, from a wide variety of sources and data, each student's unique needs and capabilities. (28A.185.030)

During the Assessment Phase, specific measurement tools and non-standardized sources of data are used to identify student strengths. Using a variety of data, the profiles of student strengths are revealed to indicate the types of services required.

By using varied sources of data, we are able to gather important information about multiple dimensions of a young person's performance and potential. The criteria for screening and identification must be carefully considered to ensure development of student profiles that reflect the best possible picture of student talent and to guide the best match with educational programming.

Picture Source: http://worldartsme.com/

Educators should select and use multiple assessments that measure diverse abilities, talents, and strengths that are based on current theories, models, and research. Multiple criteria helps to build a body of evidence that meets the criteria for selection of students for highly capable programs and helps to build student profiles of strengths and interests from which services can be determined.

Most districts use some forms of standardized instruments to assess their students' abilities. There are many standardized instruments schools may use as data points during the assessment phase of the identification process. But all instruments should be used as they were designed to be used. There are several categories of assessment data often gathered to identify the strengths and readiness levels of students for certain types of services that the Highly Capable Program will provide, which may include:

Achievement Tests—Measure knowledge of or proficiency in something learned or taught about a content area (i.e., math). Commonly administered achievement tests include: Iowa Test of Basic Skills (ITBS); California Achievement Test (CAT); and the

Stanford Achievement Test. The ACT Assessment used for college entrance falls under the category of an achievement test.

Aptitude Tests—Predict future performance in a particular domain. Examples of such tests include: Cognitive Abilities Test CogAT 7 and the CogAT Screening Form 7, OLSAT 8, SAT Reasoning Test (SAT); and the Differential Aptitude Test (DAT).

Intelligence Tests—Measure some of the structures and processes underlying intelligence as an internal trait.
Samples behavior already learned in an attempt to predict future learning. The Wechsler Intelligence Scale for Children, Fifth Edition (WISC-V); the Stanford-Binet Intelligence Scales-Fifth Edition (SB-V); and the Naglieri Nonverbal Ability Test (NNAT2) are examples of IQ measures.

Teacher Rating Scales-Teacher rating or judgment scales provide additional and different information about the characteristics and behaviors we associate with giftedness. Experts in the field of gifted education have long recommended using teacher judgment measures among the multiple sources of information for screening and identifying students for gifted education services.

Tests of Creative Abilities- These tests purport to measure students' creative abilities.

As views on intelligence and giftedness have broadened beyond IQ, a new paradigm for identifying a diverse range of students appears appropriate and necessary (Callahan, 2005; VanTassel-Baska, Feng, & de Brux, 2007). Researchers have recommended the use of multiple criteria including the use of portfolios, scores from traditional assessments, creativity measures, and authentic classroom assessments that are also valid and reliable. However, it must be noted that traditional assessment tests have been shown to be effective when trying to: (1) estimate a student's readiness for the next level of instruction or services provided to identified students or for students whose ability and performance levels exceed their peers; and (2) make decisions or design accelerative interventions for students who benefit from more advanced interventions (Colangelo, et. al., 2010; Robinson, 2005). Other researchers have argued that ability and achievement tests may be useful in the identification of twice-exceptional learners where discrepancies between and within achievement and ability scores are seen (Assouline, Nicpon, & Whiteman, 2010; Kalbfleisch & Iguchi, 2008).

References:

Assouline, S. G., Nicpon, M. F., & Whiteman, C. (2010). Cognitive and psychosocial characteristics of gifted students with written language disability. *Gifted Child Quarterly, 54*, 102-115.

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Colangelo, N., Assouline, S. G., Marron, M. A., Castellano, J. A., Clinkenbeard, P. R., Rogers, K., et al. (2010). Guidelines for developing an academic acceleration policy. *Journal of Advanced Academics, 21*, 180-203.

Kalbfleisch, M. L., & Iguchi, C. M. (2008). Twice-exceptional learners. In J. A. Plucker & C. M. Callahan (Eds.), *Critical issues and practices in gifted education: What the research says* (pp. 707-719). Waco, TX: Prufrock Press.

Robinson, N. M. (2005). In defense of a psychometric approach to the definition of academic giftedness: A conservative view from a die-hard liberal. In R. J. Sternberg, & J. E. Davidson (Eds.), *Conceptions of giftedness* (2nd ed., pp. 417-435). Boston: Cambridge University Press.

VanTassel-Baska, J., Feng, A. X., & de Brux, E. (2007). A study of identification and achievement profiles of performance task-identified gifted students over 6 years. *Journal for the Education of the Gifted, 31*, 7-34.

Other Sources of Information

- Anecdotal Records
- Behavior Checklists
- Case Study Approach
- Curriculum-Based Assessments
- Grades
- Interviews
- Leadership
- Performance-Based Activities or Assessment
- Products
- Referral Forms

Picture Source: http://www.informationweek.com/mobile/mobile-devices/10-tech-tools-to-engage-students/d/d-id/1110775?

There are other sources of data that provide additional information about the learning needs of students. No one source is necessarily more important than another unless it is used to design a specific academic or behavioral intervention. For example, if the school is setting up a student government council, a leadership checklist or scale may be used to identify students that they wish to encourage to participate. Another example might be a student who has a strong interest in a topic and has completed an investigative project and presented it to the class, this student may be recognized as needing more opportunities to pursue strong interests in more depth and at higher levels of involvement. Teachers often use curriculum-based assessments to measure student growth. Teachers who note that students have mastered the grade-level curriculum might or may use this data to refer students for further assessment or to enhance our knowledge about the academic profiles of particular students.

Also these sources are not restricted to a school setting. Talent may arise through involvement in extra-curricular or community activities that reveal deep interests, strengths and engagement that are also tied to deeper levels of knowledge in one or more specific fields of study. Securing referrals from parents, community leaders, religious leaders, etc. help us to identify students' interests and build a more comprehensive portfolio, which should guide decisions about how to support, challenge, and accelerate student growth.

Stop and Pause: Read

Select and read the articles posted on our website that address issues and concerns about the identification of highly capable students. Many of the articles address assessment concerns that surface as schools develop their procedures and criteria for the selection of students.

You might consider assigning these articles to various group members on your team to highlight the phrases or new insights that made them stop and pause in their thinking. This often helps us identify ideas that are worth considering or think about when reviewing our current identification procedures and practices.

Picture Source: http://worldartsme.com/
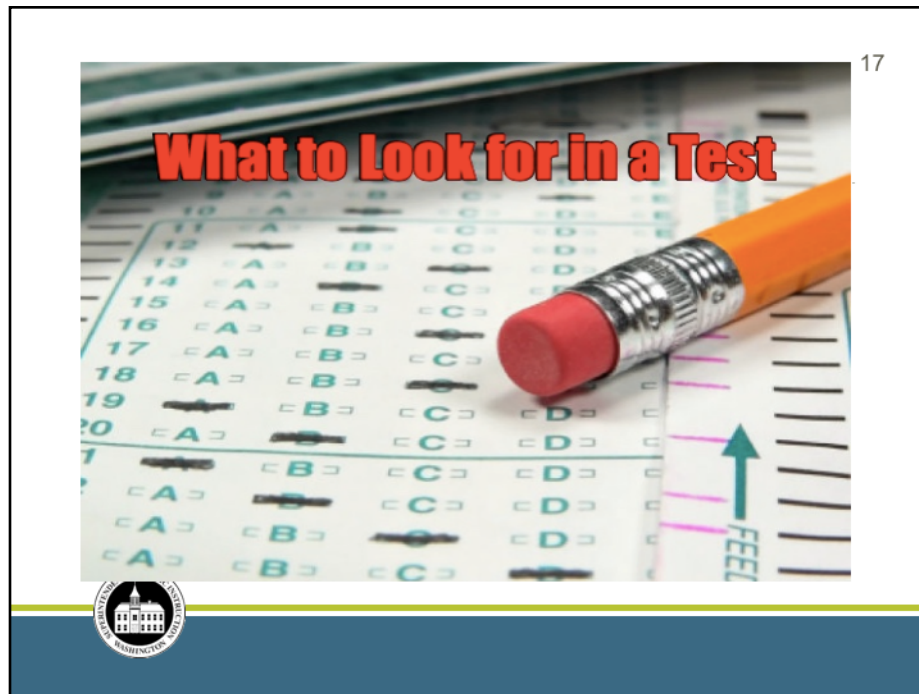
To better understand standardized instruments used during the identification process, we should **examine the psychometrics** behind any instrument selected. Each instrument has psychometric properties such as reliability and validity. Published instruments have technical manuals with directions for administration and appropriate uses. The manual also includes information about the reliability, validity, standard errors of measurement, and norming samples. For more information and reviews of published instruments, you may wish to consult Mental Measurements Yearbook and Test Reviews (http://buros.org). In this module, we are focusing on the most essential properties to consider in making any decisions about the instruments that you will use. If using rating scales or other protocols for which the psychometric data are not available, the data must be collected locally to defend the use of the instrument.

Testing and Measurements Concepts
(What You Need to Know But You Might Be Afraid to Ask)

1. Validity
2. Reliability
3. Standard Error of Measurement

Let's talk about some of these properties. These are the criteria that define high quality measurement tools. Therefore, these criteria must be considered when selecting instruments for your identification process. Within each testing manual you will find information about the validity, reliability, standard error of measurement, and how the tests were normed. Let's go into greater detail about these terms.

Validity asks this question, "Does this test measure what it says it does"? If it doesn't, then results will not be meaningful. Validity is a matter of degree and the more valid the instrument is the more you can trust the results to provide you with information about the child based on what it claimed to measure.

Reliability means that every time you take the test, the results should be consistent. In other words, are the scores stable over time? Reliability coefficient range from 0-1.0. The higher the reliability coefficient score, the more reliable the instrument.

When we administer a test and make decisions about a student's educational program, we want to assume that the score will be reliable. It is also important to realize that rating scales and other instruments used in the identification process should have interrater reliability. This means that when two raters are scoring a student's work, for

example, their scores yield similar results so that whether or not a student is regarded as performing at a high level is not reflective of the bias of the rater (Callahan, Renzulli, Delcourt, & Hertbert-Davis (2013).

Questions that might be considered when selecting a reliable instrument might include:
- Stability: Are the test results consistent over time?
- Equivalence: Are the test results similar with different forms of the test?
- Internal Consistency: Are the items in the test homogeneous?
- Reliability Coefficient Range from 0-1.0
- Higher the better, in general should be .80 or higher

The **Standard Error of Measurement or SEM** is the estimate of the amount of variation in the test scores (due to random fluctuations) if you were to give the same test to the same student over and over again. If a particular test reports that the SEM is low, then we have greater confidence that the score we obtained is dependable. The publishers of commercial tests should report this information in their technical manuals or on their websites. SEM will also vary among tests. The importance in knowing this is that the reported SEM for a particular test has implications when districts use definitive cut scores for the selection of students for highly capable programs. What is important to realize is if a student's score is within the SEM of the cut score, you cannot say if the student is actually above or below that cut score. Another caution to consider is that when cut-scores are used as the only tool for making decisions about placement, you might be eliminating a child from placement because he or she might obtain a different test score on another day, and it has nothing to do with what a child knows or does not know—it has to do with the imprecision of tests (Westberg, 2011). So for those students scoring close to this cut score you will want to conduct further investigation.

References:

Callahan, C. M., Renzulli, J. S., Delcourt, M. A. B., & Hertberg-Davis, H. L. (2013). Considerations for identification of gifted and talented students: An introduction to identification. In C. M. Callahan & H. L. Hertberg-Davis (Eds.), *Fundamentals of gifted education: Considering multiple perspectives* (pp. 83-91). New York: Routledge, Taylor and Francis Group.

Westberg, K. L. (2011, May). *Standard error of measurement: A concept that every gifted education specialist must understand.* MEGT Voice Newsletter, pp. 9-10.

Nondiscrimination in the Use of Tests
392-170-060

All tests and other evaluation materials used in the **assessment shall have been validated for the specific purpose for which they are used and shall accurately reflect whatever factors the tests purport to measure**.

If properly validated tests are not available, the professional judgment of the qualified district personnel shall determine eligibility of the student based upon evidence of cognitive ability and/or academic achievement. This professional judgment shall be documented in writing.

Testing and Measurements Concepts
(What You Need to Know But You Might Be Afraid to Ask)

4. Norm Scores

"Inferences about academic talent are most defensible when made by comparing a student's behavior to the behavior of other students who have had similar opportunities to acquire the knowledge and skills measured by the test".

(Lohman, 2005, p. 4)

Norm Scores-When standardized tests are created for the purpose of comparing students to one another on some factor, decisions must be made about those to whom they will be compared. Those selected for the comparison group are the norming sample.

Norms can be national or local. NAGC (2010) suggests that school districts consider the use of local norms rather than national norms. In a 2006 monograph by David Lohman entitled *Identifying Academically Talented Minority Students,* he addresses many problems with respect to underrepresentation. One of his arguments is that a major barrier to proportional identification is based on the fact that most testing is based on national norm comparisons. He explains that while national norms are useful in making comparisons of students or school districts to the rest of the country, this comparison is less useful in making classroom or program placement decisions. He continues by stating, " A better policy, then, is to make decisions about aptitude for academic excellence using the most valid and reliable measures for all students, but to compare each student's scores only to the scores of other students who share roughly similar learning opportunities or background characteristics" (p. 38). When making decisions about identification and acceleration, local norms are recommended (p. 14).

While local norms have been recommended, it is also important to understand their limitations. Lohman (2013) has articulated the limitations of the use of local norms, by stating "they require census testing (i.e., <u>testing all </u>second grade students rather than testing only those individual nominated for the program)" (p. 115).

For more information about the use of national and local norms see the references. To learn how to calculate local norms, see the document called *Local PR Excel Computations* written by Dr. David Lohman and obtained on his website: https://faculty.education.uiowa.edu/david-lohman/home

Some general questions to ask about any test you select might consider about testing norms include:
- <u>Age</u>-How long ago was the instrument developed or updated (Norms)? You want to be using the most recent norms.
- <u>Appropriate</u>-What is the instrument's purpose?
- <u>Application</u>-How are you supposed to use the results? (Local vs. National Norms)
- <u>Analysis</u>-Who made up the pilot sample? Was it representative of your population/school? What research has been done on the instrument? Is reliability and validity evidence available?

References:
Callahan, C. M., Renzulli, J. S., Delcourt, M. A. B., & Hertberg-Davis, H. L. (2013). Considerations for identification of gifted and talented students: An introduction to identification. In C. M. Callahan & H. L. Hertberg-Davis (Eds.), *Fundamentals of gifted education: Considering multiple perspectives* (pp. 83-71). New York: Routledge, Taylor and Francis Group.

Lakin, J. M., Lohman, D. F. (2011). The predictive accuracy of verbal, qualitative, and nonverbal reasoning tests: Consequences for talent identification and program diversity. *Journal for the Education of the Gifted, 34*, 595-623.

Lohman, D. F. (2005, Winter). How to identify academically gifted minority students. *Cognitively Speaking, 3*, 1-7. Retrieved July 21, 2016, from http://www.hmhco.com/~/media/sites/home/hmh-assessments/assessments/cogat/pdf/cogat-cognitively-speaking-v3-winter-2005.pdf?la=en

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National Association for Gifted Education (2010). Pre-K to grade 12 gifted programming standards. Washington, DC: NAGC.

Westberg, K. L. (2011, May). Standard error of measurement: A concept that every gifted education specialist must understand. *MEGT Voice Newsletter*, pp. 9-10.

Why Do Norms Matter?

- If a 5th grade ELL student learns English twice as fast as other ELL students, that student likely has a talent with regard to language. When compared **nationally to ALL 5th grade students**, this student might score at the average level. However, if **local norms were obtained**, this child might score at a higher level when compared to his/her peers.

- Using local norms is more appropriate for finding students of potential regardless of the type of school district; namely, the top performing students in a wealthy or a low performing school are the students whose needs are not being met because instruction and curriculum is typically directed toward the average-performing students.

These examples illustrate how depending on the norms used, we could easily eliminate some students who may benefit from services to identify and support their recognized potential. Comparing students using local norms and even "within groups" will help pre-identify students and provide them with access to instructional and curricular opportunities to develop their talent.

Some Identification Considerations

1. **No single test** should be used to identify a Highly Capable Student.
2. **Stay away from adding the test scores** or simply using the composite score for your final selection of students because you lose valuable data that makes a student unique in his/her characteristics and learning profile.
3. **Uneven profiles** in a student's scores may warrant further investigation to see if the ability is masked by a disability, language familiarity, etc.
4. **Consider using local norms** on assessments since they provide more accurate information about how students are performing compared to their peers locally.

In summary, some important identification issues that should be considered include:

1. No single test should be used to identify a Highly Capable Student.
2. Stay away from adding the test scores or simply using the composite score for your final selection of students because you lose valuable data that makes a student unique in his/her characteristics and learning profile.
3. Uneven profiles in a student's scores may warrant further investigation to see if the ability is masked by a disability, language familiarity, etc.
4. Consider using local norms on assessments since they provide more accurate information about how students are performing compared to their peers locally.

Some Important Information on Testing

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Code of Fair Testing Practices in Education
(http://www.apa.org/science/programs/testing/fair-code.aspx)

The Code provides guidance separately for test developers and test users in four critical areas, which are important for those involved in the identification process. Insights can be gained by reading each of the following sections of the *Code.*

1. Developing and Selecting Appropriate Tests
2. Administering and Scoring Tests
3. Reporting and Interpreting Test Results
4. Informing Test Takers

Test Reviews: Buros Mental Measurement Yearbook
http://buros.org/mental-measurements-yearbook

The Code of Fair Testing Practices in Education *(Code)* is a guide for professionals in fulfilling their obligation to provide and use tests that are fair to all test takers regardless of age, gender, disability, race, ethnicity, national origin, religion, sexual orientation, linguistic background, or other personal characteristics. Many statements in the **Code** refer to the selection and use of existing tests. The recommendations are particularly useful for individuals who will select, administer, and interpret test results, and finally communicate testing and selection results to families. By reviewing this information, a district can more effectively commit themselves to fairness in testing and safeguarding the rights of test takers.

Reference:

Joint Committee on Testing Practices. (2004). Code of fair testing practices in education. Washington, DC: American Psychological Association. Retrieved July 7, 2016 from http://www.apa.org/science/programs/testing/fair-code.aspx

When Using Multiple Criteria, Scores Should be Normalized for Comparison Purposes
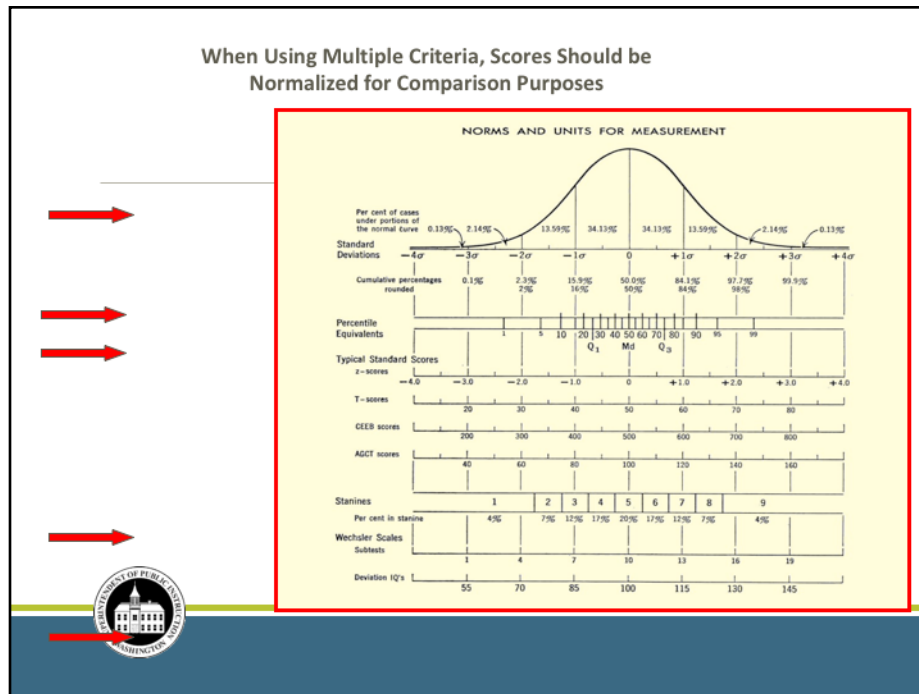
A very common error during the identification process occurs when scores are combined from multiple sources of data. Since not all tests use the same measurement scale when reporting the results, it is very important when making comparisons between multiple measures to "normalize" the data. Normalizing data refers to the process of converting different types of data on the same scale for comparison purposes (i.e., converting to a z-score). By definition a z-score tells us how far a student is above or below the average student in our local population.

For further information on this process, please refer to the references.

Resource:

Ryan, S. (2011). *Normalizing data for identification of gifted students*. Unionville, NY: Royal Fireworks Press.

Considerations for Using Multiple Measures for Gifted Identification a Valid Approach

Picture Source: http://blog.wavelink.com/wp-content/uploads/2013/08/considerations.jpg

There are practices that should be considered when using multiple measures to identify students for special services. If you design and use a matrix and the scores are combined that result in one number, you lose some valuable information about a child's strengths, which guides future programming. However, the use of matrices may be more efficient in larger school districts (see references).

1. Do not add scores together as they are typically reported because instruments may be reported on different measurement scales (e.g., percentiles on one instrument and raw scores on another instrument).
2. Do not compare test results on different tests before you convert them to a standard score (such as a z-score or national curve equivalent score). A common method for putting all data on the same scale is to convert everything to a z score. The z-score is a common yard stick for all types of data. Information about these conversions can be found on the Internet.

When trying to obtain valid information about a student's status and needs, a variety of

assessment procedures should be used (Moon, 2013). Her list of recommendations regarding what makes for a comprehensive gifted identification system are worth noting:

1. Consider all components of the definition of giftedness as defined by the respective state and district. Multiple assessments should be used that reflect each category of giftedness outlined in the definition.
2. Use the most up-to-date version of any standardized assessment that is supported by strong psychometric data to inform the decisions that will be made about gifted placement.
3. Undertake careful study of the norms of all standardized assessments used in an identification process to ensure that they are up-to-date and representative of the types of students that are being targeted for gifted services.
4. Use multiple measures, including both standardized and non-standardized assessments, as well other data sources including:
    - interviews with parent/guardians, teachers, other relevant professionals, and if appropriate, the student;
    - direct observations of the student in a variety of settings and on more than one occasion;
    - curriculum-based measures designed specifically to elicit the types of knowledge, skills, and understandings that are the focus of the gifted services; and
    - student portfolios.
5. Integrate these multiple sources of data in a technically defensible way. One consideration is to investigate the incremental validity of particular sources of data. For example, does the use of an interest survey provide a significantly better result for a decision about gifted programming than use only of a group-administered achievement test and ability test? If it is found that the interest survey significantly aids in the decision, then using the interest form is said to have incremental validity.
6. Consider confidence intervals and standard error of measurement, if appropriate, when making decisions about placement. Confidence intervals are included in text manuals and provide a range in which a student's test score would be likely to fall if he or she were tested over several occasions. This interval allows for test error to be considered in interpreting a score.
7. Adhere to recommended and accepted practices for the administration, scoring, interpretation, and reporting of standardized assessments.
8. Develop case studies/profiles of students. The purpose of the case study is to provide a deeper understanding of a student's particular strengths, interests, abilities, motivation, and/or learning profile. Case studies include student data across multiple sources of information representing various areas of the gifted definition.
9. An identification and placement committee made up of professionals with a

background in assessment and gifted education should discuss the information gathered from all data sources in a balanced way to determine if the student's current level of academic performance and skills suggests a need for modifications in educational planning and what those modifications should mean (pp. 133-134).

Reference:

Moon, T. R. (2013). Uses and misuses of matrices in identifying gifted students. In C. M. Callahan & H. L. Hertberg-Davis (Eds.), *Fundamentals of gifted education: Considering multiple perspectives* (pp.128-134). New York: Routledge, Taylor and Francis Group.

Recommendations for Using Standardized Assessments

1. Obtain the most reliable and valid measures of domain-specific aptitude for all students.

2. Provide and document appropriate procedures for test takers with disabilities who need special accommodations or those with diverse linguistic backgrounds.

3. Provide adequate training to those administrating the assessments and ensure and monitor the accuracy of the scoring process.

4. Establish a policy for achieving more equitable representation of underrepresented groups in programs.

5. Make better use of local norms when identifying students whose accomplishments in particular academic domains are well above their classmates.

Activity 2: Reflection – Understanding Psychometrics

List the instruments that you are currently using in your identification plan to identify students for highly capable services. Reflect upon on the importance of understanding the purpose and intent of each of these instruments.

1. What do you now understand about the strengths and limitations of the instruments that you are using to identify students for highly capable services?

2. Are these instruments valid and reliable, and being used appropriately?

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Teacher Perspectives:
Using Teacher Rating Scales

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The most common rationale behind the use of teacher judgment scales is that they provide additional information about the characteristics and behaviors associated with giftedness (Westberg, 2012). Lohman and Lakin (2007) also argue for the inclusion of teacher judgment measures when identifying students for gifted services, stating, "Combining evidence of current achievement, reasoning abilities, and teacher ratings can help increase the diversity of gifted programs while also identifying the students in all ethnic groups most likely to benefit from special instruction" (p. 22). In her chapter, *Using Teacher Rating Scales in the Identification of Gifted Students* (Westberg, 2012), she evaluated 3 instruments that have empirical support for their use and are listed on subsequent slides. She also offers some best advice when using teacher judgement measures in the identification process, which include:

1. Screening and identification procedures and instruments should align with the definition and services for which we are identifying students. For example, if a district is providing advanced classes in language arts and mathematics, then it is important to select instruments that better match the talent being served.
2. Modifying teacher judgement instruments is not permissible since the reliability and validity and technical support for the instrument will be compromised.
3. Scores from each scale on the instrument should not be added together because

valuable data is lost about a child's unique strengths.

4. Teacher training is very important before asking teachers to complete teacher-rating forms. Additionally, she cites research that has found that teachers helping teachers focus on particular manifestations of traits in specific cultural or socioeconomic setting would improve the predictive validity of the ratings (Hunsaker, Finley, & Frank, 1997) while Gear (1978) found that trained teachers, versus untrained teachers, nominate more students.

References:

Gear, G. (1978). Effects of training on teachers' accuracy in identifying gifted students. *Gifted Child Quarterly, 22*, 90–97.

Hunsaker, S. L., Finley, V. S., & Frank, E. L. (1997). An analysis of teacher nominations and student performance in gifted programs. *Gifted Child Quarterly, 41*, 19–23.

Lohman, D. L., & Lakin, J. (2007). Nonverbal test scores as one component of an identification system: Integrating ability, achievement, and teacher ratings. In J. Van Tassel Baska (Ed.), *Alternative assessments for identifying gifted and talented students* (pp. 41–66). Waco, TX: Prufrock Press.

Westberg, K. L. (2012). Using teacher rating scales in the identification for gifted students. In S. L. Hunsaker, (Ed.)., *Identification: The theory and practice of identifying students for gifted and talented education services (pp. 363-379)*. Mansfield Center, CT: Creative Learning Press, Inc.

Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS)
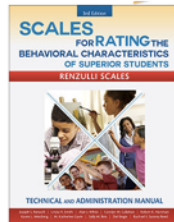
The *RENZULLI SCALES* are designed to obtain teacher estimates of a student's characteristics in the following areas:

- Learning Characteristics
- Creativity Characteristics
- Motivation Characteristics
- Leadership Characteristics
- Artistic Characteristics
- Musical Characteristics
- Dramatics Characteristics
- Communication Characteristics (Precision)
- Communication Characteristics (Expressiveness)
- Planning Characteristics
- Mathematics Characteristics
- Reading Characteristics
- Technology Characteristics
- Science Characteristics

The manual features extensive appendices that include reproducible teacher training activities to help teachers understand how to use the scales and rate students, easy-to-follow instructions on how to establish local norms in a school or district, and a practical plan for identifying students for gifted and talented programs.

Joseph S. Renzulli | Linda H. Smith | Alan J. White | Carolyn M. Callahan | Robert K. Hartman
Karen L. Westberg | M. Katherine Gavin | Sally M. Reis | Del Siegle | Rachael E. Sytsma Reed

- Teacher Training Exercises Included
- Grades 3-12 with the exception of Math, Reading, Technology and Science Grades 3-8

http://www.prufrock.com/Scales-for-Rating-the-Behavioral-Characteristics-of-Superior-Students-Technical-and-Administration-Manual-3rd-ed-P1823.aspx

Background Information on the SRBCSS

This resources includes a series of 14 separate teacher judgment scales designed to obtain information about the manifestations of students' characteristics, which are learning, motivation, creativity, leadership, artistic, musical, dramatics, communication precision, communication-expressiveness, planning, reading, mathematics, science, and technology. The first three or four scales—learning, motivation, creativity, and leadership—are most commonly used. The other scales are used when appropriate for programs that focus on those traits (Westberg, 2012).

References:

Renzulli, J. S., Smith, L. H., White, A. J., Callahan, C. M. Hartman, R. K., Westberg, K. W., Gavin, M. K., Reis, S. M., Siegle, D., & Sytsma Reed, R. E. (2010). Scales for Rating the Behavioral Characteristics of Superior Students (3rd ed.) [published instrument]. Waco, TX: Prufrock Press.

Westberg, K. L. (2012). Using teacher rating scales in the identification for gifted students. In S. L. Hunsaker, (Ed.)., *Identification: The theory and practice of*

identifying students for gifted and talented education services (pp. 363-379). Mansfield Center, CT: Creative Learning Press, Inc.

Background Information About the GRS

The Gifted Rating Scales are norm-referenced rating scales based on current theories of giftedness and federal and state guidelines regarding the definition of gifted and talented students. Pre-school and Kindergarten teachers complete the Pre-School/Kindergarten GRS-P form for children between the ages of 4:0 and 6:11 years. This form of GRS–P contains brief scales covering five domains: intellectual, academic readiness, motivation, creativity and artistic talent. Teachers complete six brief scales on the School-Age GRS–S form to evaluate children between the ages of 6:0 through 13:11 years who are in grades 1 - 8. The six domains include: intellectual, academic, motivation, creativity, leadership and artistic talent.

Reference:

Pfeiffer, S. I., & Jarosewich, T. (2003). *GRS: Gifted Rating Scales* [published instrument]. San Antonio, TX: Pearson.

Example items from the *Gifted Rating Scales*.

Scales for Identifying Gifted Students (SIGS)
Ryser & McConnell, 2004

Background Information About the SIGS

The Scales for Identifying Gifted Students (SIGS) is a series of scales "designed to assist school districts in the identification of students as gifted" (Ryser & McConnell, 2004, p. 1). The SIGS contains items on seven separate scales (general intellectual ability, language arts, mathematics, science, social studies, creativity, and leadership) to which teachers respond on a 5-point scale (0 = never, 1 = rarely, 2 = some, 3 = somewhat more, 4 = much more). Teachers are asked to respond to items by keeping in mind how each child compares to hisor her peers on the characteristic being rated.

Reference:

Ryser, G. R., & McConnell, K. (2004). SIGS complete kit: *Scales for Identifying Gifted Students* [published instrument]. Waco, TX: Prufrock Press.

During the selection phase, the Multidisciplinary Selection Committee meet to select those students who will benefit from the specified highly capable services. All data from the screening and referral phases should be considered. There are no prescribed ways to use the multiple criteria, but the criteria should help to inform the committee about student strengths that may need to be served through the variety of services that are available. The one important thing to remember is that the committee should use all of the data collected to find the strengths of the student in order to consider the continuum of services that will be provided.

Recommendations for using Multiple Criteria: Building a Student Profile

District #191   Enrichment Screening Record Sheet   20

School _____   Grade _____   Date _____

IdenNo.	Gender	Race/Ethnicity	ITBSRdng	ITBSMath	CoGAT V	CoGAT NV	CoGAT Q	CoGAT Com	Learning	Creativity	Motivation	Peer Rtg.
Sample 1	Male	Caucasian	95	89	94	88	89	90	57	52	63	24
Sample 2	Female	HispanicAmerican	88	94	91	90	94	92	55	55	55	36

Note: Sample No. 1 was included on this screening record sheet to illustrate at least one score at or above the 95th percentile. Sample No. 2 was included to illustrate a teacher nomination. This record-keeping sheet is used for screening students who may or may not be selected for enrichment services.

This is one example of how a spreadsheet can be used to view student scores from multiple assessments. This is a holistic method for reviewing scores rather than using a matrix, which applies weights to various data points. When viewing scores holistically, the selection committee determines eligibility by looking across multiple sources of data rather than weighting certain sources of information or creating a formula that combines scores that might be used in a matrix. For further information on appropriate use of matrices, please see the reference below.

To interpret the scores for the **Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS), please note each scale's total score below:**
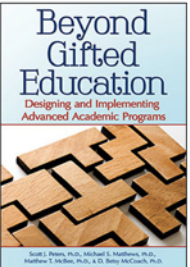- Learning Scale- 66 total
- Creativity Scale-54 total
- Motivation Scale-66 total

Reference:

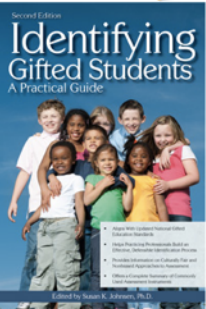Ryan, S. (2011). *Normalizing data for identification of gifted students*. Unionville, NY: Royal Fireworks Press.
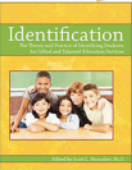
Callahan, C. M., & Hertberg-Davis. H. L. (Eds.) (2013). *Fundamentals of gifted education: Considering multiple perspectives.* NY: Routledge.

Peters, S. J., Matthews, M. S., McBee, M. T, & McCoach, B. (2014). *Beyond gifted education: Designing and implementing advanced academic programs.* Waco, TX: Prufrock Press.

Hunsaker, S. L. (Ed.). (2012). *Identification: The theory and practice of identifying students for gifted and talented education services.* Waco, TX: Prufrock Press.

Johnsen, S. K. (2011). *Identifying gifted students: A practical guide.* Waco, TX: Prufrock Press.

These are some great references to support your identification plans. Consider purchasing them for your library.

Take Action

1. Examine your own district policies and procedures to assess and evaluate the degree to which you are using multiple sources of data to identify and consider the services needed to match your students' learning needs.

2. Possible Action Steps:
   ○ Revise identification procedures if needed to reflect your new knowledge about the use of multiple criteria.
   ○ Develop procedures for a holistic review of collected student data.
   ○ Redesign the criteria used for selecting highly capable students based on what you have learned in this module and the cautionary suggestions that are made when an identification system is considered.
   ○ Add some new services based on what the data reveal to you about students' needs.
   ○ Create a professional development plan for educating those in your school district who will have a role in the identification and selection of students for highly capable programs.

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Reflection based upon new knowledge helps us to continually "grow" our programs. What "new changes" are necessary to improve how you use multiple sources of data when identifying students for your highly capable program? Use these "Take Action" ideas or design your own that are more relevant to your needs to "jumpstart" the change process.

Credits

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Picture Source: Jann Leppien

Dr. Jann Leppien is an associate professor and the Endowed Chair in Gifted Education at Whitworth University. Whitworth's Center for Gifted Education supports and develops policies and practices that encourage the diverse expressions of gifts and talents in children and youth from all cultures, racial and ethnic backgrounds, and socioeconomic groups and offers educators a specialty endorsement and master's degrees in gifted education. Prior to this position, she taught courses at the University of Great Falls in Montana in curriculum and assessment, gifted education, and educational research. Before joining the faculty at the University of Great Falls, she worked as a research assistant for The National Research Center on the Gifted and Talented (NRC/GT) at the University of Connecticut, where she obtained a master's and Ph.D. in gifted education. She has been a classroom teacher, enrichment specialist, and coordinator of a gifted education program in Montana. She is the co-author of *The Multiple Menu Model: A Practical Guide for Developing Differentiated Curriculum*, and *The Parallel Curriculum: A Design to Develop High Potential and Challenge High-Ability Students.* She conducts workshops for teachers in the areas of differentiated instruction, curriculum design and assessment, thinking skills, and gifted program development. She has served on the board of the National Association for Gifted Children and currently serves on the

Diversity Committee. She is also a board member of the Association for the Education of Gifted Underachieving Students (AEGUS) and serves on the advisory board of the 2e Center for Research and Professional Development located on the campus of Bridges Academy, a school for twice-exceptional students (http://www.bridges.edu). She is President of Edufest, a summer teaching and learning institute in gifted education held in Boise, Idaho (www.edufest.org). Her current interest is in assisting schools in redesigning comprehensive services for highly capable students.