

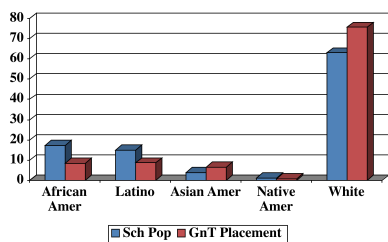
Understanding What Giftedness is: Implications for Identification and Programming

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Questions to Consider

- How do we know when someone is gifted?
- What does gifted mean?
- Is the label, "gifted," worth anything if it does not predict adult accomplishments?
- How much will a student with an IQ of 145 learn if he does not pay attention in class, or engage with the material that he is being taught?

School % versus % Placed in G & T Programs



Case Study

- Saunders, C. L. (2003). Taken from *The Journal of Secondary Gifted Education*, 14, 100-106.
- Would you recommend this child for gifted assessment?
- Why? Why not?
- What would you address in IEP?

Areas of Giftedness

Federal Definition - Five (Six) Areas

1. Intellectual Ability (IQ)
2. Academic Achievement
3. Creativity
4. Leadership
5. Visual and Performing Arts
6. (Psychomotor Ability)

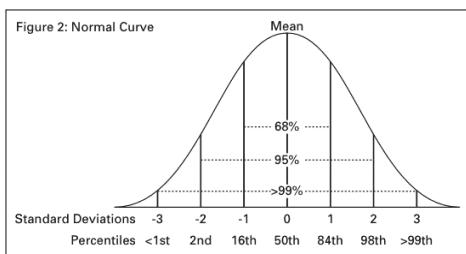
Gardner's Eight Intelligences

Linguistic	Use of words
Logical-mathematical	Use of numbers
Spatial	Use of spatial relationships
Bodily-Kinesthetic	Use of body
Interpersonal	Use of knowledge of others
Intrapersonal	Use of knowledge of self
Musical	Use of pitch and rhythms
Naturalist	Use of patterns in nature

Three Views of Giftedness Simonton (1998)

- Biological
 - Some are born gifted.
- Sociological
 - Others have giftedness thrust upon them.
- Psychological
 - Others achieve giftedness.

Giftedness = Superior Performance Relative to Peers



Defining Superior Performance

- Top 1%, top 2.5%,.... in specific domains.
- Potential
 - Childhood
- Achievement
 - Adolescence and young adulthood
- Eminence
 - Middle and late adulthood; After death

Quantitative or Qualitative

- Are children who are identified as gifted and talented **qualitatively** or **quantitatively** different from their peers?
- My answer is quantitative.
 - Processing speed, accelerated learning, quality of products that they produce
 -if the talent is invested in and appropriately developed
- GATE identification does not always predict a student’s success as an adult.

From Bounce in section entitled “The Myth of Meritocracy” p. 9

“We like to think that sport is a meritocracy—where achievement is driving by ability and hard work—but it is nothing of the sort....Practically every man or woman who triumphs against the odds is, on closer inspection, a beneficiary of unusual circumstances. The delusion lies in focusing on the individuality of their triumph without perceiving—or bothering to look for—the powerful opportunities stacked in their favor.”

Giftedness is a Product

- Renzulli (1986)
 - Giftedness is the product of *the interaction* among (a) **above-average**, but not necessarily superior ability, (b) task **commitment**, and (c) creativity.
- Haensly, Reynolds, & Nash (1986)
 - Giftedness is the outcome of *an interaction* among (a) **abilities** that have successfully coalesced, (b) a **setting that allows for and encourages the expression of those abilities**, (c) **obstacles that hone or refine the expression of those abilities**, and (d) **commitment** that allows the expression to be fully developed.

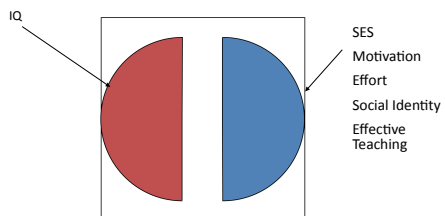
Some Predictors of Achievement

- IQ/School Ability
- Socioeconomic Status
- Race/Ethnicity
- Effective Teaching
- Psychosocial factors
 - task commitment, motivation, conceptions of ability, perfectionism

Cultural Context

- In the cultural context of America, race, ethnicity, country of origin, and facility with the English language, among other variables, play a role in who we are and how others respond to us, including in schools.
- The devaluing of individuals due to group membership is communicated clearly and regularly via stereotypes and interactions.

Sources of Variance in Academic Achievement



Types of Identity

- **Personal Identity** (individuality, personality)
 - Who am I?
 - Extraverted, intelligent, motivated, etc.
- **Social Identity** (Reference Group Orientation or Identification)
 - To what group or groups do I belong?
 - Does group membership affect how society views and values me?

Personal Identities

- Self-concept/Self-esteem
- Intelligence
- Personality
- Motivation
- Volition/Self-Regulation
- Self-efficacy

Social Identities

- Ethnic and/or Racial Group
- First Language
- Gender
- Nationality/Country of Origin
- Sexual Orientation
- Socioeconomic Status

Steele's Stereotype Threat

- We develop stereotypes of individuals and groups - routine human behavior.
- Societal stereotypes have a direct impact on performance, especially in situations where the stereotype is invoked.
- Steele has demonstrated stereotype threat in several studies involving college students.
- Both stereotype facilitation and stereotype threat effects demonstrated.

Stereotypes Can Help or Harm

- Both stereotype facilitation and stereotype threat effects demonstrated.
 - Shih et al. (1999)
- Stereotypes differ across cultural contexts.
- What is an academic stereotype of females in the US?
- What is an academic stereotype of Asian Americans?

Stereotype Threat - SES

- Croizet and Claire (1998) examined stereotype threat in 128 French undergrads from low- and high-SES backgrounds.
- Manipulated Ability Diagnosticity
 - Experimental Group: “assess your intellectual ability for verbal problems”
 - Control Group: “test the role attention plays in lexical memory”
- Manipulated the Salience of SES
 - Experimental: Indicate parent’s education and occupation level
 - Control: Information of size of town where they lived

“Can I Do It?” Graham (2009)

- Motivational variables and perceived competence:
 - Fear of failure, avoiding challenge, self-handicapping, lack of confidence
- Cultural stereotypes--public and private.
 - Stereotype threat
 - Academic disidentification
 - Academic disengagement
 - More potent for high achieving students
 - Model minority stereotype and its consequences
- Entity versus incremental views of ability.
- Discrimination: racial mistrust, micro-aggressions

“I can but do I want to?”
Graham (2009)

- These negative stereotypes, when internalized, can translate into what Graham calls, “I can, but do I want to.”
- Will my actions/behaviors/assignments/work result in similar outcomes (outcome expectancy) as my White counterparts?
- African Americans, Latinos, and Asian Americans students believe that their race will impede their success, compared to White students with large effect sizes (greater than .80 for all groups), even in GT students.

I Can, But Do I Want To?

- Conflict between need to achieve and need to belong.
- Cultural Ecological Theory
 - Oppositional identity
 - Acting White
 - African Americans under greater tension
 - Who do I admire
 - African American males in middle school report admiring low achievers as much as high achievers
 - Gender divide in achievement particularly salient for African Americans and Latinos

Important Considerations

- Federal, state, district, and school policies
- Programming options and capacity
- Talent domain
- Age of student
 - In school, most gifted students are identified by the middle elementary grades.
 - Adolescence is sometimes too late.
 - Caveat: Bloom’s work
 - Role of IQ and other factors

Types of Programs

- Accelerated
- Enrichment
 - Pull out program; special class
- Special Schools
 - Academics, performing arts, athletics
- University-based - often summer

How are Students Identified? What Should We Assess?

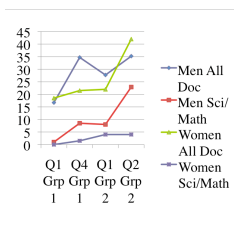
- **Ability**
- **Achievement (in Domains)**
- Student Interests
- **Teacher Rating Scales**
- Creativity Measures
- Psychosocial Variables

Predictive Validity of IQ

- General intelligence, or *g*, is the strongest predictor of academic performance in any domain other than previous performance in that domain.
 - *g* is equal opportunity (math, reading, science, ...)
- Failure to understand the true nature of IQ
 - Jensen argued that it should be more accurately called school ability.
 - "...achievement and aptitude or ability tests do not differ in kind, only in degree" (Lubinski, 2004, p. 98).

Predictive Validity II

- Even at the highest levels, aptitude tests have differential predictive validity
- Individuals identified in Talent Search before age 13 (top 1%)
 - Wai, Lubinski & Benbow (2005)



Addressing Underrepresentation

- Use local norms in addition to national norms if district and school policies allow.
- How does this student perform relative to other students from same socioeconomic, linguistic, cultural background

Table 3.

Students With the 50 Highest Scores on CogAT Quantitative Battery + ITBS Math Total

ID ^a	sex	CogAT Quantitative Q.SAS	CogAT Quantitative Q.PR	CogAT Quantitative Q.Flag	CogAT Profile ^b	ITBS Mathematics Total Math SS	ITBS Mathematics Total Math PR	CogAT+ ITBS	Local Rank
H 91	M	147	99	0	7E (V-Q+)	223	99	5.628	1
W 95	M	136	99	0	8A	226	99	5.101	2
W 87	F	130	97	0	9A	226	99	4.722	3
W 82	M	124	93	0	8A	225	99	4.287	4
W 69	F	121	91	0	7A	219	97	3.759	5
W100	M	121	91	0	8B (N+)	219	97	3.759	6
B 90	M	117	86	0	7A	223	99	3.732	7
W 91	F	127	95	0	8E (V-)	210	91	3.632	8
W 92	M	135	99	0	8E (V-)	201	80	3.631	9
B 98	M	129	97	0	8B (V-)	207	88	3.590	10
W 99	M	125	94	0	8A	211	92	3.562	11
B 94	M	110	73	0	7C (V+Q-)	226	99	3.458	12
W 96	F	126	95	0	8B (V-)	208	89	3.456	13
B 92	M	130	97	0	9E (V+N-)	202	81	3.372	14
B 95	M	130	97	0	7B (Q+)	202	81	3.372	15
W 56	F	124	93	0	7B (Q+)	206	86	3.217	16
W 79	F	118	87	0	7A	212	93	3.176	17
H 93	F	124	93	0	7A	205	85	3.161	18
W 70	M	121	91	0	8C (V+N-)	206	86	3.028	19
H 98	M	109	71	0	7C (Q+N+)	219	97	3.001	20
H 89	M	132	98	0	7B (Q+)	193	66	2.992	21
B 91	F	130	97	0	6E (Q+)	195	70	2.978	22
W 65	F	121	91	0	7A	205	85	2.972	23

From Lohman (2005)

Achievement in Domain

- Reading, writing, mathematics, science, violin, basketball...
- Harder in elementary school to do this; reason why enrichment programs more common.
- Important basis for being labeled gifted as an adult, however.

Mozart vs Salieri

- | | |
|------------------------------|-------------------------------|
| • Salieri | • Mozart |
| • Died at 74 | • Died at 35 |
| • Began studying music early | • Began studying music early. |
| • Wrote 37 to 45 operas | • Wrote 20 to 22 operas |
| • Four available on DVD | • All 22 are available on DVD |

Achievement

- Standardized Achievement Test Scores
 - Look at subscale scores
 - Reading
 - Writing
 - Mathematics
- Academic Products
 - Look at report cards
 - What subjects does the student excel in
- What if there is a discrepancy between ability and achievement?

Student Interests

- What does the student do for fun?
- What hobbies do they engage in?
- What do they do in the summer – sports camp, science camp, music camp?
- What magazines and books do they read in their spare time?
- Can help to contextualize ability and achievement findings.

Rating Scales

- Discuss rating scales completed
- Which would be more useful in an evaluation?
- Why?
- What would you want to learn from rating scales?
- Recommend scales that are related to learning behaviors rather than gifted rating scales due to halo effects.

Creativity

- Do not have measures of creativity that provide reliable and valid scores
- What is creativity?
- Is it domain-independent?
- Accepted for years that creativity was independent of ability above IQ scores of 120.
- Recent data contradict that assumption.

Psychosocial Variables

- Task Commitment/Work Ethic
- Belonging
- Intrinsic and extrinsic motivation
- Effort versus ability conceptions
- Mastery versus performance orientation

Giftedness =
Ability x Appropriate Instruction x Effort

What Happens After Identification

- In the performing arts and athletics, intense, disciplined, practice for several hours each day over many years.
 - Sports (Olympics, basketball, football, ice skating)
 - Performing Arts (music, dance)
- In academics, we identify greater numbers of individuals as gifted before, but we often do not connect *serious work* with academic or intellectual giftedness.
- Acceleration approaches come closest to this.

In Other Words

- “The people at the very top don’t just work harder or even much harder than everyone else. The work much, *much* harder” (p. 39).
- They also work for sustained periods of time.
- ≈ 10,000 hours of practice is required to achieve the level of mastery associated with being a world-class expert—in any field (p. 40)
 - Composing, basketball, fiction writing, ice skating, becoming a concert pianist or a grand master in chess....
 - *Outliers* (Malcolm Gladwell, 2008)

Belonging

- The tone that a teacher sets at the beginning of a class will help or hinder engagement and a sense of belonging.
- How does the teacher make each student want to work for him or her?
- What beliefs are students bringing with them about school and their ability to be successful in this environment or subject?
- I can, but do I want to do?

Intrinsic Motivation

- Engaging in activities for their own sake—out of interest, or for the enjoyment that they derive from engaging in the activity.
 - I feel most successful in class when I learn something that I did not know before.
- Humans possess a basic need to feel competent, and to be able to affect their environment.
- Activities from which individuals derive a sense of competence and autonomy will enhance their intrinsic motivation.

Extrinsic Motivation

- Engage in activities for instrumental or other reasons, such as receiving a reward.
- Extrinsic rewards are often unrelated to the activity, itself.
 - The main reason I do my work is because we get grades.
 - A purely extrinsic approach to tasks can lead to underachievement.

Intrinsic versus Extrinsic Motivation

- Most of the time, both play a role in behavior.
- Extrinsic rewards perceived as controlling can decrease an individual's intrinsic motivation for engaging in an activity – overjustification.
- Extrinsic rewards that provide information about individuals' competence—such as verbal praise for a job well done—can increase intrinsic motivation.

Conception of Ability as Fixed

1. You have a certain amount of intelligence, and you really can't do much to change it.
2. Your intelligence is something about you that you can't change very much.
3. To be honest, you can't really change how intelligent you are.
4. You can learn new things, but you can't really change your basic intelligence.

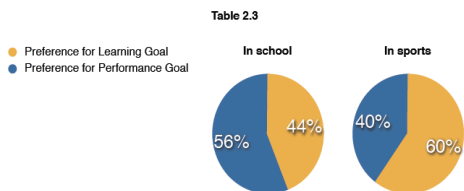
Conception of Intelligence as Malleable

1. No matter who you are, you can significantly change your intelligence level.
2. You can always substantially change how intelligent you are.
3. No matter how much intelligence you have, you can always change it quite a bit.
4. You can change even your basic intelligence level considerably.

The Motivational Orientations in Classrooms and Homes

- A Mastery Orientation can enhance motivation
 - Concern with students learning and mastering material.
 - My teacher/parent really wants me to enjoy learning new things.
 - I want to learn this material well, even if it means getting a lower grade.
- A Performance Orientation can decrease motivation
 - Concern with students competing against each other and getting high grades.
 - In this class, only a few kids are praised for their schoolwork.
 - What my class rank is is more important to my parents than how much I am learning or hard I try.
 - I prefer to do easy problems that I can solve than hard problems that I can learn from.

Academics vs. Sports in Middle School



Self-Efficacy: What you believe you can do with what you have

- Combination of two beliefs:
 - Personal Efficacy: I have the skill to complete this task (e.g., writing assignment, algebra problem)
 - Outcome Expectancy: If I engage in action, my actions will result in the desired outcome
- If I do not believe, how am I likely to act?
- Teaching Efficacy
 - I can teach
 - My teaching will result in these students learning.
- Self-efficacy predicts best if it is domain specific.

Are Gifted Students More Vulnerable Emotionally?

- Students who are labeled *gifted* are functioning at higher levels than their peers in at least one domain, and thus, will generally be better able to cope with stressors in that domain.
- As Terman found out, the individuals he labeled gifted on the basis of IQ > 130 achieved more than higher education levels. They were "superior" in intellectual traits, volition, emotional stability, aesthetic traits, moral traits and social traits.
- We can conclude that the *gifted* are better able to handle stressors.

Are Gifted Students Perfectionists?

- When we say that someone is a perfectionist, are we typically complimenting or criticizing them?
- Do maladaptive psychological traits, including perfectionism, occur with greater frequency in individuals who have been classified as gifted and talented?

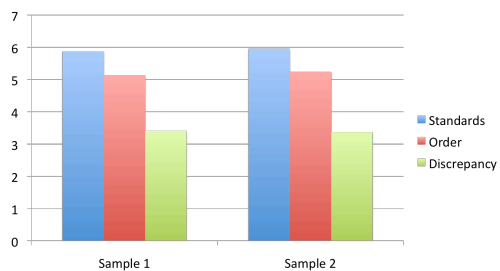
Types of Perfectionism

- Slaney and his colleagues developed the Almost Perfect Scale-Revised (APSR).
- Intended to Measure Adaptive/Healthy and Maladaptive/Unhealthy Perfectionism
- Consists of three subscales
 - (High) Standards (Adaptive)
 - High expectations for personal performance
 - Order (Adaptive)
 - Concern for organization and neatness
 - Discrepancy (Maladaptive)
 - Perception that individual is not meeting his or her own high standards

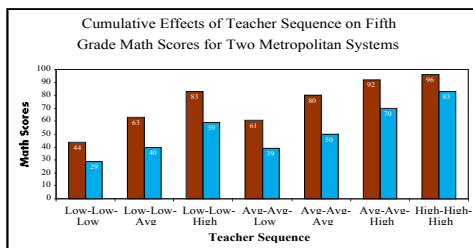
Reliability of APSR Scores

	Sample 1 N = 161	Sample 2 N = 181
Standards (7 items)	.79	.81
Order (4 items)	.79	.83
Discrepancy (12 items)	.87	.89

Mean Scores



Effective Teaching Makes A Difference



Misunderstanding of Ability

- Focus is on ability within domains:
 - Math, table tennis, dance, music,
- Failure to understand that ability also applies to other things
 - Self-regulation
 - Single-mindedness
 - Drive
 - Ability to concentrate/focus for long periods of time.

Athletics as an Exemplar

- What percentage of college athletes go on to become professional athletes in the NBA, NFL, NHL, or the baseball leagues?
- In baseball, the number is 1.8%.

Giftedness in Athletics II

- $\approx 2,000,000$
 - Number of high school athletes in the US.
- $\approx 20,000$ (1% of 2,000,000)
 - Number of high school athletes who get college scholarships.
- $\approx 3,000$ (15% of 20,000; .15% of 2 million)
 - TOTAL # of jobs in basketball, baseball, football, hockey, golf, running, soccer, and tennis.
- ≈ 300 (1.5% of 20,000; .015% of 2 million)
 - Total # of job openings in these fields each year.
- Less than 2% of college athletes become pros.
 - In high-profit sports, the figure is less than 1%.

Giftedness in Academic Fields

- .0000009% of the US population has a Nobel prize.
- 21 Pulitzer Prizes are awarded annually.
- 48 Fields Medals in Mathematics have been awarded from 1936 to 2006.

Case Study Revisited

- What variables have not been assessed?
- What kinds of programming options would you recommend in IEP?
- What could you say to parents of students who just missed qualifying although they are high achievers?

Giftedness as Product

1. Superior performance requires the biological potential/ability in the domain.
2. Superior performance requires task commitment
 - Motivation, volition, self-regulation
 - an investment of **effort** and **time**.
3. Superior performance requires effective instruction from skilled teachers.
4. Superior performance requires *supportive environments*.
