

The Critical Issues in Equity and Excellence in Gifted Education Series

# Alternative Assessments With Gifted and Talented Students



Edited by  
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## Doing It Differently: Alternative Assessment Strategies

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# Overview of Identification Issues in Using Alternative Assessment

- Debate over domain specific vs. general ability
- Lack of optimal match between alternative measures and program models
- Predictive validity of measures for success in programs
- Sufficient coverage of relevant skills in a domain

# Overview of Alternative Learning Assessment Issues

- Need for off-level measures to assess authentic learning
- The match between program emphases and assessment tools
- Use of assessments that tap into complex behaviors

# The Use of Nonverbal Tests for Assessing Ability

- Nonverbal approaches are as valid to get at g factor intelligence as any other means.
- School achievement is predicated on operating effectively in a verbal medium.
- Use of nonverbal subject matter can match better to students identified through such assessment.
- More low income and minority students can be accessed for gifted programs by including a nonverbal assessment tool.

# Instruments in Use

- UNIT Test (Bracken & McCallum)
- CoGAT (Lohman & Hagen et al.)
- Naglieri Nonverbal Ability Test (Naglieri)

\*Every test used may yield different students at the top. **THERE IS NO MAGIC TEST.**

\*Nonverbal tests are not a panacea for finding underrepresented groups.

# Group Discussion Activity

- What nonverbal tools do you use to identify underrepresented groups of gifted learners?
- What has been your experience with these tools?
- With what other measures do you combine them? How?

# Misconceptions about Identifying Underrepresented Populations

- We just need to look harder.
- We need to use nonverbal measures and they will be found.
- Once we find them, then the program will take care of the rest.
- Race is a more critical consideration than poverty.
- Higher performance on state tests is the goal for these groups.

# Factors Contributing to Educational Disadvantage

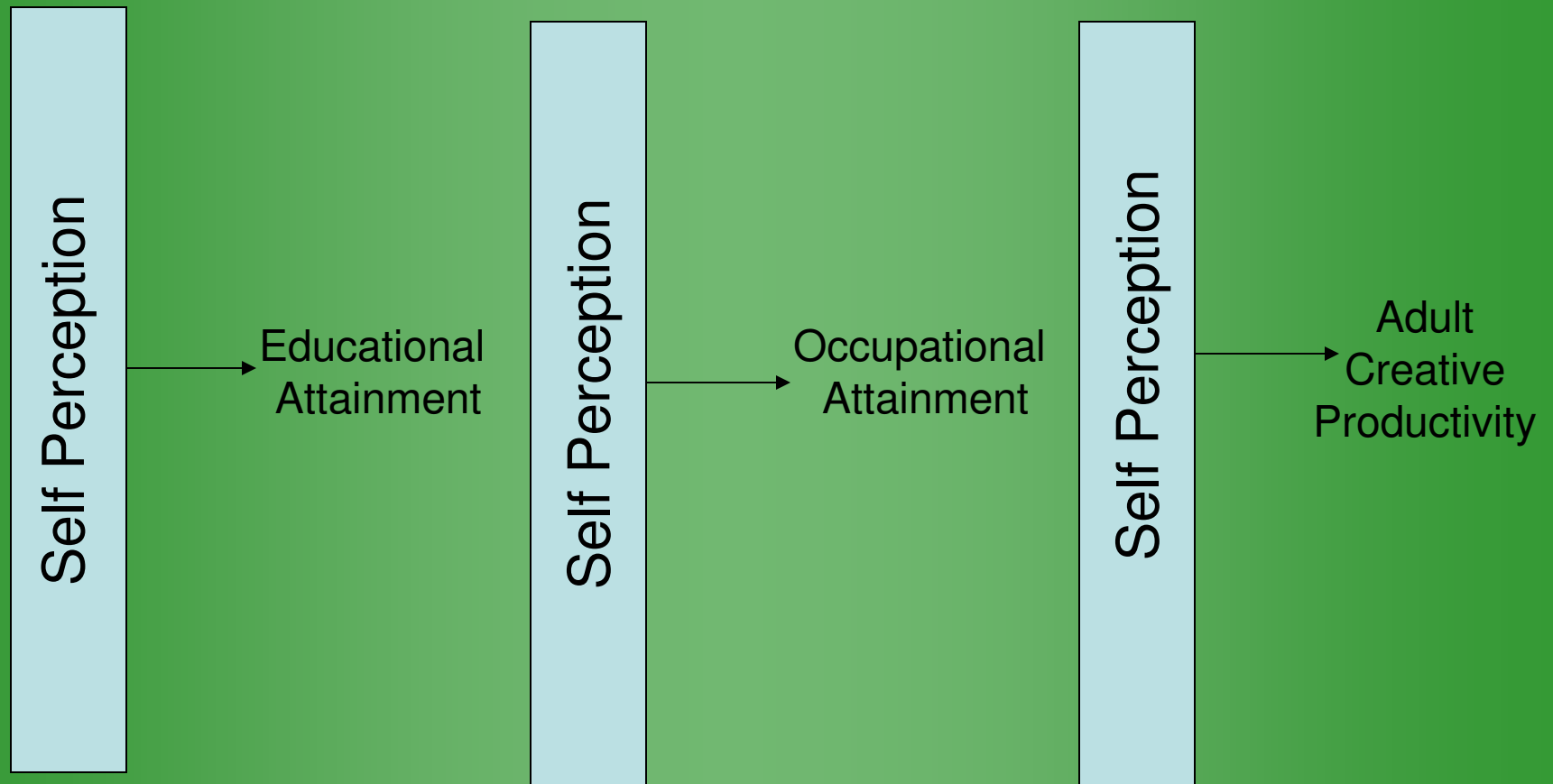
- Education of mothers
- Single parent homes
- English as a second language
- Poverty
- Minority membership

--Pallas, Natriello &  
McDill, 1989

African cultural components in cognitive ability testing:  
Hypothesized effects of African-centered values and beliefs

<i>Dimension</i>	<i>General Description</i>	<i>Influence on Test Responses</i>
Communalism	Valuing of one's group(s) more than outsiders or other individuals; social; interdependent.	Performance may be influenced when test taker is anxious about the test scores being reflective of his/her cultural group and having negative consequences for them.
Expressiveness	Unique personality is expressed through one's behavioral styles; creative, risk taker; spontaneous.	Test taker may choose the more imaginative response alternative; may be impulsive in choosing responses.
Orality (oral traditional)	Knowledge may be gained and transmitted orally and aurally; a preference to talk and explain verbally.	Test performance may differ when the test taker is tested orally and aurally; test taker may be frustrated by paper-pencil test.

# Self Perception as a Filter to Adult Achievement



# Assessment Tools for the Identification of the Gifted

## Traditional

- Intelligence tests
- Achievement tests
- Aptitude tests (domain specific)
- Grades
- Teacher recommendations

## Nontraditional

- Non-verbal ability tests
- Creativity tests
- Student portfolios/ performance by audition
- Performance-based assessment
- Portfolios/creative products
- Parent/peer/community recommendations

# Promising Identification Approaches with Gifted At-Risk Learners

- Traditional measures
- Non-traditional measures
- Value-added approaches (traditional plus)
- Try-out activities
- Nomination by educator, parent, community member
- Use of profile rather than matrix
- Consideration of risk factors in the selection process

# **Summary of Findings From A State-wide Use of PBA**

- PBA protocols are consistent in identifying more low income and minority students across 6 years of state-wide implementation.**
- PBA domain-specific protocols also appear to be identifying more students with uneven profiles that present as learning problems.**

# Summary (cont.)

- **Teachers and gifted program coordinators view PBA-identified student strengths as being creative, spatial, and strong in problem-solving while they view their weaknesses as verbal skills, organization skills, and time management.**
- **PBA-identified students overall perceive their gifted program experiences positively in all areas, with special benefits in self esteem and confidence.**

# Features of Performance Based Assessment

- Emphasis on thinking and problem solving, not prior learning
- Off-level/advanced
- Open-ended
- Use of manipulatives
- Emphasis on articulation of thinking processes

# Sample Verbal Item

## Year Round School

Name \_\_\_\_\_

Think of all of the positive and negative effects of the following situation, and record them in the chart below:

***Situation: You have been told that your school will go on a year-round schedule next year.***

Positive Effect	Negative Effect

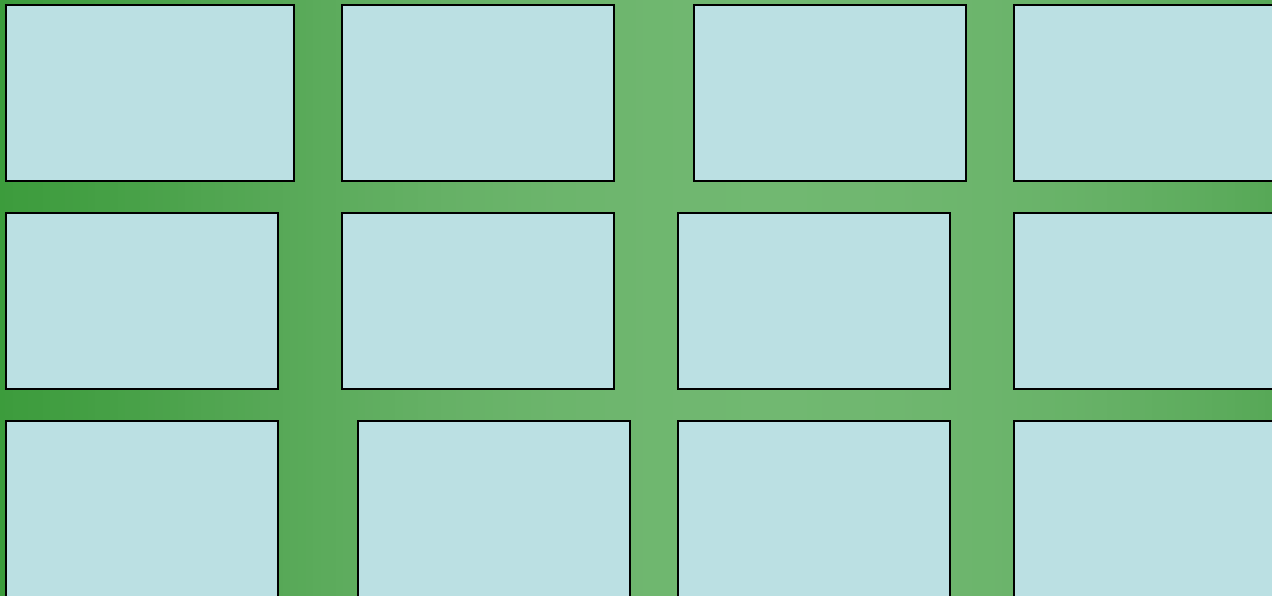
Choose one positive effect and explain your thinking about why it would be positive. \_\_\_\_\_

\_\_\_\_\_

# Sample Nonverbal Item

## Half Squares

- Use the squares below to show all of the ways you can think of to shade half of the square. Draw more squares if you need them.



4	3	2	1	0
4 or more points including 4 different methods.	At least 3 points including 3 different methods.	At least 2 points including 2 different methods.	Only one method of dividing is used (diagonal or horizontal/vertical).	No response.

Example methods: diagonal cut, vertical cut, alternating strips, alternating quarter blocks, triangles, etc.

# Student Quotes

- *“The program is a lot of fun. I enjoy the building, the researching, and the computer programs... I learned to cooperate and have trust in other people, even to understand myself. I came to my senses—all through the gifted project in 5<sup>th</sup> grade. Before that, I believed only in my parents, no one else.”*
- *“Some teachers are boring—they just tell you everything about the subject and then give you work to do... but these gifted class teachers help you out with everything and learning is not boring but fun.”*
- *“I learned easily by seeing and hearing it, and I remember it a lot easier than just reading it. I learned a bit faster in math than other students.”*

# Teacher Comments

- *“They had a real raw curiosity, they tended not be quite as refined as the regular kids, more innocent, a less jaded curiosity, kind of deep curiosity to know. These are often the kids who has some difficulty in language arts, but did extremely well in math or science or any related topic.”*
- *“Most of the Project STAR kids are from lower SES background, have less help at home, have less advantages, have been exposed to less. However, given the opportunity, they are very interested in learning...they tended to have a deep level of thought, but in order to get to that, you have to probe deeper and they have to be comfortable with you.”*

# Implications for the Identification of Low Income and Minority Students

- Use a mix of traditional and non-traditional tests.
- Use tests that assess both verbal and non-verbal abilities.
- Study the impact of your identification protocol on the inclusion of underrepresented groups and their follow-up performance in the program.

# **Case Studies of Underrepresented Groups**

- Sampled low income students identified as gifted through alternative measures in Grade 3 to be studied in Grade 7
- Interviewed the students, their parents, a gifted class teacher, and their middle school science teacher
- Probed their cognitive, social, and affective adjustment to the gifted label

# Summary of Findings

## Low Income African American Students (N=9)

- Enjoyed the program experience
- Became eager to learn
- Participation itself helped self-esteem and confidence
- Diversified creative outlets
- Desire for peer relationships outside of their gifted classes; tendency to be perceived by teachers as loners
- Moral support from family

# Summary of Findings

## Low Income White Students (N=13)

- Perceived the program positively, recognizing the academic and affective impact of the program experience
- Low SES did not affect their performance at school
- Both parents and teachers perceived them as creative and had diversified talent areas
- Half of the group was perceived to have learning problems (e.g., lack of motivation, lack of time management and organizational skills)
- A majority of families appeared to be involved in their children's education

# Summary of Findings for Twice-Exceptional Students (N=5)

- Higher likelihood to be exited from the program (3 out of 5)
- Both students and parents commented positively on the impact of the gifted program
- Low motivation, hypersensitivity, lack of organization skills, and negative behaviors continued to plague these students
- Lack of teacher accommodations for disabilities

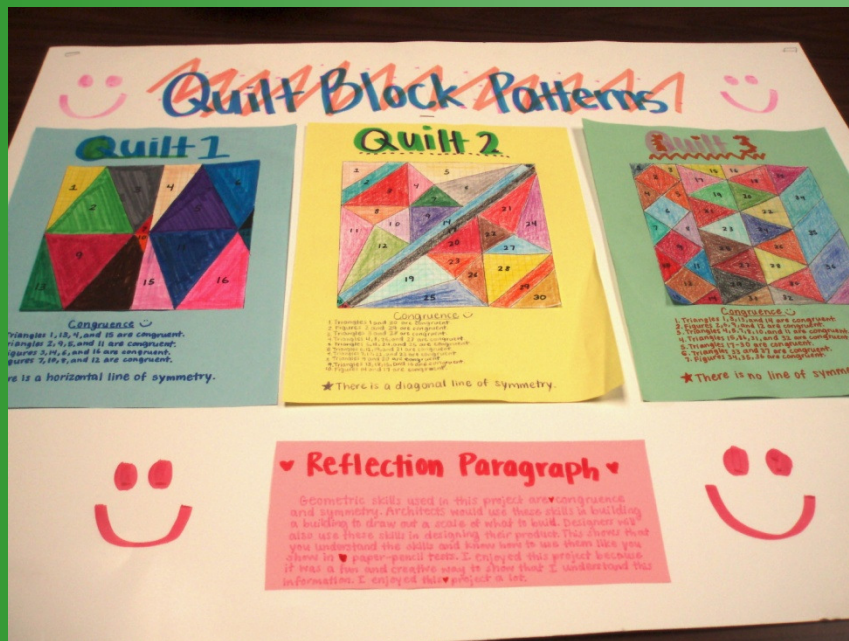
# Cross-Prototype Themes

- Students' strengthened self-esteem, confidence, and pride in being identified and participating in gifted programs
- Strong-willed natures
- Clear preferences and strengths in targeted subject areas

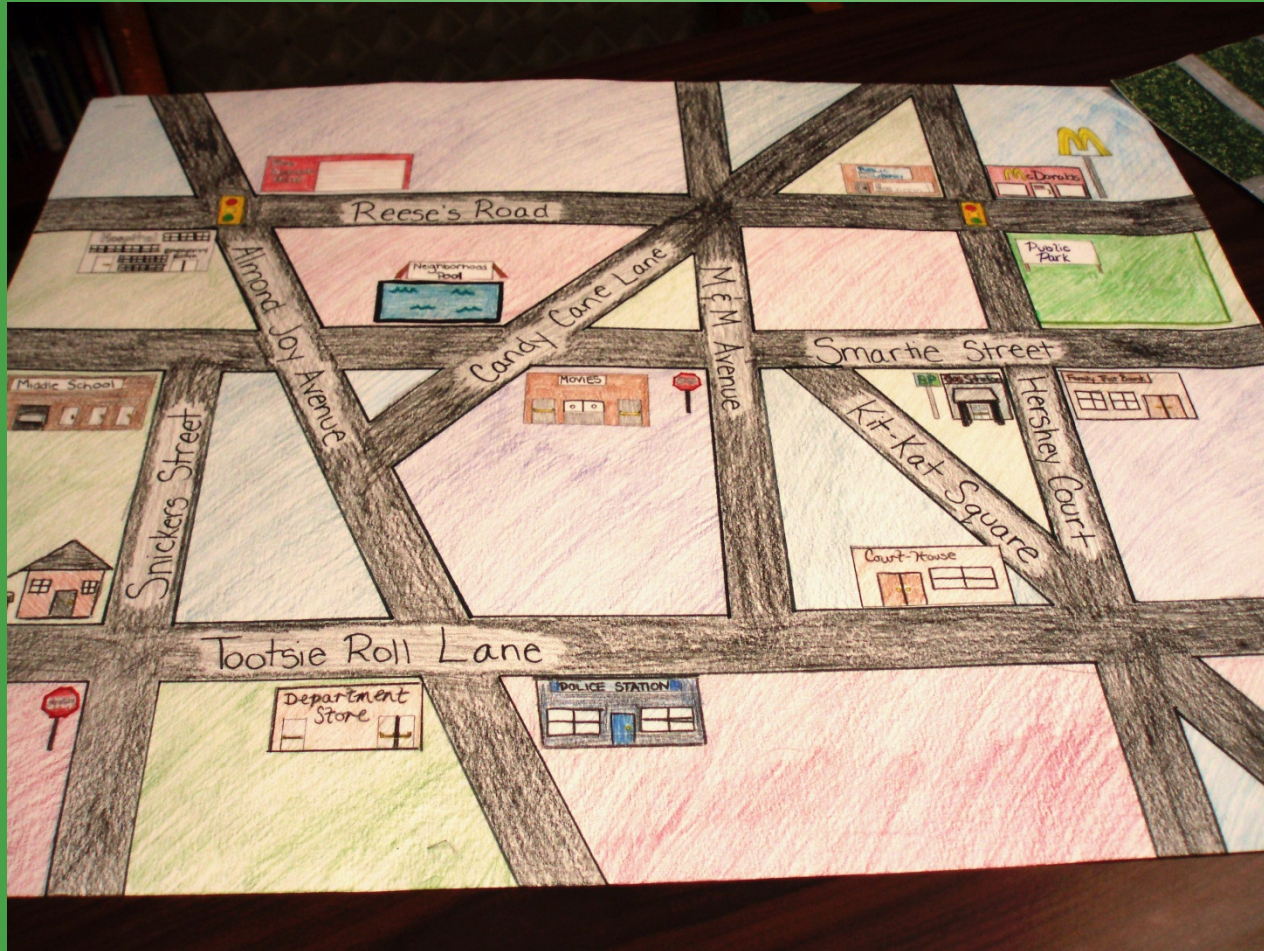
# Assessing Gifted Student Learning

- Use of appropriate tools that exhibit technical adequacy
- Targeted, based on the intervention
- Performance-based in orientation  
(i.e. PBA, portfolio, products)
- Off-level standardized testing (e.g., SAT, EXPLORE)

# Middle School Math Projects



# Student math Project: Middle School



# Performance-based Measures

- The Fowler Test (Design an experiment, based on a question)
- Writing prompt (eg. Should this Book X be required reading for your grade level?)
- Literary analysis (eg. Provide a passage or short piece and ask students to interpret)
- Math (Use Math Olympiad problem sets to determine level)

# Portfolios

- Ask students to select the best five products for the year to include.
- Be sure they are each representative of different curricular outcomes.
- Ask students to comment on why these are their best work.
- Have a portfolio exhibit.

# NCATE Assessment Standard

K1	Processes and procedures for the identification of learners with gifts and talents.
K2	Uses, limitations, and interpretation of multiple assessments in different domains for identifying learners with gifts and talents, including those from diverse backgrounds.
K3	Uses and limitations of assessments documenting academic growth of individuals with gifts and talents.
S1	Use non-biased and equitable approaches for identifying individuals with gifts and talents, including those from diverse backgrounds.
S2	Use technically adequate qualitative and quantitative assessments for identifying and placing of individuals with gifts and talents.
S3	Develop differentiated curriculum-based assessments for use in instructional planning and delivery for individuals with gifts and talents.
S4	Use alternative assessments and technologies to evaluate learning of individuals with gifts and talents.

# Implications for School Leaders

- Professional development on the identification and assessment protocols used in the gifted program
- Longitudinal data collection on learning gains across years for all gifted groups
- Focus on underperforming schools to find overlooked gems
- Provide extra support at transition points

# Implications for Teachers

- Move to diversify the gifted program to focus 50% of time on nonverbal subjects (eg. math and science)
- Use identification profile to plan more individualized approaches to instruction
- Provide strong affective support for accomplishment
- Work on metacognitive skills of goal-setting and reflection

**People have a basic human right to freedom from excessive sociocontextual obstacles to aspiration formation and self-fulfillment  
....deprived gifted and talented children must embrace their considerable potentials while realistically appraising the daunting barriers that stand to suppress the development of that potential. The onus is on educators of the gifted to help both the privileged and the deprived to understand the dimensions of self-fulfillment...**

**-- Ambrose (2003)**