

Gifted Students in Poverty

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Poverty in the United States

- A higher percentage of US youth are living in poverty than any other developed nation.
- Almost half of US students identified as gifted live in households in the upper 25% of income levels
- Students of poverty perform significantly lower on state achievement tests than their nonpoverty counterparts
- High poverty schools may have less qualified teachers and fewer opportunities for students to access to high-powered curriculum
- Gifted students of poverty are at a greater risk for dropping out of gifted programs and out of school in general
- Teacher expectations are lower in high poverty schools
 - Hodgkinson, 2007

Factors Contributing to Educational Disadvantage

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

--Pallas, Natriello & McDill, 1989

Promising Students in Poverty

- Less likely to continue up the educational ladder, beginning with high school graduation
- Less likely to finish college even if they start
- Less likely to take jobs commensurate with ability rather than socialization

- *The Achievement Trap*, (2007) Jack Kent Cook Foundation

Conceptions of Poverty

- Individual
 - Caused by laziness, poor choices, incompetence, lack of ability
- Cultural Beliefs
 - Culture of poverty adapts a subculture of belief systems and values that prohibit success
- Political-Economic
 - System prevents those in poverty from obtaining success
 - Upper class groups in power making decisions
 - Barriers to education, high paying jobs, health care, safety
- Geographic
 - Regional differences that place certain groups at a disadvantage
- Cumulative & Cyclic
 - Combination of political and geographic – all inter-related
 - Bradshaw, 2006

Performance and Teacher Attention

- While the nation's lowest performing students made rapid gains from 2000-2007, the performance of top students was languid.

- Teachers feel pressure to favor low-achieving students over other types; low achieving students receive dramatically more attention than advanced students (81% vs. 5%)

--Fordham Foundation, 2008

Valedictorian Study

- Low income and minority students took longer to finish degrees.
- More likely to go part time and live at home.
- Lower graduation rate from college and less likely to go on to advanced degrees.

-Arnold & Denny, 1990

Lack of Access to Intellectual, Social, and Cultural Capital

- Intellectual capital
 - Programs and services that promote talent development external to public schools
- Social capital
 - Resources based on group membership, relationships, networks of influence and support
- Cultural capital
 - Forms of knowledge; skill; education (e.g., attitudes and knowledge that make school a comfortable and familiar place)

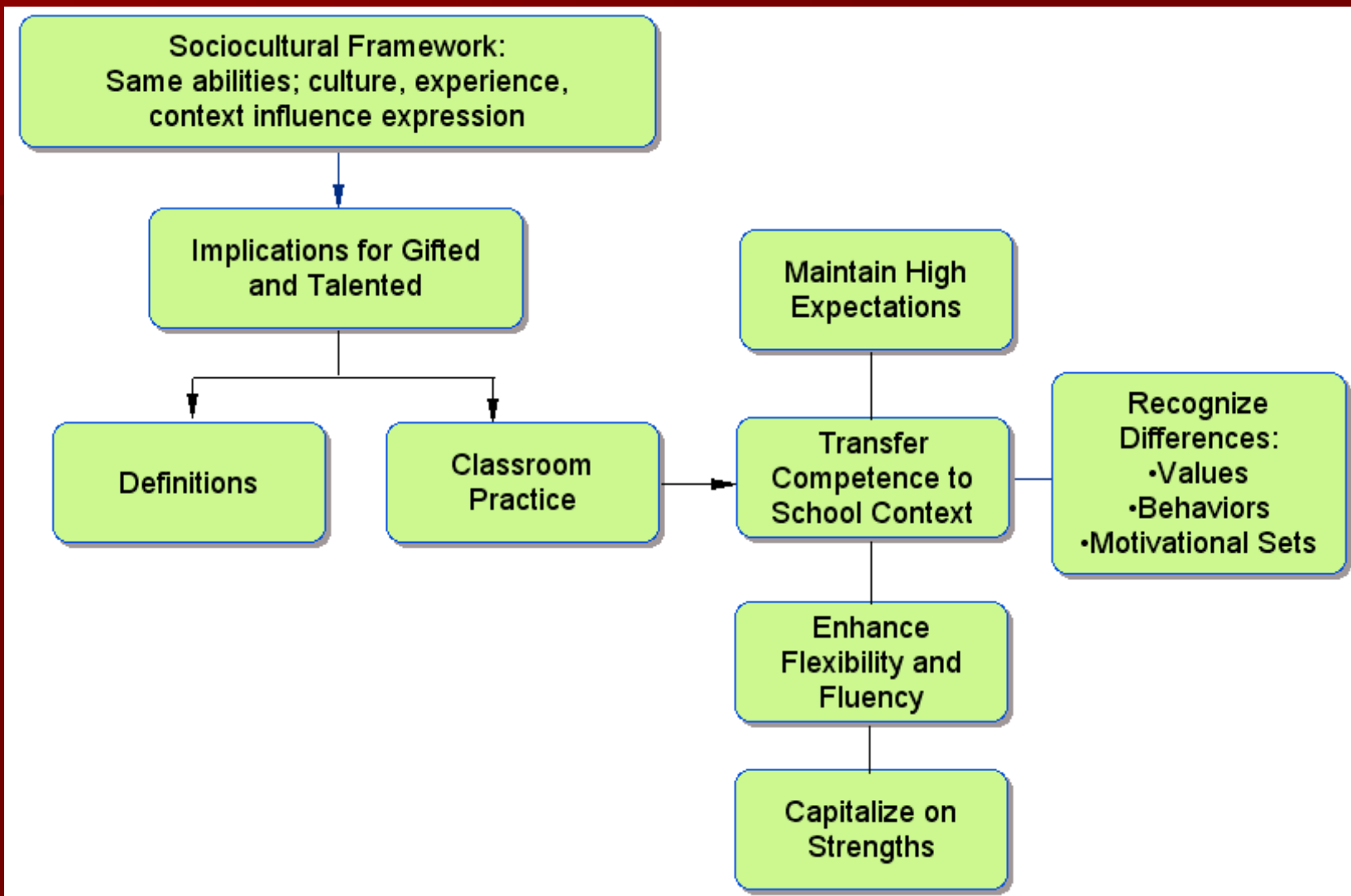
Cultural Ecological Theory

- How does a group that is marginalized or discriminated against in society respond in an educational context?
- Oppositional identity results in actions incompatible with educational success (e.g., low effort, poor attendance) on the part of many though not all marginalized group members:
 - Lack of trust in schools and education.
 - Parents giving mixed messages about education.
 - Belief that doing well in school is acting White.
 - Results in less engagement and effort.

- Worrell, 2006

Social Identity Issues

- Voluntary vs. involuntary minorities
 - (Ogbu, 2004)
- Stereotype threat
 - (Steele, 1997)
- Fewness
 - (Miller, 2005)
- Status-based rejection sensitivity
 - (Pietrzak, 2004)



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.

Stressors

- Sense of Belonging
- Rejection Sensitivity
- Fear of betraying Cultural Heritage
- Conceptions of Ability Issues
 - Malleable vs. fixed
- Stereotype Threat

Psychological Issues of Low Income Students

- Identity
- Marginalization
- Ability and effort balance

Some General Characteristics of Students of

Poverty

- Disorganized
- Don't do homework
- Like to entertain
- Do only parts of an assignment
- Great storytellers
- Unique sense of humor
- Like discussion/hands-on
- Creative responses
- Laugh at inappropriate times/situations
- Struggle with reasoning (prefer verbal/physical assault)
- Dislike authority
- Talk back
- Will do work if they like you (relationships important)
- Lack procedural self-talk (get started or continue work)
- Appear rude
- Independent
- Need more "space" and opportunity for creativity
- Speak their mind freely
- Live in moment (no goal setting)

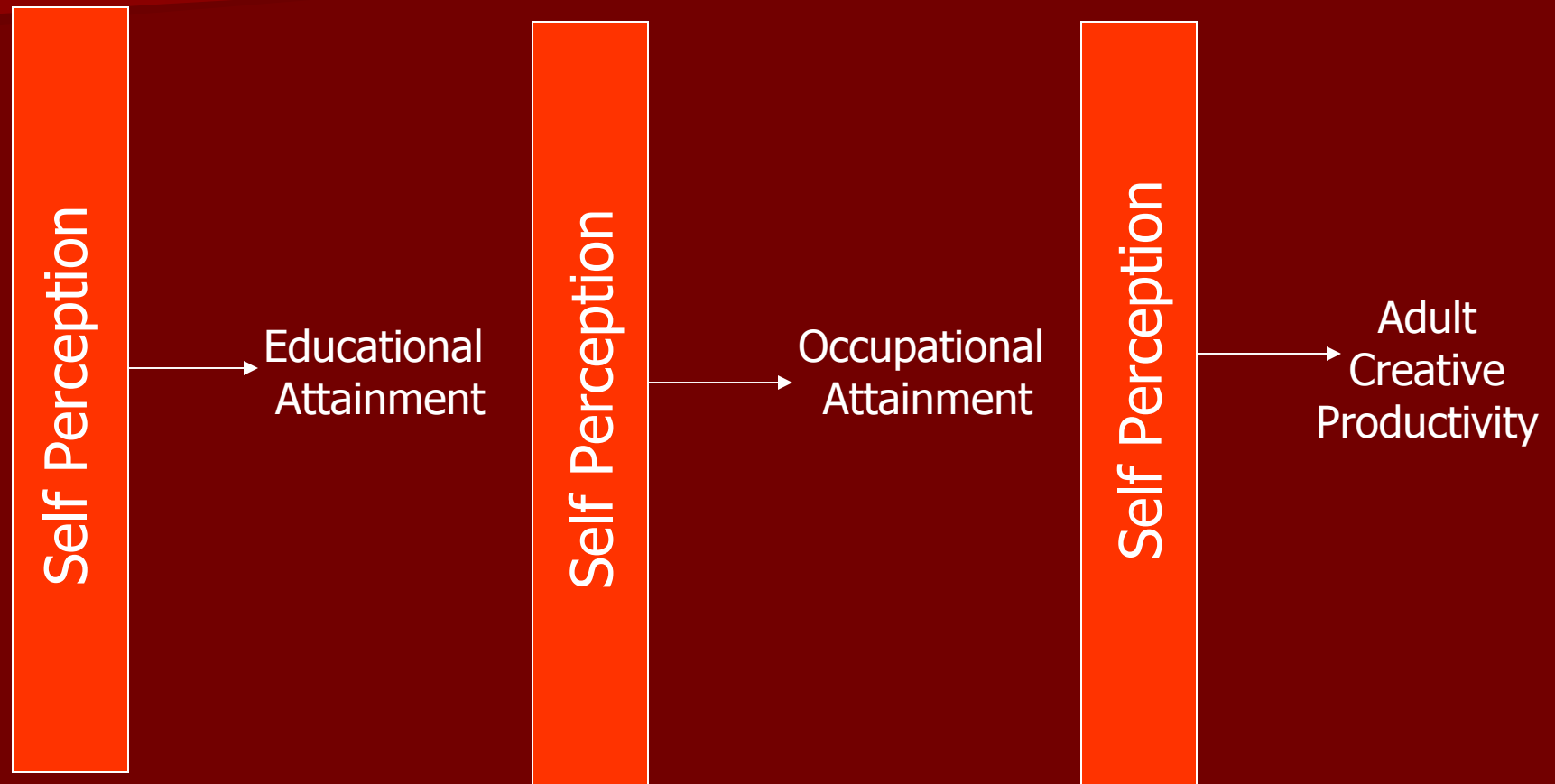
--Payne, 2005

Characteristics of Successful Students From Seriously Disadvantaged Backgrounds

- Freedom from societal conditioning
- Physical removal
- Identity
- Supportive inspiring relationships
- Identification models (modeling)
- Risk-taking capacity
- Questioning orientation
- Reward for change
- Channeling of rage
- Alienation
- Opportunity
- New perception of self (visions of self)
- Awareness of alternative paths
- Existential crisis

– Glaser, E.M. & Ross, H.L. (1970)

Self Perception as a Filter to Adult Achievement



--- VanTassel-Baska, 2000

Class Differences

adapted from Payne, 2000

Category	Poverty	Middle Class	Wealthy
Possessions	People	Things	One-of-a-Kind Objects, Legacies, Pedigrees
Money	To be used, spent	To be managed	To be conserved, invested
Personality	Entertainment, sense of humor	Acquisition and stability; achievement highly valued	Connections: financial, political, social
Social Emphasis	Include people like them only	Self-governance and self-sufficiency	Social exclusion: "the club"
Food	Do you have enough?	Did you like it?	Was is presented well?
Time	Today; survival	Future; long-term consequences	Traditions and history
Education	Valued and revered as abstract (not reality)	Crucial for climbing the success ladder and making money	Necessary tradition for making and maintaining connections
Language	Casual; survival and entertainment	Formal; negotiation	Formal; networking
World View	Local	National	International

What Can We Do

- Actively work on building sense of community in program, beginning with recruitment and selection.
- Build in academic and social-emotional supports.
- Stress mastery goals over performance goals, and malleable over fixed intelligence.
- Acknowledge publicly and normalize the 'big fish little pond effect.'
- Routinely monitor program environment.

Non-Negotiables for Working with Students of Poverty

- Access
 - Quality Curriculum and Instruction
 - Opportunities outside of the school day
 - Quality Educators
 - Equitable Identification Measures
- Relationships
 - With mentors
 - External role models
 - Guidance/career counselors
- Intrapersonal Skills
 - Resiliency, efficacy, esteem, motivation

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.

District-identified vs. Athena-identified as Gifted

	IQ \geq 120		IQ \geq 130	
	Frequency	Percent	Frequency	Percent
District Identified Gifted	94	37.2%	29	45.4%
Athena Identified Gifted	159	62.8%	35	54.6%
Total	253	100%	64	100%

Issues with Teacher Referrals for Students of Poverty

- Less effective
- Less accurate
- Untrained to identify these students for special programs
- Prejudice stereotypes about students' abilities

Parental Issues

- Lack of trust in the system
- Limited time
 - Multiple jobs
- Do not understand the educational system
- Do not know programs exists
- Cultural differences (language; differing ideas about education)
 - Kitano & DiJiosia (2002)

Alternative Assessment Models to Find Low Income Students

- Performance-based assessment
- Non-verbal tests
- Creative assessments
 - Naglieri & Ford, 2006; Bracken et al, 2007
 - Torrance, 1977; Cramond & Kim, 2007
 - VanTassel-Baska, 2007; VanTassel-Baska, Feng & DeBrux, 2007
 - *Overlooked Gems*, (2006) NAGC & Center for Gifted Education

From VanTassel-Baska, 2010

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

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.

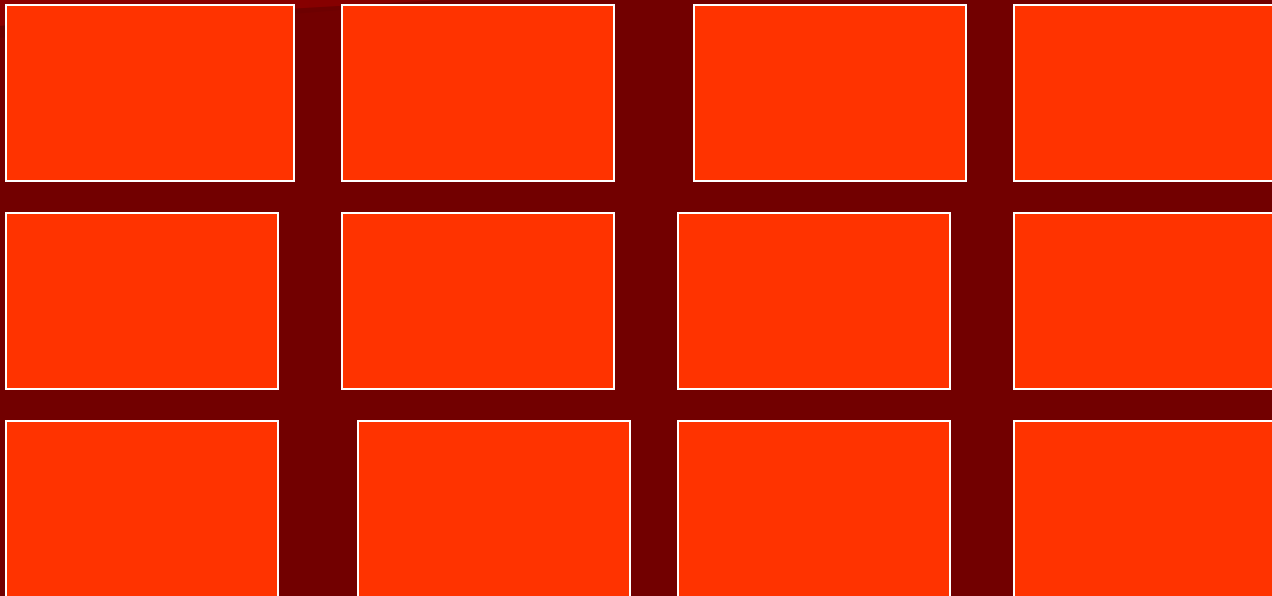
Positive Effect	Negative Effect

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.

From VanTassel-Baska, 2010

Findings from South Carolina (six-year study)

- 14-20% more low income/minority children found through value added performance-based assessment (PBA)
- Performance on state achievement test comparable to more advantaged gifted groups after two years in a program
- Perceptions of self confidence and oral and written communication skills resulted from program membership
- Risk of social alienation

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."*

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 5th 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."*

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

From VanTassel-Baska, 2010

Five Research Prototypes:

- Low income African American students
- Low income other minority (e.g., Hispanic, Asian) students
- Low income White students
- Twice exceptional students
- High nonverbal and low verbal students

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

-- VanTassel-Baska, 2010

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

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.

Research-based Needs of Promising Learners in Poverty

- Personalized options (tutoring/mentoring)
- Transition counseling
- Long-term academic and career planning
- Academic bridges
- Instructional scaffolds
- Cultural enrichment in the community

Curriculum Strategies

- Nonverbal curriculum (eg. science and math experiments and projects, robotics)
- Hands-on Activities
- Creation of Experience
- Multicultural materials and themes
- Concept maps in targeted content areas
- Use of multiple graphic organizers over time
- Scaffolding

The Montillation of Traxoline

- It is very important that you learn about traxoline. Traxoline is a new form of zointer. It is montilled in Ceristanna. The Ceristannians gristeriate large amounts of fevon and then bracter it to quasel traxoline. Traxoline may well be one of our most lukized snezlaus in the future because of our zointer lescelidge.
 - What is traxoline?
 - Where is traxoline montilled?
 - How is traxoline quaselled?
 - Why is it important to know about traxoline?

Design Science Experiments

- What questions do you have?
- What resources will you need to answer them?
- What tests need to be done?
- What do the results mean?





Wheel of Scientific Investigation



Experimental Report Form

Name of Experiment _____

Your Name _____

1. What was your hypothesis (or prediction about what would happen)?
2. What materials did you use to test the hypothesis?
3. What methods did you use? (Outline steps)
4. What data has been collected? Where are your data recorded? (attach your data table)
5. What are your findings? (Did your hypothesis prove to be true or false?)
6. What new questions do you have?

Sample Problem-Background

- Every year the seventh grade students at Langston Hughes School go on an outdoor education camping trip. During the week-long trip, the students study nature and participate in recreational activities. Everyone pitches in to help with the cooking and cleanup. Arvind and Mariah are in charge of making orange juice for all the campers. They make the juice by mixing water and orange juice concentrate. To find the mix that tastes best, Arvind and Mariah decided to test some recipes on a few of their friends.

Criteria for Multicultural Literature Selection: Attention to Cultural Considerations

- General Accuracy
- Avoidance of Stereotypes
- Language
- Attention to author's perspective
- Currency of facts and interpretation
- Concept of audience

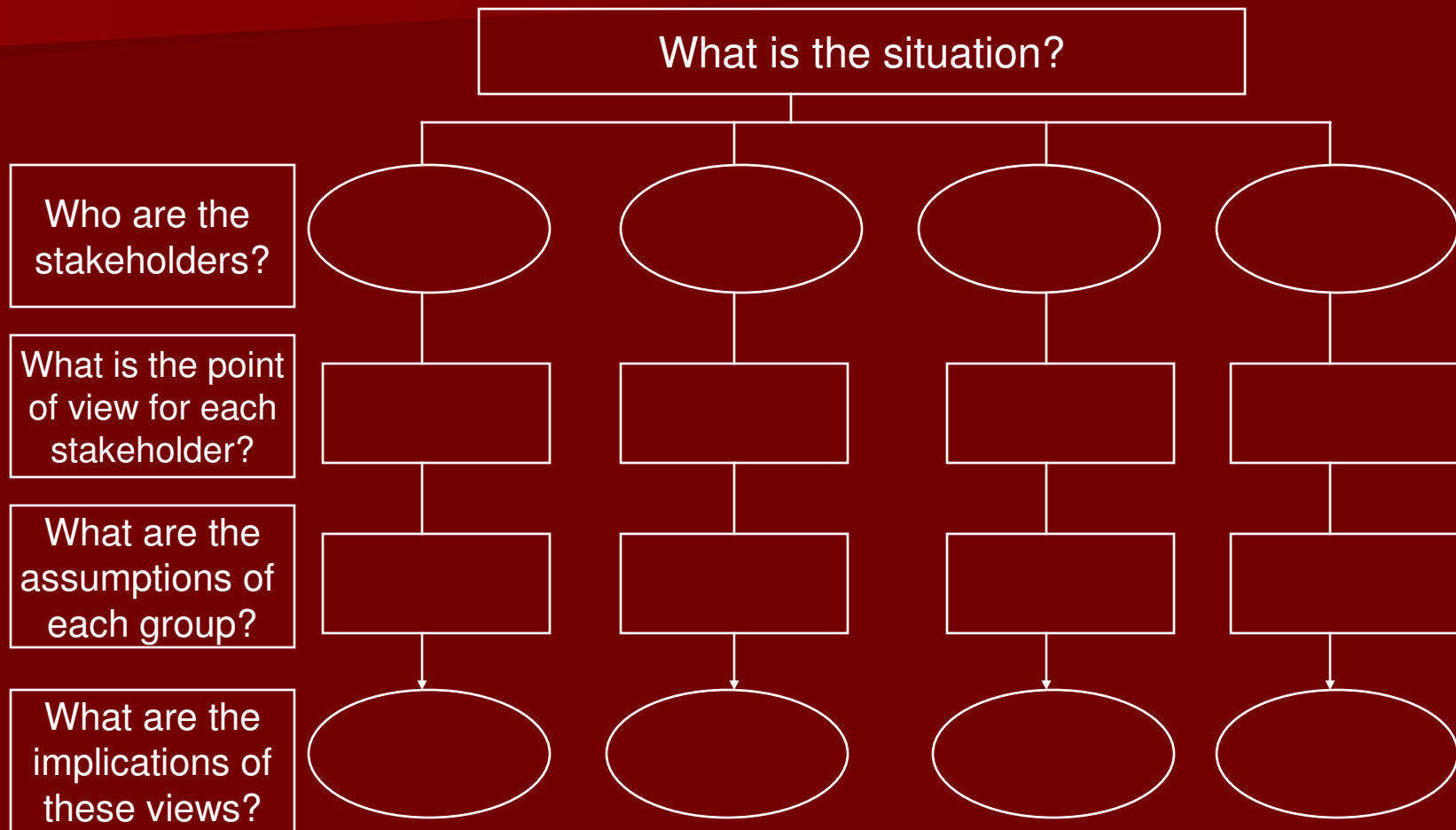
-- Miller-Lachman

(1992)

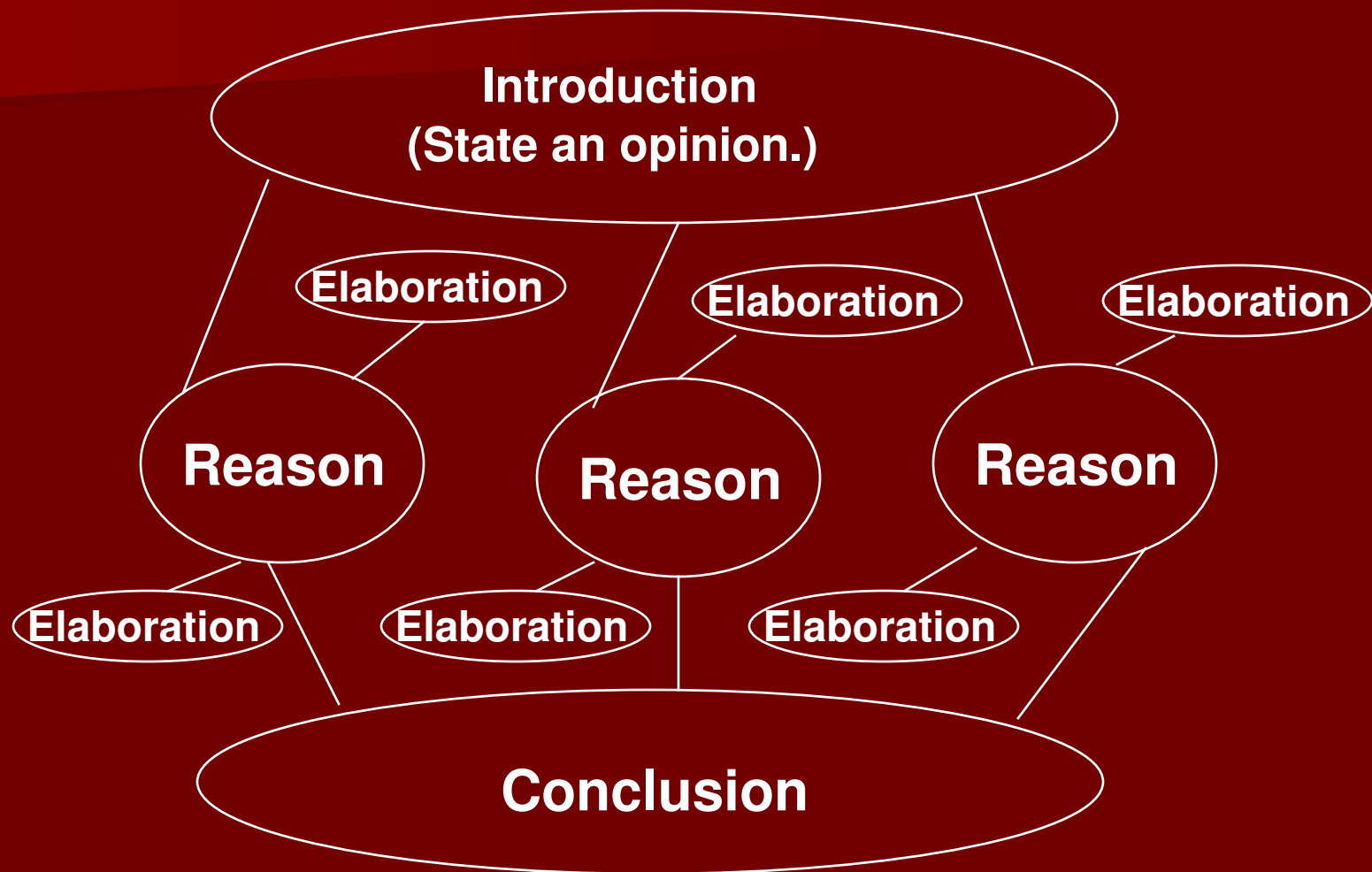
Multicultural Author Study: Verna Aardema

- Read 3 books by the author:
 - What are similarities and differences among them?
 - What are ways you would describe her style?
 - How do the illustrations help us understand the story better than just words?
 - What aspects of tribal life in Africa are portrayed in the stories?

Emphasizing Multiple Perspectives: Reasoning about a Situation or Event



Developing Written Arguments: Hamburger Model for Persuasive Writing



The Problem

- **Arvind and Mariah tested four juice mixes.**
- **Mix A:**
 - 2 cups concentrate and 3 cups water
- **Mix B:**
 - 1 cup concentrate and 4 cups water
- **Mix C:**
 - 4 cups concentrate and 8 cups water
- **Mix D:**
 - 3 cups concentrate and 5 cups water
- Which recipe will make juice that is the most “orangey”?
- Which recipe will make juice that is least “orangey”?
- Assume that each camper will get $\frac{1}{2}$ cup of juice. For each recipe, how much concentrate and how much water are needed to make juice for 240 campers?
- Explain your answers in pictures, numbers, or words. Test your hypothesis as needed.
 - From Connected Mathematics

Delilah

She has blue eyes like the ocean.

Her tongue like a rose.

Her nose like a heart.

Her tail like a fan.

Her black coat like the night sky.

By Casey Carroll

Grades 4-5

Honorable Mention

Center for Gifted Education Talent Search

C
3

Theme/Concept

- ❖ Write a poem like *Delilah* to describe your pet or an animal you know. (Use the poem as your model.)

C
2

Evidence/Inference

- ❖ What evidence is important in deciding on Delilah's identity?
- ❖ What or who is Delilah in the poem, based on the evidence?

C
1

Characterization

- ❖ What words does the poet use to show Delilah as a lovable creature?

Delilah

Continuing to ignore the differences between students from poverty and middle-class backgrounds, while recognizing only the talents and abilities of the latter, can only help to perpetuate a society separated into the haves and have-nots.

Slocumb & Payne, 2000



What do We Know? Value-Added Interventions

- Relationships/Mentoring
- Guidance and Career Counseling
- Use of Leisure Time
 - Saturday and Summer Activities
- Access to Advanced Curriculum and Educational Opportunities

Pre-Collegiate Accelerated and Enrichment Programs Matter

- After school, extra-curricular, Saturday, and summer enrichment programs, especially in math and science, are found to positively impact college application, attendance rates, and entrance into advanced courses as well as overall academic achievement.
 - (e.g., AVID, KIPP, CTD, JKC Young Scholars)

Mentoring Matters

- Ongoing mentoring by counselors, teachers, and researchers to provide support for low income students **AND THEIR FAMILIES** positively impacts academic success, social skills, and student efficacy.

Career Counseling Matters

- Proactive, targeted career and guidance counseling for low-income promising students **AND THEIR FAMILIES** positively impacts student selection of rigorous high school courses and post-secondary enrollment at selective universities.

Working With Families of Students in Poverty

- Planning for college in middle school
- Scholarship assistance for special program opportunities
- Meeting on common ground (churches, bookstores, community centers)
- Assistance with basics (child-care, transportation, food)
- Reaching out to grandparents
- Fighting stereotypes

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

School District Issues

- Professional development about the role of poverty and race in educational disadvantage
- Changing identification policies
- Providing opportunities for talent development at schools with low scores
- Long term commitment
- Changing the learning environment (teacher pedagogy)

Where do we Go?

Questions for Future Research

- What types of interventions are most effective with different types of students, under which circumstances, and in what doses?
 - Systemic approaches
- Which internal and external factors positively or negatively impact promising students of poverty (e.g., school culture, resiliency, self-esteem, efficacy, personality, family, reform efforts)?
- What do effective teachers do that is distinctive for low-income promising students?
- Which support systems are necessary for continued growth during transition years?
- What is the cost of inaction?
 - Overlooked Gems, 2007



■ *"If the misery of the poor be caused not by the laws of nature, but by our institutions, great is our sin."*

--Darwin