Intelligences Outside the Normal Curve: Factors That Contribute To the Creation of Leadership Skills and Social Capital In Young People and Adults

Genius is talent set on fire by courage.

Henry van Dyke
American Author

Joseph S. Renzulli, Director
The National Research Center On The Gifted And Talented
The University of Connecticut (USA)
Giftedness!

1. Who are they?
1a. What causes some people to use their gifts in socially constructive and action oriented ways?

2. How do we develop it?
2a. How can we promote more socially constructive giftedness and action orientation on the parts of young people?
A good head and a good heart are always a formidable combination.

Nelson Mandela
Aubyn Burnside with Suitcases for Kids

- When 11-year-old Aubyn Burnside heard about how many children in foster care programs are forced to carry their belongings in garbage bags because they cannot afford suitcases, she was shocked and saddened. "I thought they must feel like garbage themselves," she said. So, Aubyn founded Suitcases for Kids, dedicating herself to ensuring that every child in foster care would have a bag of his or her own.
Outline

1. General Theory For Talent Development
2. Why Intelligences Outside The Normal Curve Are Important
3. Operation Houndstooth Theory & Research
4. Executive Function Theory & Research
5. Co-Cognitive Factor Intervention Theory

Not everything that can be counted counts.
And not everything that counts can be counted.

Albert Einstein
Outline

1. General Theory For Talent Development

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The best people possess a feeling for beauty, the courage to take risks, the discipline to tell the truth, the capacity for sacrifice.

Ernest Hemingway
American Author
A Focus on Creative Productivity

The Three-Ring Conception of Giftedness

- Above Average Ability
- Creativity
- Task Commitment

Executive Functions

- Action Orientation
- Social Interactions
- Altruistic Leadership
- Realistic Self-Assessment
- Awareness of Needs of Others

Leadership For a Changing World

The Enrichment Triad Model

- Type I: General Exploratory Activities
- Type II: Group Training Activities
- Type III: Individual & Small Group Investigations of Real Problems

Leadership in a Changing World

Operation Houndstooth

Conceptions of Giftedness

The Development of Social Capital

Fully Functioning Self-Actualized Individual
Major Categories of Talent Development

- Creative Thinking
- Critical Thinking
- Problem Solving
- Decision Making
- Productive Thinking

Opportunities For Creative Productivity

- Brought to bear upon...

Contributing To Social Capital & Making A Better World
- Optimism
- Courage
- Romance With a Topic or Discipline
- Mental and Physical Energy
- Vision & A Sense of Destiny
- Sensitivity To Human Concerns

Leadership Based on Wisdom & Responsibility
- Personal
- Emotional
- Spiritual
- Social
- Motivational
- Responsible
- Organizational
  - “Getting your act together”

The ability to identify trustworthy and useful information
The ability to selectively manage overabundant information
The ability to organize, classify, and evaluate information
The ability to conduct self-assessments of web-based information
The ability to use relevant information to advance the quality of one’s work
The ability to communicate information effectively
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Underlying Assumptions For Studying Intelligences Outside The Normal Curve

1. Persons with high potential will emerge as leaders, policy makers, and persons of influence in all walks of life including religion, politics, business, government, science, the arts and humanities, and other domains that define a society and a culture.

2. Educational institutions and programs that serve high potential youth have a responsibility to provide opportunities, resources, and experiences that contribute to the ethical, moral, social, and emotional development of young people as well as their cognitive development.

“I have found that the higher the IQ, the earlier moral concerns develop and the more profound effect they have on the child.

R. A. Silverman
*Journal of Personality, 1994*

Research shows that when children are young they develop what you call intuitive theories. It’s like powerful engravings on your brain. Teachers don’t realize how powerful they are, but early theories don’t disappear, they stay on the ground.

Howard Gardner
Quoted in Kogan, 2000, p. 66
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We are not engaged in producing just good performers in the market place or able technocrats. Our task is the education of good human beings, purposeful and wise, themselves with a vision of what it is to be human and of the kind of society which makes that possible.

Dr. George Carey  
Former Archbishop of Canterbury

I now understand that my welfare is only possible if I acknowledge my unity with all the people of the world without exception.

Leo Tolstoy
DECLINING PARTICIPATION IN EXTRA CURRICULAR ACTIVITIES

Served As Officer In school Organization
Ran For Elective Office in School
Member of Speech or Debate Club
Member of Other School Organization
Member of Non-School Youth Organization
Member of Musical Group
Member of Athletic Team

The result of Title XX that provides equity for women in athletics in America
Today's kids view cheating as part of the path to success
By Victor Dorff

Cheating was, is and probably always will be a fact of life. Recently, technology has provided new ways to cheat, but advanced electronics can't be blamed for our increasing willingness to tolerate it.

Once upon a time, being an honorable person included the notion that your word was your bond, and integrity was a crucial element in establishing a good reputation. My teaching experience tells me, however, that lying and cheating are seen by a lot of kids today as a crucial part of any path to success. The only shame is in getting caught.
CHANGING PRIORITIES: MONEY COUNTS

SOURCE: College freshman surveyed by Higher Education Research Institute (HERI)
SEGMENT 1:  THRILLS AND CHILLS
Key definers:  Fun, friends, irreverence, and sensation*

SEGMENT 2:  RESIGNED
Key definers:  Friends, fun, family, and low expectations

SEGMENT 3:  WORLD SAVERS
Key definers:  Environment, humanism, fun, and friends

SEGMENT 4:  QUIET ACHIEVERS
Key definers:  Success, anonymity, anti-individualism, and social optimism

SEGMENT 5:  BOOTSTRAPPERS
Key definers:  Achievement, individualism, optimism, determinism, and power*

SEGMENT 6:  UPHOLDERS
Key definers:  Family, custom, tradition, and respect for individuals

* US the highest
Figure 2
College students' Narcissistic Personality Inventory scores by time period. Capped vertical bars denote ± 1 SE.

Egos Inflating Over Time: A Cross-Temporal Meta-Analysis of the Narcissistic Personality Inventory

Jean M. Twenge,1 Sara Konrath,2 Joshua D. Foster,3 W. Keith Campbell,4 and Brad J. Bushman2
1San Diego State University
2University of Michigan
3University of South Alabama
4University of Georgia
What research tells us about trends in young people’s values systems......

- Twenge, J. M., Konrath, S., Foster, J. D., Campbell, W. K., & Bushman, B. J. (2008). Egos inflating over time: A cross-temporal meta-analysis of the narcissistic personality inventory. *Journal of Personality, 76*, 875-901.
Contemporary Undesirable Trends In Young People’s Values Systems

- Rampant materialism, conspicuous consumption
- Self-indulgence, narcissism; limited interest in social, political, ethical, environmental, and moral issues
- Lack of interest in the well-being of others
- Cultural tribalism (asserting one’s differences while depreciating the differences of others)
- Maximization of personal gain; career choice based on making money
- Obsession with the theatre of celebrity
- Manipulated by the “cultural industry” that focuses on consumption, media, and marketing to promote identity creation
- Substituting Virtual For Real World Relationships
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Why is Social Capital important?

And what is education’s role in the production of Social Capital?

Two insightful quotes…
Actions that benefit others -- single individuals or targeted groups, entire communities, the culture or society-at-large, the Earth’s resources…

…as distinct from actions that are only taken only to benefit one’s own financial gain, status, power or authority, or how one is viewed in the eyes of others

• Social Capital is produced when people take action in the following areas:
  Social Justice, Economic Fairness, Political Activity, Cultural Enhancement, Ecological Preservation, and Ethical, Moral, and Spiritual Leadership
Gemeinschaftsgefühl (adj) (German)

Ga-mein-shafts-ga-fuel

lack of ego involvement; focusing on problems outside one’s self; social interest; feeling of kinship with others; democratic character structure; unhostile sense of humor; kindness; regard for fellow human beings.

*Filotomo* (Greek)

Giving of yourself and expecting nothing in return
No society can sustain itself unless its members have learned the sensitivities, motivations, and skills involved in assisting and caring for other human beings. Yet the school, which is the setting carrying primary responsibility for preparing young people for effective participation in adult life, does not, at least in American society, give high priority to providing opportunities in which such learning could take place.

Uri Bronfenbrenner
It’s a simple, easily forgotten truth that we need one another. I sometimes think that history might easily say about this nation:

“It was a great nation full of talented people with enormous energy who forgot that they needed one another.”

John Gardner
What Is Good (Intelligent) Thinking?

Critical Thinking  Creative/Productive Thinking  Ethical Thinking

(Mainly Cognitive)  (Mainly Motivational and Practical)  (Mainly Affective)

Seeing Relationships  Solution Oriented  Integrity
•  Observing  Curiosity/Inquisitiveness  Fairness
•  Organizing  Persistent  Humility
•  Patterning  Strategic (Developing a Plan or Strategy  Sensitivity/Awareness
•  Sequencing  Spontaneous  Altruism
Analyzing  Openness (to the new and unusual)  Truthfulness/Honesty
•  Translating  Playfulness  Interdependence
•  Interpreting  Independence  Empathy
•  Extrapolating  Impulsiveness
•  Inferring
•  Detecting Bias

Synthesizing  Evaluating
•  Concluding
•  Generalizing
•  Predicting
**Operation Houndstooth:**
An Examination of Extra-Cognitive Factors Contributing to the Development of Giftedness

*Project Overview*

<table>
<thead>
<tr>
<th>PHASE 1</th>
<th>PHASE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Investigating and Synthesizing)</td>
<td>(Transitioning)</td>
</tr>
<tr>
<td>• Theory</td>
<td>• Refining</td>
</tr>
<tr>
<td>• Research</td>
<td>• Application</td>
</tr>
<tr>
<td><em>Establishing a Foundation</em></td>
<td><em>Building upon the Foundation</em></td>
</tr>
</tbody>
</table>
### Operation Houndstooth Factors

Place an "X" somewhere on the scale for each opinion

#### Name of Factor: Optimism

<table>
<thead>
<tr>
<th>How do the following bipolar pairs describe Optimism?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuable</td>
</tr>
<tr>
<td>Rational</td>
</tr>
<tr>
<td>Definable</td>
</tr>
<tr>
<td>Comfortable</td>
</tr>
<tr>
<td>Quantifiable</td>
</tr>
<tr>
<td>Interesting</td>
</tr>
<tr>
<td>Easily maintained</td>
</tr>
<tr>
<td>Children cannot develop this without seeing it modeled</td>
</tr>
<tr>
<td>I know it when I see it</td>
</tr>
<tr>
<td>Positive</td>
</tr>
<tr>
<td>Resilient</td>
</tr>
<tr>
<td>Hopeful</td>
</tr>
<tr>
<td>Lasting</td>
</tr>
<tr>
<td>Essential to satisfaction in life</td>
</tr>
<tr>
<td>Optimistic</td>
</tr>
<tr>
<td>Generally related to spirituality</td>
</tr>
<tr>
<td>Believing</td>
</tr>
<tr>
<td>Teachable</td>
</tr>
<tr>
<td>Essential for success in life</td>
</tr>
<tr>
<td>Something important for my life</td>
</tr>
</tbody>
</table>

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The National Research Center on the Gifted and Talented
University of Connecticut
Joseph S. Renzulli, Rachel B. Symsa, & Kristin Berman
November, 2000
1. I am motivated to improve the quality of life for other people.
2. I support unpopular viewpoints when I believe they are correct.
3. At this point in time, I see myself as successful.
4. I am intrigued by unanswered questions in my area of strongest interest.
5. I am optimistic about my future.
6. When others tire of working on something, I continue working.
Examples of Items from The Young Person’s Houndstooth Survey

I am always happy.

I help others without being asked.

I am able to do what is right, even if it’s not the cool thing to do.

I am hopeful about the future.

I make goals for myself.
### Operation Houndstooth: Co-Cognitive Factors Scale (Co-CFS)

© R.E. Sytsma, J.S. Renzulli, & K.B. Berman
University of Connecticut, 2002

<table>
<thead>
<tr>
<th>Factor Name</th>
<th># Stems</th>
<th>α-Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimism</td>
<td>5</td>
<td>.82</td>
</tr>
<tr>
<td>Courage</td>
<td>4</td>
<td>.87</td>
</tr>
<tr>
<td>Romance with a Topic/Discipline</td>
<td>4</td>
<td>.73</td>
</tr>
<tr>
<td>Sensitivity to Human Concerns</td>
<td>5</td>
<td>.83</td>
</tr>
<tr>
<td>Mental/Physical Energy</td>
<td>4</td>
<td>.76</td>
</tr>
<tr>
<td>Vision/Sense of Destiny</td>
<td>4</td>
<td>.75</td>
</tr>
</tbody>
</table>
OPERATION HOUNDSTOOTH

OPTIMISM
• hope
• positive feelings from hard work

SENSITIVITY TO HUMAN CONCERNS
• insight
• empathy

PHYSICAL/MENTAL ENERGY
• charisma
• curiosity

ROMANCE WITH A TOPIC OR DISCIPLINE
• absorption
• passion

VISION/SENSE OF DESTINY
• sense of power to change things
• sense of direction
• pursuit of goals

WISDOM
SATISFYING LIFESTYLE
THE PURSUIT OF HAPPINESS

diversity
balance
harmony
proportion

差异性
平衡
和谐
比例

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Outline

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Executive functions are broadly defined here as the ability to engage in novel situations that require planning, decision-making, troubleshooting, and ethical leadership that is not dependent on routine or well-rehearsed responses to challenging combinations of conditions.

It involves organizing, integrating, and managing information, emotions, and other mental functions that lead to “doing the right thing” in situations that do not have a predetermined or formulaic driven response.

These functions are especially important to highly capable people because of their access to extensive amounts of knowledge and broad range of experiences within and across disciplines.
Executive Function skills are more important for school readiness than are IQ or entry-level reading or math.

(e.g., Blair, 2002; 2003; Blair & Razza, 2007; Normandeau & Guay, 1998)

Research shows that 5-year-olds today are behind in EFs compared with 5-year-olds of a couple of generations ago.

(Smirnova, 1998; Smirnova & Gudareva, 2004)
“What I think is important on the road to success is learning to deal with failure, to manage adversity. That’s a skill that parents can certainly help their children develop—and so can teachers and coaches and mentors.”

*How Children Succeed: Grit, Curiosity, and the Hidden Power of Character*

Paul Tough
Instrument Development

Scale for Rating the Executive Functions of Young People

Joseph S. Renzulli
Melissa S. Mitchell

Action Orientation
Social Interactions
Leadership
Realistic Self-Assessment
Awareness of Needs of Others
<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistent</td>
<td>.694</td>
</tr>
<tr>
<td>Possesses a good work ethic</td>
<td>.569</td>
</tr>
<tr>
<td>Able to follow through with tasks</td>
<td>.549</td>
</tr>
<tr>
<td>Demonstrates strong study skills</td>
<td>.534</td>
</tr>
<tr>
<td>Self-starter</td>
<td>.501</td>
</tr>
<tr>
<td>Persevering</td>
<td>.479</td>
</tr>
<tr>
<td>Values diversity</td>
<td>.441</td>
</tr>
<tr>
<td>Motivated</td>
<td>.427</td>
</tr>
<tr>
<td>Goal oriented</td>
<td>.422</td>
</tr>
<tr>
<td>Charitable</td>
<td>.420</td>
</tr>
<tr>
<td>Understands/deals with racism</td>
<td>.414</td>
</tr>
<tr>
<td>Purposeful</td>
<td>.365</td>
</tr>
<tr>
<td>Enjoys Challenge</td>
<td>.355</td>
</tr>
</tbody>
</table>

**Action Orientation**

*What motivates you to succeed?*

Internal reliability

$\alpha = .772$
Social Interactions

How do you successfully interact with others?

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loading</th>
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<tbody>
<tr>
<td>Polite</td>
<td>.661</td>
</tr>
<tr>
<td>Tactful</td>
<td>.577</td>
</tr>
<tr>
<td>Able to get along well with others</td>
<td>.530</td>
</tr>
<tr>
<td>Respectful of others</td>
<td>.528</td>
</tr>
<tr>
<td>Good listener</td>
<td>.788</td>
</tr>
<tr>
<td>Interested in others</td>
<td>.485</td>
</tr>
<tr>
<td>Considerate</td>
<td>.474</td>
</tr>
<tr>
<td>Possesses good manners</td>
<td>.436</td>
</tr>
<tr>
<td>Supportive</td>
<td>.419</td>
</tr>
<tr>
<td>Interacts well with others</td>
<td>.374</td>
</tr>
<tr>
<td>Cooperative</td>
<td>.331</td>
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Internal reliability
\[ \alpha = .751 \]
<table>
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<tbody>
<tr>
<td>Responsible</td>
<td>.696</td>
</tr>
<tr>
<td>Prioritizes</td>
<td>.663</td>
</tr>
<tr>
<td>Reliable</td>
<td>.643</td>
</tr>
<tr>
<td>Dependable</td>
<td>.632</td>
</tr>
<tr>
<td>Allocates time well</td>
<td>.543</td>
</tr>
<tr>
<td>Decision maker</td>
<td>.539</td>
</tr>
<tr>
<td>Professional</td>
<td>.523</td>
</tr>
<tr>
<td>Flexible</td>
<td>.486</td>
</tr>
<tr>
<td>Able to plan ahead</td>
<td>.477</td>
</tr>
<tr>
<td>Enterprising</td>
<td>.406</td>
</tr>
<tr>
<td>Creative</td>
<td>.398</td>
</tr>
<tr>
<td>Compassionate</td>
<td>.368</td>
</tr>
<tr>
<td>Demonstrates strong leadership skills</td>
<td>.365</td>
</tr>
<tr>
<td>Prefers long range goals</td>
<td>.354</td>
</tr>
<tr>
<td>Generates ideas</td>
<td>.340</td>
</tr>
<tr>
<td>Takes Charge</td>
<td>.329</td>
</tr>
</tbody>
</table>

Leadership

What characteristics do you have to be a successful leader?

Internal reliability

$\alpha = .812$
## Realistic Self-Assessment

How aware are you of your own abilities?

<table>
<thead>
<tr>
<th>Item</th>
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<tbody>
<tr>
<td>Possesses a high level of self-esteem</td>
<td>.651</td>
</tr>
<tr>
<td>Possessing a strong self-concept</td>
<td>.630</td>
</tr>
<tr>
<td>Able to give a realistic self-appraisal</td>
<td>.629</td>
</tr>
<tr>
<td>Realistic</td>
<td>.594</td>
</tr>
<tr>
<td>Possessing strong self-efficacy</td>
<td>.583</td>
</tr>
<tr>
<td>Confident</td>
<td>.574</td>
</tr>
<tr>
<td>Defers gratification</td>
<td>.490</td>
</tr>
<tr>
<td>Adaptable</td>
<td>.478</td>
</tr>
<tr>
<td>Copes well with set backs</td>
<td>.464</td>
</tr>
<tr>
<td>Conscientious</td>
<td>.456</td>
</tr>
<tr>
<td>Open to new ideas</td>
<td>.341</td>
</tr>
<tr>
<td>Openminded</td>
<td>.330</td>
</tr>
<tr>
<td>Socially conscious</td>
<td>.329</td>
</tr>
</tbody>
</table>

Internal reliability
\[ \alpha = .781 \]
<table>
<thead>
<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Collaborates well</td>
<td>.598</td>
</tr>
<tr>
<td>Possesses strong communication skills</td>
<td>.517</td>
</tr>
<tr>
<td>Ethical</td>
<td>.485</td>
</tr>
<tr>
<td>Sensitive</td>
<td>.478</td>
</tr>
<tr>
<td>Possesses good etiquette</td>
<td>.454</td>
</tr>
<tr>
<td>Aware of role of effort</td>
<td>.448</td>
</tr>
<tr>
<td>Possesses strong character</td>
<td>.447</td>
</tr>
<tr>
<td>Approachable</td>
<td>.446</td>
</tr>
<tr>
<td>Enthusiastic</td>
<td>.379</td>
</tr>
<tr>
<td>Critical thinker</td>
<td>.364</td>
</tr>
<tr>
<td>Empathetic</td>
<td>.327</td>
</tr>
</tbody>
</table>

**Awareness of Needs of Others**

*How mindful are you of the needs of others?*

Internal reliability

\( \alpha = .744 \)
1. **Provide Opportunities to Apply Learning**  
Provide students with opportunities to apply learning -- especially through authentic, personally meaningful activities -- and then provide formative assessments and feedback throughout an authentic project.

2. **Introduce Practice Activities to Support Developing Executive Function**  
Students need to be given opportunities to practice using executive functions such as how to learn, study, organize, prioritize, review, and actively participate in class.

3. **Have Students Model Higher Executive Function Skills**  
In planning practice activities, consider how and when students can model executive function skills and have students provide feedback to one another.
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Interventions Designed To Promote Co-cognitive Characteristics

Internalization of Co-cognitive Attitudes, Beliefs, Values, and Behaviors

Methods

Rally-Round-the-Flag

The Gold Star Approach

The Teaching-and-Preach Approach

The Vicarious Experience Approach

Direct Involvement I: Participatory Activities

Direct Involvement II: Creative/Productive Activities

JSR: 12-42
In conclusion...
"The things that will destroy us are: politics without principle; pleasure without conscience; wealth without work; knowledge without character; business without morality; science without humanity; and worship without sacrifice."

Mohandas Gandhi
Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it’s the only thing that ever does.

Margaret Mead
Let me end with a challenge for real leadership in our field...

An important question that we, as educators of the future leaders of all aspects of the important work of the world, must ask ourselves – the area in which we should be taking the lead in education.

In an era of homogenized, shrink-wrapped, germ-free curriculum, we are depriving our students of opportunities to think critically and to investigate the things that are some of the most important issues facing today’s world:

• Environmental destruction
• Racial and religious tensions
• Human rights
• Social justice
• Inadequate health care
• The stranglehold that lobbyists have on government
• Unethical behavior on the parts of leaders
• The widening gap between rich and poor nations
• Worldwide humanitarian crises
• Rampant greed & materialism
• Self-indulgence vs. the common good
• Gender equity
• Brainwashing kids through advertising
Teachers are the unacknowledged legislators of the world.

Ashley Montagu
We could learn a lot from crayons: some are sharp, some are pretty, some are dull, some have weird names, and all are different colors...but they all exist very nicely in the same box.
Intelligences Outside the Normal Curve: Factors That Contribute To the Creation of Leadership Skills and Social Capital In Young People and Adults

Joseph S. Renzulli, Director
The National Research Center On The Gifted And Talented
The University of Connecticut (USA)
The Schoolwide Enrichment Model

Joseph S. Renzulli & Sally M. Reis

School Structures

- The Regular Curriculum
- The Enrichment Clusters
- The Continuum of Special Services

Strength Assessment Portfolio

Curriculum Modification Techniques

Enrichment Learning and Teaching

- TYPE I: GENERAL EXPLORATORY ACTIVITIES
- TYPE II: GROUP TRAINING ACTIVITIES
- TYPE III: INDIVIDUAL & SMALL GROUP INVESTIGATIONS OF REAL PROBLEMS

Service Delivery Components

- Regular Classroom
- Environment In General

The School Organizational Model

The Learning Theory

Resources

- Renzulli Learning System
- Odyssey Learning
- Identification Instruments
- Curriculum Materials
- Staff Development Training Materials
- Evaluation Instruments

www.gifted.uconn.edu
# Continuum of Learning Theories*

<table>
<thead>
<tr>
<th>Deductive</th>
<th>Pedagogy</th>
<th>Inductive, Investigative &amp; Inquiry Oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didactic &amp; Prescriptive</td>
<td>Knowledge Acquisition, Storage, and Retrieval. Predetermined Content</td>
<td>Knowledge Application, High Engagement, Motivation And Enjoyment. J-I-T Content</td>
</tr>
</tbody>
</table>

## Outcomes

<table>
<thead>
<tr>
<th>Basic Skill Acquisition</th>
<th>21st Century Thinking Skills Creative Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text Consumption</td>
<td></td>
</tr>
</tbody>
</table>

## Major Theorists

<table>
<thead>
<tr>
<th>Behaviorists</th>
<th>Constructivists</th>
</tr>
</thead>
</table>
| • Pavlov  
• Thorndike  
• Skinner | • Pestalozzi, Torrance,  
• Montessori, Gardner,  
• Piaget & Bruner,  
• Dewey, Sternberg |

## National Goals

<table>
<thead>
<tr>
<th>Increased Academic Achievement</th>
<th>Inventors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Test Scores</td>
<td>Creative Designers in Sciences, Arts, &amp; Technology</td>
</tr>
<tr>
<td>Technically Proficient Professional and Skilled Workers</td>
<td>Innovative Leaders</td>
</tr>
</tbody>
</table>
| | Entrepreneurs  
| | Writers  
| | People Who Make a Difference |

*Both ends of this continuum are important, and schools should integrate them whenever possible to produce the best balance between the two models of learning.*
Relating The Enrichment Triad Model To Various Organizational Structures

The Pedagogy of Enrichment Learning and Teaching (EL&T)

- Regular Classroom *Infusion*
  - Extension of An Individual Lesson
  - A Unit You Are Planning

- Special Classes, Resource Room/ Pull-Out, Enrichment Clusters, AITDs, Independent Study

- Extra and Co-Curricular Activities And Other Special Events In Your School

- Various Organizational Models (How We Group Students and Move Them Around)

A Pedagogical Model (What We *Do* With Students)
A Theory of Knowledge

<table>
<thead>
<tr>
<th>Natural Sciences &amp; Mathematics</th>
<th>Philosophy</th>
<th>The Humanities</th>
<th>The Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences</td>
<td>Literature &amp; Rhetoric</td>
<td>Technology</td>
<td>(Applied Sciences)</td>
</tr>
<tr>
<td>Languages</td>
<td>Law, Ethics, &amp; Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Applied Sciences)</td>
<td></td>
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</tbody>
</table>

### How Knowledge Is Organized

<table>
<thead>
<tr>
<th>Facts &amp; Statistics</th>
<th>Beliefs, Attitudes, &amp; Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classifications, Relations &amp; Categories</td>
<td>Theories, Structures</td>
</tr>
<tr>
<td>Patterns, Trends &amp; Sequences</td>
<td>Systems, Implications &amp; Transformations</td>
</tr>
<tr>
<td>Principles, Concepts &amp; Generalizations</td>
<td>Investigative Methods</td>
</tr>
<tr>
<td>Trivia, Folklore, &amp; Insiders Information</td>
<td>“Giants,” Champions, &amp; Landmark Events</td>
</tr>
</tbody>
</table>

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**To-Be-Presented Knowledge**

**Just-In-Time Knowledge**

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**Two Kinds of Knowledge**
Content Modifications
- More Material
- More Drill & Practice
- Easier Material
- Greater Depth & Complexity
- Student or Teacher Selected
  Enrichment Opportunities Related
  To A Topic or Unit of Study

Learning/Teaching Styles:
Lecture, Discussion, Peer Tutoring, Simulations
Socratic Inquiry, CAI, Dramatization, Problem Based Learning, Guided & Unguided Independent Study

On-line Courses
Blogs, Wikis, Podcasts
RSS Feeders, Screencasts
Flickr, Twitter
Social Networking Sites
Renzulli Learning System

Five Dimensions of Differentiation

Classroom Organization:
Forum, Cinema,
Laboratory, Café, Conference,
Boardroom, Lecture Hall,
Circle, Hot Seat, Study
Carrels, Science/Media Labs,
Computer Lab, Interest
Centers, “Coffee House”

Grouping by:
Interests, Skill Levels, Ability,
Within & Across-Grade
Cluster Grouping, Common Tasks/Projects,
Complimentary Talents,
Cooperative Learning

Expression Styles:
Oral, Visual, Graphic,
Manipulative, Artistic,
Written, Multi-Media,
Service, Combinations of the Above

(JSR: 1996)
### Operation Houndstooth
**Co-Cognitive Factor Scale**

**R.E. Sytsma, J.S. Renzulli, and K.B. Berman**  
© University of Connecticut, 2002

**Directions:**  
It is important that you check one response for every item.  
There are no "right" or "wrong" answers.  
Your first response is often the best reflection of how you feel about each item.

<table>
<thead>
<tr>
<th>Item</th>
<th>strongly Agree</th>
<th>Agree</th>
<th>Neutral/Undecided</th>
<th>Disagree</th>
<th>strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am motivated to improve the quality of life for other people.</td>
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<tr>
<td>2. I have a strong sense about what I am meant to do in my life.</td>
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<tr>
<td>3. I have always had a vision of what kind of person I want to be.</td>
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<td>4. I would volunteer to help those in need.</td>
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<td>5. I consider myself sensitive to the well-being of people I don't personally know.</td>
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<tr>
<td>6. I expect good things to happen for me in the future.</td>
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<td>7. I support unpopular viewpoints when I believe they are correct.</td>
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<tr>
<td>8. I am hopeful about my future.</td>
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<td>9. I have known from a very young age what my career path would be.</td>
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<tr>
<td>10. I am willing to take risks to support something I believe in.</td>
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<tr>
<td>11. I have a strong need to help others.</td>
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<tr>
<td>12. At this point in time, I see myself as successful.</td>
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<tr>
<td>13. I go out of my way to help people who are struggling.</td>
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<tr>
<td>14. I would miss working on my favorite area of interest if I were no longer able to do it.</td>
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<tr>
<td>15. I am intrigued by unanswered questions in my area of strongest interest.</td>
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<tr>
<td>16. I want to keep learning about my favorite area of interest.</td>
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<tr>
<td>17. I cannot imagine my life without working in my strongest area of interest.</td>
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<td>18. I am optimistic about my future.</td>
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<tr>
<td>19. I know that in the future I will be doing what I was born to do.</td>
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<tr>
<td>20. Even when I face setbacks, I am able to remain positive about my future.</td>
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<tr>
<td>21. I have more energy than most people.</td>
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<tr>
<td>22. When others tire of working on something, I continue working.</td>
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<tr>
<td>23. I stay physically or mentally focused longer than others.</td>
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<td></td>
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<td></td>
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<tr>
<td>24. I consider myself energetic.</td>
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<td></td>
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<tr>
<td>25. I have the courage to maintain my beliefs in the face of opposition.</td>
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<td></td>
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<tr>
<td>26. I stand up for what I believe is right.</td>
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</tbody>
</table>
**Young Person’s Houndstooth Survey**

I am in grade: Grade 3  Grade 4  Grade 5  Grade 6

I am a: Girl  Boy

Color in the face that most closely matches how you feel about each sentence. As your teacher explain any you don’t understand.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.</td>
<td>I am hopeful about the future.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>20.</td>
<td>I am a curious person.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>21.</td>
<td>When I help others, I don’t expect anything in return.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>22.</td>
<td>I am brave.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>23.</td>
<td>I know that I will be successful in the future.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>24.</td>
<td>I am always happy.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>25.</td>
<td>I have a lot of energy.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>26.</td>
<td>If I help someone out, I expect them to help me later.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>27.</td>
<td>If someone is being mean, I tell them so.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>28.</td>
<td>I often think about what I want to be when I grow up.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>29.</td>
<td>I know the world will be a better place in the future.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>30.</td>
<td>I have the energy to finish projects that interest me.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>31.</td>
<td>I feel awful when someone gets hurt, even if it wasn’t my fault.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>32.</td>
<td>I am able to do what is right, even if it is not the cool thing to do.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>33.</td>
<td>I make goals for myself.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>34.</td>
<td>I have many good things to look forward to.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>35.</td>
<td>I am always thinking up new ideas.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>36.</td>
<td>I keep working on something I enjoy, even after other people get bored.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

For these questions you will be asked to think about something that you enjoy doing. Try to think of one thing that you really enjoy.

Write it here: __________. For the rest of this survey, the thing that you wrote above will be called your “Interest Area.”

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.</td>
<td>I love to learn about my interest area.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>38.</td>
<td>I like to spend a lot of time working on my interest area.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>39.</td>
<td>I am happy when I get to do something in my interest area.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>40.</td>
<td>I would enjoy taking a lesson or class in my interest area.</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>
Outline

1. General Theory For Talent Development

2. Why Intelligences Outside The Normal Curve Are Important

3. Operation Houndstooth Theory & Research

4. Executive Function Theory & Research

5. Co-Cognitive Factor Intervention Theory