

## **Understanding and Educating Gifted and Talented Students:**

### **A Multiple Intelligences Approach**

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In a time when the average school's resources and teachers' attentions are focused on raising achievement test scores for "at risk" and typical students, there is a danger that high ability students' intellectual potential will go unrecognized and under-developed. This presentation will discuss how an assessment for the multiple intelligences can be used to understand the unique intellectual characteristics and educational needs of gifted and talented students. This research describes how students and parents can be provided with personalized and user-friendly information that guides families toward an array of activities that will maximize the development of the student's intellectual strengths as well as the management of any limitations. Web-based and low cost materials to achieve these objectives will be described.

#### **Multiple Intelligences Inspired Instructional Strategies for Gifted and Talented Students**

Many people wonder how multiple intelligences theory can be useful for the identification and education of people with high ability and potential. There are three general ways in which MI can be used:

- 1) assessment: a careful description of strengths and limitations
- 2) instructional planning: "strengths-based approach"
- 3) counseling: career, psychological.

The educational goals for implementing MI in the classroom and schools articulated by Howard Gardner are four-fold:

- 1) personalization of education
- 2) teach with a variety of intelligences
- 3) community connections
- 4) philosophical discussion of goals / values for education

## **Renzulli's Conception of Giftedness**

Joseph Renzulli (2005) defines 'giftedness' as "thought and action resulting from an interaction among three basic clusters of human traits, above average general and / or specific abilities, high levels of task commitment, and high levels of creativity" (p. 367).

This definition includes both the *Schoolhouse Giftedness* which is associated with high IQ scores and academic achievement as well as *Creative-Productive Giftedness* which results in "the development of original thought, solutions, material, and products that are purposefully designed to have an impact on one or more target audiences" (p. 255).

According to Renzulli the use of test scores alone is inadequate for the identification of gifted individuals because tests are too restrictive in their assessment of gifted behaviors. This results in the failure to recognize and develop the full intellectual potential of many people with high ability. As Sternberg (1982) writes "Use of test score cutoffs and formulas results in a serious problem of underidentification of gifted children. (p.157) In order to recognize the giftedness of all students we need to better understand the three characteristics comprising the gifted triad.

### **Well-Above-Average Ability**

"persons who are capable of performance or who possess the potential for performance that is representative of the top 15 to 20 percent of any given area of human endeavor" (p. 260).

#### *General ability.*

- Tests of intelligence, verbal and numerical reasoning, spatial relations, memory, word fluency.

#### *Specific abilities:*

- e.g., chemistry, ballet, musical composition, sculpture and photography
- leadership, human relations, athletics,

### Assessment methods: real life, non-test situations

1. achievement or aptitude tests
2. skilled observers
3. performance-based assessments

### **Task Commitment**

“energy brought to bear on a particular problem (task) or specific performance area...perseverance, endurance, hard work, dedicated practice, self-confidence, a belief in one’s ability to carry out important work, and action applied to one’s area of interest...perceptiveness...a better sense for identifying significant problems....a special fascination for an involvement with the subject matter of one’s chosen field...zeal...to engage in an activity primarily for its own sake” (p.263).

A gifted person may display some of the above characteristics, but to achieve its full flowering the “person’s high commitment toward a task seems to be the result of this synergistic effect” when ‘extrinsic factors...support one’s sense of competence or enable one’s deeper involvement with the task itself....a reinforcing effect on intrinsic motivation” (p. 262).

### **Creativity**

Csikszentmihalyi (1996) describes three different manifestations of creativity:

- a) Brilliant: unusual and stimulating thoughts;
- b) Personally creative: “people who experience the world in novel and original ways...their perceptions are fresh and their judgments insightful...make important discoveries....known to themselves...but others do not know about those discoveries” p. 254
- c) Creative: “the development of original thought, solutions, material, and products that are purposefully designed to have an impact on one or more target audiences” p. 255.

Renzulli makes an interesting observation citing Lewis Terman's 30-year follow-up studies of adults in their mid-40s who had been identified with high IQ scores when they were children. Terman identifies four general personality traits that distinguish between 150 of the most successful and 150 of the least successful among the high IQ men studied. Success was primarily defined in terms of "notable achievements".

The four traits where there was the greatest difference between the two groups were:

- 1) persistence in the accomplishment of ends
- 2) integration toward goals
- 3) self-confidence
- 4) freedom from inferiority feelings.

"In the total picture the greatest contrast between the two groups was in an all-round emotional and social adjustment, and in drive to achieve" (Terman & Oden, 1959, p. 148)

In the concluding pages of Terman's 30 years follow-up study he notes that .....

Your instructional approach for students identified as G&T may be quite different your approach for "typical" students, but, then again, maybe not. I don't think that my philosophical approach differs for teaching G&T, but I'm sure that my strategies will differ. My teaching is informed by an understanding of the human mind/brain called multiple intelligences theory. This is a "theory of mind" and not a prescriptive set of instructional practices. Is it not Montessori, whole language, experiential education, Saxon math, or any specific technique. Instead, it is a careful scientific-based understanding of the mind/brain that questions our 100 year old assumption that "general intelligence" or *g* (as measured by the IQ test) explains sufficiently what it means to be an "intelligent person" in the world today.

Since the focus of this class is on “instructional processes” lets begin by citing the four general principals for how a multiple intelligences perspective can inspire education as provided by Howard Gardner.

## **GOALS**

- 1- Personalization
- 2- Teach with a variety of intelligences
- 3- Connect classroom learning to community roles
- 4- Generate a philosophical discussion re purpose of education

I think it is fairly obvious that these goals are good principals for all learners and if we diligently work towards them then we will design curriculum and schools that are flexible and specific enough for ALL learners, including those with unique strengths as well as limitations.

The Key Learning Community established in 1985 was the first MI-inspired school in the world. It was created by a group of 7 teachers who initially wanted to apply for funding to create a school or program specifically for G&T students. This group of dedicated teachers met regularly for nearly 2 years studying various educational theorists and concluded that what they really wanted was to create a school where all learners could thrive and not limit the “good stuff” to those few students with unique abilities. They have done this successfully for more than 20 years. But, I have to admit and they will agree, that it isn’t easy or simple to do. MI is just one of the theories that form the theoretical foundations for this school.

The staff works hard to work together to create practical strategies for implementing their “ideals” as embodied in the four principles stated above.

So....multiple intelligences is a unique theory about how the mind/brain works and as such provides us with rich resource to guide our curriculum and instructional planning.

To begin, I believe that it is vitally important that we have a deep understanding of each of the intelligences just like the sculptor needs to be intimately familiar with the structure and functions of the clay, marble, steel or whatever materials s/he is working with.

Teaching, I believe, is as much an “ART” as it is a “SCIENCE”—perhaps more so. MI gives us a rich source of information to guide the “art of instruction”. It is our palette from which we dip our brush so as to paint the possibilities in the minds of those learners who look to us for guidance, inspiration and knowledge.

To truly understand MI we need to break through the clichés and superficial understanding associated with the 8 names or labels for each of the intelligences. Who can name all 8.5 intelligences? Who can name any of the criteria used by Howard Gardner to identify each of the intelligences?

We will now take a journey through the multiple intelligences and I will be your captain. This is my “captain’s hat”. We will explore how MI expands our understanding of what the mind/brain is capable of doing. As I lead us through each “country” we will go beyond the mere borders and visit several large regions and specific cites that make up each of those large general areas that we label “an intelligence”. We must get beyond the "Welcome to Musical Intelligence" road signs in order to truly understand what it is all about.

The intelligences are broad categories which consist of more specific domains, talents and skills.

As we visit each region I'll strive to highlight how they pertain to the characteristics and instructional needs of G&T students (and adults) but I'd like you think of this as a dialogue and we'll pause to gather our collective thoughts about how this particular intelligence can be manifested in our G&T students and developed. OK?

I would like to point out two important contributions of MI theory.

1- Each intelligence has its creative / divergent thinking aspects as well as convergent. For example, you can use your linguistic intelligence for writing excellent technical manuals, giving rousing speeches or writing fantastic poetry.

2- Each intelligence has its non-academic, everyday life "practical" characteristics as well as skills that are valued in the traditional "academic" world. For example, you can be musically intelligent in orchestra and marching band as well as jazz, folk, improvisation, drumming, and hip-hop.

**Intrapersonal:**

- self-knowledge
- metacognitive
- emotional management

**Interpersonal:**

- feeling awareness
- understanding
- relationship management

**Linguistic:**

- linguistic sensitivity – poetry
- persuasion
- reading / writing
- verbal memory

**Visual-spatial:**

- photo-graphic memory
- artistic / aesthetic
- engineering

**Logical-mathematical:**

- logical analysis, reasoning
- abstract, conceptional thinking
- calculations

**Musical:**

- musicality
- playing an instrument
- vocal ability
- emotionality

**Kinesthetic:**

- dance / acting
- athletics

**Naturalist:**

- pattern recognition
- understanding living ecological systems
- empathic understanding

**Existential:**

- ??
- asking nuanced, broad and complex questions about life

Revisiting our 4 Goals for MI Education, I'd like to be more specific about how I think we can accomplish these goals. My approach emphasizes the "personalization" of instruction and curriculum and formula is summarized in this way:

### **Reach It!**

1- **R**ecognize it! : pay attention and see the ability / limitation

- sit along side and observe, collect data

2- **E**ngage it! :

- Challenge and Support
- employ "strengths vs. deficits"

3- **V**alue it!: call it an "intelligence"

- valuable contributions to self and community

3- **C**elebrate it!

- progress

5- **H**old on to hope!

- High IQ College Students-

- High IQ / LD students

- Engineers

- Mensa: Males, Females

# **Howard Gardner's Four Educational Goals for MI Theory**

*Reflections on Multiple Intelligences: Myths and Messages*

Kappan, Nov. 1995

- 1. Personalization of education**
- 2. Teaching a subject matter in a variety of ways**
- 3. Cultivation of skills that are valued in the community**
- 4. Generate a philosophical discussion regarding the purpose of schooling**

# . . . . IN YOUR CLASSROOM . . . .

## RECOGNIZE

- > Create a **Class Group Roster**
- > Identify students with special areas of strength and weakness
- > Touch the passion and open the future potential
- > Identify Creative, Alternative Thinkers.....

## VALUE

- > Call it an intelligence!
- > Develop the use of MI language to "unpack your thinking"
- > Beyond self esteem....actual study strategies.

|                                   |                            |       |                    |       |            |
|-----------------------------------|----------------------------|-------|--------------------|-------|------------|
|                                   |                            |       | Musical            |       |            |
| <b>ENGAGE-</b>                    | <b>Support / Challenge</b> | Logic | **                 |       | Kin        |
| > Challenge to maximize strengths |                            | **    |                    | **    |            |
| > Nobody's perfect                | Spatial                    | ***** | <b>MI Projects</b> | ***** | Linguistic |
| > Build Self- confidence          |                            |       |                    |       |            |
| > Translate between intelligences |                            | **    | **                 |       |            |
| > Sense of hope                   |                            | Inter |                    | Intra |            |
|                                   |                            |       | **                 |       |            |
|                                   |                            |       | Naturalist         |       |            |

## Celebrate!

- > Public display
- > Connect with role models and peers in field
- > Socially valuable connections between my strength and what my community values