Course 1, Chapter 5 - Multiple Intelligences*

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Figure 1: Student as teacher in Faridibad, India

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1 Overview

Is intelligence innate? Genetic? Fixed?

Generally, this is how intelligence has been viewed - as a quantity. Recently, new views have emerged with enormous implications for education. This new perspective asserts that intelligence can be measured in different ways, that it grows, and it is more quality than quantity. It used to be that the question was asked: "Is s/he smart?" New questions now ask: " **How** is s/he smart?" The emphasis is on the various ways in which we demonstrate multiple intelligences, rather than a single intelligence. The readings and assignments that follow discuss multiple intelligences, provide an opportunity for you to apply them, and a way of determining how to assess students.

Howard Gardner created a list of seven intelligences. The first two are ones that have been typically valued in schools; the next three are usually associated with the arts; and the final two are what Howard Gardner called "personal intelligences."

Linguistic intelligence involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. This intelligence includes the ability to effectively use language to express oneself rhetorically or poetically, and language as a means to remembering information. Writers, poets, lawyers, and speakers are among those that Howard Gardner sees as having high linguistic intelligence.

Logical-mathematical intelligence consists of the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically. In Howard Gardner's words, it entails the ability to detect patterns, reason deductively, and think logically. This intelligence is most often associated with scientific and mathematical thinking.

Musical intelligence involves skill in the performance, composition, and appreciation of musical patterns. It encompasses the capacity to recognize and compose musical pitches, tones, and rhythms. According to Howard Gardner musical intelligence runs in an almost structural parallel to linguistic intelligence.

Bodily-kinesthetic intelligence entails the potential of using one's whole body or parts of the body to solve problems. It is the ability to use mental abilities to coordinate bodily movements. Howard Gardner sees mental and physical activity as related.

Spatial intelligence involves the potential to recognize and use the patterns of wide space and more confined areas.

Interpersonal intelligence is concerned with the capacity to understand the intentions, motivations, and desires of other people. It allows people to work effectively with others. Educators, salespeople, religious and political leaders and counselors all need a well-developed interpersonal intelligence.

Intrapersonal intelligence entails the capacity to understand oneself, to appreciate one's feelings, fears and motivations. In Howard Gardner's view it involves having an effective working model of ourselves, and to be able to use such information to regulate our lives.

In **Frames of Mind** Howard Gardner treated the personal intelligences "as a piece." Because of their close association in most cultures, they are often linked together. However, he still argues that it makes sense to think of two forms of personal intelligence. Gardner claimed that the seven intelligences rarely operate independently. They are used at the same time and tend to complement each other as people develop skills or solve problems.

In essence, Howard Gardner argues that he was making two essential claims about multiple intelligences:

1. The theory is an account of human cognition in its fullness. The intelligences provided "a new definition of human nature, cognitively speaking" (Gardner 1999: 44). Human beings are organisms who possess a basic set of intelligences.
2. People have a unique blend of intelligences. Gardner argues that the big challenge facing the deployment of human resources "is how to best take advantage of the uniqueness conferred on us as a species exhibiting several intelligences."

Also, these intelligences, according to Howard Gardner, are amoral - they can be put to constructive or destructive use.

2 The Appeal of Multiple Intelligences

Howard Gardner's theory of multiple intelligences has not been readily accepted within academic psychology. However, it has met with a strong positive response from many educators. It has been embraced by a range of educational theorists, and, significantly, applied by teachers and policymakers to the challenges of schooling. A number of schools have looked to structure curricula according to the intelligences, and to design classrooms and even whole schools to reflect the understandings that Howard Gardner develops. The theory can also be found in use within pre-school, higher, vocational, and adult-education initiatives.

This appeal was not, at first, obvious.

At first, this diagnosis would appear to sound a "death knell" for formal education. It is hard to teach one intelligence; what if there are seven? It is hard to enough to teach even when anything can be taught; what to do if there are distinct limits and strong constraints on human cognition and learning?

Howard Gardner responds to these questions by first making the point that psychology does not directly dictate education, "It merely helps one to understand the conditions within which education takes place." Even more: Seven kinds of intelligence would allow seven ways to teach, rather than one. In addition, paradoxically, constraints can be suggestive and ultimately freeing.

Mindy L. Kornhaber, a researcher at Harvard University, has identified a number of reasons why teachers and policymakers have responded positively to Howard Gardner's presentation of multiple intelligences. Among these are the fact that the theory validates educators' everyday experience: students think and learn in many different ways. It also provides educators with a conceptual framework for organizing and reflecting on curriculum assessment and pedagogical practices. In turn, this reflection has led many educators to develop new approaches that might better meet the needs of the range of learners in their classrooms.

3 Some issues and problems

As with all theories in education, multiple intelligences theory has its critics. Some maintain that longitudinal studies still bear out the power of genetics and intelligence as a fixed quantity. They argue that this theory apologizes for lack of intellectual achievement. Others argue that the ability to measure or test for such intelligences undermines its core assertions. In short, such critics claim: "If you can't test it, it's not valid."

Dr. Gardner contests such claims of validity by arguing for a different view of standardized testing that is not biased in favor of only one kind of intelligence at the expense of others. He also notes the achievements of students in non-academic settings and the tragedy of exclusion that results when whole segments of the population are not served because their intelligences do not have the opportunity for expression.

Implications of Multiple Intelligences for Schools

In terms of **Culture** it means support for diverse learners and hard work; acting on a value system that maintains that diverse students can learn and succeed; that learning is exciting; and that hard work by teachers is necessary.

In terms of **Readiness** it means awareness-building for implementing multiple intelligences. Building staff awareness of multiple intelligences and of the different ways that students learn.

Rather than using the theory as an end in and of itself, multiple intelleigences can be used as a **Tool** to promote high-quality student work

It can foster **Collaboration** - informal and formal exchanges - sharing ideas and constructive suggestions by the staff.

It allows for **Choice** - meaningful curriculum and assessment options; embedding curriculum and assessment in activities that are valued both by students and the wider culture.

It employs the **Arts** to develop children's skills and understanding within and across disciplines.

SUGGESTED READINGS

Index of Learning Styles [1] (no need to fill out the questionnaire - just read the questions) - online only

Multiple Intelligences Reaches the Tibetan Village[2]

[1] http://www.engr.ncsu.edu/learningstyles/ilsweb.html

[2] http://www.newhorizons.org/trans/international/campbell2.htm

Implications for Students [3]
PDF Files:
Mutiple Intelligences Reaches the Tibetan Village [4]
Implications for Students[5]

4 Inventory of Your Intelligences

HOW TO GET TO THE ONLINE INVENTORY:

To explore you intelligences, click here[6] . Read the screen that comes up, especially the directions under the title "Explore Your Intelligences" and click on the button at the bottom of that screen that says "Continue."

In this interactive activity, you will see that each person has all of the intelligences in varying degrees. This is intended to be a fun exercise - answer the questions to the best of your ability. At the end of the activity, a unique "Multiple Intelligences Self-Profile" will be generated. The results are not absolute indicators of intelligence - they are simply meant to give you the opportunity to learn more about your unique combination of intelligences.

5 Assignment 6: One Day of Multiple Intelligences

GOAL: To apply what you have learned about Multiple Intelligences to one lesson plan to be used in your classroom.

GIVE: Feedback to others on their assignments at the **TWB Learning Cafe** by clicking here[7] .

1. Choose a lesson you need to teach in the coming week. It could be a specific lesson in math, social studies, literature, etc. Then, list the intelligence that will be your central focus for that one lesson. Why did you choose that intelligence?
2. What resources or materials will you need? What room arrangements will you need? What other things do you need to consider?
3. Develop the activity keeping your chosen intelligence in the forefront of your planning. Will students be moving, reading, drawing, acting, singing, talking to each other?
4. Is your lesson plan reaching those who are expressing this intelligence, but have not had a chance to use it before?
5. Conduct the activity by spending more time watching and guiding students than instructing them.
6. Provide feedback on the lesson. What plain observations did you make about individual students, the class as a whole, interactions and happenings that occurred - details you noticed, large actions? Make a list of 7 plain observations.
7. Choose any observation from your list, and write about it in 2 - 3 paragraphs.

6 Assignment 7: Applying Multiple Intelligences

Below, please find a list of the general characteristics of students who exhibit strengths in each of the intelligences. You will need these to understand essential clues for your assignment.

Multiple Intelligences	**Overview**
	continued on next page

[3] http://www.newhorizons.org/future/Creating_the_Future/crfut_campbellb.html
[4] http://cnx.org/content/m13287/latest/file:tibetanvillage.pdf
[5] http://cnx.org/content/m13287/latest/file:implications.pdf
[6] http://lessonsforhope.org/survey/index.asp
[7] http://oneface.typepad.com/lois/

Verbal-Linguistic - The capacity to learn through words and grammatical logic	Learns from the spoken and written word, in many forms; reads, comprehends, and summarizes effectively
Logical-Mathematical - The capacity for inductive and deductive thinking and reasoning, as well as the use of numbers and the recognition of abstract patterns	Learns through using objects and moving them about, quantity, time, cause and effect; solves problems logically; understands patterns and relationships and makes educated guesses; can handle diverse skills such as advanced math, and represent them in graphic form; works with models; gathers evidence; builds strong arguments.
Visual-Spatial - The ability to visualize objects and spatial dimensions, and create internal images and pictures	Learns by seeing and observing - shapes, faces, colors; uses detail in visual images; learns through visual media; enjoys doodling, drawing; makes three-dimensional objects and moves them around; sees forms where others do not; enjoys abstractions and subtle patterns.
Body-Kinesthetic - The wisdom of the body and the ability to control physical motion	Learns through touching and moving; developed coordination and timing; participation and involvement; role plays. Engages in games, assembles objects; acts. Sensitive to physical environment; dexterity and balance; creates new forms that move.
Musical-Rhythmic - The ability to recognize tonal patterns and sounds, as well as a sensitivity to rhythms and beats	Learns through sound; eager to discuss music and its meaning; sings and plays an instrument; improvises and interprets
Interpersonal - The capacity for person-to-person communications and relationships	Learns through interactions, social relationships; perceives feelings, thoughts, motivations of others; collaborates; influences opinions; understands in verbal and non-verbal ways; takes in diverse points of view; mediates, organizes, develops new social processes and methods.
Intrapersonal - The spiritual, inner states of being, self-reflection, and awareness	Learns through range of personal emotions; finds outlets for feelings; identifies and pursues personal goals; curious about big questions; manages to learn through on-going attempts at gathering in ideas; insightful; empowers others.

Table 1

Table 2

One Way

GOAL: To apply what you have learned about Multiple Intelligences to your classroom over an extended period of time.

GIVE: Feedback to others on their assignments at the **TWB Learning Cafe** by clicking here.[8]

[8] http://oneface.typepad.com/lois/

1. Provide a general overview of what you plan to teach this next month:
2. Choose 4 "Multiple Intelligences." For each intelligence, describe 3 ways you will apply that intelligence to your classroom.

7 Additional Intelligences

Since Howard Gardner's original listing of the intelligences in **Frames of Mind** (1983) there has been a great deal of discussion as to other possible candidates for inclusion - **naturalistic intelligence** (the ability of people to draw upon the resources and features of the environment to solve problems); **spiritual intelligence** (the ability of people to both access and use, practically, the resources available in somewhat less tangible, but nonetheless powerful lessons of the spirit); **moral intelligence** (the ability to access and use certain truths).

Emotional Intelligence

In a 1994 report on the current state of emotional literacy in the U.S., author Daniel Goleman stated:

"...in navigating our lives, it is our fears and envies, our rages and depressions, our worries and anxieties that steer us day to day. Even the most academically brilliant among us are vulnerable to being undone by unruly emotions. The price we pay for emotional literacy is in failed marriages and troubled families, in stunted social and work lives, in deteriorating physical health and mental anguish and, as a society, in tragedies such as killings..."

Goleman attests that the best remedy for battling our emotional shortcomings is preventive medicine. In other words, we need to place as much importance on teaching our children the essential skills of Emotional Intelligence as we do on more traditional measures like IQ and GPA (Grade Point Avergaes).

Exactly what is Emotional Intelligence? The term encompasses the following 5 five characteristics and abilities:

1. **Self-awareness** - knowing your emotions, recognizing feelings as they occur, and discriminating between them.
2. **Mood management** - handling feelings so they're relevant to the current situation and you react appropriately.
3. **Self-motivation** - "gathering up" your feelings and directing yourself towards a goal, despite self-doubt, inertia, and impulsiveness.
4. **Empathy** - recognizing feelings in others and tuning into their verbal and nonverbal cues.
5. **Managing relationships** - handling interpersonal interaction, conflict resolution, and negotiations.

8 Why We Need Emotional Intelligence

Research in brain-based learning suggests that emotional health is fundamental to effective learning. According to a report from the National Center for Clinical Infant Programs, the most critical element for a student's success in school is an understanding of how to learn. (**Emotional Intelligence**, p. 193.) The key ingredients for this understanding are:

Confidence
Curiosity
Intentionality
Self-control
Relatedness
Capacity to communicate
Ability to cooperate

These traits are all aspects of Emotional Intelligence. Basically, a student who learns to learn is much more apt to succeed. Emotional Intelligence has proven a better predictor of future success than traditional methods like the GPA, IQ, and standardized test scores.

Hence, the great interest in Emotional Intelligence on the part of corporations, universities, and schools nationwide. The idea of Emotional Intelligence has inspired research and curriculum development. Researchers have concluded that people who manage their own feelings well and deal effectively with others are more likely to live content lives. Plus, happy people are more apt to retain information and do so more effectively than dissatisfied people.

Building one's Emotional Intelligence has a lifelong impact. Many parents and educators, alarmed by increasing levels of conflict in young schoolchildren - from low self-esteem to early drug and alcohol use to depression - are rushing to teach students the skills necessary for Emotional Intelligence. Also, in corporations, the inclusion of Emotional Intelligence in training programs has helped employees cooperate better and be more motivated, thereby increasing productivity and profits.

"Emotional Intelligence is a master aptitude, a capacity that profoundly affects all other abilities, either facilitating or interfering with them." (Daniel Goleman, **Emotional Intelligence**, p. 80.)

9 Assignment 8: Towards a New Intelligence

GOAL: To identify and describe a new intelligence derived from observation and experience.

GIVE: Feedback to others on their assignments at the **TWB Learning Cafe** by clicking here[9] .

Goleman's work on Emotional Intelligence and Gardner's naturalistic, spiritual, and moral intelligences point us towards new discussions and inquiries about intelligences yet unnamed.

1. If you were to think about a capacity you have seen in others - students, friends, community members - or even in yourself, an intelligence that has not yet been identified by Gardner and Goleman, but is present, what name would you give it?
2. Once you've given a name to a previously unnamed intelligence, write a brief 4 - 5 sentence description of it.
3. Give evidence for this intelligence citing at least 1 example.

[9] http://oneface.typepad.com/lois/