

**MODULE 60 INTRODUCTION TO INTELLIGENCE**

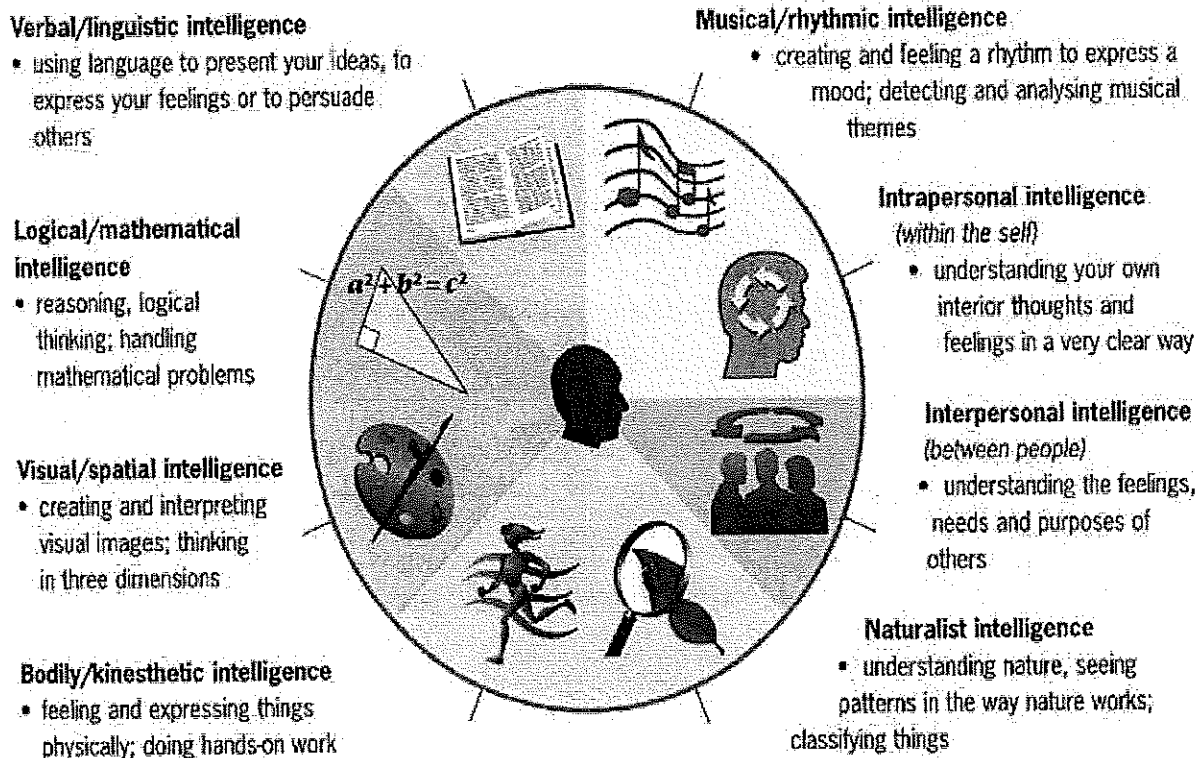
**INTELLIGENCE**

- **INTELLIGENCE** is the mental quality consisting of the ability to learn from experience, solve problems and use knowledge to adapt to new situations. **INTELLIGENCE TESTS** is a method for assessing an individual's mental aptitudes and comparing them with those of others, using numerical scores.
- Charles Spearman believed we have one **GENERAL INTELLIGENCE** (g-score) that underlies specific mental abilities and is therefore measured by every task on an intelligence test. **FACTOR ANALYSIS** is a statistical procedure that identifies clusters of related items (called factors) on a test; used to identify different dimensions of performance that underlie a person's total score.

**THEORIES OF MULTIPLE INTELLIGENCES**

- Howard Gardner views intelligence as multiple abilities that come in different packages. **SAVANT SYNDROME** is a condition in which a person otherwise limited in mental ability has an exceptional specific skill, such as in computation or drawing (Rain Man).
- Gardner's 8 Intelligences

**The Multiple Intelligences (MI) Chart**



- **GRIT** in psychology, grit is passion and perseverance in the pursuit of long-term goals.
- Robert Sternberg agrees with Gardner but instead thought of the triarchic theory. The **TRIARCHIC THEORY** consists of Analytical intelligence, Creative intelligence, and Practical intelligence.

**EMOTIONAL INTELLIGENCE**

- **EMOTIONAL INTELLIGENCE** is the ability to perceive, understand, manage, and use emotions.
- Gardner and others feel that emotional intelligence is stretching “intelligence” and if stretched too much, it will lose its meaning.

**IS INTELLIGENCE NEUROLOGICALLY MEASURABLE?**

- There is a +.33 correlation in brain size and intelligence score (Is this a significant correlation or nah?).

**TABLE 11.2**

**COMPARING THEORIES OF INTELLIGENCE**

Theory	Summary	Strengths	Other Considerations
Spearman's general intelligence (g)	A basic intelligence predicts our abilities in varied academic areas.	Different abilities, such as verbal and spatial, do have some tendency to correlate.	Human abilities are too diverse to be encapsulated by a single general intelligence factor.
Thurstone's primary mental abilities	Our intelligence may be broken down into seven factors: word fluency, verbal comprehension, spatial ability, perceptual speed, numerical ability, inductive reasoning, and memory.	A single g score is not as informative as scores for seven primary mental abilities.	Even Thurstone's seven mental abilities show a tendency to cluster, suggesting an underlying g factor.
Gardner's multiple intelligences	Our abilities are best classified into eight independent intelligences, which include a broad range of skills beyond traditional school smarts.	Intelligence is more than just verbal and mathematical skills. Other abilities are equally important to our human adaptability.	Should all of our abilities be considered intelligences? Shouldn't some be called less vital talents?
Sternberg's triarchic	Our intelligence is best classified into three areas that predict real-world success: analytical, creative, and practical.	These three facets can be reliably measured.	<ol style="list-style-type: none"> <li>1. These three facets may be less independent than Sternberg thought and may actually share an underlying g factor.</li> <li>2. Additional testing is needed to determine whether these facets can reliably predict success.</li> </ol>

Multiple Intelligence Type	Incorporated into subject matter	Way of demonstrating understanding
<b>Verbal-Linguistic</b>	Books, stories, poetry, speeches, author visits	Writing stories, scripts, poems, storytelling
<b>Mathematical-Logical</b>	Exercises, drills, problem solving	Counting, calculating, theorizing, demonstrating, programming computers
<b>Musical</b>	Tapes, CD's, concert going	Performing, singing, playing, composing
<b>Visual-Spatial</b>	Posters, art work, slides, charts, graphs, video tapes, laser disks, CD-ROMs and DVDs, museum visits	Drawing, painting, illustrating, graphic design, collage making, poster making, photography
<b>Bodily-Kinesthetic</b>	Movies, animations, exercises, physicalizing concepts, rhythm exercises	Dance recital, athletic performance or competition
<b>Interpersonal</b>	Teams, group work, specialist roles	Plays, debates, panels, group work
<b>Intrapersonal</b>	Reflection time, meditation exercises	Journals, memoirs, diaries, changing behaviors, habits, personal growth
<b>Naturalist</b>	Terrariums, aquariums, class pets, farm, botanical garden and zoo visits, nature walks, museum visits	Collecting, classifying, caring for animals at nature centers
<b>Existential</b>	Working on causes, charity work, astrology charts	Community service

**BE ABLE TO ANSWER:** Joseph, a Harvard Law School student, has a straight-A average, write for Harvard Law Review, and will clerk for a Supreme Court justice next year. His grandmother, Judith is very proud of him, saying he is way more intelligent than she ever was. But Joseph is also very proud of Judith: As a young woman, she was imprisoned by the Nazis. When the war ended, she walked out of Germany, contacted an agency helping refugees, and began a new life in the United States as an assistant chef in her cousin's restaurant. According to the definition of intelligence in this unit, is Joseph the only intelligent person in this story? Why or why not?

**PRACTICE FRQ:** Give a summary, a strength, and a weakness of Charles Spearman's idea of general intelligence.