

**Theoretical Foundation for  
Multi-Intelligent  
Technology-Enabled  
Learning**

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**May 15, 2003**

# Theoretical Foundation

- Theory of Multiple Intelligences
- Constructivist Learning Theory
- Adult Learning Theory

# Theory of Multiple Intelligences

- Developed by Howard Gardner
- Based on evidence from psychology, biology, and anthropology
- Each individual possesses eight (or possibly more) different intelligences
- Intelligences are both biological and learned or developed
- Individuals vary – which intelligences more developed than others

# Linguistic Intelligence

- Sensitive to spoken and written language
- Aware of meanings and relationship of words
- Interested in vocabulary activities, grammar, poetry, essays, and plays



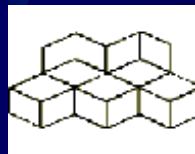
# Logical-Mathematical Intelligence

- Abstract thought
- Counting
- Organization, logical structure
- Interested in critical thinking activities
- Interested in breaking words into smaller parts and reassembling them



# Spatial Intelligence

- Keen observation
- Ability to think visually
- Uses metaphors
- Interested in graphs, charts, color codes, guided imagery, pictures, posters, and mind maps



# Bodily-Kinesthetic Intelligence

- Control of one's body and objects
- Good sense of timing
- Interested in sports and games
- Likes games, skits, and plays
- Engages in hands-on activities



# Musical Intelligence

- Sensitive to rhythm, pitch, and intonation
- Listens carefully and can hear differences between tones and sounds
- Likes poems, plays, chants, songs
- Engages in musically guided imagery





# Interpersonal Intelligence

- Social skills
- Sensitive to others' moods, feelings, and motivation
- Outgoing, enjoys discussion groups
- Likes to talk with people
- Good at problem solving



# Intrapersonal Intelligence

- Strong sense of self
- Ability to understand and access own feelings
- Likes poetry and journal writing
- Guided imagery and meditation



# Naturalist Intelligence

- Sensitive to nature and the environment
- Can distinguish between different types of flowers, rocks, and birds
- Loves to be outdoors
- Likes to work in the garden, tend plants and animals



# Constructivist Learning Theory

- Based on research of Piaget
- Learning - result of individual's mental construction
- Individuals learn by actively constructing their own understanding
- Incorporate new information into base of knowledge already constructed in their minds
- Discovery learning - "True learning is based on discovery guided by mentoring rather than transmission of knowledge" John Dewey

# Adult Learning

- Learn throughout their lives
- Transitional stages – cause for learning
- Diverse learning approaches
- Problem-centered and relevant
- Immediacy of application
- Past experiences
- Self-concept
- Self-directed