

Augustana College

EDUC 245 – Educational Psychology & Measurement

Concepts addressed:

Differences in the Ways Students Learn and Perform

Learning styles are approaches to learning and studying. Styles may change over time with development, maturity, and experience. Research is controversial, particularly when researchers have tried to tie the research to various cultures. Each of the following categories of learning style should be considered on a continuum- most students fall somewhere in between the extremes.

Deep-processing approach - learn for the sake of learning, they look for the meaning in information.

Surface-processing approach - focus on the grade, will cram to remember the information, true understanding is not valued.

Field Dependence -look at the whole picture, very global, tend to be stronger in history and literature. They enjoy group work and they want encouragement and praise from their teacher. They prefer the teacher to organize the assignments and structure the class. Field Independence - analytical, look at the separate items, better at things dealing with the physical world, subjects of preference are math and science. These students easily tape into their own prior knowledge, organize material and structure information. They like individualized instruction and are self-motivated. These students often enjoy competition. The preferred role of the teacher is facilitator and negotiator.

Impulsive Style - These students complete assignments in a quick, careless manner. This style is most prevalent in the primary grades. Teachers can counter this style by encouraging quality work, not fast work and by having students make corrections on careless work.

Reflective Style - These students are conscientious about their assignments, giving attention to detail. Compared to impulsive style students they do better academically. They are better readers and spellers because they avoid careless errors.

Some educators consider multiple Intelligences learning styles.

Learning preferences - the preferences you have for studying and learning: quiet or noisy, alone or in groups, structured or unstructured, bright or dim light, cold or warm, pressure or relaxed, individual or large group.

Howard Gardner's Theory of Multiple Intelligences (MI) - everyone has capabilities in each of the 9 intelligences. Some students are stronger in one area and weaker in another area. Schools tend to focus on verbal/linguistic and logical/mathematical intelligence. All students need experiences and challenges in each of the intelligences. Besides being a theory of intelligence, MI provides implications for assessment and instruction.

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Verbal/Linguistic Intelligence: Enjoys reading, writing, and the spoken word. Has a higher than average vocabulary. These students like to learn through brainstorming, storytelling, composing stories, and persuasive arguments (Ex. Abraham Lincoln, Hemingway).

Logical/Mathematical Intelligence: Enjoys math and science, cause and effect, taking things apart and putting them back together, games such as Chess and Checkers, graphs, charts, and the financial page. They have a capacity to understand logical or numerical patterns (Ex. Einstein).

Visual/Spatial Intelligence: Learn through graphics and pictures. Enjoys making graphs, charts, posters, watching movies, mental images in their mind are very detailed, may be a daydreamer (Frank Lloyd Wright).

Bodily/Kinesthetic Intelligence: In touch with their body. Learns through sports, exercise, dance, skits, tactile activities, mimics, may fidget (Ex. Lance Armstrong, Brittany Spears)

Musical: Learns through music, dance, song, rhythm, rhyme, and appreciates musical expression (Ex. Beethoven, Dr. Seuss)

Interpersonal (understanding others): Learns through group work, a leader, empathetic, has two or more close friends, energized by others, social, loves to join clubs (Ex. Presidents Clinton & Reagan)

Intrapersonal (understanding self): Introspective, in touch with their own thoughts and beliefs, learns from their mistakes, reflective, enjoys working alone (not the lonely student), high self-esteem (Ex. Freud)

Naturalist: These students have a green thumb and are in touch with animals. Enjoys wildlife, animals and plants (Ex. John Muir)

Existential - philosophers, seeking the meaning of life and their role in the scheme of life (Ex. Plato, Socrates)

Concrete Operational thinkers need hands-on learning experiences.

Conservation - amount stays the same even if reshaped or rearranged

Decentration - can focus on more than 1 dimension or feature at a time (a cup has height and width)

Reversible thinking - some processes can be reversed (addition is the reverse of subtraction)

Seriation - can arrange objects by height, weight, age ($A < B < C$ therefore $A < C$)

Transformation - change and its effects on something (tadpole becomes a frog)

Classify - the student is able to group objects into categories by looking at more than one characteristic

They benefit from concrete props and activities (math manipulatives, field trips, models)

They benefit from visual aids (timelines, diagrams, graphs)

Presentations should be brief and well organized

They need to be active (draw, build, weave, sculpt, bake) Use familiar examples to explain complex material.

Discuss open-ended questions.

Physically perform skills (practice lining up, lunchroom manners)

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Provide opportunities for them to reason logically using concrete concepts or manipulatives
Visual learners -learn best by seeing information, pictures, charts, diagrams, movies, posters.
They can visualize information in a vivid and detailed manner. Visual-spatial skills such as size, shape, and angles are strong. They pay close attention to body language and are good gauges of what is unspoken. They are aware of and appreciate art and the physical environment.

Aural (hearing) learning - Auditory learners prefer to learn by hearing information. Primary students believe they are good listeners if they sit quietly and don't interrupt. By eleven years old they realize that understanding what is being said is necessary to being a good listener. Comprehension of what individuals hear is influenced by the context that they hear the information. Students strong in aural learning accurately remember conversations and lectures. They have strong language skills, good vocabularies and their word choice is descriptive. They can articulate their thoughts. They often learn a second language easily and have musical talents due to the fact they can denote tone and rhythm.