Mathematics Learning Styles
Descriptions and Suggestions

Visual/Verbal Learning Styles

Visual: Learning from shape, color and arrangement	**Verbal: Learning from words, whether written or spoken**
• prefer demonstrations and examples • prefer maps and flow charts • use color and shapes • "see" the process	• prefer written or spoken explanations • prefer directions and lists • use verbal/written notes • "talk" through the process
To be more visual…	*To be more verbal…*
• Work textbook/software examples • Use flow charts and sketches • Learn effective use of colors /shapes • Close your eyes and "see" the solution process	• Write out steps for solving • Follow the words in flow charts • Explain procedures to others • Talk about what you're doing while you do it.

Comments _____

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Active/Reflective Learning Styles

Active: Learning by doing, moving and talking	**Reflective: Learning from thinking, watching and imagining**
• learn by doing • "try it out," then review/ask • usually work well in groups • discuss, explain, argue	• need to consider outcomes before they act • "think about it," then try • usually work better alone • listen, watch, see patterns
To be more active…	*To be more reflective…*
• Use software to work a variety of different problems • Work at the board • Work with others in groups • Use things to demonstrate ideas	• Watch videotapes/CD 's • Look for examples in the book • Review summaries & notes • Find similarities in processes

Comments _____

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Factual/Abstract Learning Styles

Factual: Learning facts, procedures and routines	**Abstract: Learning from concepts, processes and patterns**
• prefer facts and steps • like consistent methods • dislike theory questions • just want to get to the solution	• first need to understand idea • like innovative techniques and "tricks" • dislike repeated drillwork • like to solve like a puzzle
To be more factual…	*To be more abstract…*
• practice examples in the book • follow software examples • stick to one solution method • focus on steps for memorizing	• learn the underlying concepts • use software game problems • try different techniques • treat problems like puzzles

Comments _____

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Sequential/Global Learning Styles

Sequential: Learning in structured, logical steps	**Global: Learning in overall, "big picture," and/or sudden leaps**
• like structured learning • learn in logical steps • like to take each step • focus where they are • usually can provide explanations	• like experiential learning • learn in 'aha' moments • 'leap' through steps • focus ahead of where they are • can demonstrate, but may not be able to explain
To be more sequential…	*To be more global…*
• select instructors who are structured • write down the steps • stay focused on current step • think of how to explain the process to others	• select instructors who relate mathematics to daily life • know that it will 'click' • think a few steps ahead • work from both ends of the problem

Comments _____

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Visual/Verbal Memory Styles

Visual: Remember shape, color and arrangement	**Verbal: Remember words, whether written or spoken**
• remember what they saw • remember colors and shapes • things are right if they look right • "see" when they remember	• remember what was said • use logic and verbal cueing • things "sound" right • talk to themselves when remembering
To remember more visually…	*To remember more verbally…*
• close your eyes to practice "seeing" solution processes • pay close attention to color and shapes • write whatever you "saw" and then try to fill in missing parts.	• talk about what you're doing while you solve problems • focus on and repeat the words in flow charts or steps • explain procedures to others • write what you remember and then talk to yourself about the rest

Comments _____

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Accepting/Anxious Attitude

Anxious: Attitude about math that is anxious about difficulties	*To be less anxious about math…*
• have strong emotional reactions • become quickly frustrated • may have a "wall" to learning • "blank out" during tests • don't recognize math successes • likely procrastinate about math	• slow your breathing while working on problems • turn off the negative comments about math or self • use relaxation techniques with practice tests • celebrate math successes

Comments _____

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