

## Selected Learning Styles Characteristics and Strategies for Students

(AMATYC, 2006: Beyond Crossroads: Implementing Mathematics Standards in the First Two Years of College)

<i>Learning Styles Characteristics</i>		<i>Strategies for Students</i>
<b>Active/ Tactile/ Concrete</b>	Retains and understands information as a result of doing something manual or involving the sense of touch.	<ul style="list-style-type: none"> <li>• Use mathematics as a concrete demonstration to make sense of a problem situation.</li> <li>• Draw a picture, make a table, or build a physical model of a problem.</li> <li>• Have students act out a concept</li> </ul>
<b>Active/ Social</b>	Retains and understands information as a result of discussing or explaining to others.	<ul style="list-style-type: none"> <li>• Participate in study groups.</li> <li>• Discuss concepts with the instructor and other students.</li> </ul>
<b>Analytic</b>	Learns concepts and rules from experts.	<ul style="list-style-type: none"> <li>• Listen to lectures.</li> <li>• Watch a demonstration.</li> </ul>
<b>Dynamic</b>	Learns by exploring and looking for other possibilities for solving problems.	<ul style="list-style-type: none"> <li>• Create and complete mathematics projects.</li> <li>• Use trial and error to find mathematics patterns.</li> </ul>
<b>Global</b>	Learns in large jumps, absorbs material randomly, is able to solve complex problems quickly and in novel ways.	<ul style="list-style-type: none"> <li>• Relate new mathematics topics to previous knowledge.</li> </ul>
<b>Innovative</b>	Learns mathematics by personally relating mathematics to himself/herself using feelings.	<ul style="list-style-type: none"> <li>• Discuss mathematics ideas with others.</li> <li>• Look for personal meaning in mathematics.</li> </ul>
<b>Intuitive</b>	Discovers possibilities and relationships, is comfortable with abstractions and mathematical formulations, dislikes memorization and routine calculations.	<ul style="list-style-type: none"> <li>• Seek interpretations and theories that provide proofs for theorems or formulas.</li> </ul>
<b>Reflective</b>	Thinks about information quietly first and prefers to work alone.	<ul style="list-style-type: none"> <li>• Incorporate reflection time as a part of study time.</li> </ul>
<b>Sensing/ Common Sense</b>	Learns facts by connecting concepts to real-world situations; prefers to see the usefulness and practical application of mathematics.	<ul style="list-style-type: none"> <li>• Consult other sources for specific real-world examples of mathematics concepts and procedures.</li> <li>• Seek hands-on learning experiences.</li> </ul>
<b>Sequential</b>	Understands linear steps and follows logical paths to find solutions.	<ul style="list-style-type: none"> <li>• Ask instructor to supply steps to solutions for problems.</li> </ul>
<b>Verbal</b>	Prefers written and spoken explanations.	<ul style="list-style-type: none"> <li>• Make summaries or outlines of course material.</li> <li>• Listen to classmates' explanations.</li> <li>• Read written explanations aloud.</li> <li>• Explain how to solve a problem.</li> </ul>
<b>Visual</b>	Remembers pictures, diagrams, flowcharts, formulas, and procedures.	<ul style="list-style-type: none"> <li>• Seek diagrams, schematics, course materials that can be viewed.</li> <li>• Create concept maps.</li> <li>• Color code notes and flashcards with highlighters.</li> </ul>