

Retrieval	Comprehension	Analysis	Knowledge Utilization	Meta-Cognitive System	Self-System
<p><b>Information:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Recognizing accuracy</b> in facts and details</li> <li>✓ <b>Recalling critical information</b> about terms, facts, and time sequences</li> </ul> <p><b>Mental Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Recognizing and validating</b> accurate statements about a specific mental skill</li> <li>✓ <b>Recognizing accurate statements</b> about a mental skill</li> <li>✓ <b>Recalling how to use</b> a mental skill</li> <li>✓ <b>Executing</b> a mental skill or procedure</li> </ul> <p><b>Psychomotor Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Recognizing and validating accuracy of mental processes</b></li> <li>✓ <b>Producing</b> accurate information</li> <li>✓ <b>Recalling</b> a process</li> <li>✓ <b>Executing</b> a procedure</li> </ul>	<p><b>Information:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Integrating</b> by <b>describing critical versus noncritical elements</b> of information often accomplished through a description or showing “what”.</li> <li>✓ <b>Symbolizing</b> by making a map, illustration, graphic, or symbol to map information</li> </ul> <p><b>Mental Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Integrating</b> by <b>describing critical versus noncritical elements</b> of a mental procedure and describing <b>logical steps and why they work</b>.</li> <li>✓ <b>Symbolizing</b> by designing a flow chart or graphic organizer to depict a mental (and psychomotor procedure) skill or procedure</li> </ul> <p><b>Psychomotor Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Integrating</b> by <b>describing critical versus noncritical elements</b> of psychomotor procedures and describing <b>logical steps and why they work</b>.</li> <li>✓ <b>Symbolizing</b> by designing a flow chart or graphic organizer to depict a mental (and psychomotor procedure) skill or procedure</li> </ul>	<p><b>Information:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Matching</b> by <b>identifying</b> the manner in which terms, facts, or time sequences <b>are similar to and different from</b> related structures.</li> <li>✓ <b>Classifying</b> through <b>identification of superordinate and subordinate categories</b>.</li> <li>✓ <b>Analyzing errors</b> by <b>determining the extent to which information is reasonable</b>, given what the student already knows about the topic.</li> <li>✓ <b>Generalizing</b> by <b>inferring generalizations and principles</b> from specific terms, facts, or events</li> <li>✓ <b>Specifying</b> by <b>identifying what will or might happen</b> based on specific information</li> </ul> <p><b>Mental Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Matching</b> through identification of <b>how two or more skills are similar and different</b> in terms of their component parts.</li> <li>✓ <b>Classifying</b> through <b>identification of superordinate and subordinate mental skills categories</b></li> <li>✓ <b>Analyzing errors</b> through <b>identifying errors that someone is making or has made</b> while executing a mental procedure</li> <li>✓ <b>Generalizing</b> by</li> </ul>	<p><b>Information:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Decision making</b> by <b>selecting among alternatives</b> based on specific information</li> <li>✓ <b>Problem solving</b> by <b>organizing information or ideas to help identify a generalization or principle, or to build a hypothesis</b></li> <li>✓ <b>Experimenting</b> by <b>organizing information or ideas in various ways to support the generation of a hypothesis</b></li> <li>✓ <b>Investigating</b> by <b>examining existing information</b> about the topic for the purpose of constructing a hypothesis</li> </ul> <p><b>Mental Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Decision making</b> by <b>selecting the best approach for solving a problem</b> or by <b>selecting the best approach for learning new content</b></li> <li>✓ <b>Problem solving</b> by <b>selecting effective mental procedures or processes</b> for solving a problem</li> <li>✓ <b>Experimenting</b> by <b>generating and selecting and testing mental procedures for solving a problem</b></li> <li>✓ <b>Investigating</b> by <b>testing hypothesis by using what others have said or written as data</b> as opposed to observational data that the student has collected themselves</li> </ul>	<p><b>Information:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Specifying goals</b> by <b>setting goals for specific details and organizing ideas along with a plan</b> for accomplishing those goals</li> <li>✓ <b>Process monitoring</b> by <b>monitoring the extent to which goals are being met in terms of understanding specific details and organizing ideas</b></li> <li>✓ <b>Monitoring clarity</b> by <b>identifying how clear a student is about specific details</b> and organizing details</li> <li>✓ <b>Monitoring accuracy</b> by <b>determining how accurate students are</b> about specific details and organizing ideas</li> </ul> <p><b>Mental Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Specifying goals</b> by <b>setting goals for specific mental processes along with a plan</b> for accomplishing those goals</li> <li>✓ <b>Process monitoring</b> by <b>determining how well goals are being met relative to the execution of mental procedures</b></li> <li>✓ <b>Monitoring clarity</b> by <b>identifying how clear a student is about specific mental skills and processes</b></li> <li>✓ <b>Monitoring</b></li> </ul>	<p><b>Information:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Examining importance</b> by determining <b>how important</b> it is to learn details and organizing ideas and <b>analyzing the logic</b> of those perceptions</li> <li>✓ <b>Examining efficacy</b> by <b>identifying one’s beliefs</b> about one’s ability to learn details and organizing ideas and then examining the logic of these beliefs.</li> <li>✓ <b>Examining emotional response</b> by <b>identifying any emotions associated with details</b> and organizing ideas and the logic behind these associations</li> <li>✓ <b>Examining motivation</b> by <b>identifying one’s level of motivation</b> to learn details and organizing ideas and then analyzing the reasons for the identified level of motivation</li> </ul> <p><b>Mental Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Examining importance</b> by determining <b>how important</b> it is to learn specific mental skills and processes and <b>analyzing the logic</b> of those perceptions</li> <li>✓ <b>Examining efficacy</b> by <b>identifying one’s beliefs</b> about one’s ability to <b>improve competence at mental skills</b> and processes and then examining the logic of these beliefs.</li> <li>✓ <b>Examining emotional response</b> by <b>identifying any emotions associated</b></li> </ul>

Source: Marzano, R. J. & Kendall, J. S. (2008). *Designing and assessing educational objectives: Applying the new taxonomy*. Thousand Oaks, CA: Corwin Press.

		<p>constructing and defending conclusions about a set of skills</p> <ul style="list-style-type: none"> <li>✓ <b>Specifying</b> by identifying what must or might happen during the execution of a skill or process under specific conditions</li> </ul> <p><b>Psychomotor Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Matching</b> through identification of how two or more physical skills are similar and different in terms of the steps they involve.</li> <li>✓ <b>Classifying</b> through identification of superordinate and subordinate physical skills</li> <li>✓ <b>Analyzing errors</b> through identifying errors that someone is making or has made while executing a physical skill</li> <li>✓ <b>Generalizing</b> by constructing and defending conclusions about a set of psychomotor skills</li> <li>✓ <b>Specifying</b> by identifying what must or might happen during the execution of a physical skill or process under specific conditions</li> </ul>	<p><b>Psychomotor Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Decision making</b> by selecting the best approach for solving a psychomotor problem or by selecting the best way to be successful with a physical task</li> <li>✓ <b>Problem solving</b> selecting effective physical procedures, processes, or skills for solving a problem</li> <li>✓ <b>Experimenting</b> by generating and selecting and testing mental procedures for solving a problem</li> <li>✓ <b>Investigating</b> by testing hypothesis by learning from experts in the field and learning specific psychomotor lessons from these examples</li> </ul>	<p>accuracy by determining how accurately students execute specific mental skills and processes</p> <p><b>Psychomotor Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Specifying goals</b> by setting goals for specific psychomotor processes along with a plan for accomplishing those goals</li> <li>✓ <b>Process monitoring</b> by determining how well goals are being met relative the execution of psychomotor procedures</li> <li>✓ <b>Monitoring clarity</b> by identifying how clear a student is about specific physical skills and processes</li> <li>✓ <b>Monitoring accuracy</b> by determining how accurately students execute specific physical skills and processes</li> </ul>	<p>with mental skills and processes and the logic behind these associations</p> <ul style="list-style-type: none"> <li>✓ <b>Examining motivation</b> by identifying one's level of motivation to learn mental skills and processes and then analyzing the reasons for the identified level of motivation</li> </ul> <p><b>Psychomotor Procedures:</b></p> <ul style="list-style-type: none"> <li>✓ <b>Examining importance</b> by determining how important it is to learn specific psychomotor skills and processes and analyzing the logic of those perceptions</li> <li>✓ <b>Examining efficacy</b> by identifying one's beliefs about one's ability to improve competence at psychomotor skills and processes and then examining the logic of these beliefs.</li> <li>✓ <b>Examining emotional response</b> by identifying any emotions associated with psychomotor skills and processes and the logic behind these associations</li> <li>✓ <b>Examining motivation</b> by identifying one's level of motivation to learn psychomotor skills and processes and then analyzing the reasons for the identified level of motivation</li> </ul>
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<p><b>Item language:</b></p> <p>Exemplify, name, list, label, state, describe, who, what, where, when</p>	<p><b>Item language:</b></p> <p><u>Integration:</u> Describe how or why (or both) Describe the key parts of Describe the effects Describe the relationship between Explain ways in which Make connections between Paraphrase Summarize</p> <p><u>Symbolizing:</u> Depict, represent, illustration, draw, show, use models, diagram, chart</p>	<p><b>Item language:</b></p> <p><u>Matching:</u> Categorize, differentiate, discriminate, distinguish, sort, create an analogy, create a metaphor</p> <p><u>Classifying:</u> Organize, sort, identify a broader category, identify categories, identify different types</p> <p><u>Analyzing Errors:</u> Identify problems, identify issues, identify misunderstandings, assess, critique, diagnose, evaluate, edit, revise</p> <p><u>Generalizing:</u> What conclusions can be drawn What inferences can be made Create a generalization Create a principal Create a rule Trace the development of Form conclusions</p> <p><u>Specifying:</u> Make or defend Predict Judge Deduce What would have to happen Develop and argument for Under what conditions</p>	<p><b>Item language:</b></p> <p><u>Decision making:</u> Select the best among the following alternatives Which among the following would be the best What the best way Which of these is most suitable</p> <p><u>Problem solving</u> How would you overcome Adapt Develop a strategy to Figure out a way to How will you reach your goal under these conditions</p> <p><u>Experimenting</u> Generate a test Test the idea that What would happen if How would you test that How would you determine if How can this be explained Based on the experiment, what can be predicted</p> <p><u>Investigating</u> Research Find out about Take a position on What are the differing features of How did this happen Why did this happen What would happen if</p>	<p><b>Item language:</b></p> <p><u>Specifying goals:</u> What would you like to accomplish Identify something</p> <p><u>Process monitoring:</u> Evaluate Determine how well Determine how effectively</p> <p><u>Monitoring clarity:</u> What are you clear about? What are you unclear about? How could you better understand?</p> <p><u>Monitoring accuracy:</u> About what do you believe you are accurate? About what do you believe you might be inaccurate?</p>	<p><b>Item language:</b></p> <p><u>Examining importance:</u> How important is it to you? Why do you think it might be important? Can you provide some reasons why it is important? How logical is your thinking?</p> <p><u>Examining efficacy:</u> Can you improve? How well do you think you can do? How well can you learn? How good are you at? How logical is your thinking?</p> <p><u>Examining emotional response:</u> What are your feelings about...? What is the logic underlying these feelings? How reasonable is your thinking?</p> <p><u>Examining motivation:</u> How interested are you? How motivated are you? How would you explain your level of interest? How reasonable is your thinking?</p>