

Figure 3.2: Sample Learning Progression for Procedural Knowledge—Retrieval Practice

Procedural Knowledge: <i>Retrieval Practice</i>		
	Criteria	Learning Plan
Acquisition	<p>List the steps or describe the process.</p> <p>Explain when to use the process.</p> <p>Explain why to use the process.</p>	<p>What are the steps involved in performing this process?</p> <ol style="list-style-type: none"> 1. Identify the new knowledge that you need to acquire. 2. Expose yourself to the new knowledge. 3. Attempt to reproduce the knowledge without using any resources. 4. Use resources to evaluate your reproduction of the knowledge, and identify incorrect or missing elements. 5. Repeat steps 3 and 4 until you are able to reproduce the knowledge accurately and reliably. <p>Is the order of steps important?</p> <p>Yes, the order is important.</p> <p>When is it appropriate to use this process?</p> <p>When acquiring new knowledge.</p> <p>Why is it advantageous to use this process?</p> <p>Retrieving knowledge from your memory results in better learning than simply restudying that knowledge.</p>
Shaping	<p>Perform the process without errors.</p>	<p>What are common errors made when performing this process?</p> <p>Using practice questions that don't require you to retrieve the new information</p> <p>Forgetting to check your answers</p> <p>Continuing to retrieve all the information every time rather than just the information you got wrong</p> <p>How can errors be avoided when performing this process?</p> <p>Don't use practice questions; just try to reproduce the information by yourself.</p> <p>Always do step 4 of the process.</p> <p>Set a number of times you need to retrieve something correctly before you stop trying to retrieve it.</p>
Internalizing	<p>Perform the process at the appropriate rate.</p>	<p>Do I need to learn this process to automaticity, or is controlled processing enough?</p> <p>Automaticity</p>
Utilization	<p>Complete a complex task using this knowledge.</p>	<p>How would this knowledge be used in the real world or in a grown-up job?</p> <p>I am the owner of a high-end restaurant. My job is to design a memory system that I can teach to my servers so they can remember customers' orders and requests without writing anything down.</p>