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	Learning Hierarchy Analysis	Information Processing Analysis	Learning Contingency Analysis
Learning Assumptions	When prerequisite intellectual skills are mastered, learning outcomes are achievable. Tasks are ordered from simple to complex	Human thinking can be characterized as an information processing system this process involves input, processing, storing and outputting actions or decisions. IPA also assumes that covert thinking processes can be characterized as well as taught.	Specify desired outcomes in advance and in behavioral terms Complex behaviors can be broken down Unit sequenced through rational analysis
Purpose	Defines what must be taught and sequence in which to teach it	Reveals task related content, objectives or skills. It can also generate an instruction or training sequence or be used by students as a learning tool.	Identify behavioral components of tasks and determine the interdependencies among them.
Top down or bottom up	Bottom up learning sequencing	Top down, similar to procedural task analysis.	Procedural
Focuses on	Ordered relationship among skills leading up to accomplishing learning outcome	IPA focuses on the mental operations required to complete a task, including both the processes and the sequence followed. The task analyst will either 1-observe someone performing the task and/or describing the mental operations and decisions as he or she performs it of 2-mentally “walks through” the task himself or herself In either case, each operation and decision is recorded as a discrete step in a sequential series.	Making sequence decisions based on the order in which the specific items of content can best be learned. Moving from simple to complex.

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<p>Description</p>	<p>Identify highest level of learning outcome, develop prerequisite skills for outcome. Identify what must be mastered for each higher order skill.</p> <p>Ordered from more complex skills at top to simpler skills at bottom. Each intellectual skill builds on simpler skills to form learning hierarchy.</p>	<p>IPA describes cognitive task performance as a sequence of operations and decisions with a specifiable beginning and end.</p> <p>IPA describes the sequence of mental steps or operations used to accomplish a task. The result of an IPA is usually a sequential outline or algorithm of the cognitive operations necessary to achieve a specific goal or objective.</p>	<p>What needs to be learned before other things can be learned.</p> <p>Determine the relationship between two behaviors to determine how they should be sequenced.</p> <p>The contingencies in LCA are learning contingencies in which one behavior must be learned before another behavior can be learned.</p> <p>Also focuses on how to convey the instructional content to reach the instructional objectives.</p> <p>The scope of LCA is confined to behaviors that are contingent upon each other.</p>
<p>Application (when to use)</p>	<p>Guide for sequencing instruction. Good for well-defined set of ordered skills like some science, math or technical training tasks. Use in combination with procedural analysis to identify performance tasks (overt) and their intellectual skills (covert).</p>	<p>IPAs are used to outline the thinking and learning skills that students need to succeed in school.</p> <p>The information-processing outline can be used to derive the process and content of classroom instruction or used individually by students as a learning tool.</p>	<p>LCA is more likely to fit a situation involving the teaching of a motor skill that can be broken down into a sequence of small behavioral units and taught systematically. It is used for units that are related and one must be learned to move on to the next one.</p>