Content-Performance Matrix (CPM)

Clark's modification of Merrill's CPM.[1]

Apply		Classify new examples.	Solve problems and make inferences.	Perform the procedure.	Perform the task; solve the problem.
Remember	Remember the facts.	Remember the definition.	Remember the stages.	Remember the steps.	Remember the guidelines.
	Facts	**Concepts**	**Process**	**Procedure**	**Principle**

Use the content-performance matrix for goals and outcomes.

When creating practice or test items, think about the:

- Stem – the question
- Distracters – the choices (for multiple choice or true/false)
- Feedback – information learners receive if they select a choice
- Software you are using and the formats of questions available

10 Tips for Multimedia Design[2]

1. Only include necessary words, pictures and sounds.
2. Use audio narration instead of screen text whenever possible.
3. Use verbal and visual cues to draw attention to essential material.
4. Use graphics/animation and narration rather than graphics/animation, narration and printed text.
5. When using pictures, put corresponding text near the image on the screen.
6. When using pictures and words, have them appear simultaneously on the screen rather than successively.
7. For longer tutorials, present information in user-controlled segments.
8. Use pre-training to help learners learn necessary concepts and terminology before the lesson.
9. Use a human voice and conversational style in audio narration.
10. Add a picture of the narrator if you would like.

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[1] Clark, Ruth C. (2009). *Developing Technical Training: A Structured Approach for Developing Classroom and Computer-Based Instructional Materials (*3rd ed.). Hoboken, NJ : John Wiley & Sons, Inc.

[2] Based on Mayer, Richard E. (2009). *Multimedia Learning* (2nd ed.). New York, NY: Cambridge University Press.