

# Modes of Knowing



**PINPOINT**



*All elements in a visual can be viewed simultaneously, unlike sentences, which must be processed sequentially one at a time... Greater psychological processing efficiency is the result.*

Ruth Colvin Clark

**Declarative v. procedural knowledge**

These technical terms from psychology refer to two categories of knowledge. Essentially, declarative knowledge is about *knowing what*, elsewhere termed *knowing that*. Procedural knowledge, as the term implies, is about *knowing how*.

Neither type is superior to the other. Both are needed. The question is which is suited for what purposes. It all depends whether you want someone else to *know about* something or to know *how to execute* that something.

Then there's the decision of how to communicate that knowledge: verbally or visually. Link those two questions together and you get this table.

	KNOWING WHAT	KNOWING HOW
VERBAL	Tell Me What	Tell Me How
VISUAL	Show Me What	Show Me How

**Cognitive overload, understanding and memory**

There are consequences for which of the four types of knowledge you choose. Both verbal-only modes risk overloading the reader, delaying understanding and limiting the depth of recall from memory.

If the material presented needs complex explanations only possible with extended text, why not help the reader by providing a diagrammatic overview first? Extra effort for the writer, no doubt, but really helpful for the reader.

**REFERENCES**

Clark, R (2011)  
Evidence Based Training  
ASTD, Virginia

Clark, R., Nguyen, F & Sweller, J (2006)  
Efficiency in Learning  
Pfeiffer, San Francisco

Gawande. A. (2009)  
The Checklist Manifesto  
Metropolitan Books, New York

**1** *Learners studying from materials with diagrams were able to apply the more complex rule from memory more effectively than learners who studied from the text versions.*

Ruth Colvin Clark

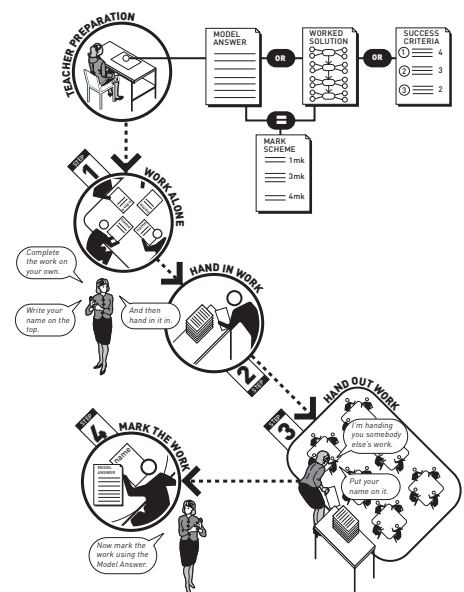
**Professional learning for teachers**

For decades, and up to the present, teachers engage in professional learning through words. They listen to gurus at the front of the training room, describing how to be a better teacher. And they read the guru's words in the form of bullet points up on the screen. Some even read the guru's words of wisdom in books.

Most of these words are declarative knowledge transmitted verbally — *tell me what* knowledge. Better gurus give you procedural knowledge with words — *tell me how* knowledge. Far better. But still not half as powerful as *show me how*.

**1** *A summary that includes a combination of relevant words and pictures is better than a summary that includes either words or pictures alone.*

Ruth Colvin Clark



**Visual checklists**

Surgeon Atul Gawande's best-seller *The Checklist Manifesto* writes "When *HowTo* knowledge is not established, you get rock stars...When this knowledge is captured, established and routine, the rock star status disappears."

The captured procedural knowledge of a profession sends the message that everyone can succeed if they follow the checklist. These checklists are not essays, or keynote speeches. They are step-by-step procedures. The best are visual in format.