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## Still Images in Teaching and Learning

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### Using images to help students learn

The use of images has been shown to assist memory (Fleming & Levie, 1978; Pettersen, 1989). With assisted recall, students are more likely to be able to transfer new ideas and apply this knowledge.

A static image may help students' understanding *because* it is still; it may permit greater access to detail if the image is drawn clearly and is legible. Similarly, a well-drawn diagram can show relationships clearly. When complex ideas are to be presented and explained, visual analogy may permit the relationship between parts of complex ideas to be demonstrated.

Images can be useful in helping students learn through **problem-solving**, because they can promote creativity and improvisation. For example:

- Reasoning can be developed through the use of images. Students might be asked to explain the sequence, patterns or logic in a series of images that relate to a particular process.
- Skills of analysis and synthesis can be taught and developed using images. Students can be involved in the dissection and classification of diagrammatic information or assembling a series of seemingly unrelated images into meaningful information.
- Cause-and-effect relationships can be seen more clearly when the information is presented visually.
- Identification of sequence in processes or procedures and the recognition of errors can be taught with the assistance of well-drawn images.
- Students can be asked to make judgments based on a series of given criteria when part of the information is presented visually.

### The selection and design of still images

#### Relevance

The direct relevance of an image to what is being read or heard is vital. Because sight is the most receptive sense for most people, an obscure or irrelevant image will distract from



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other messages being given. Further, to be useful and add to the learning context, an image used in teaching must relate to *both* the substance of the lecture and the needs of the students.

The most valuable image will complement what is being said. For example, an image may be used to:

- explain a technical term (or simply to spell it),
- trigger the description of an example or short anecdote so that the lecturer may elaborate on a new idea,
- obtain a response from the students (multiple-choice questions may be used, or a problem posed by a projected image), or
- link one argument with the next.

### **An intelligent balance**

In tertiary teaching, a productive image will challenge the viewer to think because it will represent a balance between being easily understood and posing a question or problem which needs resolution. Images used in this way will not simply support a presentation but **challenge the viewer to respond**.

### **Clarity**

Visual clarity assists interpretation. It is essential to the image and the message it represents. There are a number of ways to promote visual clarity:

- Carefully select the image with its background. A white (or clear) background for a black image is not the most successful for projection because the bright light is tiring on the eyes. Either a yellow background for a black image or a dark blue background for a white or yellow image is preferable.
- Consider the shape, size and spacing of letters. A bold, simple and lower case lettering style is most legible.
- Omit distracting detail and include selective emphasis.

Attention to these elements of clarity will make visual information more accessible. The corollary of this is that, when they are drawn clearly, the gradual revelation of details will facilitate an explanation *and* allow for a greater amount of visual information to be presented.



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## References

Fleming, M. & Levie, W.H. (1978) *Instructional message design* Englewood Cliffs, NJ: Educational Technology Publications

Pettersson, R. (1989) *Visuals for information: research and practice* Englewood Cliffs, NJ: Educational Technology Publications

### See also

Tufte, E.R. (1983) *The visual display of quantitative information* Cheshire, Conn.: Graphics Press