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More Than Pretty Pictures: How Translating Science Concepts into Pictures Advances Scientific Thinking

FELICE FRANKEL, Harvard University

The judgment and decision-making required to render science visual clarifies thinking. One must decide on a hierarchy of information—what must be included and what might be left out? What is the main point of the visual? Just as in writing an article or responding to an essay question, we must understand and then plan what we want to "say" in a drawing or other forms of representation. And since a visual representation of a scientific concept (or data) is a re-presentation, and not the thing itself, interpretation or translation is involved. The process tends to transcend barriers of linguistic facility and educational background; it attracts and communicates students and teachers of all backgrounds, where other methods intimidate. The rendered images are, in essence More Than Pretty Pictures.