Give three concrete examples of how visual/pictorial representation is (or could be) useful for some aspect of a research study. For each, explain how it helps with understanding. (Examples from different areas are fine. These don’t actually have to have happened; just that they might be possible.) For each example, briefly explain why it is useful, i.e., how it helps understand what’s going on.

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Visual representation is useful for teaching, for all different aptitude levels. Not everyone is able to understand concepts based on a lecture or written word. Visual representation can be defined as illustrations which resemble or relate to the entity they are representing, such as animations or pictures. Three examples that showcase the usefulness of it can be narrowed down to how research professors can better convey the findings of their studies at 1) conferences, 2) university classes, and 3) at public lectures, specifically by using pictures – static visual representation.

It is beneficial to use visual representation for like-minded and similarly-knowledgeable speakers and attendees at conferences. Research has found that pictures are “effective interest-getting devices, [and] help[s] the learner interpret and remember the content of the illustrated text[…]” Pictures improve comprehension and retention, while also providing additional information and impact on the viewer. Conferences are catered towards those already informed, so catching their interest and allowing them to properly interpret the presented research with figures instead of wordy slides and a droning voice is important.

Students striving to understand and memorize professors’ concepts need pictorial visualization. There is much evidence that shows memory for pictures is better than memory for words, a multi-memory model theory known as picture superiority effect. One part of this theory explains that visual information is stored in semantic memory, and also that we naturally spend more time and effort to process pictures over words. The information stored is transformed into abstract propositions in the mind, allowing efficiency in understanding concepts drawn up.

Visuals at public lectures are essential. Shallert’s review of studies (cited in Anglin & Cunningham, 2004) supported how pictures illustrate the central points, how they represent content to the overall message, and how they depict the structural relationships and contributes more than one second of text. Public lectures are meant for those who want to understand the big idea, the findings and concepts behind the lecture, as the audience can range from specialized to the ordinary. Pictures allow the varied audience to understand the idea and general findings behind the research, if not all the details.

References
