SPAR Editorial: Pictures to Help People Think and Act

Simon Bell

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On the 7th March 2012 a Colloquium was held at the Open University in Milton Keynes in the UK. The Colloquium was intended to be about diagramming and had the title: ‘Pictures to help people Think and Act’. The Colloquium was supported by the Open University and by the eSTEEeM Centre at the OU. eSTEEeM brings together academics in the science, technology, engineering and mathematics (STEM) disciplines to promote innovation, scholarship and enterprise in open and distance learning. Much of the work of eSTEEeM focuses on the effective use of learning technologies at scale. The portfolio of projects includes work on e-assessment, mobile learning, online laboratories and the use of virtual learning environments.

With the backing of eSTEEeM, academics and practitioners gathered from around the UK in order to talk and share thinking about the use of diagrams in many facets of education.¹ In exploring the role of pictures and diagrams in learning topics included:

- Why diagrams are useful? What is special about them?
- How people use rich pictures to help them think and act.
- Online use of diagrams to help people.
- Communities and diagrams.

Key notes were accompanied by a workshop on how to draw meaningful pictures. It was intended that the Colloquium provide a unique opportunity to:

- Explore a powerful form of human communication.
- Understand how this medium has been used in various cultures and contexts.
- Evaluate how technologies can mediate picture drawing and
- Gain first-hand experience of rich picture making processes.

Much of the process of the day was deeply systemic in tone and practice. The starting point for the Colloquium was that diagram drawing offers a range of powerful means for

¹ To see the video of the day go to: <http://stadium.open.ac.uk/stadia/preview.php?whichevent=1889&s=31>.

human being to exchange and develop understandings and meaning. The pictures can be ancient, contemporary; planned, accidental; physical or mediated by technology; the point is—they convey meaning.

In this special edition of systemic practice and action research five of the papers presented at the Colloquium are presented in full. They variously deal with diagrams: as educational devices, as specific forms of expression, as assessable artefacts, as means to conjure data and as explicable and analysable stories.

In his opening paper, Andy Lane sets out how diagrams provide a considerable aid and potential for even greater impact in teaching and learning. The focus of the Colloquium was on science, technology and mathematics and Andy Lane takes pains to show how diagrams can and do mediate understanding in discourses between teachers and learners and, collaboratively among the learning community more generally.

The second paper in this special edition is by Steve Morse and me. We have attempted to show how the diagram type known as rich pictures are much deeper and more profound than is commonly supposed. Used, almost in a trivial or ‘ice-breaking’ manner in much soft systems work, we argue that they help to reveal hidden and unconscious filaments of groups as they struggle to understand issues which can range from the qualitative to the extremely complex—for example sustainability indicators. Our paper is closely linked to a series of videos on rich pictures available at iTunesU: search for ‘The Art of Rich Pictures’.

Pete Thomas provides an insight into the way in which contemporary e-assessment is rising to the challenge of the diagram. For a long time it has been possible to assess text based responses by students (for example responding to quiz questions) but diagrams have proved to be beyond the capacity of such systems. Pete, in a workshop format at the Colloquium, demonstrated a system which allowed users to draw free-form diagrams which are automatically marked with feedback.

Tony Hirst pushes on the frontier of how it is possible to move the line between data and graphic representation. Data and graphic image flow, meld and merge in his presentation as he visualises data and moves towards the idea of visual conversations with data.

Finally, Tessa Berg and Rob Pooley, like Pete Thomas present their paper drawn from a workshop session on the day. They discuss the iconography of rich pictures. Here is a sense making attempt—to look for and present empirically the meaning of the image in the synthetic combination of icons selected for the picture. In their research Tessa and Rob are pushing to make evidential sense of a device which has remained largely the preserve of interpretative art.

The papers in this Special Edition are all different and come from very different mindsets and assumptions but, and this is key, they all push on the frontiers of the paradigm of diagrammatic interpretation. In a visually rich era, where the icon is of increasing but unconsciously absorbed importance, this is critical work. This is a visual landscape we need to understand and this edition contributes another wrung on the ladder.