

Visual language and reasoning within interdisciplinary dialogue: lessons from SRHE Scoping Study for Interprofessional Education to Support Collaborative Practice. (0270)

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Background

If ever there was a need for conceptual convergence in higher education it is within the preparation of graduates for inter-professional working. Integration of health and social services require professionals across specialisms to work in more efficient and coordinated processes (WHO 2010). McLeish and Strang (2014) observe that the complex skill-sets that interdisciplinary research requires are underdeveloped within higher education.

This paper focuses in on a vital component of interdisciplinary dialogue, that of visual reasoning. To date visual languages and the reasoning done with them have received much less attention out with specialist disciplines and thus their potential is underutilised (Tversky 2014). As Weber(2008) argues the understanding and use of visuals' efficacy is dismally undertapped and undervalued in the humanities and social sciences, in part "because visual language research occurs in several different communities, largely unaware of each other" (Marriott and Meyer 1998:2). Here we report on the role that illustrative and diagrammatic use of visuals played in research on interprofessional education for better collaboration across integrated children's services.

Methodology

The study combined extensive literature review on interprofessional education with interviews of policy makers, policy managers and educators that explored participants' experience of interprofessional working and education, their views on challenges and barriers to its development and their reflections, given the literature review (Lewitt et al 2015), on the role of culture and its impact on systemic change. Interviews were conducted, recorded and transcribed in two rounds to allow testing of emerging hypotheses about areas of congruence and discord, with fourteen conducted in total.

The structure of the interview was developed to explore the modes of thinking that facilitated interprofessional communication. Transcripts were analysed for process strategies to identify the function visual images played in developing arguments. Whilst interview participants made extensive use of visuals in order to illustrate experience and to compare experiences through metaphor, many were critical of diagrammatic visuals' ability to convey information clearly and in some instances saw them as counterproductive.

Analysis of Findings

As Weber argues:

. . .this ability of images to convey multiple messages, to pose questions and to point to both abstract and concrete thoughts in so economical a fashion that make image based media highly appropriate for the communication of academic knowledge (2008:43).

In this study participants did use visuals at significant points in conveying their views, returning to them unprompted throughout the interview to clarify or illustrate particular points and to talk about the contrasts or contradictory dimensions of work. We focus now on what work images did to progress the reflection.

Illustrative and Metaphoric Use of Visuals:

There is an important dynamic when we think with images that move discussion from illustrative example to metaphoric comparison. Within this visually aided reasoning qualities which prompt the metaphor as well as aspects which have less correspondence are opened up for investigation. When we use visuals to think in this way we turn them around in our minds viewing them from different perspectives. As Brown (1977: 77) asserts what is involved in thinking is a comparison of perspectives, which is the basic function of metaphor: “metaphors are our principal instruments for integrating diverse phenomena and viewpoints without destroying their differences” (Brown 1977: 79).

In understanding how visual reasoning is at work as we move between illustrative story and metaphoric comparison Ted Hughes’ insights are relevant:

If the story is learned well, so that all its part can be seen at a glance, as if we looked through a window into it, then that story has become like the complicated hinterland of a single word. It has become a word. A fragment of the story serves as the ‘word’ by which the whole story’s electrical circuit is switched into consciousness and all its light and power brought to bear. (Hughes 1988: 32-33)

When two such powerful stories come together in the referents of a metaphor:

The collision of those two words, in that phrase, cannot fail to detonate a psychic depth charge. Whether we like it or not, a huge inner working starts up. . . Many unconscious assumptions and intuitions come up into the light to declare themselves and explain themselves and reassess each other (1988: 34).

Looking at one excerpt from the project we can see the process Hughes’ suggests is at work. One participant reacting against the iconic teamwork image of health professionals in crisp clean uniforms all facing forward, provided detailed examples of the communication issues within teamwork and pointed out structural and personal factors that contribute to them. This reflection was. As the conversation reaches a conclusion she picks up the image of the spidery strands of a galaxy that spoke to her about the complexities of interprofessional

interactions, with the child being at the centre of this and sometimes “falling right through”. This image prompts the participant to think of specific factors that refine the image she thinks with:

10. S: I think there are a great deal of factors
11. how many other patients you have to care for
12. how willing patient is to be a partner
13. so there is this wheel within a wheel.

To further contextualise this she draws on another image that is patterned, fluid and systemic:

17. The reality of the NHS is like a tide
18. Sometimes you do your best but it's not--
19. Sometimes it gets swamped when the waves are too big.

There is a reasoning process at work here that uses one image to spur an examination of factors that yields a more apt image as both logical sequential and visual reasoning are drawn upon to reflect on her experience.

The images of complexity played a similar role in analysis meetings within the research team. In this respect our findings correspond with McLeish and Strang (2014). Whilst attention to visual literacy is increasing (Kress 2003) its importance in developing transferable learning across disciplines in higher education deserves much great attention. The methodology within this scoping study holds resources for that curricular development. (word count 997)

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