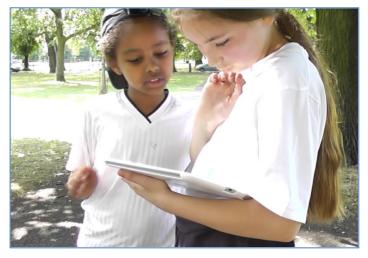**Research Briefing Nº 91**

Multimodal Methodologies for Researching Digital Data and Environments (MODE)

The MODE project aims to provide systematic ways to investigate all modes of communication within digital environments, whether they are sites of learning, work, or social networking sites. It is developing multimodal methodologies that look beyond language at other forms of communication and interaction (e.g. visual, auditory, and bodily) to address contemporary questions about the increasingly digital environments within which social scientists practice and research today.

Key words: multimodality; digital technologies; research methods; qualitative research; modes

Key findings

- A key output of the first sub-project (see below) has revealed that laparoscopic video footage can be used to analyse how surgical trainers and trainees achieve surgical care when the trainee operates under the supervision of a trainer.
- Part of the second strand of research has been to understand the semiotic role of the hands (how children use their hands/gestures to communicate meaningful information) in school children's scientific inquiry.
- Another finding has suggested that, via mobile technologies, digital enhancement can change the way students interact with the physical environment, and how they work to integrate physical and digital elements of their experience.

This Research Briefing relates to IOE Research Briefings 92 and 93 **'Video Technologies in the Operating Theatre'** and **'Researching Embodiment with Digital Technologies'**.

What we are doing

Digital technologies are profoundly changing society. These changes create significant challenges and opportunities for social scientists. By looking beyond language, multimodal methodologies offer ways to address urgent and timely questions, such as how people use social media to visually express their identity and concerns, within an increasingly digitalised society.

MODE is a node of the National Centre for Research Methods and funded from Oct 2011-Sept 2014 by the

> **Embodiment:** how the body and its interactive processes enhance the development of human functioning.

Economic and Social Research Council (ESRC). The research is based at the **IOE's London Knowledge Lab (LKL)** and has also developed into a hub for international multimodal research.

As well as a number of strands of research and 3 related PhD projects there are 2 main sub-projects focusing on different aspects of multimodal research:

Digital Technologies in the operating theatre is looking at video-enhanced surgery (laparoscopy), exploring its impact on clinical practice and potential for research on workplace based learning and teaching and decision making.

Researching embodiment with digital technologies explores notions of how the body – gesture, movement, gaze, features in today's digital landscape. Focusing on children of primary school age, we are investigating the role of emergent digital technologies in supporting body based learning experiences and how this can support or hinder learning.

How we are doing it

Our multimodal approach studies what people say, write, draw, design, and look at. It also attends to how they lay out and navigate through physical and online spaces, and how they use their hands and other parts of their bodies to interact with computers, devices and people in face-to-face encounters. Some specific examples include:

- The collection and multimodal analysis of video data to research the potential of digital technologies in the operating theatre and in surgical training.
- Investigating how an iPad mobile environment can enable primary students to explore, on-site, the history of a local common while linking with their history curriculum. The analysis will then investigate how such technologies can impact on how people experience, think about, and construct, places.
- Comparing, combining and developing multimodal and narrative frameworks for analysing online food blogs.
- Exploration and development of multimodal approaches to researching social media tools and applications such as Facebook and Pinterest.

Further information

Project website: http://mode.ioe.ac.uk

Key readings/publications

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