Being and Learning ‘like me’ – developing learners through an arts and engineering partnership.

Jo Trowsdale
University of Warwick, West Midlands, UK

This paper explores the role of experiential and arts-rich learning as a creative pedagogy significant in developing learners’ interest. In particular it focuses on developing the interest of girls in the arts and sciences as connected disciplines. It draws upon a UK based arts and engineering initiative, The Imagineerium, where artists and engineers, teachers and children and young people have been working together on innovative partnerships with the aim of fostering ‘an irresistible habit of invention and ambition’ (Imagineer 2014).

Analysis of a first pilot project in 2014 with 9-10 year olds draws upon Dewey (1934) and Thomson et al’s (2012) work. It explores how this experiential, arts-rich and embodied learning constitutes a creative pedagogy. It proposes that such a pedagogical process and context generates a particular kind of learning culture, where greater equality and hybridity are promoted, and choice and interest are fed. In this way learning and science become more connected and intelligible to learner’s own self-concept and sense of identity. Archer et al’s (2013) identified the disconnect between culturally held concepts of science and girls’ self concept, identifying this as a significant area for development.

Research methods employed questionnaires, structured observations, interviews and reflective activities – conducted by researchers, adult and child partners. Changes in attitude, creative and learning behaviours as well as understanding in the arts and sciences were recorded. An analysis of the processes of ‘imagineering’ was proposed. Findings revealed widespread enjoyment, significant increases in understanding, of the arts and engineering as interdependent professions but also of the role of the arts in embracing and engaging ‘learner identity’ as a motivating factor. This had notable value for some girls. However, reflecting Bourdieu’s notion of embodied cultural capital and habitus, the impact of the project appeared to be in tension with the structuring habits, beliefs and values from their wider cultural contexts.

The paper concludes by exploring the potential of Imagineerium-like creative pedagogies which foster hybrid learning, to render science more intelligible to girls. Drawing upon Bourdieu, it asks what might be required to structure new kinds of habits and learning cultures.

References

Archer et al (2013) ‘Not girly, not sexy, not glamorous’: primary school girls’ and parents’ constructions of science aspirations’ Pedagogy, Culture and Society


Dewey, J (1934) Art as Experience
