

A presentation of the literature concerning cognitive exchange in art education

Shannon Chan Lai Kuan & Dr Rebecca Heaton

Visual and Performing Arts, National Institute of Education, Nanyang Technological University,
Singapore

ABSTRACT

Cognition is widely researched in education, yet when considered as dialogic exchange (Wegerif, 2013) and alongside neuroscience and art education, literature is scarce (Zhou, 2018). In art education cognitive paths are complex and generate in many ways (Heaton, 2021). Such cognate mapping and exchange effects knowledge formation and appropriation (Dubiner, 2010) but in art education these complex processes are hardly voiced, marginalising the subject. This paper, in sharing literature review findings generated from phase one of an interdisciplinary funded project which explores how cognitive exchange occurs in face to face, blended and virtual higher degree art education teaching and learning scenarios, seeks to raise the profile of the cognate contributions of art education. It offers literature-based insights into how cognitive exchange occurs in face to face, blended and virtual domains of art education. A systematic literature search revealed 21 articles that have been thematically analysed to identify common topics and discussion points that will be presented, these include consideration of how cognitive exchange manifests in collaborative social environments, how technologic and online learning influence or implicate cognitive exchange and acknowledgement of cognitive exchange as an intra-mental experience (Peacock & Cowan, 2017) which is interwoven with our emotional and affective experiences in different art education environments. With the educational environment increasingly becoming blended and interdisciplinary our findings concerning the manifestation of cognitive exchange in dialogic scenarios should interest educators and scholars pursuing the creation of collective and cognate knowledge.

In pilot research neuroscientific evidence generated from fNIRS brain imagery revealed that the prefrontal brain cortex was activated at an individualised and intra-mental level when art education engagement occurred, igniting our interest to consider how neuroscientific data collection techniques can be aligned with arts-based research in an interdisciplinary project to explore cognitive exchange in teaching and learning scenarios.

Keywords: Cognitive exchange, Dialogue, Neuroscience, Art Education, Blended learning