

Mediating Liminality: Artefacts as a means of Supporting Threshold Transformations

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The challenge of how, as teachers, we support, encourage and facilitate learners acquisition of threshold concepts is at the heart of much of the current work in this area. Researchers having established sets of disciplinary thresholds are, increasingly turning their attention to issues of how these thresholds might be taught and understood by students. In order for a threshold to be crossed students must first enter and pass through the liminal phase. This phase involves the challenging and letting go of previously understood knowledge and moving into a place of 'not knowing' as the new idea or concept is wrestled with and finally, if liminality is successfully negotiated, the emergence of the learner in a transformed state of being. It involves both conceptual and ontological change and is frequently characterised as a troublesome or uncomfortable experience for learners. Indeed many learners do not acquire the thresholds of their discipline either because they remain in a pre liminal state unable to let go of currently held beliefs and never really engage with the threshold at all. Or they get lost in the liminal space as they try unsuccessfully to master the threshold. ..

Liminality might be thought of as the 'black box' of thresholds research. its existence as a necessary part of threshold concept acquisition is widely accepted by researchers in the field but precisely how learners traverse liminality and experience transformation is less-well understood. The 'problem of liminality' is now occupying researchers who are looking for tools to support students movement through the liminal space. Given that threshold transformations involve both conceptual and affective shifts research has explored the possibility that both pedagogical and psychological tools might be of importance here.

Utilising the metaphor of the liminal tunnel and ideas about hot cognition the current paper, drawing on work from both higher and secondary education considers the extent to which mediating artefacts, or boundary objects, might provide one such set of pedagogical tools. It suggests that these mediating artefacts, which are typically familiar to the learner, not only provide a safe and secure vehicle for exploration but can act as a hook to pull the learner into and through the liminal tunnel. The mediating artefact, having no direct relationship to the academic or intellectual content of the threshold being introduced represents a less threatening means of exploration. the use of Lego, modelling clay or video animation software, for example, are all more or less familiar to the learner and might seem to them as having nothing to do with questions of 'being a researcher' or 'inclusion' but all three can be used, I will argue, as a means to explore these very thresholds. The paper utilises examples from my own teaching and the existing literature to show how a range of mediating artefacts might be embedded into pedagogical practice and support positive learning transformations.