



The otherness of writing in the engineering curriculum: a practice architectures perspective

Key Words

engineering education, practice architectures theory, otherness, academic writing

Abstract

Engineering employers, engineering faculties and engineering academics expect that engineering students will graduate with high level written and oral communication, yet these expectations continue to fall short despite repeated calls by industry and by accrediting bodies such as Engineers Australia for engineering faculties to address this issue. One explanation for this ongoing challenge is that the prevailing practices of engineering education constrain rather than enable the development of writing practices in the engineering curriculum, in part because writing practices are viewed as 'other', and as not belonging to engineering knowledge. In this paper we argue that the reasons for the view of 'otherness' of writing practices in the engineering curriculum relate ontologically to the construction of engineering identities, and epistemologically to views of engineering and writing as being different types of knowledge. Drawing on theories of writing and identity, literature on identities of engineering educators and students, and legitimation code theory, the authors explore these ideas. We use the lens of practice architectures theory to uncover the hidden narratives that contribute to 'the otherness of writing' for engineering educators. The analysis reveals that dominant practices in engineering education place writing practices outside what is seen to be engineering, although the practitioners (participants) in this study see writing practices as important. We suggest that the meta-practices of the engineering curriculum, with their continued emphasis on engineering science, reinforce the 'othering' of writing practices and place them outside the frame of what is thinkable as engineering practice for engineering educators. The 'otherness' of writing practices in the engineering curriculum may be an example of engineering educators maintaining normativity where normativity in this context is the emphasis on the acquisition of propositional knowledge, rather than on the ability to communicate knowledge. The authors conclude by suggesting that the cultural-discursive arrangements of the engineering curriculum that prefigure writing as being not what engineers are 'good at' are so much a part of the 'unspoken narratives' of engineering educators that writing is almost always on the outer. When it becomes part of what engineers do, it is re-framed as 'documentation' or 'preparing documents' or 'report writing skills'. This suggests that writing practices can be seen as intrinsic to engineering education and practice if or when they re-framed as engineering practice.