

Seeing through the lens of social justice: a threshold for engineering

Jens Kabo and Caroline Baillie
Faculty of Applied Science, Queens University, Canada

Engineering is a profession that has been traditionally influenced by technical wizardry and profit making. It has had positive impact on human life and the Earth but a side effect has been a contribution to the dire challenges of poverty and sustainability that humanity now faces. It has been suggested by Catalano and Baillie (2006) that to successfully deal with these challenges engineers need to adopt a social justice perspective about their practice and profession. Taking a perspective which views engineering practice through the lens of social justice is not easy for some engineering students who have been used to objectivity, objects and mechanisms. Thinking about impact on human lives and communities is not obvious, and needs some adjustment as well as techniques more often associated with sociology. We suggest that for engineers looking through a social justice lens might be seen as a threshold that needs to be crossed.

In this paper we have explored how students in a cross-disciplinary course on engineering and social justice approached the idea of using social justice as a lens for looking at engineering. We have used Meyer and Land's (2006) notion of threshold concepts and troublesome knowledge as a framework and employed a phenomenographic approach to study the variation present among the students in the class. Data was collected from multiple sources, such as in-class-observation, reflective student essays and semi-structured interviews with students. Since data was collected at several stages of the course we will attempt to discuss student variation in terms of *pre-liminal*, *liminal* and *post-liminal* variation in accordance with Meyer, Land and Davies (2006). In other words, we hope to follow the students on their journey through the threshold and get some insight into what can be done to facilitate this transition.

References

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