Do We Design Our Graduates?

Authors:

Anthony Williams, Faculty of Engineering and Built Environment, University of Newcastle, Australia

Abstract *— Much of the emphasis we now see in the accreditation of graduates (especially engineering graduates) inv olves the attainment of "Graduate Attributes". The stipulation of these qualities in our graduates requires the development of these competencies by the students enrolled in our programs.*

The ability to design is a fundamental skills or attribute of all our graduates and one which all academics would claim a sound knowledge of. One could then ask is the "design of our graduates" different in approach and process from the design processes which take place in the engineering field each day?

The design pro cess has been defined in many ways some of these include:

- *The normative models, which present the design process as a series of stages, e.g. clarification of task, conceptual design, embodiment design, detailed design etc, which achieve a set of outcomes, e.g. plans specifications drawings etc.*
- *a technical system.*
- *a learning process.*
- *a social activity.*

The design process is one all engineers and designers are familiar with and the diversity of models have been long acknowledged in the research literature. The question must be asked are these processes translated into the practice of designing for learning or curriculum design?

In the development of courses and subjects at our universities do we engage with the methodologies and practices of good designers ? Or is the case that the concept of good design practice, in the curriculum context, is one which is difficult to consider? Are we able to apply the sound engineering practices of design and quality systems approach to ensure that our curricula provide our students with:

- *Meaning*
- *Potential*
- *Interest*
- *Conditionality*
- *Elucidation*

Good curriculum design is just that "good design" process and practice. This paper explores the issues associated with curriculum design in the context of good engineering design pr actice looking at the processes of component integration and evaluation systems.

Index Terms *— Curriculum Design, Graduate Attributes, Quality Assurance.*