## Affective dimensions of computing education – an 'education as drama' approach?

When evaluating academic course delivery, most institutions now seem to have questions in their student post course questionnaires along the lines of "Did the course have clear goals and objectives?" The results of such questionnaires based upon an underlying model of education as a service [5], are subsequently pored over by administrators and those charged with quality assurance responsibilities, with academics sometimes being taken to task if lower than desirable 'student satisfaction' ratings raise concerns.

Now while current educational fashions may dictate that tightly phrased learning goals and outcomes are the received model for academic course design, does this teleological mindset really present the final word on how to design and deliver a course? Maybe we can get more useful insights by reconsidering a course as a dramatic event, and from the perspective of Habermas' "dramaturgical" rather than "teleological action" [2].

When we frame an academic course as a neatly packaged and consistently reproducible 'product', the essence of learning can become lost. In the end, how critical really is <u>clarity</u> to the process of learning? As noted in [5], inconsistent results on student satisfaction surveys probably arise from "poor reliability of student perceptions of their own learning gains". When we resort to reductionism and spoon-feeding to keep students 'satisfied', and they are cosseted, and shielded from effort, struggle and confusion, how can that be said to be a learning experience? In this hedonistic late-empire era of computing fashion that we inhabit, maybe the notion of 'user experience' may help in alignment with educational goals. If we reframe *course as product* into *course as experience*, the 'customer journey' becomes the 'hero's journey'.

Since the *Poetics* of Aristotle, many scholars have written on the narrative structure of drama, with three or five act structures typically being outlined. In the simplest model a dramatic play has a *beginning*, *middle* and an *end*, but in the process its actors and audience will ride an emotional roller-coaster, which the dramatic structure supports in a classical fashion. The beginning stage is where the scene is set, the characters introduced and the core conflict is exposed. In the middle stage there is a process of rising action towards a point of climax and falling action towards a final resolution or 'denouement' at the end. In this process of dealing with conflict, tension and struggle, often the actors will pass through what I term 'the trough of despond'. This may come earlier or later in the journey. The process of this journey as applied to an academic course, adapted from Freytag's 'dramatic arc' [cited in 4] and showing an early fall into the trough, is portrayed in figure 1.

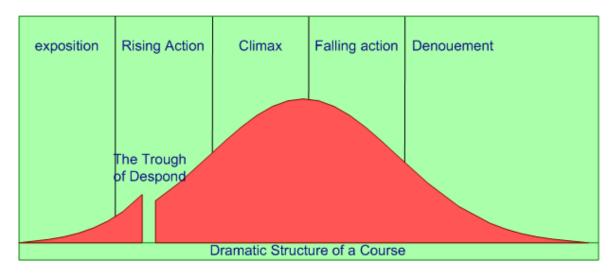


Figure 1: – The dramatic structure of a course

The emotional journey in this process is expressed in [4] as:

The emotions of a character result from the conflicts she/he engages in with her/himself or with other external entities during the drama performance. In a plot designed by a drama author, such conflicts increase in number and intensity until they find some resolution...; so, the drama features a rising then falling emotional course (often called dramatic arc).

Some similarities can be drawn between this analysis and that outlined in [6] when discussing IT education:

"The learning objective for the use of abstraction is more than just cognitive (relating to knowledge and skills); it is also affective (relating to attitudes and values). We can understand the threshold concepts of Meyer, Land ... by realizing that their distinguishing characteristics arise from the usual presence of an affective component. A theme has an affective component (an attitude) that must be adopted or else the theme is not understood...To learn a pervasive theme, the student must experience it, integrate it, be irreversibly transformed by it, and adopt a new attitude that is the entry boundary into the discipline".

This transformative perspective on education is one to which I subscribe and is consistent with both the 'development perspective' of [5] and the 'transformative' perspective of [1]. The transformation outlined in the above quote moreover, echoes strongly Kuhn's notion of a 'paradigm' [3], or exposure to a set of core scientific practices by which novices are inculcated into a discipline. Such a perspective means that education is an inherently challenging and confronting experience for the student. In his keynote speech to the International Computing Education Research Conference (ICER 2011) Eric Mazur highlighted the importance of 'confusion' to the student process of learning. This reflects the reality of *learning* being a messy and confronting process that students need to actively engage in, as opposed to mere *teaching* as a process that academics deliver. While the process of the adept supporting the journey of the apprentice is inherent, both are as inevitably interrelated as yin and yang. Without a student *yang* there is little point in an academic's *yin* (or vice versa).

The dramatic journey of figure 1 with its highs and lows will be familiar to anyone who has engaged in real learning, especially any who have survived the marathon of doctoral studies, or any committed educator who has had to deal with students struggling through the *trough of despond*, wrestling with discomfort, and in quiet desperation crying in their teacher's office.

I assert then, that designing an educational experience along these dramatically structured lines is likely to lead both to better learning and less comfort on the part of students. Of course this model of education may not always be appreciated – especially when students are in the throes of real struggle. A box of tissues may be a necessary prop in your office, when students come to visit!

Therefore developing strategies for taking students safely through the pain points will be critical to an 'education as drama' approach. Already within educational theory the constructivist notion of scaffolding learning addresses this concern. In the 'course as drama model' advocated here, the educator becomes the writer and producer of scripts to optimise the dramatic potential of a course, and I think here that we all have much to learn. For instance, how should we design our courses with a clear beginning, middle and end that best structures an emotional journey for students? Are there optimal types of assessment, their timing and frequency at critical stages in a course? For how many students will the course be a tragedy rather than a comedy with a happy ending? How should the story line develop with

a rising action, through one or more troughs of despond, towards a climax and resolution of conflicts and tensions towards a final conclusion?

So I challenge us to consider the potential contribution of dramatic structure to transformative educational design. But do we dare and do we dare...can we move our institutions beyond simplistically measuring those student perceptions that are readily measureable, but are arguably the more superficial and irrelevant aspects of real student learning?

- 1. Corder, M., Horsburgh, M. and Melrose, M. Quality Monitoring, Innovation and Transformative Learning. *Journal of Further & Higher Learning*, 23 (1) 1999.
- 2. Habermas, J. (1989) Social Action and Rationality, in Seidman S. *Jurgen Habermas On Society And Politics A Reader*, (Boston, Beacon Press), pg. 142.
- 3. Kuhn, T. *The Structure of Scientific Revolutions*. University of Chicago Press, Chicago, 1962.
- Lombardo, V., Nunnari, F., Damiano, R., Pizzo, A. and Gena, C. The canonical processes of a dramatized approach to information presentation. *Multimedia Systems*, 14 2008, 385– 393
- 5. Pears, A. Does Quality Assurance Enhance the Quality of Computing Education? Clear, T. and Hamer, J. eds. *12th Australasian Computing Education Conference (ACE 2010)*, ACS, Brisbane, Australia, 2010, 9-16.
- 6. Reynolds, C. and Goda, S. The Affective Dimension of Pervasive Themes in the Information Technology Curriculum *SIGITE '07*, ACM, Destin, Florida, USA, 2007.