

Reviewing learning designs with HEART: A learning design support strategy

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Substantial research and development efforts have been invested in producing digital learning designs and learning objects, with seemingly limitless potential for sharing and portability. However, initiatives to disseminate and share learning designs have had limited success. This may be partly due to learning design being viewed as a product to be used in a range of teaching contexts, as is, without due consideration of learning design as a contextualised process driven by teachers' pedagogical beliefs about the affordances, possibilities and relevance of digital teaching and learning resources. The HEART (HEaring And Realising Teaching-voice) learning design support strategy aims to support teachers' learning design practice by eliciting and depicting the pedagogical beliefs underpinning a learning design or resource. In this session participants may trial an early prototype of the HEART website, and provide critical feedback on each stage of the support strategy.

Keywords: Learning design, pedagogical dimensions, visualisation, teacher beliefs

Introduction

Information and communication technologies offer ever-increasing opportunities for flexible study, particularly at the tertiary level of higher and further education. Digital technologies are also being used to depict learning designs of flexible courses and learning activities. These learning designs have the potential to be shared, adapted or reused across courses, disciplines and institutions.

Sharing learning designs

Substantial research and investment has been carried out to develop tools for sharing and reuse of learning designs, and formats for notation, access and interoperability of learning design repositories (Bennett, Agostinho, Lockyer, Kosta, Jones, Koper, and Harper, 2007). However there has been limited uptake of learning designs that are "not invented here" (Philip and Cameron, 2008). Researchers' attention has turned to finding effective ways to communicate the relevant contextual information to support the reuse of learning designs and digital learning resources (Bennett et al., 2007; Philip & Cameron, 2008). We propose that if we are to develop, share, and reuse learning designs effectively, we need to be able to identify, articulate, and discuss the pedagogical beliefs that underpin the learning designs that we use. We have expressed these pedagogical beliefs as the *teacher's voice* that lies at the heart of a teacher's experience, when teachers and learning designers plan, develop or review course (or learning) designs (Donald, Blake, Girault, Datt and Ramsay, 2009).

HEART – a learning design support strategy

Our research has focused on developing a strategy to support the learning design process, called HEART (HEaring And Realising Teaching-voice). The HEART support strategy does not seek to depict a learning design. Rather, HEART helps teachers elicit, depict, reflect on, and share their *teaching voice* during the learning design process. The teaching voice represents the confluence of teaching beliefs and educational practice. Although teaching beliefs are seldom discussed in professional practice, they have a profound effect teacher's behaviour and practice, as extensive research evidence suggests (Bain and McNaught, 2006; Ertmer, 2005; Bain, McNaught, Mills and Lueckenhausen, 1998; Pajares, 1992).

As we have described in more detail elsewhere (Donald et al., 2009), the HEART strategy is based on 13 belief/practice dimensions derived by Bain and McNaught (2006). We have operationalised these 13 dimensions by generating a set of statements in a questionnaire for teachers to rate their response on a five-point Likert scale. This scale represents a continuum of teacher-centred to student-centred beliefs and technology-supported teaching practices.

Once the questionnaire is completed, the results are submitted directly to a visualisation tool. We have used *Many Eyes* (IBM, n.d.) to generate visualisations, as it offers many options for viewing data. We have experimented with two options, the Tree Map (Figure 1), and the Bubble Chart (Figure 2). The visual representations illustrate the pedagogical dimensions of the course or learning design. Currently we are trialling different visual representations and dimensions.

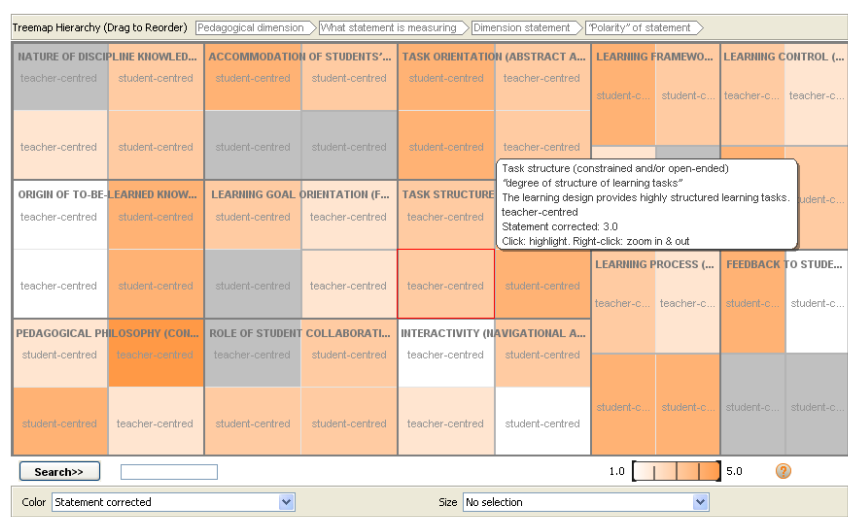


Figure 1: Pedagogical dimensions represented as a Tree Map

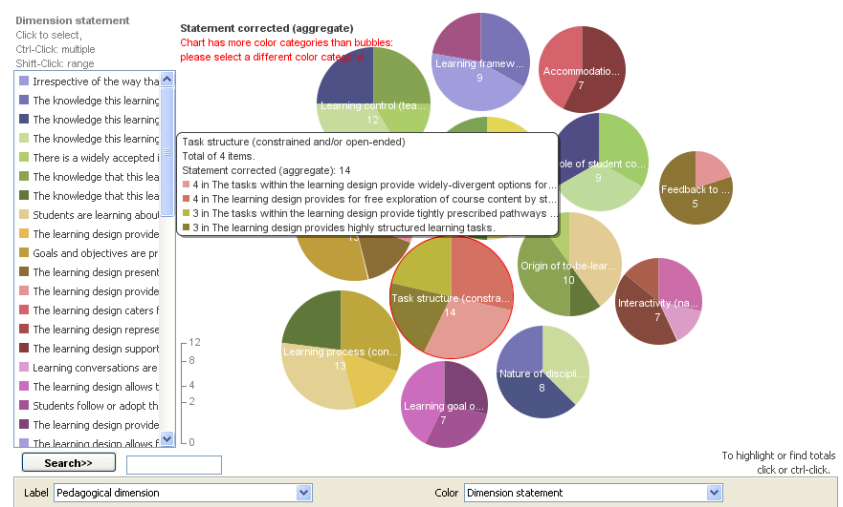


Figure 2: Pedagogical dimensions represented as a Bubble Chart

Once the pedagogical dimensions of a learning design can be viewed as a visual representation, teachers are encouraged to reflect on the diagram and questionnaire statements. The diagram and questionnaire responses are used to stimulate and provoke “good talk about good teaching” (Palmer, 2007, p. 149) or *good talk about good learning design* in our case. We are exploring ways to encourage teachers to express their teaching voice in a supportive peer community, to promote the effective development, sharing, and reuse of learning designs.

The diagram and questionnaire responses are recorded for further reflection, development or evaluation purposes. The HEART support strategy can be used in a variety of course or resource development stages (e.g. planning, design, or review), either collaboratively between course lecturers and learning designers, by individual teachers or learning designers, or by a teaching programme team.

Research progress

Early trials of the strategy in 2008 with a small group of university teachers yielded some promising results (Donald *et al.*, 2009). We have continued to trial and modify the strategy, as well as set up a pilot social networking site to support its use online.

Interactive session agenda

This interactive session will provide participants with the opportunity to a) observe how a learning designer and a lecturer use the HEART strategy; b) use the pilot version of the HEART strategy online to review their own learning designs, courses or resources (either individually or in groups), and c) critique each component of the HEART strategy (questionnaire, pedagogical dimensions, alternative visualisations, and outcomes) to inform future directions of research, development and use.

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