PBL2.0: REDESIGNING PROBLEM-BASED CURRICULA FOR 21ST-CENTURY LEARNING

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An original rationale for the introduction of problem-based learning (PBL) in medical education in the 1960s was to support the management of the exponentially expanding amount of scientific data and resources available. Progenitors (Barrows, 1988) aimed to design curricula that would enable students to retrieve, process and analyze data within the structure of an inquiry-based framework (Hmelo-Silver, 2004, Lu, Bridges & Hmelo-Silver, 2014). Skilled facilitation of information seeking, sorting, critiquing and applying within the process of understanding the dimensions of ill-defined, clinically relevant problems was seen as supporting a 'flexible' approach towards knowledge (Hmelo-Silver & Barrows, 2008). The information explosion argument for the use of such inquiry-led curricula remains just as, if not even more, cogent than 40 years ago. Undergraduate health sciences students (and their patients) can access an almost infinite amount of online information from under-researched opinion pieces to sharing of conventional (or unconventional) lay wisdom to highly credible health informatics websites and online resources including tailor-designed digital learning objects to the most recently published journal articles. In an era of fluid modernity (Baumann, 2000), this vast array of resources and materials is constructed differently to that of 40 years ago. This begs the question as to whether modern problem-based curricula have adapted and reconsidered of achieving 'flexible knowledge' is sufficient. Certainly emerging research has indicated positive effects of digital resources in raising student interest and motivation the inquiry process (Alkhasawneh et al., 2008, Kong et al., 2009). Given that information access has become ubiquitous, the problem-based process' relationship with information management and knowledge construction is being fundamentally reconfigured by both considered interventions by faculty designers and by learners themselves. Re-designing and transforming PBL curricula for 21st Century learners acknowledges the new affordances in both physical and virtual configurations available to support both the small-group learning dynamic and the structured self-study components of the PBL process. Physically, the incorporation of student-led technologies such as personal mobile devices (e.g. laptops, mobile phones, tablets) as well as faculty-provided infrastructure such as plasma screens and interactive whiteboards lend new opportunities to the collaborative corporeal dynamic of face-to-face facilitated tutorials. Virtually, the adaptation of proprietary (Bridges et al., 2012, 2014) and bespoke learning management systems (Tedman et al., 2007) enable online scaffolding within and across the various phases of the problem cycle. Additionally, the blending of face-to-face with online resources, both in-house and open access, support immediate online searching (e.g. academic journals, online articles, or on the worldwide web) for accessing of information for collaborative knowledge-building. This poster presentation will illustrate the subtle transformations of the original PBL cycle under a re-designed PBL2.0 model. Specifically, a technology-infused re-design of the problem process will critically examine how educational technologies provide affordances as well as new challenges for curriculum designers and faculty engaged in small-group, problem-based curricula.