A Cultural Mapping of the Design for Transformative Mobile Learning Framework to Facilitate Learner Agency

Thomas Cochrane¹ and David Sinfield²
¹University of Melbourne, ²Auckland University of Technology

The Design for Transformative Mobile Learning Framework utilises eight dimensions drawing upon the key affordances of mobile learning that enable learner agency. In this poster we briefly explore the potential alignment of a ninth dimension to the DTML framework to illustrate a cultural mapping of the DTML. We map the DTML framework to the Whakapiri (Engagement), Whakamārama (Enlightenment), Whakamana (Empowerment) model for indigenous Māori knowledge introduced by Durie who argues for “the interface between indigenous knowledge and other knowledge systems” (2005, p. 301). Shortened to WWW by Hurst (2017) the model has been utilised as a framework for reflection and practice in education.

“Engagement, enlightenment and empowerment neatly describe the immediate, intermediate and ultimate concerns of education and are important markers for how effective education is practised. The concepts of transformation over information and learning as an all- of-person experience can be discerned across these three key terms” (Nichols, 2020, p. 28).

Transformative mobile learning designs implement strategies to facilitate a move from a focus upon teacher-directed content (Pedagogy) towards student-determined learning or Heutagogy (Moore, 2020; Blaschke & Hase, 2019; Hase & Kenyon, 2007). This involves applying the Pedagogy-Andragogy-Heutagogy (PAH) continuum to mobile learning design (Cochrane et al., 2022) to facilitate learner agency. When put into a matrix, with DTML, PAH and WWW provides a mapping of how learners may transition into increasing self-regulation and learner-agency across the eight mobile learning relevant areas or dimensions. The elements of the DTML framework mapped to Whakapiri-Whakamārama-Whakamana and the PAH Matrix are summarised and illustrated in Table 1.

Table 1—The DTML-Whakapiri-Whakamārama-Whakamana Mapping: A framework for designing transformative mobile learning adapted from Cochrane et al., (2017, p. 27).

<table>
<thead>
<tr>
<th>Design element Dimensions</th>
<th>Whakapiri (Engagement) Pedagogy</th>
<th>Whakamārama (Enlightenment) Andragogy</th>
<th>Whakamana (Empowerment) Heutagogy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement Types</td>
<td>Content delivery, digital assessment, teacher delivered content and teacher defined projects</td>
<td>Teacher as guide, digital identity, student-generated content and student negotiated teams</td>
<td>Teacher as co-learner, digital presence, student-generated contexts and student negotiated projects</td>
</tr>
<tr>
<td>Locus of control</td>
<td>Teacher</td>
<td>Student</td>
<td>Student</td>
</tr>
<tr>
<td>Cognition</td>
<td>Cognitive</td>
<td>Meta-cognitive</td>
<td>Epistemic</td>
</tr>
<tr>
<td>SAMR</td>
<td>Substitution &amp; Augmentation, for example, moving from a portfolio to an e-portfolio or using PowerPoint on iPad</td>
<td>Modification, for example, reflections as VODCast and using Google Slides on an iPad</td>
<td>Redefinition, for example, reflections in situ and presentations as dialogue with source material</td>
</tr>
</tbody>
</table>

Community building
Reconnecting relationships through technology

Focus on productivity
Mobile device as personal digital assistant and consumption tool

New forms of collaboration
Mobile device as content creation and curation tool

Creativity
Reproduction
Incrementation
Re-initiation

Knowledge production
Subject understanding: lecturers introduce and model the use of a range of mobile learning tools appropriate to the learning context
Process negotiation: students negotiate a choice of mobile learning tools to establish an e-portfolio based upon user-generated content
Context shaping: students create project teams that investigate and critique user-generated content within the context of their discipline. These are then shared, curated, and peer-reviewed in an authentic COP

Ontological shift
Reconceptualising mobile learning: from a social to an educational domain
Reconceptualising the role of the teacher
Reconceptualising the role of the learner

Self perception
Learning about
Learning to become
Active participation within a professional community

Keywords: Learning Design, Heutagogy, Learner Agency, Learner Empowerment.

References


The author(s) assign a Creative Commons by attribution licence enabling others to distribute, remix, tweak, and build upon their work, even commercially, as long as credit is given to the author(s) for the original creation.

© Cochrane, T. & Sinfield, D. 2022