<table>
<thead>
<tr>
<th>Title</th>
<th>Teaching effective 3D authoring in the middle school years: Multimedia grammatical design and multimedia authoring pedagogy.</th>
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<tbody>
<tr>
<td>Overview</td>
<td>This project sought to develop multimedia writing pedagogy based on developing students’ explicit knowledge of ‘grammatical’ design – strategically integrating the meaning-making resources of language, image, sound and movement in dynamic, three dimensional compositional contexts. The project has involved progressive collaborative development of pedagogy with teachers beginning with close cooperative participant-observation case studies in four classrooms in the first year to extended work in 18 classrooms in the second year and 25 classrooms in the final year.</td>
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<tr>
<td>Funding bodies and amount</td>
<td>ARC Linkage - $195,000 (Administered by University of New England)</td>
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<td>Research partners</td>
<td>Dr. A. Thomas (University of Tasmania)</td>
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<td>Industry partners involved</td>
<td>Australian Children’s Television Foundation</td>
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<td>Timeline/Duration</td>
<td>2008 - 2011</td>
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| Research Problem | This project will generate a pedagogy focusing on three-dimensional (3D) multimedia authoring, encompassing the convergence print, animation, image, sound and video. In so doing the project specifically aims to:  
- Explicate the design features and characteristic uses of language and images in high quality student 3D multimedia narratives.  
- Describe students' knowledge and compositional processes used in producing quality artefacts.  
- Design optimal pedagogic contexts for developing students as 3D multimedia authors. |
| Findings, including emerging findings |  
- teachers (n=52) and students (n=1000) had very limited knowledge in relation to multimodal authoring; in response to this, pedagogical strategies were developed by the research team working with case study teachers.  
- he pedagogical strategies based on explicit teaching of multimodal concepts which were developed by the research team and implemented by the participating classroom teachers leads to a growing student awareness of multimodal design elements, appropriate metalanguage as embedded in classroom discourse, and the capacity to build point-of-view  
- students have consistently demonstrated capacity for creative adaptation of existing texts  
- factors most influential in the development of quality texts appear to be:  
  - student academic experience (year 6 students consistently performed better than year 5 students, all other factors taken into account  
  - the pedagogical approach of the teacher (the work from certain classrooms is consistently of higher quality than in others)  
    - ability of the teacher to help students to produce a manageable outcome  
    - a classroom learning culture of persistence and completion is important  
    - teacher technological know-how is important  
    - teacher knowledge of literacy practices is important |
- A strong collaborative learning culture amongst teachers is advantageous.
- The embedding of multimodal texts (viewing/reading along with writing/creating) as an integral part of classroom life seems to lead to higher quality texts than when it is included as an “extra”
  - Pair-constructed texts are less likely to be high quality than solo efforts.
  - Prior experience with multimodal authoring (later efforts by students tend to be better than early efforts).
  - Factors such as gender, school location and environment, and general “tech-saviness” of students seem to be relatively unimportant.

The project has revealed a clear and urgent need for increased professional development of teachers along with the clear and systematic incorporation of multimodal authoring in school-level plans in all primary and middle years classes. Well resourced and creative teaching material has been produced to support this. The project has attracted significant attention with a report on National Television on the ABC: “Future Classroom – Catalyst” 17.02.2011 (http://www.abc.net.au/catalyst/stories/3141437.htm).