

## The research process

Steps in the research process	Explicit teaching processes	Student reflections	Learning skills addressed
<p><b>Step 1</b></p> <p>The students:</p> <ul style="list-style-type: none"> <li>• brainstorm areas of interest (<i>Figure 2</i>)</li> <li>• frame the topic for the area of interest</li> <li>• think about the qualities desirable in a mentor for this project</li> </ul>	<ul style="list-style-type: none"> <li>• re-visit the <i>Learning to Learn</i> thinking skills</li> <li>• explore ways of organising time, mainstream subject commitments and maintaining the learning log.</li> </ul>	<p><i>I would choose a topic I don't know about so I would be fascinated with the information. But because I knew quite a lot of information already, I was more organised.</i> (Rainbow)</p> <p><i>We all have to be responsible to do our own tasks without the teacher telling us what to do.</i> (Christine)</p>	<p><b>Information skills:</b> defining related thinking skills:</p> <ul style="list-style-type: none"> <li>• mind mapping</li> <li>• cooperative learning</li> <li>• goal setting</li> <li>• study skills.</li> </ul>
<p><b>Step 2</b></p> <p>The students address the questions:</p> <ul style="list-style-type: none"> <li>• What information do I need?</li> <li>• How will I locate this information?</li> <li>• How relevant will the information be to the topic and its presentation?</li> </ul>	<ul style="list-style-type: none"> <li>• group instruction in locating sources of information and processes to validate sources by accessing multiple sources</li> <li>• personalised instruction that focused on exploring further ideas to refine information sources and, if necessary, redefine the topic area.</li> </ul>	<p><i>What surprised me was that if something I wanted to do wouldn't work, then if I went back and approached it a different way, then it would work.</i> (Amy P)</p> <p><i>I learnt about the thinking process. I also realised that I was really organised. I also think that I learnt how much one topic can branch off and trigger many questions. What really surprised me was the fact that I changed my topic about seven times!!</i> (Jennifer)</p>	<p><b>Information skills:</b> locating, selecting and redefining related thinking skills:</p> <ul style="list-style-type: none"> <li>• use of technology</li> <li>• information and research skills</li> <li>• study skills.</li> </ul>
<p><b>Step 3</b></p> <p>The students:</p> <ul style="list-style-type: none"> <li>• made important decisions about what information to include, how it applied to their topic and what was its potential to be demonstrated in their presentation</li> <li>• refined and redefined the parameters and direction their inquiries were taking in the knowledge building process.</li> </ul>	<ul style="list-style-type: none"> <li>• use of graphic organisers and the potential for their use to sort and organise information (<i>Figure 2</i>)</li> <li>• monitoring individual progress to support the students to stay on task and keep the topic manageable.</li> </ul>	<p><i>I felt confident about the presentation and with my script because I was organised. In the beginning I was so confused about what topic to do because it was so open ended ... but I have already researched so much so I kept with it and tried to make the work interesting for me.</i> (Rainbow)</p> <p><i>This project was different because I worked at my own pace ... also the teacher looked at your needs and gave me [the help] I needed to complete my work.</i> (Amy P)</p> <p><i>During this project, I was allowed to work at my own pace, research a topic of my</i></p>	<p><b>Information skills:</b> selecting, organising, and presenting related thinking skills:</p> <ul style="list-style-type: none"> <li>• convergent thinking skills</li> <li>• critical analysis</li> <li>• prioritising "cutting it down to size"</li> <li>• cooperative pooling of ideas.</li> </ul>

### The research process (cont.)

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		<p><i>choice, present it in any way that I liked and was able to use many different types of technology during the presentation. (Amy M)</i></p> <p><i>We got to learn how to improve the way we do assignments and learn how to write everything we plan or do down. It also taught me different ways to research and how to plan out and present my ideas. (Erin)</i></p>	
<p><b>Step 4</b></p> <p>The students:</p> <ul style="list-style-type: none"> <li>• think about how they would do this differently next time</li> <li>• reflect on what learning is transferable</li> <li>• consider where engagement in this project is leading their learning.</li> </ul>	<ul style="list-style-type: none"> <li>• for the next cohort, the project will be more intently focused on the specific skills that are developed by moving through the integration of the information skills at each of the levels in the <i>Three storey intellect</i>. (Fogarty, 1997)</li> <li>• explicit processes for redefining the intellectual quality embedded in the project focus so that information is treated as problematic</li> <li>• the research process is more explicitly focussed by designing a research question that requires deep learning to be demonstrated.</li> </ul>	<p><i>The things I would do differently are to organise my time better and choosing my topic carefully because I changed my idea three times. (Nicky)</i></p> <p><i>I learnt a lot more about organising my time than I thought I would. Next time, I probably will try to organise my time better. (Ashleigh)</i></p>	<p><b>Information skills:</b></p> <p>Assessing related thinking skills:</p> <ul style="list-style-type: none"> <li>• sharing ideas</li> <li>• reflective thinking using the learning log</li> <li>• realistic goal setting</li> <li>• self reflection that rewards persistence</li> </ul>