iPod Touch Action Learning Reflection

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Our Overall Aim:

1. To use iPods to motivate, enrich and extend learning opportunities for our students in our inquiry based classroom environment.

2. To use iPods in a purposeful way to "tune in, find out, sort out, go further, draw conclusions, reflect and take action on learning."

   Kath Murdoch 2007

3. Students experiment, communicate, collaborate, create, solve problems, and broaden their knowledge using iPods.

Inquiry Focus Area:

How Can iPod Touch Improve Our Student Outcomes in Literacy?

<u>Reading</u>

What we trialled;

- We began by looking for online books. We discovered quickly that most had to be paid for and those that were freely available to computer users, could not be accessed by Safari supported on iTouch. As we had a large percentage of children achieving well below VELS standards this was especially disappointing that sites including http://www.woodlands-junior.kent.sch.uk/interactive/onlinestory.htm could not be accessed on their iPod Touch.

- iTunes Web Apps recent developments have assisted us to provide online books, however, it is still necessary to purchase some ebooks. For the purpose of our research we have not spent our budget on Web Apps other than to update the software on the iPods.

- With students that need extension "The Time Machine" by H.G. Wells was downloaded through STANZA. Additional titles have since been added according to our current investigations including Grimm's Fairy Tales and The Adventures of Sherlock Holmes.

- STANZA is limited to books that do not have any Digital Rights Management or whose DRM

has been removed, but a wide range suitable for upper primary schools is available.

- At present individual iPods need to be updated with any new Stanza ebooks as I have yet to learn how to learn how it might be possible through iTunes.

- Students have listened to podcasts by favourite authors including Graeme Base, Terry Pratchett and Andy Griffiths downloaded from ABC web site which keeps abreast with new technologies and provides suitable resources for primary students.

- Newspapers Online investigations were disappointing as there were "too many pop up" windows.

- Students created contents for our Grade Six Web Page using iWeb, http://web.mac.coriosps

- Using our Grade Six Web page for Reading sites has at times been successful but sites often change and needs regular monitoring. Children access their Grade Six Web page where their work can be shared with others. Student response at 47% rate the web page as "Awesome" and 26% of the students have accessed their web site at home to show family and friends.

- Wikipedia suitable for iPod Touch was also added to our iPods however, has now been taken offline due to extensive load on the server. We needed to wait for the improved native version Quickpedia but in the mean time we found Wikipanion to be successful.

- The iPods were successfully used for internet research with the airport express and with Edupass. Web browsing and internet research is "awesome" according to 46.7% of the students.

- The iPods were used to research Nintendo Wii and whether it would be of advantage in our Literacy program. The Wii has the ability to keep records of activity, and this information was used collaboratively with literacy work. The Wii Sports, Mario and Sonic at the Olympics and Wii fit, stimulated discussion, reading and writing by providing authentic contexts for collaboration between students. The game uses technology to represent reality or to embody fantasy which action can be practiced with little consequence. Students with varying reading abilities discovered that the Wii is both is entertaining and satisfying.

- The Wii also lead to learning experiences for the children to investigate – handedness, data collection, games history, game making, careers in the gaming industry, reaction times, effect on computer games verses real games on fitness and investigation of heart rates.

- Using their iPod for individual and group work was very successful. Children used the iPods for inquiry research topics within various locations throughout the school.

- Map reading, search and direction activities in reading were successful, however many children reported that there were better options available through Google on computers.

- We also developed personal learning blogs

  http://www.pageflakes.com/csps/ and http://classblogmeister.com/blog.php? blogger_id=188780

  The addition of podcasts and movies to these sites are still being developed.

- Students are encouraged to read and share comments with Corio South Students and visit classrooms around the world. Reading and commenting on Classblogmeister is possible on the iPod Touch, however, at this stage does not facilitate the students adding to their own blog reflections, this must still be done via computers.

- Students are currently publishing their work through Keynote to be uploaded on the iPods for others to read and share.

- Weekly Literacy Circle meetings were videoed and loaded onto the iPods to share with other readers.

- Trialled 2 *Across* app. Crosswords from Globe and Mail Quick, Independent Cryptic, New York Times Classics and USA Today could be downloaded to iPod for use. Great potential, however at this stage they are too advanced for our students

- *Did You Know?* Web app great for daily facts. Interesting fact is that you need to keep up to date with web apps. They are often free when first listed but later they need to be purchased.

- *This Day In History* Web apps– daily history facts.

Writing

What we trialled;

- The introduction of iPods into the classroom facilitated many genres of writing about it; information, procedure, recount, explanation, poetry, persuasion, debate, narratives, responses, list, description, letter, email, report, invitation, news.

- The students wrote scripts for movies, jingles, digital stories and podcasts. Several students emailed experts in the fields of fitness and health.

- *i*Pods have been used by 40% of the students to email others.

- Students wrote learning reflections on the use of iPod Touch in Inquiry Books and have now moved to reflecting on individual blogs. The iPods are integrated into the students learning and now no longer feature as much in their reflections. As mentioned previously students can comment on these blogs using the iPods.

- The introduction of Nintendo Wii required that children to research Wii then for homework write a letter explaining how the game console would improve our learning in relation to literacy. Some of these letters have be scanned and placed on their iPod Touch.

- Using *iPhoto* and *iMovie* to record incursions, excursions and school events has been beneficial with the student writing. The children can refer back to these events and embellish their writing in further detail. It has been very beneficial for all our students including our Karen refugees who rely so much on visuals to help their understandings.

- Individual students use their iPod *Check Word* App when editing their written work.

- *Blanks Web* App has been excellent to extend vocabulary knowledge for our higher achievers.

- *Brain Lantern* was an interesting web app to stimulate students. By typing a word in a series of images make excellent opportunities for discussion, language and writing. However, we have had to remove it from our iPod Touch as without close supervision, some images almost cross the line of appropriateness. Needs to be more careful testing before loading and check for ratings. To overcome this problem, teachers may use the idea to load their own images in *iPhoto* for the children to respond to.

- *iPhrase* is an excellent application for our refugees and children who have difficulty constructing sentences. Random words are generated and can be moved to construct sentences that can then be captured in *iPhoto* and from there emailed.

- *Jumble Solver* web app is great for solving anagrams. Great spelling activity for children.

- *Word Warp* great anagram game with time limit.

- To improve the spelling of numbers, *Spell Number* web app was place on their iPod Touch for individual children to learn.

- *Dictionaire* is a welcome addition to our iPod touch.

- After a local professional development we attempted to commence Wikis using Wet Paint for the students however, due to technical issues and the fact that students would be able to search for other wikis, we decided to put this plan on hold until next year when we will try Wikispaces.

Speaking and Listening

What we trialled;

- Illustrations, movies and animations created by fellow students led to critical and creative discussions and reflections. ESL students were excited with these activities.

- As children needed to be taught many new programs including Kahootz , Comic Life, Keynote, Rubrics, Pages, Garage Band, iTunes, iPhoto, I Can Animate not to mention the familiarisation with their iPod Touch itself, lead to constructive responses both verbal and non-verbal.

- Literacy dramatisations "Rohan of Rin" required the children to summarise main ideas plan, rehearse and present their work.

- Our entertainment theme and the introduction of iPods in term two lead to great discussions on copyright materials. Podcasts appeared to many children as an exception. Free downloads from iTunes including Harry Potter, Hannah Montana, Disney Cars were added to our iPod Touch and eagerly received by the children. Various forms of follow up work were generated to check on their listening skills. They identify opinions offered by others, proposed relevant viewpoints and extended ideas in a constructive manner. Some children prefer to draw their listening.

- Our current theme "I Have A Great Idea. Where to Next?" has been supported by the addition of various science programs available through iTunes and the ABC.

- Our Survey Monkey response summary shows that 60% of the children findiPod Touches awesome for listening to podcasts and 93% of our children have created their own podcasts.

- *Morris* web app– morse code generator part of our inventor theme as a follow up to a communications immersion, tuning lesson.

- *Word Lite Party* web app is a multi team game similar to charades where team is to say the secret words without using particular words. It is a game the children especially enjoy due to its social and fun nature.

- Students from two grades are currently preparing a debate that will be filmed and loaded onto their iPod Touch.

- Copyright issues have prevented us placing music onto our iPod Touch. However, children have created music from Garage Band and several musicians are currently recording their work to be loaded onto the iPods.

- Research has shown that music can help facilitate learning with children, Daniel Reit and Dr.

Patricia Chiodo's "Implications of ADHD Research on Music Education Practices" published in 2006, Nina Jackson's article "Music and the Mind" and Chris Boyd Brewer's 'Music and Learning: Integrating Music in the Classroom." Many of our Corio South students are below their VELS standards in English, they often display excessive fidgeting, are easily distracted, have difficulty focusing and following instructions or daydreaming. It would be good to follow up on music assisting student learning.

What Learning did I develop from my focus questions?

What is the potential for using their iPod Touch to connect with and collaborate with others beyond our school?

Their iPod Touch is an excellent tool to connect and collaborate with others beyond our school, however due to my own "learning curve" and limitations we are still to realise its fullest potential. We were able to establish email capabilities that allowed students to email and make inquiries about their learning. During our theme, "How Can I Be the Best I Can Be,"students researching their individual learning projects were able to email sporting heroes including Olympians, and people within the fields of fitness and health. One student learnt that it probably wasn't a good idea to email a Cameron Ling a Geelong Footballer in the week before the AFL Grand Final! Although the student didn't get his answers back in time for his independent learning assignment, he was impressed that he was able to find he could seek answers from experts.

Our current theme for term four, "I Have a Great Idea, what next?" will depend on the children's individual projects and ideas but will also lead to connections with the wider community.

Using Blogs, children have been able to connect with other classrooms around the world and also receive feedback about their reflections from others, beyond our school.

Their iPod Touches were well received by our Karen refugee families when they were used during parent – teacher interviews, which are usually a three way interview between, student, parent and teacher and is run the individual child. But in the case of our refugees it was a four way interview with an interpreter to show each child in school events. Camps and swimming can also be fearful for our refugee children but with the aid of their iPod Touch photos and movies we were also able to relieve their future fears for the upcoming events. All Karen children will be attending our camp in the last week of November.

Who would be worth connecting and collaborating with?

We have yet to collaborate with other schools and their students but would look forward in the near future. On a personal level, I would have liked to collaborate more with Epsom and Courtney Gardens PS but only now as the project is nearing an end would I feel competent enough to do so.

With any form of inquiry learning, students could use strategies to find out more on their personal topics. Their questions could lead to researching, interviewing, seeking opinions, writing letters, emailing, contacting experts in the field and making phone calls to assist and share their understandings with others.

I would anticipate if teaching in the middle years environment next year, that I would look

towards working with global projects for my students.

What impact would building new relationships have on the views and perspectives of my students?

Through their learning and research in term three, the students learnt so much about the importance of working within and beyond their school community. The students previously would accept the first simple answers to their inquiry learning questions. They have since discovered a network of relationships within and beyond their schools community that has given them added confidence and directions when seeking answers.

Students learnt that The Greater City Of Geelong Library was more resourceful to them than their school library. Many students discovered that the librarians were very resourceful and eager to assist with their learning. With an interest in cycling, one girl discovered that by talking to a teacher in the early years, would lead her to links to other people she could contact personally, by phone and by emailing.

Students were ecstatic to know that people held in high regard as their heroes would only be too happy to respond to their questions. Sally McCellend, silver medallist Beijing 2008 Olympics, emailed Demi with answers to her inquiry questions. This has lead to a positive influence on their future learning. It also helped improve the standard of the students' homework and project work.

Does our Essential Question address curriculum outcomes and develop skills in life and work to transfer beyond Corio South Primary School into the real world?

Yes, our Essential question addresses curriculum outcomes by improving student outcomes in literacy for students in the middle years of schooling. We have used the iPods to engage students in developing appropriate, authentic and purposeful literacy assessment procedures including ongoing opportunities for student reflection and self/peer assessment. We have identified students' home literacy practice, cultural and linguistic experiences and designed specific learning expectations of all of the essential learning strands using higher order thinking skills for building on and transferring prior knowledge and learning strategies.

We have developed two curriculum units. We collaboratively monitor and plan for improved student outcomes in literacy by documenting and reviewing individual student learning plans and discussing these at regular student and group meetings. We have engaged reading of multi-modal, content-strand texts that are matched to a student's background, cultural knowledge and level of reading proficiency and immersed the students with rich literature experiences. Purposeful learning and student motivation

and engagement are critical determinants of quality literacy outcomes and the transfer of life skills.

Is there potential for our students to conduct research, share information, make decisions, solve problems, create meaning and communicate with a variety of audiences at Corio South Primary School and beyond?

The students have presented and shared their term three individual inquiry learning in a variety of formats including slideshows, posters, musical, movies, web pages and demonstrations. Several children have presented their work and openly discussed and critiqued their findings with other grades. Several pieces of work have currently been entered into our local technology competition for which the children are to receive gold and silver awards!

Other than face-to-face teaching, does our study require students to interact with adults with relevant expertise and experience?

Yes, our students work in a team situation with four teachers, all of whom help immerse the children in the chosen topic, the children have interviewed relevant experts in the field of their inquiry within and beyond our community, interacted with ICT specialists, our local librarian, family members and other members of their community. For example the students were asked to compare food, fitness and sports with older members of their community with their own ideas of being the best they can be. Some students recorded their audio findings.

Will students use their iPod Touch to express their individual and team understanding of our project through presentation, exhibitions, website, models, demonstration, wikis, blogs, movies and pod casts?

IPod Touch was used to express understanding in all areas above, except wikis. See above. Evidence of the students work can be found on their Grade Six Web site, iPods and blog reflections.

Will using their iPod Touch positively develop all children's learning potential, regardless of any negative influences from home background and/or peer culture?

I believe it has but it is very hard to prove. Everyday at Corio South brings forward new challenges collectively and individually. Their iPod and Wii have engaged and motivated all children including those outside the projects target. The children from other classes know if they maintain work ethics they will be invited to use the iPods and Wii. Class participation, within the target group who use their iPods a learning tool daily, has improved, work is completed more readily and has continued to improve in standard, children are more organised with their work and can set readily achievable goals, they listen more readily to instructions, have developed the ability to think and act more creatively and 99% of the children complete their homework compared with 60% earlier in the year. The ESL students were introduced to iPod Touch and Wii technology on an even playground that encourages interpersonal learning.

Does the iPod Touch have the portability and capacity to provide the necessary search tools, resources, browsers and social networks for our project?

Yes their iPod Touch has the portability to use individually, to share findings with others within the room and now connected to Edupass, portability to most areas around the school. This is great, as

moving computers is not possible! The children found the portability an advantage especially if involved with group work.

Their iPod has many tools to provide purposeful learning but there have been some limitations. The Safari browser is incompatible with flash plug-ins and with many web sites with pop up windows.

The social networking of their iPod is still a serious issue for our classrooms. We would prefer that social networking, be closely monitored by teachers. The children were able to email from the iPods using Notes but all communications were directed back through our Dot Mac Account before being passed onto the children's email account. We originally planned to use Mail, but in a multi class set up, it would be difficult to track students using the different iPods. If students used the same iPod each time it might have been easier.

The introduction of Web applications in iTunes, has meant that learning resources for maths, English, thinking, reference, strategies and fun are almost endless - for free, or as far as curriculum budgets allow. For the purpose of our research, the students utilised the iPods to help with their literacy.

Their iPod had sufficient tools for the children's inquiry learning which included using Safari, calendar, maps, weather, clock, calculator and notes. Students were also able to use the resources provided by podcasts, videos and photos. The children discovered that photos could be emailed and were elated.

Will the action research help children apply their newly learned insights and bring to life new questions, ideas and abilities for future learning?

We await the answer to this question during term 4 when the children embark on their second Personal Learning Inquiry – "I Have A Great Idea, What Next?" The children commence their going further investigations on Monday November 10 after six weeks of tuning in, finding out more, sorting out and making connections. The results will not be known until early December.

How has my Vision for use of iPod Touch changed as a result of this process?

Now, I think the iPod could easily be embedded into classrooms, as it is a multifunctional tool that supports learning of VELS across all areas of the curriculum. Our main investigation was to improve literacy outcomes in Reading, Writing and Speaking and Listening, but the students remained very keen and engaged whenever they worked with their iPod Touch. This is the beginning of the learning process! They created many useful resources in evidence of their learning in a purposeful way.

During our investigations it also became evident that in an inquiry based environment, all areas of the curriculum could be enhanced. For one and a half terms the children worked with their iPod Touch for their two units of work, _How I Can Be The Best I Can Be and I Have A Great Idea, What Next?_ Using their iPod Touch, following the Kath Murdoch Integrated Inquiry Planning Model, the children covered areas of Arts, Communication, Design, Creativity and Technology, Health and Physical Education, Humanities, ICT, Interpersonal Development, Mathematics, Personal Learning, Thinking Process and

Science.

Although, the initial technical familiarisation of using and syncing their iPod Touch from a teacher perspective was time consuming, it is an affordable and portable option to assist student learning.

Why do you think this learning is worthwhile?

Learning with iPod Touch is worthwhile as it increases student motivation and encourages collaborative working. It supports ICT skills and encourages engaging and persuasive discussions between the students. As a result of this engagement with purposeful learning, student self esteem has increased. From using iPod Touch and the Nintendo Wii Corio South Primary School students have improved their memory, think logically, use problem solving strategies, acquired mathematical skills become more resilient with learning challenges. Each student has developed skills and strategies that promote learning, and have developed a positive attitude to learning within and beyond the classroom.

Analysis: How did their iPod Touch enhance student learning?

NB- Data below is from 6T only

Our initial aim was to improve our VELS Reading against Victorian Essential Learning Standards at or above the expected level from 38 % to 50% at or above. In March at the beginning of the research, 36% my grade of 19 students (excluding ESL) were at the expected standard. Recent On Demand September testing of 17 students (one absent and one transfer) shows an increase of 42% of the children at or above level 4. With seven weeks left in the term, I hope that with further testing, another 12% of the children will also be at or above level 4. During this semester 46% of the remaining students are receiving *Even Start – National Tuition Program* one of a range of strategies to assist students who are not making satisfactory progress in literacy and numeracy. However, the big question, "is this enhanced learning due to the introduction of their iPod Touch or the normal teaching process? "My classroom observations would suggest that their iPod Touch kept the children focused on their work tasks without distractions or disturbances.

According to our Annual Implementation Plan for 2008, our Writing target was to lift teacher assessment of Grade Six students against VELS at or above the expected level from 42% to 55% . At the beginning of semester one, 61% of the students, excluding ESL students, were well below their expected entry level for grade six. By October, before final testing, only 17% of the children were well below the standard. A group of reluctant writers were targeted to have their work published on their iPod Touch and on our Grade Six Web page. This group accounted for 50% of the class and are now within the Level 3.5 – 3.75 range.

Our aim was to lift teacher assessment of Grade Six students against VELS Speaking and Listening from 48% to 65% at or above the expected level. Due to the individual inquiry based learning curriculum introduced in term 3, children were encouraged to share their learning and thinking

processes at every possible learning opportunity. All children except one accepted the challenge of running or assisting our whole school assemblies. The introduction of iPod Touch to support our speaking and listening program, was well received by our students. They enjoyed the new experience of making, listening and responding to podcasts. The purchase of the Behringer Pod Cast studio that features a professional 8-input mixing desk, high-quality headphones and a studio microphone improved the clarity of these podcasts.

Children gained more confidence with speaking in public and 93% of my students have made their first podcast. Working in an open room situation, my wish list would be for a separate recording and viewing studio so that the students did not have to take into consideration the other learning areas within their working space. My assessment records already shows that 61% of my class will be at or above the expected VELS level contrasting with their entry level into Grade Six at 33%. The Karen children with assistance have created several group podcasts and are currently working on individual adaptations of *Mr. Archimede's Bath* using plastic Australian animals! Although very quiet and shy, their English is improving. One girl from my class on behalf of all Karen students spoke at the whole school assembly about her refugee experiences and culture.

Grade six teachers hoped that their iPod Touch introduction would assist with an increase in Principles of Learning and Teaching Attitude to School Survey variables of student stress to 5.4 and behaviour to 2.6. During the year, student distress increased from 5.27 to 53.8 close to our target. Student relationships in regard to classroom behaviour rose from 2.18 in 2007 to 2.34 in 2008. When classroom behaviour is plotted against the distribution of all schools with grade six students it is still well below the average, however it is reminder that many of our students are at "risk".

 Their iPod Touch project introduced new technology to all students within my grade. This meant that the ESL students, the difficult boys, the girls reluctant with technology, extreme behaviour students and the extension students were being introduced on the same familiarisation level. Throughout the two terms working with iPod Touch, the children have been observed being more tolerant, cooperative and productive when working on their challenges.

Our own Grade Six SurveyMonkey Questionnaires on the use of iPod Touch use in my grade revealed the following:

- 100% children enjoyed using their iPod Touch in their learning

- 47% of the children thought the web browsing facility was awesome.

- 73% enjoyed playing games (whilst they were learning and didn't even know it!)

- 47% found the portability to use the pods for research was "awesome"

- 50% of the children found *iPhotos* very useful.

- 57% found them enjoyable watching movies they had made

- 60% of the children thought that listening and learning through Podcasts was "awesome"

- 40% of the children had sent an email from their iPod Touch.

Student snapshots on how the children thought the iPods could be best used at school:

Comment Text
1. i think it should be for learning and research
2. for research and learning and for school work
3. The iPods can best be useful at school for researching.
4. For researching on the Internet.
5. The ipods can be best used for finding information if the computers don't work
6. They help you the best at school like a computer does its the same except they are really little.
7. i think learning
8. The teachers should show us other things on the iPod
9. The iPod's can best be useful at school for researching.
10. They could be used for spear time because there are games and they could be use for getting information quickly rather than being on the computer.
11. So the teachers can show other teachers our good work that we have done on them.
12. learning like reading spelling and things like that the ipod is so awesome.
13. Researching
14. Holding important information.
15. They can best be used by doing research when you are not using the computers
16. In nearly everything we do. Math, English, thinking, emailing and sharing our work.
17. Maths: Because there are maths games and the Internet
18. I found out that you can learn how to do sign langueg on the ipod touch.
19. They can be used for entertainment and stuff
20. By researching things for homework and projects.

The students' favourite iPod Touch activities:

- Great for group or individual work
- Group work (oral language, boy/girl, cooperative, automatic math, listening etc)
- *ASL Lite* (signing) app
- *Spelling Numbers* app
- *Imagination* –Brain Tutor app

- *Thinking Strategies Hanoi* app
- *Spelling – Blanks* app
- *Check Spell* app
- Listening to Podcasts – great for refugee immersion into English language
- Extending learning – web research, making content for others to learn
- It is possible to learn a language on iPods, Students loved the *Beijing Games Mini Phrase Book*.
- *iPhrase* – sentence structure then email.
- Emailing experts

When questioned if the students thought using their iPod all day could enhance their learning, they responded with some amazing homework, persuading me that their education would benefit.

What other possibilities does this technology open up?

More children at Corio South were able to access computer/applications that otherwise would not be available to them. The set of 8 iPod Touch was ideal for small group work, individual learning and showcased work for others to share within the grade six room. It had the capacity to offer rich learning information for all levels and areas of VELS.

The ability, flexibility and portability to take their iPod Touch to other classrooms to share and work with students and teachers' was made easier with a hand held device. Mobile technology allowed accessibility to a variety of tools anywhere in the school. It offers rich information and improved communication skills – sharing documents, music, movies, ideas etc
Not only are the iPods able to be used at school, and eventually at home, it would be hoped in the future children could have free access the internet globally! Lesson delivery to absent and sick children is also possible with mobile technology.

The benefits of iPod Touch is endless, not only is it a support for ICT skills, it increases motivation, encourages collaborative working and discussions, it increases self-esteem of our children and engages them with VELS content in an enjoyable way.

Barriers encountered and Possible Solutions

Most of the barriers we encountered at Corio South were mentioned in our previous document "Questions for Discussion With Teachers." But since then:

As our action research was to improve student outcomes in literacy we were keen to read and share texts, copyright did become a problem. To overcome this, students created books through Keynote that can be loaded onto the iPod Touch. Web App Stanza allows viewing of free and purchased books but we are yet to explore it fully. Several children are attempting to read some classics at the moment, the size of screen and scrolling/pinching are fun at the moment but students would certainly benefit from a larger screen. Budgeting for paid literacy Apps would be an advantage to access more books online.

It is strange that their iPod Touch was specifically designed for music content, but we are unable to deliver this resource to students in the classroom. To overcome this, children created their own music through Garage Band, and placed on the iPods. Through our independent inquiry learning, our instrumental students also created their own interpretations.

Another barrier that we were quick to resolve was the connection to "Edupass". This was a challenge that took a week for the TSP's and myself to work out how to configure.

The creation of the Grade Six web page to showcase students' literacy also caused headaches. After becoming familiar with *iWeb*, which took me some time to master and upload to Apple's Dot Mac account, it changed to Mobile Me and caused more stress. This occurred at the same time that the iPhone was introduced to Australia. I became very frustrated loading our web, then discovered the world was also experiencing the same problem. Extra credit was Apple's solution for the inconvenience it caused.

One of the barriers that I still haven't been overcome is the number of files created through converting projects for viewing on iPod Touch, computers, webpage, blogs etc. It has become very confusing. I have learnt that I need to be more thorough with filing and naming projects. I prefer to use quality images and am still coming to terms with so many applications and formats.
My professional development to learn so many applications eg *iSquint* (an iPod video conversion app) *GIFfun,* (creates animations from slides, images or movies) quickly *and VLC* (multimedia player, encoder, and streamer supporting many audio and video codecs and file formats), to name a few was enjoyable but very time consuming.

Time was once again a major barrier. Using Phoneview to add notes via PDF files, and editing on iPod Touch, Google Docs and Wikis were areas we found interesting, but did not have time to complete research. We had also hoped to collaborate with other schools in this research.

We made more podcasts than in previous years but still need to improve the quality. Digital stories, photo slide shows, movies are still on the drawing board but access to computers to create this content has been limited.

We now have the equipment and knowledge to go forward in this area of technology in the future. Our wish list would now include a purpose built multi media room for the creation and sharing of iPod Touch content. Everyday classroom noise could then be eliminated from our projects. It is very important for Corio South students to hear clear speaking and listening opportunities, as role models are not always present in their homes.

We have reassessed the management of assessment in ICT and have provided guidelines for teachers teaching at Level 4. With planning for next year well underway, we hope to gather student samples to create benchmarks for teachers to compare results.

The acquisition of technical knowledge to integrate mobile technology whilst retaining teaching load demands, make it very difficult to maintain teacher interest and confidence.

Hardware, especially computers, needs to be reliable and maintained. It a difficulty we faced was that the children's computers were running older software than mine. It would have been much easier had they been compatible.

Outline recommendations to address pedagogical change particularly PoLT and technical issues which would support the broader use of this technology to support teaching and learning.

As mentioned above, teachers need to acquire knowledge of iPod Touch and its potential to be utilized across all areas of VELS requires ongoing professional and technical support. Professional Development modules would need to be created and delivered. Professional learning communities need to be developed to implement pedagogical change. The enactment of change and setting of goals would need to be targeted at potential schools according to area of need.

What do I see as the potential logistics for their iPod Touch to become mainstream?

Change and innovation is a good thing, however, with the implementation of iPod Touch in across two grades at Corio South Primary School, we were also involved with changes to our teaching pedagogy from a traditional classroom to a supportive Inquiry Learning model and we also introduced interactive whiteboards. The iPod Touch should not be introduced whilst many changes are taking place in schools. For consideration:

- My iPod colleague became the leader to instigate inquiry learning at Corio South and had often been released from her teaching component.

- The iPod Touch is able to hold lots of data and content readily to be shared. However, it would probably be best if individual teachers were responsible for their own pods- syncing and charging. It would be possible to have an iPod account added to our network, – which initially

established, but I found it easier to sync at home due to time constraints and also it was less distracting. If the pods were used continuously for 5 hours a day, charging would become a necessity in the classroom.

- It would also present major costing!!

- The robustness of their iPod would be of concern. Although we didn't send them home, we were very cautious that they were precious. In some learning environments, iPods were sometimes left on the floor, an easy target for accidental footprints! Currently iPods come with a one-year warranty and for $75 per unit, another year.

- Efficient and reliable internet service at times was a big problem for our school.
- CSPS students only accessed free web apps in their iPod trial but there would be value in budgeting across the curriculum for appropriate web apps.

Describe additional professional learning you required to support the use of this technology?

Where do I start? Most of my professional learning, prior to the project, was from my own investigations, and it was time consuming. Although enjoyable and time consuming, I always try to challenge myself. I know the Apple consultant was available, but most of my questions were solved asking a friend albeit outside my school. Nerds need to stick together!

- iTunes – music, movies, podcasts, applications, store, downloading

- iPod Touch – syncing (manually, automatically), loading, unloading, arranging, configuring internet/Edupass, charging

- Various programs and applications to support iPod Touch content including *GIFfun*, Blogging, *Keynote*, *Garageband*, *iMovie*, *iPhoto*, *Comic Life*, *iSquint* (free application)

- *iWe*b – not necessary but assisted our learning

- Learning '08 *iLife* after becoming comfortable with '06 i*Life*! Some applications were vastly different.

- Converting, exporting, sharing files for web/iTouch Pod/computer

Is there other supporting professional learning you would suggest?

- Professional development for all staff including ICT specialists
- TSP professional development – especially configuring iPods

- Class room teachers need to learn not only how to use iPods, but also how to apply it as an ICT teaching and learning tool.
- A collection of ideas and bench marking across the domains for use of iPods to share
- Competencies with file conversions (Ipod, web, computer etc.)

What models of professional learning best support teachers to maximise their use of iTouch as a teaching and learning tool?

- Teachers need to focus on student learning outcomes and need to engage children in purposeful learning. Inquiry Learning and the use of iPod Touch was student driven at Corio South.
- Teachers need to be confident using the iPods, to facilitate children to reach their goals and fullest potential.
- Professional learning for iPod Touch needs to immerse teachers in relevance and content in which they teach.
- Teachers need ongoing support for their professional learning and support with knowledge and ideas.
- Next year each teacher at Corio South will be a mentee and have a mentor. Constructive feedback on teacher practice is important to assist purposeful professional learning opportunities that address areas for improvement.
- Teachers need to collaborate, share knowledge, expertise and experiences in "This Works" sessions.

How has the introduction of the iPod Touch created or necessitated changes to teacher's curriculum planning and assessment practices?

The introduction of the iPod Touch neither created, nor necessitated changes to Corio South's curriculum planning. In 2007 a common curriculum planner was developed as a "work in progress" document. It has since passed through several modifications to accommodate the changes in pedagogy being driven by the Regeneration Project. The *Victorian Schools Plan* is the Government's 10-year plan to transform Victorian schools by funding the rebuilding, renovating or extension of all schools by 2016.Our school with several other schools in our local communities has developed plans for new curriculum and facilities to transform education options. Our early year students are in their first year of Developmental Curriculum - A child centered play/investigation approach to learning in the early years of school promoted by Kathy Walker. Our Grades 3 -6 are currently trialing a Kath Murdoch approach to Independent Inquiry Learning. Although we are still gathering data on this style of learning, as an experienced teacher, their iPod Touch was and would be easy to integrate into both a traditional or inquiry learning environment. It was good that the iPod Touch and Wii motivated the students to learn new technologies in a non-threatening approach. Many students at Corio South are reluctant to participate in class activities or take risks, so we integrated their iPod Touch into the

curriculum as a tool before using it to enhance literacy outcomes. When the students took on their Independent Inquiry Task, their iPod was used extensively and without pressure.

Assessment in many schools and since the introduction of VELS has been controversial. Information and Communications Technology assessment of grade six students at Corio South Primary School is usually left to the specialist teacher. However, the four class teachers are perhaps more familiar with student progression in ICT for thinking, creating and communicating in that students have approximately 5 hours computer access time within their own classrooms. Teachers were asked to assess their own ICT for the first semester this year. This was frightening for the others, not difficult for me, as I have been teaching ICT at this level for many years. However, with the introduction of iPod Touch, it became evident that I would need to revisit my ideas on assessment of ICT outcomes and by so doing help my colleagues make their assessment against VELS. An assessment document for term 4 "I have a great idea, what next?" has been created, and samples are currently being gathered. The children use computers and iPod Touch on a daily basis and have continued to learn new technologies, thinking, creating and communicating.

How can the use of the iPod Touch support VELS implementation?

It is unquestionable that iPod Touch supports VELS. With the influx of Apps, Movies, Photos, iTunes not to forget Safari as a browser, the children are equipped with almost everything a student needs to meet the demands of their curriculum. The iPod Touch supports the processes of physical, personal and social development and growth, traditional discipline-based learning and interdisciplinary learning for effective functioning within and beyond school.

Their iPod Touch was introduced to the children during their initial thinking curriculum. It's introduction led to many inferential questions that the students explored and answered with their own inquiries.   Their iPod Touch was freely available to the students to use formally or informally to assist their learning. Using their iPod, students accessed information and learning in all domains whether directed by their teacher or following their personal needs. As our team unit developed their Inquiry Learning Planners in term 3 and 4, their iPod Touch was well and truly entrenched in their learning.

What are the privacy/ethical issues which need to be addressed to ensure safe and ethical use afforded by the iPod Touch technology?
The privacy /ethical issue arose early during my research when I was worried that I had lost their iPod Touch that I always carried in my bag to investigate its possibilities. Temporarily losing an iPod Touch, possibly in the streets of Geelong, my immediate reaction was to worry about the "child"

content that was readily accessible on their iPod Touch. I then re-discovered the Password lock under settings and just like the Grade Six Web page password, viewing would be limited to those with privileges.

There is also the possible concern that if we had sent the iPods home, users would be able to copy our iPod Touch content. A free download "i*PodRip*" from the web will automatically recover everything from their iPod Touch – music, movies and TV shows! *Senuti* is also a Mac application for transferring songs, playlists, or videos from your iPod Touch back to your computer.

As to copyright content of (music and movies), unfortunately I don't think it can be addressed. The content on the iTouch is really left to the teachers' discretion. We wanted to add music content to extend the students listening skills to tune them into the values of the different genres of music and to see if it could improve concentration. We stayed "true" and didn't add music content other than that created in Garage Band or by our students learning musical instruments.
There were also Movies that we might have chosen to add to elicit discussion, writing and further reading. However, we were aware of copyright. The value of this as a learning curve for the children was reinforced. When they were asked to illustrate their recent Mystery Stories for iPod content, several students hit the internet to "grab graphics", but after gentle reminding, they created amazing illustrations through Apple Paint.

What are the elements/characteristics which are required to ensure sustainable use of the technology, ie, move from emerging to embedded at the school level?

During the time of our research, we had an amazing year of technical problems. Most were not related to their iPod Touch. The main iPod Touch main concerns were the initial syncing, upgrading software, learning to compress data and configuring to Edupass.

However, our school network faced other "mysterious" problems that affected our grade six area for over two terms! To embed mobile technology at the school level there must be sufficient money and technical support and knowledge, to ensure we have reliable hardware, software and servers. We had many disruptions and frustrations due to mysterious problems: our computers, the sudden disappearing of files and being unable to save work. I was unable to obtain a clear answer to why this occurred, but it may have been due to a combination of: networking cables, our internet provider and or internal computer batteries.

My laptop was also used to support their iPod Touch and unfortunately it too caused difficulties that might hinder the embedding of this technology. Being an ICT teacher within our grade six classroom, my laptop is full of resources and programs to assist learning. I do have a large external drive at home to support my work that is not on our school's network. My DEECD laptop was at then end of its three-year lease term, which was then extended! In essence, my laptop was not able to support what I needed to support their iPod Touch project.

To be able to work, I borrowed a Mac Book Pro. Upon arrival of my new DEECD laptop my data was transferred. Being only eight weeks old, my "new" laptop has since had four major components replaced over a very frustrating period of two weeks. Their iPod Touch appears to be more solid than the technology needed to support it!