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## CC 21 WHERE-TO PLAN | Regentville Public School



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# Regentville Public School

## CC21 Action Research Project

2013



Exploring the use of iPads and Apps to  
support teaching and learning in  
21st Century Classrooms





## Project Team Members

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## Innovation

Our project explored a range of Literacy Apps for iPads that support both the teaching and learning with an emphasis on our Focus on Reading strategies. The apps support teachers in the delivery of curricula, teaching with 21st applications and skills and supporting student learning and assessment. Several sharing apps such as Google Drive, Drop Box and NearPod allow teachers to share information and work collaboratively with both their colleagues and students. This project addresses the NSW Syllabuses for the Australian Curriculum: English and, in particular, the syllabus content associated with the Reading and Viewing (Objective A) and Thinking imaginatively, creatively, interpretively and critically (Objective C) with the intended outcomes:

### Reading and Viewing

- EN1-4A: A student draws on an increasing range of skills and strategies to fluently read, view and comprehend a range of texts on less familiar topics in different media and technologies. (NSW BOS 2012)
- EN2-4A: A student uses an increasing range of skills, strategies and knowledge to fluently read, view and topics in different media and technologies. (NSW BOS, 2012)
- EN3-3A: A student uses an integrated range of skills, strategies and knowledge to read, view and a wide range of texts in different media and technologies. (NSW BOS, 2012)

### Thinking imaginatively, creatively, interpretively and critically

- EN1-10C: A student thinks imaginatively and creatively about familiar topics, ideas and texts when responding to and composing texts. (NSW BOS, 2012)
- EN2-10C: A student imaginatively, creatively and interpretively about information, ideas and texts when responding to and composing texts. (NSW BOS, 2012)

- EN3-7C: A student thinks imaginatively, creatively, interpretively and critically about information and ideas and identifies connection between texts when responding to and composing texts. (NSW BOS, 2012)

The project focus:

- Use of technology to implement and assess (evaluate) teaching and learning within the Focus on Reading program (F.o.R).
- Use of iPads and selected apps to support and implement the F.o.R strategies and Literacy within the Australian Curriculum.
- Use of iPads to engage and assist students in ascertaining opportunities as 21st Century learners and as independent learners.

By the end of this project students will be able to independently use apps to apply the F.o.R strategies in reading and reading comprehension. Teachers will be able view and apply the best suited apps to teach F.o.R skills and effectively use iPads for teaching and assessment purposes. The iPads will also allow teachers to collaboratively plan and assess to meet the needs of 21st Century learners.

The proposed outcomes of this project:

Strategically use ICT to enhance teaching and learning opportunities.

Students and teachers acquire and enhance their ICT skills to further develop them as 21st Century learners.

Ultimately, this project endeavours to create Professional Learning opportunities for all teachers across our Community of Schools in being able to share best teaching practice in incorporating ICT skills into the 21st Century classroom.

Research suggests that the use of iPad technology in the classroom can be a powerful tool for teaching and learning providing technology like iPads as an excellent learning tool particularly in engaging and teaching students 21<sup>st</sup> century and lifelong skills for learning.





## ***Collecting our research data from our CC21 Team***

I surveyed the RPS CC21 Team at the end of our trial period with the following questions. Their responses are from the two directions of our project in the application of iPads within the classroom and in The Community of Schools (Glenmore Park Learning Alliance). A sample of responses are displayed in *italics*.

Q1: What impact did the iPads have in your classroom through the CC21 Project?

***The iPads were a great way to engage students in all key learning areas. The project allowed me to explore various ways of integrating technology into teaching and learning experiences.***

***The impact the iPads had on my classroom was only minimal compared to the impact iPads could have potentially had. The project had limitations in terms of available apps and use of wifi, which made implementation difficult.***

***iPads are a great tool for preparing students for independent 21<sup>st</sup> century technology skills. Students quickly learn these skills and are confident to explore and investigate new technologies and application to demonstrate their knowledge and skill.***

***iPads provide the opportunity for more personalized learning activities that responded to student needs.***

Q2: What were the advantages of having a set of iPads permanently assigned to your classroom?

***Activities could be permanently timetabled into the week without concern for booking iPads. It also meant that the iPads could be used spontaneously where necessary. We would often publish our work or record lesson reflections. Students were able to track their own learning easily and this facilitated constant and consistent assessment.***

***Having a set of iPads permanently assigned to the classroom meant that lessons and activities could be planned more efficiently. It also meant that you were able to store work on the iPads and continue any work at any time.***

***The greatest advantage in having a set of iPads in the classroom is that they are on hand and can be integrated in lessons easily.***

***Timetabling is more flexible due to the fact that you are not restricted to the availability of ipads.***

Q3: Do you believe your students were more engaged during lessons and activities that included iPads? Yes

Q4: What did you learn from in regards to 'Learning and Teaching' with iPads?

***Student directed learning is very effective. Students were able to explore different ways of learning (not just the same activities on a screen)***

***I learnt that students love to use iPads and technology in the classroom. When students are provided a task to complete on the iPads, you know the task is going to be completed and behaviour management is not needed.***

Q5: Do you believe that iPads and other technologies encourage self-management and self-directed learning?

***Yes. Student engagement often led to self-directed learning. Students are motivated to track their own progress and achievements. Many tasks were open ended activities and were completed to a high standard.***

***Yes. Once students have explicitly been taught how to use specific apps, they provide an excellent means of self-management and self-directed learning.***

***Students are definitely engaged in lessons using the iPads. Students are keen to use the iPads to demonstrate their knowledge and understanding of content and skill. Students often teach other another in group work and have confidently explored the many uses of the iPad for learning opportunities, assessment and self-reflection.***

***Yes, my students were engaged in self-directed learning activities that included both self and peer assessment. It was easy to adjust the level of any activity to suit the student.***

Q6: What were the major benefits of this project for your students in acquiring 21st century skills for learning?

***Students learnt various technology skills including navigating digital texts and typing skills. They were able to see the benefit of the iPads in the classroom and many reported that they were now using similar apps at home to practice. Students were engaged and many had prior knowledge of iPads that they were able to contribute to lessons.***

***The benefits this project had would have been far more enhanced if students were able to access the internet on the iPads. Many apps could not be utilised, such as Edmodo, which I believe would have had a huge impact on students acquiring 21st Century skills for learning.***

***Students are quite confident with the iPads and their skills were only enhanced with having a set of iPads in the classroom permanently. The students work samples demonstrated their willingness and capabilities in using many apps. Having the students use apps that enabled them to explore, create and demonstrate were great learning opportunities.***

***Students were able to engage in deep learning in authentic context. They were able to complete tasks previous inconceivable with traditional teaching methods.***

***Many of the tasks developed their collaboration and communication skills with are essential tools for 21st century learners.***



Q7: What were the most useful apps that you used during this research project?

***Camera app - should not be underestimated. It is a great way to track learning.***

***Book creator - excellent assessment tool and group work project.***

***Educreations - quick and easy way to summarise learning or present information.***

***The most useful apps were Story Builder and Story Wheel. Students also enjoyed using scribble press and explain everything.***

***Toontastic proved to be an engaging app that supported students in writing narratives.***

***Garage Band allowed students to be creative and innovative in their response to text.***

Q8: Did you view this project as a learning opportunity to support and develop your skills in the use of ICT and iPad capabilities?

***Yes, it made me aware of other useful apps and provided a platform for collegial discussion.***

***I believe the project supported my ICT capabilities, as it allowed me to track and monitor student progress in a means that I am confident in. It allowed for data to be stored in a central place, which was great for assessment.***

***Learning any new skill that supports quality teaching and learning is of a great benefit to both teachers and students, particularly in developing and enhancing technology and 21<sup>st</sup> century teachers and learners.***

***Yes, it encouraged me to incorporate technology into learning in more effective ways that responded to individual student needs.***

Q9: Describe your current pedagogy. Did this change during the CC21 Action Research Project?

***My pedagogy is student centred inquiry learning that facilitates group work and student direction. I felt that my pedagogy was not changed but enhanced through the CC21 Project.***

***My pedagogy is student centred teaching and learning activities within real world context. The CC21 Action Research Project enhanced this through greater self direction and personalization.***

Q10: How has your teaching framework -your values, beliefs and classroom practice - reflect 21st century learning?

***I have begun to include more open ended tasks and raise expectations for iPad work samples. Students demonstrated the capability to produce excellent work using the iPads and I am providing more tasks that facilitate this work.***



**21st century learners need to be engaged in collaborative learning tasks that encourage creative and critical thinking. Incorporating tools such as iPads allows this to be realized.**

Q11: Do you believe iPads within your classroom enhance and enrich learning opportunities? Does this allow for differentiation within the Australian Curriculum?

**Yes, the use of iPads, especially with wifi connection and ability to research and upload files, greatly enhances learning opportunities within the classroom. Differentiation can be built into lessons using open ended tasks that can be extended where necessary. Tasks can be set on online activities and students work at their own level.**

**Yes I do. Differentiation can occur through activities students are set on the iPads.**

**Differentiation is evident with the use of iPads from observing students at work, enabling self-directed learning and an opportunity to assess students F.O.R skills within their learning.**

**Yes, iPads enhance creativity and encourage problem solving and critical thinking. iPads also allow for differentiation because open-ended tasks are the best way to cater for the needs of all students.**

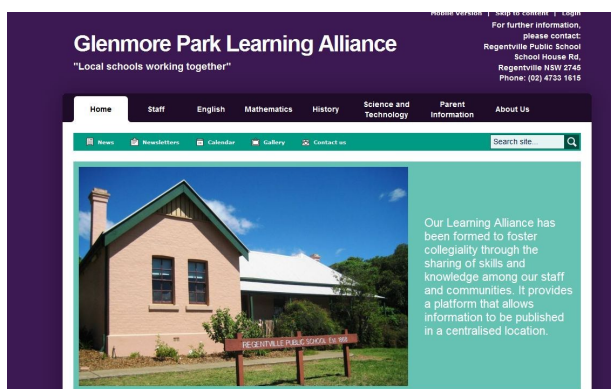
Q12: What learning and teaching approaches do you use to support the F.O.R strategies? Do iPads assist in implementing these strategies?

**The iPads greatly assisted the focus on reading teaching and learning experiences. Students demonstrated comprehension skills and reading fluency easily through using the iPads. Whilst the iPads are effective across all key learning areas, it is clear that literacy skills such as summarising research, presenting information and recording student progress are greatly enhanced.**

**I found it difficult to utilise the iPads to their full potential to support the FOR strategies, due to complications with internet access.**

**F.o.R skills are embedded throughout the Australian Curriculum and in teaching literacy skills. Ultimately, the skills students are engaged in within their research and responses through summarising, visualising, note-taking and in their overall comprehension skills are demonstrated in a variety of activities both working independently or as part of a group working collaboratively.**

**Guided, modeled and independent learning activities form the basis for my approach for instruction of the six F.O.R strategies. iPads allow for all three to be available at the moment when the students need it.**





Q13: Do you believe that iPads and other classroom technology greatly assist teachers in Assessment for Learning as opposed to Assessment of Learning? Do iPads and other technology improve teaching and learning opportunities in providing teacher/student communication, assessment and feedback?

***"Yes, the iPads provide immediate and effective feedback. Students can track their own learning by viewing previous work samples and reflecting upon their own progress. Assessment tasks become teaching opportunities instead of summarise activities."***

***"Ipad allow for differentiated learning. They are of significant benefit when teaching For strategies as modelled lessons can be followed through with guided and independent learning which can happen on the ipads or be supported by ipads. Students are very engaged when learning is done on/with ipads."***

***I believe that ipads are of equal benefit in assessment for learning and assessment of learning. They are a tool that enables teacher a greater scope when collecting assessment data. They do, I believe improve teaching and learning opportunities in communication, assessment and feedback. They are innovative and allow teachers and students the possibilities in being innovative in each of communication, assessment and feedback.***

***Yes, as they allow for more opportunities for self and peer assessment. It is inclusive of all learners and promote better learning rather better marks.***

Q14: What were the challenges and constraints of this project?

***Time constraint - choosing and reviewing apps***

***Resources - installing Wifi (our demountable classrooms in particular caused problems in connecting to the Wifi a booster needed to added etc. with further technical issues).***


***I would have loved to be involved in the app selection process, as when I was researching ways to effectively use iPads in the classroom I came across a number of apps that would have been perfect. Not being a involved in the selection process limited how I was able to use the iPads in the classroom.***

***It was also very difficult to use most of the apps available to their full potential without internet access. Wifi was purchased, however was not installed through the duration of the project period.***


***For the LA website, constraints and challenges come mainly with time restrictions and limitations. Also, relying on others to promote the LA with the same vigour can/has caused some challenges. These can, however be overcome with continued promotion.***

Regentville Public School CC21 Project involves research within our school that concentrates on the Australian Curriculum, Focus on Reading and how iPads and other technology can be implemented into our school to support both teaching and learning.

Read our CC21 project and results in full on our Community of Schools Learning Alliance using this web address or QR code.



Home-Glenmore Park Community  
<http://www.glenmorepark-lc.schools.nsw.edu.au/>



*By the end of this project, our students are able to independently use many of the apps and iPad technologies to support valuable learning opportunities. The technology enabled teachers to set activities that supported the F.o.R strategies and link to their own personal pedagogy in the areas of student-centred learning to encourage and enhance learning opportunities within their classrooms. Students address the new curriculum challenges of the Australian Curriculum, specifically in terms of requirements of ICT, critical and creative thinking general capabilities (ACARA, 2013).*

*At this point, our school's innovation is in its first phase of development. Our next phase is for our CC21 teachers from each Stage to share their experiences of our Action Research Project to encourage and promote quality teaching and learning opportunities for staff and students.*

*Since our school has been involved in the CC21 Project teachers involved in this project have had the opportunity to enhance their understanding and implementation of ICT in their classrooms. Teachers had varying experiences with iPads and had the opportunity to extend their knowledge and expertise. We have had many example and samples of quality teaching and learning opportunities. Our Glenmore Park Learning Alliance is another way to share our experiences and knowledge with our colleagues from our Community of Schools.*



# Links to our Project's Success and Resources

## *Educational Technology and Mobile Learning*

Link: <http://www.educatorstechnology.com/2012/06/33-digital-skills-every-21st-century.html>

## *Apps in Education*

Link: <http://appsineducation.blogspot.ca/p/english-ipad-apps.html>

## *Apple in Education*

"The iPad one-to-one program uses technology that's already a big part of students' lives to make them more excited about learning."

Link: <http://www.apple.com/education/profiles/burlington/>

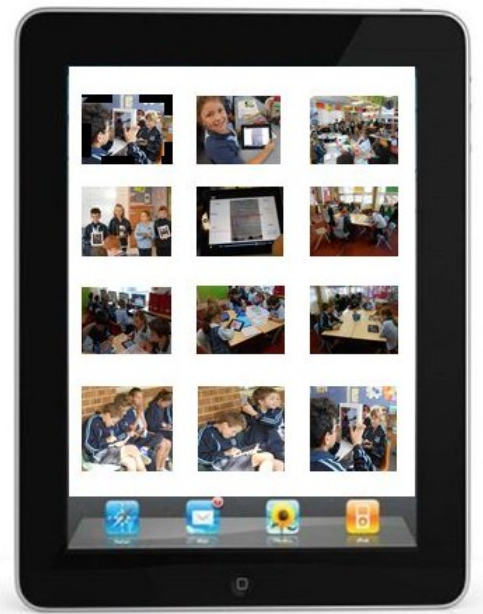
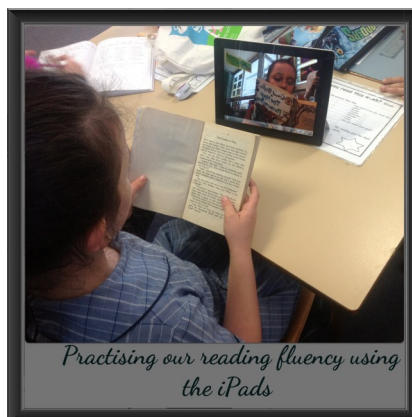
## *iPads For Education*

"To prepare students for the knowledge economy of the 21st century, schools must provide students with purposeful access to ICT that increases their participation, engagement and achievement in education.....The trial examined the use of iPads by students and teachers, and found that under the right conditions the iPad can significantly enhance teaching and learning outcomes within and beyond the classroom."

Link: <http://www.ipadsforeducation.vic.edu.au/ipad-student-trial/ipad-research>

"iPad technology in the classroom can be a powerful tool for learning and comprehension. The interactivity it provides can make for a very engaging experience, definitely for elementary school aged students. I think we will only continue to hear more studies and stories about how the use of iPads in the classroom is improving education. Classroom technology like iPads really does make an incredible learning tool."

Link: <http://www.securedgenetworks.com/secure-edge-networks-blog/bid/86775/8-Studies-Show-iPads-in-the-Classroom-Improve-Education>



## ***iPads for Learning***

iPads for Learning is designed to help teachers, administrators, and schools find the best way to integrate iPad tablets into their instruction and learning

Link: <http://ipadsforlearning.com/>

## ***iPad Educators***

“Tablet computing and mobile devices promise to dramatically impact education. This Ning network was created to explore ways iPads and other portable devices could be used to re-imagine the process of education and re-kindle students' innate desire to learn.”

Link: <http://ipadeducators.ning.com/>

“Twenty-first century learning is at the confluence of three major influences: globalization, which increases global interdependence and competition; technology innovations that enable more engaged teaching and learning and provide 24 by 7 access to content and people; and new research on how people learn”

Link: <http://ali.apple.com/acot2/challenge/>



Reference: **ACOT 2 – Apple Classrooms of Tomorrow – Today**

“To become fully literate in today’s world, students must become proficient in the new literacies of 21st-century technologies. IRA believes that literacy educators have a responsibility to integrate information and communication technologies (ICTs) into the curriculum, to prepare students for the futures they deserve. We believe further that students have the right to:

Teachers who use ICTs skillfully for teaching and learning

Peers who use ICTs responsibly and who share their knowledge

A literacy curriculum that offers opportunities for collaboration with peers around the world

Instruction that embeds critical and culturally sensitive thinking into practice

Standards and assessments that include new literacies

Leaders and policymakers who are committed advocates of ICTs for teaching and learning

Equal access to ICTs”

Link: <http://www.readwritethink.org/professional-development/professional-library/literacies-21st-century-technologies-20975.html>

## ***21<sup>st</sup> Century Literacies: Young Children Reading and Writing in a Digital World.***

<http://www.ncte.org/library/NCTEFiles/Resources/Journals/ST/ST0152jan2010.pdf>



Our exploration of 21st century literacies continues in this issue of *School Talk* as we focus our attention on our youngest learners, who are becoming readers and writers in a digitally mediated world. To echo the words of Emilia Ferreiro (2003), new technologies blur traditional definitions of writing, as “now, we write with both hands, on the keyboard” (p. 19). As literacy educators, these new technologies challenge us to consider the ever-changing meanings of the verbs *to read* and *to write* in the Web 2.0 era, where new products and practices are appearing all the time. The authors in this issue describe the creative and socially situated practices of young writers who produce hybrid and multimodal texts using podcasting, online social networks, digital storytelling, or an iPod Touch. They also consider the pedagogical possibilities created by such literacy practices and share specific examples of how they have enriched their curriculum to accommodate these 21st century tools that children are using in transformative ways to author themselves and their worlds.

*Andrea and Frank*

Digital storytelling expands the potential for constructing meaning using multiple modes of communication and expression, a skill our students will increasingly need as we move through the 21st century.

What sorts of new ways of engaging as literate learners do new technologies offer with regard to connectivity (being able to connect with others locally and globally)?

“The literacy demands that students face today have changed greatly from those which students met even five or ten years ago. NCTE’s Topical Resource Kit, *Professional Communities at Work: Engaging Media-Savvy Students: Exploring Multimodal Literacies through Popular Culture and Technology* explains:

Classrooms are rapidly moving beyond traditional notions of text. For years, teachers relied almost completely on books and other print texts—especially in terms of the texts that students were asked to compose. Because of the changes in technologies available to us today however, texts in the classroom frequently include a much wider range of modalities—systems that people use to make meaning. In fact, a single text often engages more than one

way of making meaning.

Today’s media-savvy students compose and read texts that include alphabetic- and character-based print, still images, video, and sound. They listen to podcasts, watch animations on the Internet, film their own videos, and compose visual arguments on paper and online. Reading and composing for these students includes such features as visual design, nonlinear organizational structures, and oral storytelling techniques. (“Framing Text” 3)

Students interact with this wide range of texts using ever-expanding strategies for making meaning; yet they do not always recognize these many resources as legitimate texts. By exploring the ways that they read and write in this lesson, students extend their understanding of what it means to be literate in the digital age.”

Link: <http://www.readwritethink.org/classroom-resources/lesson-plans/defining-literacy-digital-world-915.html>

## IPAD 4 SCHOOLS

### MAKING SIMPLE SENSE OF IPADS IN SCHOOLS

"The overall goal is to ready a school for the quick iPadding of all daily school tasks carried out by Teachers, Admin and students. The initial emphasis must be to get staff and students to move their daily routines onto the iPad and not look back. This will make the school comfortable with moving to iPads and will improve engagement with the project. This realignment will only be quick & successful if staff and particularly members of the leadership team understand iPad best practice."

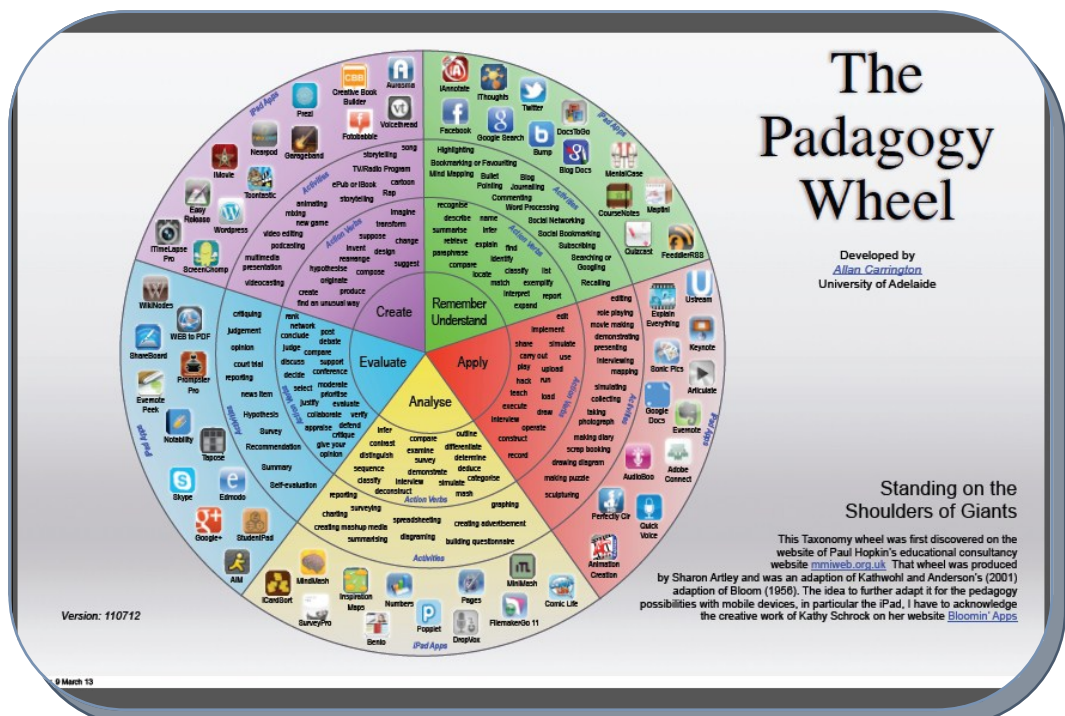
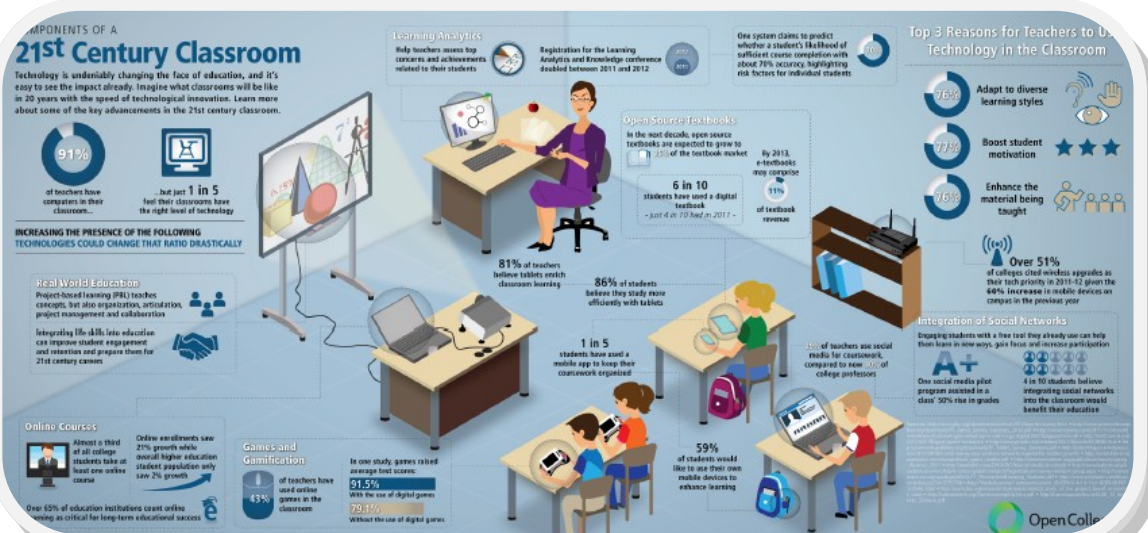
Link: <http://ipad4schools.org/edu-leaders/>

### iPad Classroom Fundamentals

Laurie Burruss (from lynda.com)

"The iPad is a valuable learning tool that brings 21st century instruction techniques into the classroom."

Link: <http://www.lynda.com/iOS-tutorials/iPad-Classroom-Fundamentals/124397-2.html>



## Areas of Application and Project Evolution

### 1. Involvement, decisions and impact of teachers in your CC21 team

Our teacher's involvement in the project was particularly important because they embraced the project which involved developing teaching and learning opportunities for themselves and their students. Several teachers used the original apps provided with the iPad to create some very exciting and engaging teaching and learning opportunities. The research and development of iTunes U by one teacher to create courses for her class was highly beneficial for our project as it demonstrated the ability for teachers to create their own content and create independent and valuable learning opportunities and 21st century skills for students.

Early in the planning stages, our teachers decided to use the iPads to support the teaching and learning opportunities within their classroom. One of our teachers initially decided to create a project using the iPads and then restructured as she saw the benefit of using the iPads within independent and group tasks across several key learning areas. Another teacher who was previously using her personal iPad within her classroom used the CC21 project to create many valuable learning opportunities with several more based permanently in her classrooms. This class in particular were involved in peer assessment, self-assessment and used the iPads to evaluate their work and learning. The students in this class independently used the iPads with the use of the camera and managed apps such as iMovie to create many self-assessment and reflection videos.

Ideas from the project were put into action by teachers, who were motivated and keen to develop their own content through the use of apps. It also allowed teachers that were already using apps in their classrooms to continue to develop opportunities where students were involved in peer and self-assessment tasks, reflective learning and in developing their own learning content to share with other students and classes in an open day opportunity.

### 2. Support for teachers' use of ICTs that you feel was necessary to the success of your project

Before our CC21 project many teachers at our school wanted to use the iPads in their classrooms but did not have the knowledge of how to implement their lesson ideas or strategies into their classrooms other than using the apps that were 'game based'. Some teachers wanted to 'buddy' with those teachers who demonstrated a better knowledge of iPads and their uses and assist them in implementing these into their classrooms.

Teachers that also used iPads regularly found it difficult to complete projects or tasks on the iPads if they were to re-book as a set, as they sometimes found that they were unable to obtain the same set back with saved information or projects. Many teachers involved in the CC21 Project said that in having a set permanently within the classroom permitted for more opportunities and allowed the students to return to the same iPad for their project purposes.

Our project endeavours to use these teachers and other staff members who are confident and skilled within our school to lead workshops within their Stage on best practices and ideas for iPads and technologies to support quality teaching and learning.



## Support for teachers' implementation of the Australian Curriculum;

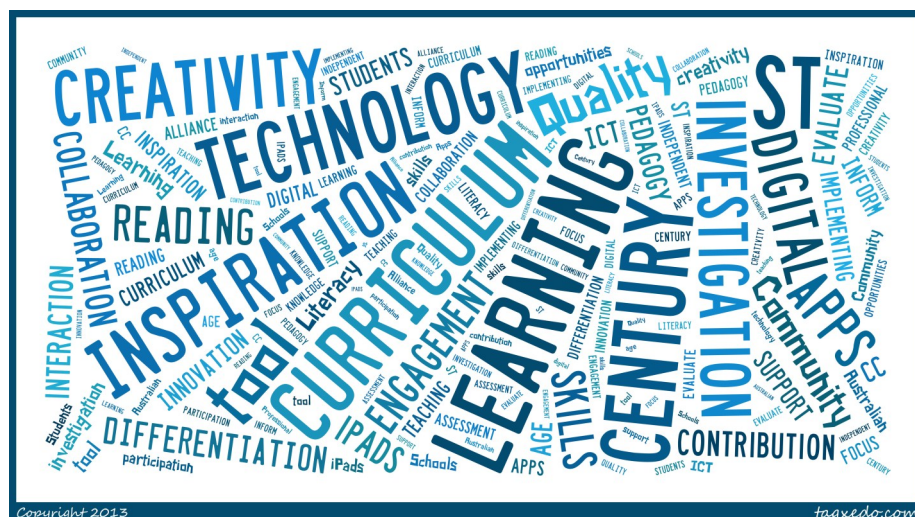
Teachers involved in this CC21 Project, along with our teachers throughout K-6, are currently working with our school communities in our Glenmore Park Learning Alliance (GMPLA) in Professional Development sessions with the key emphasis on the Australian Curriculum. Each Stage meets with Stages within the GMPLA to work collaboratively to design units of work from the English Syllabus. Each school stage will prepare two units of work from a selected theme. At the end of the preparation each stage will have prepared two quality units (8 teaching units per Stage in total). This can be used across Stages that will support schools in their Scope and Sequence and when these units will be taught (i.e. odd/even years etc.).

Each Stage from each school have met and continue to meet to plan and develop these units, continue to work collaboratively at their prospective schools then re-group to continue and refine the units of work. These units will be added to our GPMLA website to share with the community of schools. Units of work and assessment frameworks are to be added as work samples to standardise our Assessment and Reporting between schools.

It is intended that we will follow the same path and design for Mathematics next year asking for an expression of interest to staff that wish to be leaders within their school for the next part of this project.

**4. The barriers that existed (or still exist) to the success of the project;**

Key challenges faced by our project team have included the installation of our Wifi in our demountable classrooms. We purchased three Aurba wireless access points and two of these worked instantly with success in the library and the Stage 3 classrooms, although the access points for the demountable classrooms (for the Year 2 and 3 classes) caused difficulties. Technicians were called out and ICT Helpdesk logged although we are still waiting for a resolution, we hoped that the Wifi access point in a central location such as the library would help to alleviate this problem for teaching and learning opportunities during the project.





## CC21 PROJECT

2013

