Introduction

“For most people, technology makes things easier. For people with disabilities, however, technology makes things possible.” (Mary Pat Radabaugh, IBM Disability Support Center, 1988).

Given the impact that emerging technologies have had in recent times, including mainstream tablet devices, one could be forgiven for thinking that the above quote was describing the year 2011. However, over the last 25 years, the growth of technologies identified as assistive technologies has risen from some 200 to over 40,000 items.

Throughout these years, SERU has continued to play a proactive role in promoting the use of emerging inclusive communication and learning technologies for students with disabilities and learning difficulties. There is always a new technology around the corner requiring training, support and mentoring. SERU provides extensive professional development and support, ICT equipment and resources. Technology grants are also offered to target technology provision for students with disabilities. These grants are supported with professional learning opportunities, including online networking (eg. SERU Ning). The SERU resource centre has Communication and Learning Technologies for general loan and this now includes twelve iPads; two additional iPads are permanently located in the resource centre for clients to come in and trial.

This term educators who have received support and advice from SERU about technology, write about their learning journeys, how they have utilised the technologies in the classroom and how these have enhanced teaching and learning with students.

Dymphna James   Jim Sprialis
Assistant Manager   Project Officer Learning Technologies
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A LEARNING JOURNEY

Learners Don’t Call it Technology

When educators discuss the idea of embedding technology into learning programs the assumption is often made that technology is a completely new innovation for our students. The reality is that the modern learner is surrounded by technological devices in their everyday life. Mobile phones, iPods, gaming consoles and other forms of technology play a role in an average students day. Multi-tasking occurs innately. Today’s youth watch a TV show while texting, updating their Facebook status, surfing the net etc. These are common practices according to my students. This is reality.

Developing a Learning Program

Education today is not so much about embedding the technology in the learning program, it is about developing a learning program that encompasses and uses the technology available. To students, these items are not technology; they are life. Therefore, all available digital devices need to be used in a learning program if we as educators are to enhance the concept of our students being life long learners.

Give a learner a new device and more often than not, the learner will manipulate the device to suit their individual needs. There is no fear - there is instant control. In a short amount of time, they will have mastered the functions required to be successful. They won’t completely master the device, they will have mastered the aspects they need. I certainly don’t use all aspects of my iPhone - I use the parts that I need to live successfully. This is the same with program development (whether Special Education or mainstream). Educators need to facilitate the development of learning through the immersion process (to be discussed later), provide the device(s) and support its use through skill refinement. We should develop what needs to be developed individually, through a consultation process.

Device Use at Mark Oliphant College

Device use is a priority at Mark Oliphant College and is used across the College within all sub schools. The Special Education Learning Area was in a fortunate position as students were the first to trial a 1:1 Mac laptop program in 2010. Applications, functions and programs were quickly mastered. Students who once struggled with the mechanics of writing or had issues with concentration participated instantly. Students used Photobooth (a video recording device) to contribute orally. They used iMovie to create films or documentaries on the studied topic and for students with an oral communication impairment, iChat was for instant messaging. If a student couldn’t read a part of a text or a section on a website, they used the speech function and listened to it being read to them. The technology and their applications worked for them, they were easy to access. The device opened their eyes to a completely new world where their impairment didn’t restrict because they finally had multiple tools that could assist and ease their frustration. This is a clear example of technology working for them.

The students embraced their device and created work of a high standard. The device not only became an important educational tool, it became an avenue of communication for students who either couldn’t participate or refused to. The students were empowered and became successful learners. The way in which the special education program was delivered at Mark Oliphant College changed from that day. This change in the nature of the curriculum resulted in the special Education tag being removed. We are now the Area Resource Class, aptly named the ARC. Our students are not ‘Special Education’ students, they are ARC students and are leaders in technology at the College.

At Mark Oliphant College, ARC students have access to their laptop for all subject areas, this also includes the option to rent their device for use at home. All students have access to Flip cameras, which are used on excursions etc, to record experiences and Bamboo Tablets, which allow for creativity. The tablets also allow students to practice writing skills using a device; eliminating the need for constant bookwork. This also assists in developing handwriting techniques, hand-eye coordination and other fine motor coordination skills as the tablets require the use of a pen to operate.

The issue for us as educators is how to tap into the needs of the students and make the curriculum and digital devices enhance the strengths of the modern learner. A vital part of this is to step back and allow the learner the opportunity to use a device in a way that best suits them and give them the opportunity to make suggestions as to how the device can be used. We must be open to these suggestions and become facilitators of ideas. Over time this allows the student to drive their learning. Skills will be established and transferred as students work next to each other, demonstrate their learning or through discussion.

continued

Man is still the most extraordinary computer of all.

John F. Kennedy

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A Learning Journey

It is important to note that the device is not the learning tool. Learning to use the device is important but learning how to apply the skills developed is vital. The device supports and enhances the curriculum delivered. Processes still need to be learnt. Subject content still needs to be delivered. The device allows for individuality in presentation. It enables access to all students regardless of ability.

Curriculum development within the ARC involves the idea of a ‘learning journey’ where the student is immersed in the learning process from the start of a project to its completion. Each part has its own value. It involves an ‘epic’ - the final creation that signifies the end of the journey but not the end of the learning process. It allows for a deeper understanding of the idea and creates a journey for all students. This is a model developed by Ewan McIntosh (http://edu.blogs.com/edublogs/ewanmcintosh.html). It is not a model based on technology, it is a model based on idea development. Within the ARC, our students still participate in reading groups, maths lessons and spelling contracts. These essential foundation skills, once learnt, can be incorporated in a device based curriculum and are intrinsic to the student’s learning journey.

In a recent learning journey based on Space, students created two eBooks (electronic books that can be accessed on a laptop, an iPad, iPod or iPhone through iBooks) each as their epic. They used an alien to guide the reader (year 2 and year 8 students) through their space adventure. They used all available devices when putting together their final epic. More importantly, they developed, through the immersion process, an understanding of the type of text needed for each age group and focused on using age appropriate images. The learners audience continues to be our followers on our Facebook site (The ARC at Mark Oliphant College) and the whole College Facebook page. The immersion process involves many steps over the course of the term. It isn’t a short process that can be achieved in a few weeks. It requires constant refinement through the synthesis and prototype stages. Synthesis is a step employed after the initial immersion process. It asks questions such as “what if this happens?” and “how could we show this?” It is a problem solving and critical thinking stage where the student improves on their initial idea. The prototype process is used after the initial concept is understood. This is a trial and error stage where possible weaknesses can be refined. The steps developed in the immersion process ensure the student does not rush ahead to the final product.

The technological devices supported the students on each stage of their learning journey. It allowed the creation of a final product (the epic) that taps into the learning style of a third millennium learner.

Students as Educators

ARC students are leaders in technology use at Mark Oliphant College. Two students planned and conducted a workshop on Green Screening techniques for staff (which was well attended). ARC students are utilised by other teachers to set up their laptops, instruct them on the use of a device, fix devices or run lessons. ARC students also run master classes where they teach an advanced skill they have learnt to the class. Recently, a year 11 student ran a workshop on using the desaturation process in Adobe Photoshop. The student developed this skill in his inclusion subject and wanted to teach it to his peers.

Teachers as Facilitators

Undoubtedly, the ARC has a technology focus. The devices used in our classroom are the assistive tools that promote engagement, allow for curriculum access, develop problem solving and keep our students in touch with the reality of a high tech world. This, however, does not work if teaching staff (including SSO’s) are not passionate about its implementation and willing to learn themselves. The educator must also be willing to accept that the students quite often know more than they do. It is also important to have a balance between traditional teaching methods and those required by third millennium learners (see Lee Crockett and the 21st Century Fluency Project http://lfe.21stcenturyfluency.com/press.cfm). The use of the devices made available by the school gave the students the confidence they once lacked. They are now valued within the school community.

Where to now?

At Mark Oliphant College, the leaders have supported teachers with the introduction of technology. It is the teacher’s role to provide learning programs in which the technology is embedded. Within the ARC, technology supports curriculum development. Our role is to constantly develop learning journeys that use relevant tools to guide them.

Troy Matthews and Shirley Hammond
Area Resource Class teachers
Mark Oliphant College
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Elliston Area School currently draws upon a range of assistive technologies (AT) to foster many situations and learning needs. Information Technology encompasses many provisions that we utilise to provide personalised access and modified support for an autistic student.

AT allows for both the teacher and the student to circumvent or overcome barriers that are present due to the student’s disability. We have found that through employing such things in our teaching and learning practices, we help to extend this student's learning opportunities beyond what would have been previously possible and most importantly, his levels of engagement and concentration are increased. AT not only assists in interacting and learning in the classroom, it allows for the learning to successfully continue at home and with other persons besides the teacher.

In many areas of learning, the student is able to share in the curriculum programs, with a certain degree of adaptation and modification of outcomes and support. Computer assistive technology is an invaluable literacy tool as it offers useful ways for the student to interact and develop essential skills and knowledge as well as extending his level of achievement in certain tasks and projects.

The student experienced great difficulty at the beginning of the year in recognising spelling mistakes visually and has limited reading skills. ‘Text to Talk’ allows the student not only to use audio recognition techniques, but to also ‘see’ the mistake as he ‘hears’ the incorrect pronunciation of spelling, grammar, punctuation, etc. He is then able to distinguish it as being a mistake and will begin to fix it. ‘Text to Talk’ has been a positive tool in helping the student to identify patterns in documents. He is also more willing to analyse an audio document as opposed to a written text.

As letter patterns are beginning to be ingrained in the students knowledge bank, teachers have observed him becoming more confident in ‘reading his work out loud’ to the rest of the class. He also has access to ‘topical word banks’, which he is able to add to as he finds or learns new words. Teachers have observed his extending vocabulary as he learns new terminologies or vocabularies and put them to use; he likes to see his word bank grow.

The student often experiences lapses in concentration and has difficulty in applying full levels of attention for long periods of time. The school has incorporated the use of microphones and voice recognition applications to allow him to record his thoughts. The student’s metacognitive skills are increasing through verbal reflection on learning experiences. He plans to use this technology to record his reflections for future stage 1 Community Studies requirements.

Teachers have supported the student in becoming effective at locating and using templates relevant to his task. He searches templates on the Internet, Word, Publisher and Write-Online to find one that is suitable to his needs. Templates are a great scaffolding tool to help him get started on a task and visually see and follow the correct document structures. Through this, the student is able to identify important features and applications in different types of writing.

The student uses a video camera to make professional procedural digital texts, to use in his future pursuits and include in a personal portfolio. He has also produced an instructional video “Kayaking for Beginners”. He has proven his ability to effectively communicate instructions; he has displayed it through “doing something interesting and actual real life, rather than staring at a book which I don’t like”.

The student is currently undertaking his stage 1, English. The use of assistive technology allows him to participate and work independently when needed to satisfactorily complete tasks. The student and his case manager have collaboratively planned tasks that are relevant to his interests, goals and abilities and he has a new found confidence and motivation to do “school work”. Although the student does not undertake the same learning tasks and does not complete the same ‘expected level of work’ as his peers, he is moving further towards gaining skills and self esteem. These will enable him to function effectively in society and allow him to adapt his knowledge and abilities beyond schooling years, into his personal and working life. We are confident that this is occurring.

Abbey Mckenna
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Assistive technology is opening up doors for this student.

The real problem is not whether machines think but whether men do.

B. F. Skinner
The DECD Early Intervention Service for Hearing Impaired children (EISHI) consists of a team of four teachers of the Deaf and a speech pathologist. The team works with children and families from birth to the age of five (school entry) focusing on communication skills, listening and play skills as well as providing parent education. Our service supports families in their home environment as well as visiting and supporting children in a wide variety of pre-school settings.

Based at the Special Education Resource Unit (SERU) we have access to specific resources that encourage the development of spoken and/or signed language and communication skills. Resources used generally consist of ‘language packs,’ speech games, role play activities, listening games and other educational materials aimed at pre-school children.

As early years educators we promote the practice of providing children with rich practical experiences to enhance their language/communication and world knowledge. The use of technology with very young children is something that had been rarely used by our service until this year.

The team have recently been provided with iPads on a trial basis, in order to determine how and if this technology might support our clients. In this article we share some of our thoughts about using this technology.

As with all teachers involved in special education we plan very specific programs for our children and support these with provision of specific resources. We use the Monitoring Protocols for Deaf Children (www.education.gov.uk/publications/standard/publicationdetailpage/ES29) and also the St. Gabriel’s Curriculum (SERU catalogue 16.0393.01) as a basis for much of our goal setting.

We firmly believe that any resources, including technology, need to be actively supporting these goals and not just a ‘gimmick’ that will keep children entertained.

We first saw what the iPad could offer on an educational level through a professional development session at SERU where we saw some interactive books and song ‘apps’ being demonstrated. We potential in terms of their motivation through the interaction opportunities they offer and became interested in exploring these further.

In the early days of using the iPad, we took advantage of the “Wheels on the Bus” and “Old Macdonald Had a Farm” interactive songs. One of the goals we often have with young children is to develop their auditory memory skills by joining in with familiar songs and rhymes. Traditionally we might have a book with the song and perhaps some objects to support the children through visual prompts. In using the iPad we had an instant motivator with plenty of visual and auditory prompts as well as the opportunity for the children to take a lead role in the activity. These particular apps also have the option to record you singing and listen to it being played back. This gives the children instant feedback and opportunity for self correction in a non-threatening way. We were hooked!

We then began to explore other apps through the iTunes store. This can be quite difficult and time consuming! Reading the quick descriptions often doesn’t provide enough information for us. We sometimes download ‘lite’ versions of apps which are free, that look useful and trial them. There are so many apps on the market that we need to be very selective. Although most apps are fairly cheap we have the difficulty of making sure members of our team agree to the purchase, and have to purchase iTunes cards as well as cataloguing the apps we have bought for auditing requirements. There is also the ‘syncing’ activity which we have to do in order for all the iPads to have the apps downloaded as the initial app is downloaded onto one laptop. This all takes time and effort for those of us who are new to all this technology. However, we persist with some staff taking more of a lead role where appropriate.

Some of the apps we are now using on a regular basis can be categorised, although these are subjective and many can have multiple uses. The names have been written as they appear on the screen:

Songs/rhymes – In addition to the two mentioned above, Itsy Bitsy, Twinkle Star, Humpty...umpty, Vocabulary development – SoundTouch, Flash Cards, Animal Fun, Vehicle...ching, Seek & Find Listening skills – Preschool...Touch, Sounds, iBaby Buttons, Where’s...? 3D Zoo, Minimal Pairs Books – Boynton Books (Going to Bed, Moo Baa Laa, Blue Hat), Wonkey Donkey, Hairy Maclary, I Like...

Speech and Language skills – What’s Wrong? (WR), Function, House Learning, What Goes Together (WGT), Rhyming, Sequencing, Prepositions

During our trial we quickly realised that with very young children there are specific difficulties around accessing the iPad screen for themselves.

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Young children might not have the pointer finger skills to move and drag as required. Very young children put their whole hand on the screen indiscriminately and might hit buttons/icons that you don’t want them to! There are some apps that are great for these children (iBaby buttons, Baby Piano, Xylophone) where it doesn’t matter where the screen is touched to interact successfully. There are also some lovely early drawing apps (PaintSparkles, LittleFingers) which encourage fine motor skills in a fun and colourful way.

There are plenty of suitable apps available and using the iPad is a real advantage. It's flexibility allows us to adapt them in various ways to suit our children. These may include turning off the volume as many have strong American accents. Although most of the children don’t seem to have a problem with this we are mindful that our clients are children with hearing impairments. We are able to make the volume louder for specific children by plugging speakers into the iPad. You can also substitute your own voice in some of the apps or turn down the volume to 'quiet' then rephrase or speak/sign to the child instead. As they are completely interactive you can go at your own pace, stop and have conversations wherever you like, rephrase and enrich the language experience where appropriate.

Some apps are useful for parents/siblings e.g. learning sign language (BabySign, RIDBC Auslan Tutor). Parents have purchased these on their iPhone, iPod or iPad. During a home visit, we are able to demonstrate an app which they may purchase. Some parents have access to the new Better Start Initiative funding and have purchased this technology.

Other advantages we have discovered:
- iPads are very portable. We spend considerable amounts of time selecting resources that are child/family specific which take up lots of space in bags and the boot of the car! Of course these will not be replaced but the iPad offers more flexibility.
- They provide real motivation for many children.
- There are lots of apps targeting speech and language skills which are specific to our field.

We are also looking into developing our own apps so watch this space!
- 'Traditional’ speech and language resources often involve making games with lots of colour photocopying and laminating, cutting out and trying to find creative ways of teaching specific skills; apps take away this time consuming task.
- The inbuilt camera is quick and very easy to use. You can take instant photos of family members for naming/signing. Another example of how the camera has been used - I wanted to work on the ‘c’ sound with one of my students but collecting objects from around the house to take to kindy was difficult (e.g. the cat and my car!). It took less than ten minutes to take photos of objects around my house which could be quickly displayed on the screen. This offered the child I lots of interaction opportunities by flicking through them, stopping and starting, adding language, working on articulation etc. (with real photos).
- The Talking Tom app, which is free, has encouraged children to vocalise more and some children have practiced their target words telling Tom what to say and he repeats it.

As there are so many apps managing them on your iPad can be quite difficult. Most of us have made 'folders' which make browsing and finding the right app a bit quicker.

We have also realised that you can make a folder for the child before a visit as part of your planning which contains suitable apps and provides some choice making for older children.

We haven’t had many negative experiences although a couple of children became so engrossed in watching the screen that they were less vocal/expressive. This has to be carefully managed and observed.

To summarise - the iPad has many uses for the EISHI service and we see it as a very useful resource. It is not taking the place of other traditional resources but is a welcome addition to our ‘big bag of tricks’ and will certainly stay there for the foreseeable future.

If you would like any further information about the apps mentioned in this article please feel free to contact us.

Mandy Conner
Project Officer – Early Intervention Hearing Impaired
(On behalf of the EISHI team)
Ph 8235 2871
It began for Astrid with “Look at this Gavin….I have Angry Birds* too.”

iPads have been the catalyst for the evolving friendship between Gavin and Astrid, two children in the special class at Port Lincoln Junior Primary.

Gavin had not wanted anyone to touch his iPad and was in fact upset if his Mum suggested he bring it to school. Mum would sneak it to school. We had begun using the iPad to stimulate Gavin (who is prone to floppiness and low tone) and to heighten his state of awareness for effective engagement.

For Astrid, her iPad has led to wonderful breakthroughs in her aversion to writing and drawing but she was still absorbed very much in her own tasks.

Over time it has been exciting to see how iPads have had the positive effect of connecting Astrid with Gavin. Gavin is now eager to bring his iPad to school and Astrid who rarely speaks directly to people (she tends to comment to herself quietly) announced “Look Mrs. Wright, Gavin has a blue iPad and I have a pink one.”

The iPad has led to both children gaining an increased awareness of each other; they share communication about Angry Birds and other programmes and share iPads. Recently Gavin asked Astrid to join mat times next to him to sit in the corridor to eat recess/lunch and to go outside to play at playtimes. These are all things Astrid has previously found over whelming and avoided to the point of aggressive protest. Gavin has noticed how much Astrid needs her toy lamb, Timmy, and is introducing her to his passion, Tractors.

We have closely observed this relationship, tracking the two children to see how this very genuine and natural connection is evolving for two children who don't seek out others easily.

Gavin is being encouraged to give Astrid directions for non preferred tasks over time and this may enable Astrid to follow other's instructions and create stronger connections with her teachers and classmates.

Both children now talk about their friendship. As Gavin went off to an appointment the other day Astrid sighed and said to Timmy her lamb and original inseparable best friend....“Ooohh I’m really going to miss him, Timmy” and on his return said “Gavin I’m sooo glad you are back, I missed you my friend.”

As a result of a successful SERU grant application, over the next three terms the Room 3 District Junior Special class are researching the impact iPads have on children’s levels and intensity of engagement in group time, shared reading tasks, fine-motor and literacy /numeracy tasks using Professor Barry Carpenter’s Engagement Profiles and Scales.

(*Angry Birds is a puzzle video game available as an app).

Kirsty Wright.
(Photos :Simone Pedro & Michelle Foreman)
Pt. Lincoln Junior Primary School
Ph 8682 1226
I have a student in my class with a severe verbal communication delay. The child has a rare genetic disorder which affects his ability to communicate. He has previously been taught sign language but has very poor fine motor control, which makes it difficult for him to sign correctly and for other people to understand his signs. It was becoming frustrating for me to see a child who desperately wanted to communicate with his teachers and peers. It became extremely frustrating for the child who became discouraged when he would try to communicate through the use of his signs and approximations, but other people could not recognise what he was trying to sign or say to them.

This became a serious issue with the child not feeling happy at school, playing alone at break times and not having the confidence to join in with classroom and school activities. We tried a range of technologies and strategies including talking photo albums, iPod applications, visual communication boards, talking sentence cards etc. I contacted SERU about the different technology options available for me to borrow and around the same time became aware of the Technology for Inclusion Grants, which we successfully applied for.

The technology we purchased was Go Talk 32+. This is a talking device in which 32 individual pictures can be inserted and also the relevant vocabulary can be recorded, which the child can hear when the corresponding button is pressed.

When I first introduced the GoTalk, the recordings were of my voice and of the children in the class, which of course he found very amusing and was instantly engaged and interested in using the device! When he became familiar with what the icons meant it was amazing to watch him approach a child, press the picture of the play icon, for example, and ask another child ‘Can I play with you?’. When he saw that the other child understood him and actually responded “Yes you can” the delight on his face that someone has acknowledged him and accepted him was absolutely priceless! Since that moment the use of the GoTalk has been a very powerful tool to provide him with successful interactions and a sense of belonging and social achievement.

I believe using the GoTalk has enabled the child to feel he has a voice and an opportunity to say what he wants or what he is feeling. This was something he had not been able to achieve through the use of sign language and the use of visuals. The GoTalk device has enhanced his communication and his learning opportunities both academically and socially. He has been able to show us a great deal of his knowledge since using the Go Talk. I believe he no longer feels as frustrated and limited with his communication and his ability of getting his needs understood and met by others.

Petroula Drivas
Special Options Teacher, Braeview Junior PS
Ph 8381 2966

The impact of Apple’s iPhone, iPod and iPad on the world is exactly that – phenomenal. Even though the iPad has been around for a couple of years it is actually sneaking into education through, what once might have been considered the back door, the special education entrance. In the Limestone Coast region we began with Jim Spriialis from SERU who introduced iPads to a large, very enthusiastic staff group, in term one. We have followed up in various ways including presenting further district and site workshops. My iPad is always with me to demonstrate apps that might be useful to a particular student or learning situation. Our support services team’s, once a term E-News¹ to sites also highlights apps and app lists² are published on our regional website. Schools are making the foray into iPads by initially purchasing one or two for use with their students with special needs and before long investing in more for whole class access. There are also parents who have been able to purchase an iPad or access one for their child through the Better Start for Children with a Disability initiative³ or the wonderful generosity of the Adam Scott Foundation

Autism Grants Program⁴. As a region we are at the beginning of our iJourney and listed are some discoveries that might be of benefit to others just embarking on theirs.

Setting up the devices at school can be managed. A credit card free iTunes account can be set up, then purchase prepaid gift cards for each class. By having a dedicated computer to which they are synced, one iTunes’ account will take five devices and all apps downloaded to this account sync to each device. If you download an app and find it is not useful, then delete it from your device. It will remain in your iTunes account in case you want it again. However permanently delete, from your account, those that don’t meet your needs, in order to free up space on your device. Create a school policy on the use of personal iPads and consider security and safety by using protective cases and locking away devices when needed. The Victorian Government iPads for Learning⁵ project has excellent advice for incorporating and managing iPads in schools.

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Sharing apps with the whole class can easily be achieved. Use an interactive white board or a digital projector, connecting via a VGA Adapter and then everyone can share. You may need some portable speakers for class use, but ear buds or headphones are easier for individuals. Use the General Settings icon to lock various sections of the iPad and manipulate the icons so those most used are easily accessible. Group your apps into folders such as maths, science, spelling etc and manage everyone’s equitable access to the device through rosters and timers. Appoint “App Experts” amongst the students, to free the teacher from continual questions. Similarly share the responsibilities of syncing and charging by appointing student monitors.

“You can take a horse to water but you can’t make it drink”. Pre-schooler, Jenna’s situation is a good demonstration of this saying. Being non-verbal her family were convinced that the iPad would be a more effective communication device than PECS or a PODD and purchased this device for her, despite cautionary warnings from professionals. Not surprisingly she was not ready for such a device, let alone this communication system, and struggled with being able to point and touch what she wanted effectively. Although disappointed, Jenna’s parents were then happy to take advice about how to help her and by using the app Touch Trainer, within a week she had mastered the art of one single touch in the right spot. She is now happily able to use simple apps independently and when ready can be introduced to the appropriate communication app. You should take advice regarding communication apps from your Speech Pathologist but if you are looking for a quick reference for signing you can’t go past RIDBC’s Auslan Tutor Key Signs. If you need a visual schedule both First Then and Easy Board are useful and Tap to Talk provides a simple communication board when out and about.

The iPad is a fantastic learning tool in areas you may not consider. You might think that the only benefit a high tech device has for writing would be to compensate for poor motor skills and to enable the user to type instead. You can do this but it is also great to help children learn to form letters correctly and assist handwriting development. After listening to Dr Dian Jones’ presentation on “Understanding Neuropsychology to teach children to write” in 2010, we looked for apps that would assist students in this area. ABC Sequence helps teach the order of the alphabet, but it can be trial and error finding an app that uses the font that is closest to what you need. Considering students should be learning all letter names, their associated sounds, capitals and lower case you quickly realise that one app doesn’t do it all, so use a combination. Some we have found both practical and motivating, that include built in demonstration and correction, include Blobble Write, iWrite Words and Pocket Phonics. I was visiting a classroom and a child, Peter, was struggling to correctly form the letter d. While working alone he continued the incorrect formation. On my iPhone, I showed him Learn to Write. He was intrigued watching the vehicles trace out his letter and he willingly drew this on the phone with his finger. He then tried forming the letter back in his book with his pencil and was successful at correcting his previous error. As he has ongoing fine motor difficulties, the school have since purchased an iPad to continue this learning and are amazed at how Peter is motivated and gaining ground in his writing skills.

When repetition is required the iPad makes this over-learning fun. Marcus needed a lot of repetitive learning activities to remember how to spell his consonant-vowel-consonant words. He and I played hands on games quite successfully but he was obviously not very interested, yawning a lot, slumping in his seat and taking a long time to have his turn. When I showed him the iPad app, Pocket Phonics, he came alive, sat up straight and was keen to keep going. The motivation the iPad provides and the ease of its use is incredibly beneficial to students like Marcus. Just as important are the graded levels that some apps have. Once a level is achieved students can immediately move on, instead of waiting for new resources to be found or made to teach the next skill level.

Reading becomes enjoyable to those with print disabilities. The astounding array of interactive books plus free e-books from repositories such as iBooks is re-engaging students who might otherwise avoid reading for pleasure. Reading an e-book on an iPad is more socially acceptable to some students and they will tackle these rather than the same book in printed form. Books can be read by and to students, and have animations or interactive activities included. Some favourites amongst young students are Thomas the Tank Engine’s Misty Island, Nighty Night, Wonky Donkey, Wheels on the Bus and Animalia. To make it even more personal include the student’s photo on each page then try When You Grow Up. For older students try some of the classics such as A Christmas Carol or Alice. Other favourites are Where’s Wally, The Fantastic Flying Books of Mr Morris Lessmore or graphic novels such as Twilight. You can’t go past the huge range of audio books on offer either. The public library in Mt Gambier offers members free downloads of popular audio books for children, teens and adults from Bolinda Digital. Explore the many book collection apps that offer this as well, some free, some with a cost.

continued
Puzzles and games make learning more enjoyable and the iPad is exceptional for this. Word games such as Chicktionary, Wurdle and 7 Words can become quite addictive and if you have ever seen young students playing Monkey Lunchbox, Create A Car or Pirate Treasure Hunt you will marvel at the learning they are achieving. Not only do they quickly master the sequence of touches to get into specific apps but the concepts they need to learn are presented in a totally engaging way. Those functional maths skills can be interestingly presented with the Talking Calculator, Jungle Coins, Hickory Dickory Dock, It’s Learning Time or the Aussie 123 Sheep!

Accessibility is a key advantage of iPads. Features that help overcome access issues include the iPad’s speed, immediacy, touch interface and freedom from all but occasional errors that can be corrected with a simple push on the home button. However there are adjustments that may need to be made if an app doesn’t overcome the difficulties faced by those with specific physical impairments. Use the accessibility options on your iPad to make adjustments for vision and hearing concerns and investigate the growing list of what can be added to assist the physically disabled using switches etc. Hearing impaired, secondary student, Anna*, had difficulty keeping up with the requirements of her subjects. The school was able to use her allocated funding to purchase an iPad, which in conjunction with appropriate apps and her laptop, is leading to improved success for her. Along with the included apps for web access and email she can also make use of Quick Office and Dropbox to email her assignments to teachers or save to a computer for printing.

It is essential to get advice about what are the most beneficial apps for individuals. As there are thousands of apps available you should listen to colleague’s recommendations, regularly look at the iTunes weekly featured apps or access the apps that list apps! Some of the most useful are Autism Apps and Free App List and if you want apps similar to ones you already have installed, then Discover Apps is very clever. Some websites make great compilations of apps, including iTunes who have Apps for Learning to Write, Apps for Learning Maths and Apps for Special Education. Others also make collections based around themes or curriculum areas so check out AppLists where you will find Apps for the Visually Impaired or The Best Universal Audio Book Apps.

If you haven’t yet taken the plunge into iPads, take advantage of those available to borrow from SERU and trial them with your students. In my opinion they are well worth the journey and investment. And remember “If you’re ‘appy and you know it”, don’t just clap your hands... share your experiences with others too!

*All children’s names have been changed to protect their privacy.

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References:
9. Apps mentioned can all be found iTunes http://www.apple.com/au/ipad/
**Tobii C12 Eye Device**

In the Limestone Coast Region, 8 year old student Tom** has recently received a Tobii C Eye communication device through NOVITA Children’s Services. This is one of the first devices of this type in South Australia. Tom is attending a mainstream school and has a diagnosis of Cerebral Palsy. He is non verbal and has limited limb control. Tom previously used a Tango Device with limited success, due to his difficulty accessing the keys with his hands. He trialled scanning but was frustrated by the time it took to make his choices.

The Tobii C12 C Eye device allows Tom to use his eyes to make selections on the device. By looking at the screen, he controls the mouse pointer and he clicks by ‘dwelling’ on the spot for a certain length of time. Tom has had this device since June 2011, so is still exploring and becoming familiar with the device. He has access to communication software called Wordpower, Clicker 5 and other Windows based programs.

School staff are beginning to introduce a range of literacy activities using the device, focussing on increasing his knowledge of words and the letters within them. He is also experimenting with free writing. Tom is learning to use the device to communicate with his peers and teachers. He recently communicated a choice in a play situation with a peer, by answering ‘yes’ to a question. This was one of the first times Tom was able to communicate his message independently without relying on others to interpret his meaning. Tom loves choosing the MP3 player on his device and sharing music with the people around him.

With this device, Tom is able to have more control over his environment and most importantly has given him a voice.

**Kasey’s Assistive Technology Journey**

I whispered to my friend kaseyi would like mum to have anuther baby. i will play with it all day. i will sing baby songs all day like miss poly had a dole. i would like a baby gel because she mit like the ballet. When she grows up we migt be dancing twins and she is one yee old. She migt have copollpos like me. She has a beautiful smile and migt wobble her head. I would be annoyed when she cris but I woudluve her.

It has been a long journey for Kasey to be able to write her ideas and feelings so eloquently, and along with her determination, dedicated parent, staff and consultant support, assistive technology has played a huge part. Kasey is a year 3 student with cerebral palsy. She is non verbal and has very limited control over her muscles.

On arrival at our Child Parent Centre (Cummins Area School is a CPC – 12 school) Kasey came with a wheelchair and walker. Soon added to this was a Kelly chair with harness support and ankle straps, a high-lo change table and a communication book full of boardmaker pictures on pages divided into categories for her to point to in order to communicate. Simple switches to access simple computer programs followed.

Initially Kasey had limited interest in using her communication book or switches. When transitioning to school, a voice output device was sought that would give her a physical voice and access to more vocabulary. Kasey’s parent’s rightly wanted something that was simple to use and not too bulky; a Tango was a perfect match and for the first time Kasey had a physical voice. She quickly learned to navigate around it and through pressing the right keys was soon able to participate in the classroom more and express her needs and wants other than with gestures.

**Name has been changed for Privacy.**

Debbie-Anne Nearmy and Wendy Pocock
Limestone Coast Support Services
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Learning to read and “write” initially involved a lot of low-tech Velcro. Words on a simple word bank divided into who, what, where and when pages were pointed to and subsequently pulled off and made into sentences. The Tango to Literacy program for learning to read was incorporated as well as learning to write with Clicker 5 using simple sentence making programs and word banks. Switch accessible talking books were also made and used. Clicker 5 and talking books were accessed by a double switch which at times was frustratingly unreliable. At about this time, an electric wheelchair was trialled but was not successful.

As Kasey continued to learn, the Tango became inadequate in terms of the amount of vocab she needed to access. A PODD (pragmatically organised dynamic display) was introduced which was very similar to the communication book Kasey had used at preschool but with a lot more vocabulary. This was readily accessible and with physical support Kasey soon learnt to navigate around this to make her needs and wants known, and to participate with answers to questions, ideas and thoughts through pointing to key words.

A succession of assistive technology has followed to the present day. A laptop with adapted keyboard and keyguard was used for writing, along with a simple word predictor (penfriend) to reduce the fatigue factor when writing. Intellikeys was used along with a variety of overlays and key guards which gave ready access for using directional keys and recording her learning during maths lessons. A simple sequenced voice output device; lingo was purchased with money generously given from an Australian Association of Special Education (AASE) grant to supplement the PODD and give Kasey a physical voice once again.

Eventually the PODD also became inadequate as a form of communication and was replaced by a Vanguard, which has now been replaced by an Eco2. This is used as a voice output device and as a means for recording writing using a combination of core words, a built in word predictor and an alphabetic key board. Kasey’s preference at the moment is to use the key board aspect of the Eco2 for writing and her invented spelling demonstrates how well her learning is going.

On a good day the assistive technology works without a hitch, however the reality is that we still need a laptop and adapted keyboard with guard for some tasks, and the PODD and lingo for when the Eco2 is not working or to use when outside in bright light. We also continue to use lots of velcro!

The assistive technology future looks bright for Kasey. Recently Kasey had a speaking part in a class play performed in front of parents and other classes. A few days before the performance her Eco (and therefore her voice) stopped working. We did come up with an inadequate back up plan, but the day was saved by the kind Novita speech pathologist and courier getting a back up device to the school just in time. My happy conclusion is that the combination of well matched assistive technology and dedicated people is a match that delivers a very positive future full of opportunities.

Sally Deslandes
Cummins Area School
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Only the curious will learn and only the resolute overcome the obstacles to learning. The quest quotient has always excited me more than the intelligence quotient.

Eugene S. Wilson
I applied for the SERU Technology for Inclusion Grant early in 2011 and was extremely happy to receive one iPad. The Leadership group at Port Lincoln Primary School shared my enthusiasm and with encouragement they purchased another three iPads for the Special Class as a pilot program, with the view that in the future we may purchase more. We have recently received more grants and set aside funds to purchase another 13 for our school to use in mainstream classes and to support students with special needs in the mainstream.

I was very conscious right from the beginning of the need for more than one iPad in our classroom. I felt if we only had one it would become a novelty and not used to its full potential in my “busy” class where more than half of the class were easily distracted and lacked independent working skills.

I began using the four iPads in the classroom in term 3. Previously I had a group rotation for both the literacy and numeracy block and the iPads slotted into that easily. I set up four groups: iPads, Computers, Teacher and SSO. I wanted students to be able to stay on a set task on the iPads and work independently to allow both the SSO and I to work in a 1:2 or 1:3 group. This would enable the learning to be targeted to each group or individual without having to be constantly interrupted by off task or undesirable behaviours of the students who were not working directly with an adult. Initially there was an adult working with the iPad group to ensure students were capable and careful when using the iPads and able to independently navigate and use the different apps.

I am pleased with the increased independence of all students in the classroom; double headphones jacks were purchased meaning students work together at different times and build their teamwork skills. I have not had to worry about any disagreements over whose turn on the iPad or had any real troubles over which app they are using. Most of the time they stay on the targeted numeracy or literacy apps I have instructed them to use. If not it’s pretty easy to spot and redirect as they would lose the right to use the iPad – a big motivator!

The iPads have worked very well in my classroom and I couldn’t imagine going back now! I will continue to develop ways to integrate them into the learning that is happening in the class and seek out useful apps regularly to keep the interest levels high. iPads have definitely calmed my classroom and allowed learning and teaching to take a precedent over off task behaviour. Thanks SERU for creating this opportunity!

A few of the favourite apps in my classroom:

Emma Rumbelow
Teacher, Port Lincoln Primary School Special Class
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IPAD PROJECT @ MODBURY SPECIAL SCHOOL

Modbury Special School caters for students from five to eighteen, diagnosed with an intellectual disability. The school currently has 165 enrolments across three campuses. Communication and Technology are whole school focus areas.

Melissa Campbell teaches Middle to Upper Primary and Jodie Whitford teaches Junior Primary. We both have an interest in Technology and Augmentative Communication. “We” is used throughout this paper to identify the research of Melissa and Jodie.

In Term 1 2010 Modbury Special School Communication Group applied for a SERU Technology Grant. We were successful in acquiring one iPad, three iPod Touches and the application Proloquo2go. We set out to investigate the impact of this technology for students with special needs and it developed into an action research project.

Why an iDevice? We selected iDevices because we were interested in trialing their use with our students and to evaluate their effectiveness for learning. Communication was our initial focus area. Our previous experience with AAC devices has been that they are usually quite expensive and they have a high abandonment rate. We researched the benefits of using an iPad. We found that they were portable, cost effective (1/3 the cost of a computer), they required minimal technical support, there are thousands of apps available and the iTunes store is open 24/7. The iPad’s battery life is impressive as it supports a full day of learning in the classroom.

In Reflection… When the iDevices arrived we realised that in order to effectively use them with our students we needed additional accessories. We required finance for iTunes cards, protective cases, screen covers, stylus and stands.
We were aware that we also needed training and guidance to successfully use the iDevices as teaching tools.

We spent many months familiarising ourselves with this new technology. Jodie and a colleague attended a Proloquo2go workshop at SERU. Melissa started studying at Flinders University: Technology and Disability.

In one of the assignments she explored the effectiveness of the iPad in Education and at Modbury Special School and in particular the classroom environment.

With a belief that the iPad combined with the right educational apps would assist students to achieve success in learning, we privately purchased our own. This enabled us to purchase our own apps and to progress at our own pace, work collaboratively to share ideas and classroom practice. We also purchased VGA cable, camera connection kit, stylus, various stands and Bubcaps.

We extended our knowledge base by exploring the web, purchasing magazines from the local newsagent, ITunesU – Podcasts, trial and error and social networks. Through these avenues we gained many tips and tricks.

It is essential to place a screen protector on your iPad prior to use. After considering the research in relation to students with Autism and Vision Impairment, we selected an anti-glare protector. They have a matte finish, minimize fingerprints, incorporate an anti scratch coating and require minimal cleaning. This is consistent with our whole school policy on laminating visual systems for our students. We are aware that others may prefer the gloss as it provides brighter, sharper colour.

We were very concerned that the user could easily damage the iPad. This led us to research protective cases/covers, which would be suitable for our student group. We found viewing YouTube videos reading reviews on the Internet an effective strategies for selection. Our case of choice is the Otterbox Defender, however there are other options available now. Some of these include the Trident Kraken and the Gumdrop. The Otterbox Defender offers triple layer protection and the cover can also be used as a stand.

After trialing many stylus with our students and the iPad we liked the AluPen by Just Mobile. This stylus is shaped like a learner pencil, it is hexagonal in design, made from aluminium, and is quite thick. Its rubber tip glides across the screen smoothly. It is a good weight and comes in many colours. It was one of the more expensive options, however we found you get what you pay for.

Our students quickly found the home button and were constantly exiting apps during learning tasks. The Bubcap adheres over the home button of the iDevice. They are semi-rigid and deter children from repeatedly pressing the home button and exiting apps, but adults can still do this. Bubcaps can be purchased online from http://bubcap.com/index.html

As we initially were working with an iPad1 we were unable to connect the device to an external display. This is something we felt would benefit student learning and would be useful for presentation purposes. We overcame this by Jailbreaking our own devices. Apple has since integrated this feature into the iPad2. To do this you will need to purchase a VGA cable or a HDMI cable, depending on your output device.

Purchasing apps can be overwhelming. Apps, like software need to be chosen carefully; therefore we use a variety of strategies for selecting educational apps. At this time it is crucial to implement the SETT Framework and consider the student, the skill you are teaching, the cost of the app, the ability to customize and the visual quality of the application. It is imperative to assess and match the app to the student’s Negotiated Education Plan goals. To do this effectively you need to have a solid knowledge of quality applications across all curriculum areas. We found it useful to group apps that teach specific skills and create folders on the iPad so that they can be located quickly. We applied this concept to the development of our app list.

There are many free app lists available on the Internet - we found them to be a good starting point but they were limited. Since our collection of apps was rapidly growing, we decided to develop our own app list. The selection process took a considerable amount of time and we appraised each app on its educational potential. We have shared this document with colleagues, parents and other interested professionals. This is an ongoing process, which requires updating regularly.

Parents at Modbury Special School are proactive in supporting their child’s learning. Parents requested more information regarding our iPad Project and via our Time4Us parent group we shared our knowledge and ideas. Through this group we have provided ongoing support to families implementing this technology.

continued
Through the grant we purchased Proloquo2go, but unfortunately this app did not meet our student’s communication skills and abilities. In hindsight we should have considered the SETT framework before purchasing this app. At the time Proloquo2go was one of the only reputable communication apps available. We have created a progressive communication continuum by evaluating, implementing and assessing communication apps. This has allowed all students to access a developmentally appropriate communication app which is inclusive.

How has the iPad changed our practice and enhanced student learning?
The iPad has its place in education. It provides personalised learning and has the capacity to extend that learning beyond the classroom. It also increases independence and self initiated learning in students. The students quickly learn how to operate this device. They slide, poke and manipulate the screen with ease. They find it motivating and it has increased their time on task. Due to the versatility of the device the iPad can be used with whole groups, small groups and 1:1 learning. It promotes inclusive practice as the user can participate instantaneously in the classroom activity. We have found that personalising the iDevice specifically for the class group is highly beneficial. We have imported photographs and picture symbols that can be utilised to create personal schedules, social stories, choice making boards and learning aids. This supports our belief that these strategies are still best practice for students with disabilities.

Conclusion
We believe the iPad combined with the right apps has the potential to develop skills, extend learning, engage and motivate learners, enhance communication and reinforce key concepts. The iPad should compliment traditional teaching methods; it is an additional teaching tool that we can utilise.

To improve student outcomes and prepare our students for future education teachers need to be up to date with new technologies. Teachers need to be comfortable, supported to take risks and to be given opportunities to further their learning. It is essential that teachers have access to the latest technology to allow them to explore and experiment.

Modbury Special School is committed to expanding this iPad Project. We have placed an order for additional iPads and accessorise so that more students and teachers will have access to this technology. As a result of our project we have formed an ICT Committee, which makes decisions in relation to purchasing and distributing technology across the school. This committee is proactive in encouraging change and making a difference for the students at Modbury Special School. In the last twelve months there have been many changes in technology and it is a very exciting time to be a teacher.

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In writing an article for the SERUpdate we started to really think about what and how we use technology (ICT). In the span of two minutes, we came up with a list of over 25 technologies that we use. Some of them were obvious, such as computers and the Internet. Others were more specific to the staff and students in the Link Program, such as electronic copies of work and specialised software such as Math Magic. ICT is such an integral part of the Link Program that we just “take it for granted”; we use it all of the time without even thinking about it.

The Link Program is a partnership between Adelaide West Special Education Centre and Roma Mitchell Secondary College. The Program aims to assist and support students with physical disabilities to successfully access a full mainstream curriculum.

A range of technologies are used and are specifically focused to individual student needs. These technologies enhance their engagement with the curriculum as well as their ability to demonstrate their learning.

Roma Mitchell Secondary College is a new school that began this year and only moved into its new purpose-built site in Term 3. Currently the school is undergoing a development and transition phase as students and staff become familiar with the new techniques and opportunities encompassed within the new site. The school uses iMacs and is wirelessly networked. The teaching areas have Interactive Whiteboards installed.
Link Program students have always used a variety of ICT to enhance their learning. SERU have supplied a range of ICT resources for student use and have assisted in advising Link Program staff as they work through transitioning between Windows based systems to a school based Mac system. Students are now using Mac laptops. Link Program students and staff have worked with mainstream subject teachers to negotiate a range of multimodal approaches that enable students to use their skills and abilities to reduce the negative impact of their impairments and also allows students to demonstrate their knowledge and skills in the most effective and independent manner.

Students use individualised ICT options to support their learning. The ICT strategies used are influenced by many factors including: the individual support needs of the student; the requirements of the subject; the requirements of the learning and assessment tasks; the environment in which the ICT is to be used; the skills of the individual student and the preference of the student. It is important that the support strategies that students use are relevant and meaningful for successful and independent use by the student.

For much of their learning students prefer to access their materials electronically. Teachers are supportive of providing materials in a format that is accessible for students, although the way this is achieved varies based on the ICT skills and formats preferred by teachers. Documents are regularly digitised so that students can manipulate them into a form that is most relevant and accessible for them. For some students this may be so that they can alter the display characteristics of the document (e.g. colour, size, font, line spacing), while for others it may be so that they can convert the document into a completely different format such as Word, which they then use to directly record their learning. Read and Write Gold is a software program used by many students although the specific features and options used vary depending on their individualised needs.

Special Provisions, SACSA and SACE flexibilities are vital elements in students achieving successful outcomes. Students are provided with the skills and opportunities to engage with learning and communication technologies that will support them not only while at school but throughout their post-school pathways. It is important that students have access to the technologies that support them not only at school but also at home and into their post school options. For this reason, the use of freeware and particularly software options identified on AccessApps* is encouraged for student use.

Communication is also very important for student success and engagement. Students regularly make use of email to communicate with teachers in regard to work requirements and work queries. This is especially important for students who have limited speech or confidence or who have absences from school due to illness. Social Networking such as Facebook is also extensively used by students to maintain their connections with peers and social networks.

The use of ICT has enabled students to successfully demonstrate their work to not only teachers, but also peers. Their flexible approach has provided a practical demonstration as to the positive and varied ways in which evidence of learning can be provided. Students regularly use PowerPoint presentations (both with and without narration), word processing with editing features such as grammar and spelling check, mind mapping programs, video journaling, e-books, MP3, digital photography, moviemaker, Internet search engines and email.

As Bill Gates has said, “I think it’s fair to say that personal computers have become the most empowering tool we’ve ever created. They’re tools of communication, they’re tools of creativity, and they can be shaped by their user.” (http://www.brainyquote.com/quotes/authors/b/bill_gates.html) That is not only true of computers, but all types of technology. ICT gives the Link Program students opportunities that they never would be able to have without it. It gives them the independence to learn and succeed and really that is what education is all about.

Niki Baratosy and Helen Hanwit-Arney
Roma Mitchell Link Program
Ph 8161 4600

* Available from SERU

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**AccessApps** Suite is a collection of free software which has been compiled to assist students with their learning. The suite of over 40 e-learning solutions supports students with planning and organisation, reading and writing.

A 4 Gigabyte flash drive pre-loaded with the AccessApps Suite of tools can be purchased for $22 (includes GST).

More information about AccessApps can be found at [http://www.rsc-ne-scotland.ac.uk/eduapps/index.php](http://www.rsc-ne-scotland.ac.uk/eduapps/index.php)
The Shack - A Successful Integrated Learning Environment

Port Elliot Primary School is located in a picturesque part of the coast with views across recreational parklands to Basham’s Beach and the Southern Ocean with its winter visitation of whales. It also has a very new school with an evolving series of outdoor play areas which provide opportunities for students to be involved in creative play and rich language development on a daily basis.

However it is also a school community which has a large number of families who face disadvantage across a range of issues not the least of which is the distance from services only offered in Adelaide. The school is a Category 3 Index of Disadvantage school and benefits enormously from the full time Counsellor who works pro-actively to support children and families. In addition 18 children out of about 300 are identified as having a disability and many more present with other specific learning difficulties and need additional support with their early literacy development and with numeracy.

It is in this context that the special needs and learning support programs have developed over the last few years. The hub of this is a designated classroom affectionately known as The Shack which the Learning Support Team has created to provide a positive, engaging and calm learning environment, which also allows for respite from the sensory overload of busy classrooms.

While the use of technology is gradually becoming a more significant part of what we do, the inclusion of technology into learning programs is always secondary to the following considerations.

- From both a learning and well-being perspective what do individual children need for their oral language, literacy/numeracy, social skills and well-being goals to be met?
- How can we structure programs which integrate these needs in an optimal learning environment with groups of children with similar needs and/or complementary strengths?
- What theories of learning and pedagogical understandings best inform our practice when planning and implementing these programs?
- Finally what resources, including technology, can we utilise to put these programs into place most efficiently?

By grouping children, integrating targeted learning areas and skills with special interest projects, using highly skilled and committed SSOs and incorporating technology where appropriate, we provide a dynamic and successful program which is integral to the school’s site improvement plan.

The use of technology in The Shack has been gradual as we have worked through the above. This year after trialling a Neo 2 with Co-Writer from SERU we purchased 6 which are now used in home classes, in The Shack and are also taken home at weekends and holidays.

Several children with a mild physical disability were really struggling with sustained writing tasks over the course of a day and would tire, lose focus and would be less able to demonstrate what they knew. One child’s handwriting is quite illegible. Other children utilising the Neo 2 for writing tasks include several with an ASD who are reluctant to write and children with Dyslexia. One of the reasons we opted for Neos is that they are small and light and their interface is not as distracting as that of a laptop. The small window is more of an advantage than a disadvantage as it allows the children to focus on just the one sentence or paragraph.

One child with mild Cerebral Palsy uses it daily for the class Spelling program so that when the rest of the class are chunking and practising their words on small whiteboards he does his daily practice on the Neo. He is able to quickly and independently transfer his file to a word document on the class computer, print it and give it to the teacher. This child needed 1:1 support to complete this task prior to using the Neo.

For scaffolded writing tasks children with low-level literacy skills type their first draft, transfer and print their file as a record of their draft and then together we review and edit their work using spell check and their own or class dictionaries, wall lists etc.
This final draft is also printed for their books or the Word file is used in some other way, for example as text for a group book or for a digital photo story. As well as writing, spelling and reading students can practise keyboarding skills and maths facts, using the applets installed. We are still exploring the full potential of the Neo 2 and the range of applets available but they have been useful to date.

One of the ways oral language, literacy and social skills goals are integrated is through the use of explicit highly scaffolded Accelerated Literacy (AL) lessons. It is an evidence-based pedagogy with a strong theory base which the whole school uses and which I have found particularly successful with special needs students.

The first stage in the Accelerated Literacy teaching sequence is Lower Order Literate Orientation (LOLO) which aims to orient the reader to the meaning of the text, including what is inferred through the illustrations. Throughout our group discussions I carefully pre-formulate, question and re-conceptualise so that all students are able to participate and also demonstrate verbally what they know.

While I use hard copies of our study text (last term it was the narrative by Morris Lurie, The Twenty-Seventh Annual African Hippopotamus Race) I also use the Interactive White Board (IWB) with scanned pages of text and illustrations (eventually hopefully just down-loaded versions). I can also easily flick to other files to assist with unpacking meaning or building the field more explicitly, through anything from an imported image of a sports car, to a map of Africa, a YouTube clip of Hippopotamuses walking on a river bed or a profile of an author or illustrator.

Having discussed and explored the book at length through LOLO we decided to show what we knew by constructing a 3D model of the setting for the Complication. This activity in itself generated lots of discussion which I could again scaffold through pre-formulation and re-conceptualisation and I also recorded, using a flip DVD camcorder. Near the end of a session children were keen to watch the video which is easy to do with flip cameras and an IWB and this in itself provided yet another repetition of the language and the concepts, and a point for further reflection and discussion next lesson.

Once the model was complete along with the plasticine hippopotamuses and popstick helicopters a number of scenes from the lengthy Complication and the Resolution were enacted and re-told. Each scene we videoed and replayed a number of times, again providing that additional repetition and modelling. Sometimes we also used an Easi-Speak microphone for the main ‘talker’. This gave me an additional digital file of individual children’s progression with the oral language goals I was targeting.

While the digital files were often incorporated into a subsequent lesson for the group, they also became part of the formative assessment for individual children and will be included on a Digital Journal which will be sent home at the end of the semester.

When a child with a hearing impairment and another with Autism enrolled for the new Reception class in Term 3, I found that their speech and language programs had been conducted largely on an iPad 2, I began to investigate their use.

After attending a number of sessions at the Special Education expo this year on using ipads, I could see that they were a tool that would continue to benefit these children and many others.

Consequently we have begun to use an ipad2 for speech, language and social skills development and there will be spin offs in all directions as the school begins to build its capacity for the Mac platform in the future. The great advantage of the ipad2 is the ease of taking photos and videos and using them immediately without lots of other steps, in digital stories and for enhancing apps.

Finally a Yr 4 non-verbal student with a significant intellectual disability has at last received a Vantage – Lite AAC device which we are trying to tie in wherever possible to the use of other devices.

Port Elliot will have a Coordinator in ICT from 2012 and so there will no doubt be a strong focus on using technology to enhance the high quality learning and teaching which is already integral to the school focus.

Louise Jaensch
Port Elliot Primary School
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There can be infinite uses of the computer an of new age technology, but if teachers themselves are not able to bring it into the classroom and make it work, then it fails.

Nancy Kassebaum
The focus of this article is Brodie, a Year 4 student in one of the mainstream classes. There are 15 classes in the mainstream school, each with the diverse range of students which of course is not uncommon. Brodie is one of the students on an NEP. His Cerebral Palsy – Spastic Diplegia, together with some visual difficulties have impacted on his achievement and his wellbeing. He has a number of issues around letter formation, his planning, processing time, writing speed and consequentially, the amount of time he spends on-task. Fatigue makes it difficult for him to manage his tasks, particularly those involving handwriting, which impacts across all areas of the curriculum.

Our challenge in supporting Brodie, as part of the Negotiated Education Planning process, ‘Accommodations’ and ‘Teaching and Learning Strategies’, was to research, identify and evaluate methods that would allow him to record information so that he could access and participate in all areas of the curriculum in a way that would allow his efforts to be accurately assessed and reported.

There was also a growing awareness for Brodie and his family that the demands for this would not diminish in the future as he progressed through middle/upper primary and secondary school.

As a Year 2 in 2009, Brodie was assessed for technology use and in a collaborative effort between the school, NOVITA, Kilparrin and the Tech Experts at SERU was provided with a laptop.

Thank goodness for the knowledge, expertise and willingness of others to share!

Initially, Brodie was supported by a SSO and his class teacher to work with Clicker 5. Unfortunately for Brodie a barrier to his progress was his slow typing speed, which no amount of Typing Tutor practice seemed to advance.

A reassessment of his use of his current technology determined that Brodie needed something different, something that would support him to increase his work output, and even more importantly motivate him and encourage him to persist by decreasing his fatigue. The Penfriend software was suggested as a possible program to lessen the number of keystrokes required and support processing (equalling less fatigue!)

Before applying to SERU for the software, a 30-Day trial version of Penfriend XP software was downloaded to see if in fact it would achieve what it claimed and what we were intending. Brodie used the program successfully on a daily basis. His typing speed increased noticeably and we were convinced that with regular use, it would continue to do so.

An advantage of the software was that elements of it were able to be tailored to meet Brodie’s individual needs. We were able to:

- Increase the size of the font for words in the Prediction box
- Change the keys for word selection (we changed from Function to Number keys)
- Provide a better contrast by changing the background and font colours

In today’s schooling environment, learning is not confined to the classroom. From research in the Resource Centre and Computer Suite, to working with other teachers who are maximising their knowledge, skills and expertise in particular subjects is becoming as much a part of primary schooling as it is in secondary. Having a program which was easily transferable and adaptable was a major consideration. Brodie needed to write to a variety of genre according to the subject demands in a variety of locations. Managing a walker or wheelchair and carrying around a laptop (which doesn’t necessarily keep its charge and relies on access to power), needs ‘octopus arms’ or at very least, relies on another person for support...taking away one of the many skills we try to develop – independence! Fortunately Penfriend XP was available in a portable version.

SERU came to the rescue with Penfriend XP Portable Software to support his learning and promote a feeling of success when it came to Writing and Spelling.

I asked Brodie for a “Review” of his Penfriend XP Program...”It’s good because it gave me suggestions of words that I could use and how to spell them. It can also type the rest of the word for you. It was easy to see because we changed the background colour and the font colour and size.” It took a bit of getting used to and I had to remember to look at the Penfriend Box because sometimes I’d get carried away and kept typing. That meant if I spelt a word wrongly, it would go into the file and then next time if I used the word again, that wrong word could be suggested. I had to get into the habit of clearing out the file every week or two. I didn’t use the speaking part much because I couldn’t really hear or understand the voice. It was good, but I don’t use it much anymore because it can still be slow.”

continued
And isn’t that just how technology advances and improves! Brodie is now trialling “Dragon Naturally Speaking”. When I asked him what he thought about that, his eyes lit up and I could sense the excitement. “You speak into it and it learns to recognise your voice. You have to keep the same rhythm and tone which can be a bit hard to do. Steph told me not to be quite so polite though...I said ‘Please Open File’ and it wrote down please. I have to tell it what to do, not ask it. I thought it was amazing and it will help me to keep up.”

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**OUR DAY**

Kaye Coley is the special class teacher at Dernancourt Junior Primary School. She uses various forms of technology in her classroom as an integral part of her program, including an Interactive Whiteboard, iPads and low tech communication devices. I visited Kaye’s classroom recently, and was able to see and hear how it all works. Kaye has taught the children in her class to become as independent in their learning as possible by establishing regular predictable routines and providing scaffolding.

Because the use of assistive technology is woven through the classroom program throughout the day, the best way to understand how Kaye uses technology in her classroom is to see what happens on a typical day.

As children come into the classroom in the morning, they go to the Interactive Whiteboard, where the “Who is at school today?” screen is displayed, and move their face to their coloured spot on the screen; it’s time then for an activity. When it is group time, an animated song (which was made by Kaye using PowerPoint and includes the students’ faces and names) is played on the IWB and the children stop what they are doing and move to the carpet.

The usual morning routine activities take place – the day, weather, roll call and learning timetable, however in Kaye’s class the children run the session, with the help of visual scaffolding on the IWB. Firstly the children take turns to move the correct day in place on the screen and say “Today is Monday”, either verbally or using a Go-Talk 20 communication device. The special helper of the day then calls the roll using the pictures of the students displayed on the IWB, saying “Good morning - - - -” to each student and each student is expected to reply either verbally or using a communication device. For one student who was almost non-verbal the use of a communication device, the predictable routine structure of the morning and the modeling of the language by his fellow students has provided him with frequent repetitive practice. He is now able to say “Good morning” to the class without the aid of the communication device. Next the children sequence their learning activities for the morning. Each individual student takes turns to drag onto their personal chart on the IWB the learning activities that they will engage in for the morning. The calendar is also completed on the IWB, including discussion on the season and the weather. Children can refer to a chart of the month with the days ticked off to help them work out the date. It is time then for some songs usually involving counting or letters, many of which have been downloaded from the internet and provide animations as well.

Time for work. The children follow the timetable they sequenced in group time. Learning is individualised and technology, like iPads or communication devices, is used throughout the day as a natural part of the program. Ipad apps are selected on the basis of how well they fit into the established learning program and how engaging they are for the children. To ensure that the apps are supporting the child’s learning in a positive way, Kaye has developed a spreadsheet of the children in her class and the apps they need to use. This means that not only Kaye but also the SSO and TRTs who work in the classroom can target apps for specific children at the right level for their learning.

Increasingly the iPad is being used as a communication device for non-verbal children. A boy who started in Kaye’s class began using Talkboard on the iPad to support his communication. The iPad offers much more flexibility compared to print communication boards and allows more spontaneity in communication throughout the day – including his time on Out of School Hours Care. The boards are very quick to write up and so can be adapted to suit different contexts.

The scope and accessibility of the various forms of assistive technology in use in Kaye’s classroom has enabled her to develop confident independent learners, engaging in learning activities that are specific to their needs.

Written by Carol Edwards (Communication Support Service SERU) following a visit to Kaye Coley’s Special Class at Dernancourt Junior Primary School.

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Technology provides a fascinating and attractive learning environment due to the multi-media effects of sound, animation and graphics and the continuous creation of exciting developments. It provides students with stimulating intellectual challenges which accelerates their cognitive development and ignites their desire to learn.

For a small group of determined students at a local high school, technology is their passport to a future full of opportunities. These seven students, ranging in age from 13 to 19 years, are members of the Adelaide West Special Education Centre Link Program based at Unley High School. These students have a range of physical disabilities including cerebral palsy, quadriplegia and spinal muscular atrophy with all having limited use of their legs, arms and hands. Despite these limitations, Link students attend regular classes and complete the regular SACE curriculum at Unley High School with the support of specially trained teachers and SSOs and the aid of specialised technology.

When many of these students started high school, a laptop computer with no internet access was their only technological tool. In just a few years, technology has advanced to provide students in the Link program with the same exciting learning and assessment opportunities as their peers. Empowered with a laptop computer running the latest software, wireless access on site and connectivity through a home internet provider to the school network and with the aid of specialised software, students are able to independently complete learning activities and demonstrate to teachers their personal capabilities at all year levels. Student needs are individually assessed so they can be provided with specialised assistive software including Intelliswitch with Discoverpro, Read and Write Gold, and Dragon Naturally Speaking and specialised access provisions such as trackpads, joysticks, trackballs, onscreen keyboards, screen magnifying, and various Access Apps to enhance their learning experience. School network facilities don’t just allow students access to internet and email but also provide the ability to conference with or send drafts of assignments to teachers.

Many of the students have become proficient with Dragon Naturally Speaking which they use to create word documents. The communication headsets provided with Dragon means students no longer require a quiet place to be successful, but can work in a learning area or classroom with other students. Dragon has also proved successful for one student, Nicolas, who has a slight stutter when he becomes nervous. Dragon has no difficulty recognising his voice and translating it into text without recording the stutter. Dragon has proved a useful tool in another way for one Year 11 student, Melissa. Armed with a digital voice recorder, Melissa can chose to either record her teacher during biology lessons or record her own notes which she then downloads as a wave file to her computer using the Dragon digital voice recorder software. She can then convert this wave file to text or leave it as a recording for later revision.

For one student technology provides so much more than the ability to create documents, presentations and spreadsheets. Alice, a Year 11 student is unable to speak and relies on a voice output device to communicate everything she wants to say. Alice uses a bright pink ECO2 which, due to limited hand movement, she can only access via a track pad. Her ECO2 is not just a voice output device but also comes with Windows software. When in use Alice’s ECO2 has a split screen, the lower half is her communicator and the upper half her work document so Alice can talk and work at the same time. This year Alice has used this personalised technology to complete a SACE Integrated Learning unit by creating and developing a multimedia presentation for the AGOSCI conference at the Adelaide Convention Centre. At the conference Alice used her ECO2 to demonstrate how technology enables her to chat, control her environment and access the world while also showing a selection of images of her device and how she uses it. Earlier this year Alice’s track pad broke down and for a short while Alice was unable to use her ECO2 or her computer. For a talkative, hardworking student like Alice this was devastating. However, through trial and error we were able to download the app Mobile Mouse to an iPad and she used this as an alternative track pad until a new one was available. Another bonus of using technology is that Alice has finally been able to develop her personality, demonstrate her quirky sense of humour and endear herself to her peer group. This has allowed her to develop a circle of friends and has promoted her inclusion and acceptance at school.

Using a computer or driving a powered wheelchair when you have no hand control is near impossible. Mitchell, another Link student, uses a head switch and scanning array to independently drive his powered chair and the same head switch and Discover software to access his computer. Using a range of onscreen grids he is able to access all his computer programs. Mitchell has recently completed his SACE and used this set up throughout all his studies. Keenly interested in all things animation, especially Anime, Mitchell used this specialised software to create a short animation for an ARATA presentation and to complete a SACE VET unit at TAFE in 3D Animation. Mitchell is currently part of an Australian trial of a new wheelchair with cutting-edge driving technology.

continued
Liam, a Link student with speech difficulties, is able to talk but at times it is difficult to understand his conversations when they are out of context. This difficulty impacts on Liam’s social interactions with his peers. Liam has trialled communication aids during his primary years and has no difficulty using them. However, these aids have proven to be heavy and cumbersome to carry to and from classes at high school, especially for a student who loves to move around the school with his walker. Liam is now using the text to speech app, Talkadroid Lite, on an Android tablet to cue his conversation partners into the context of his speech. This has been particularly useful for Liam to demonstrate his level of understanding to his teachers. At lunch time Liam can be found out in the playground chatting with his mates or the teachers on duty using the tablet to have his say. The Android tablet has also proved useful for Liam in maths lessons. He uses the Math Formulary app to remind him of maths formulae he finds difficult to memorise, Math Tricks Lite app helps him consolidate math concepts and he finds the calculator function much easier to access than a scientific calculator.

For all of these students social networking provides an easy way to keep in touch with friends when physical access can be problematic. EBooks provide access to an immense library of previously inaccessible texts while mobile phones provide easy-to-use organisational tools such as calendars, notepads and calculators. Digital cameras not only provide images for assignments, but are also used to record learning activities and add imagery to presentations. These technologies and the developments in Apple and Android Tablets and their vast range of available apps promise an exciting future. Technology has become so embedded in the everyday learning of the students in the Link program that it is hard to imagine how they ever managed without it.

The future looks bright for these students thanks to technology. Today, technology is accepted by all, it makes these students look cool, and it’s the same technology being used by everyone else. Students with disabilities using an unusual type of technology, like a communication aid, are finding themselves the centre of attention. Technology is naturally intriguing to students and their classmates are drawn to learn what this unique piece of technology is and what it does. Technology has started to break down the barriers and has gone a long way in helping to bridge the gap between the disabled and the non-disabled ensuring a world full of opportunities for all.

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**SECONDARY DIGITAL PEN PROJECT**

During 2010, a trial was conducted involving the use of digital pens with a group of Year 12 students at Urrbrae Agricultural High School. This group was selected because they were studying the graphically oriented subjects of Mathematical Studies and Physics with the same teacher. These subjects have been perceived as difficult and inaccessible for students with learning difficulties. The focus of the trial was on exploring strategies that would support differentiation of learning in these subjects to make them more accessible to all students and particularly those with learning difficulties.

The digital pens used were the Livescribe Pulse Smartpens which have an infrared camera next to the tip of the ink cartridge. This captures everything that is written or drawn with pen on special paper covered with a non-repeating pattern of minute dots. The digital pens also have a microphone that records all sound, including teacher explanations and class discussions. These recordings are synchronised to captured drawings and writings. The audio can be listened to using the pen’s internal speaker by touching the tip of the ink cartridge on the page where the drawing/writing was done at the time of the recording.

Implementation of emerging technologies requires high levels of adaptability and flexibility from students and teachers. This was certainly the case with this trial of the technology. It became apparent it had been designed more for the exclusive use of individuals than the inclusive use of groups in a shared environment.

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**The principle goal of education in the schools should be creating men and women who are capable of doing new things, not simply repeating what other generations have done.**

Jean Piaget
Fortunately the developers at the USA based Livescribe company, where these Pulse Smartpens and the associated applications were produced, were receptive to these concerns and they coincided with other feedback they had received. This resulted in modifications that have facilitated more successful integration of these pens into the school context.

The initial implementation of the Pulse Smartpens involved registration of each pen with its own Livescribe account linked to separate email addresses - all with different passwords. This was needed to allow confidential sharing of teacher and student work and was a complex, inconvenient and continually problematic process. However, changes to the Livescribe desktop software enabled students and teachers to share their work by saving it as a pencast which is a file that animates their captured drawing/writing synchronised with their recording of spoken descriptions and discussions. These pencasts can be sent via email or uploaded to school Moodle sites and viewed on the Livescribe software on the recipient's computer (i.e. just like sending a PowerPoint file or Flash animation to someone with the software to view it).

Prior to these improvements to the Livescribe desktop software, the complexities of the initial set-up of the digital pens for the students to use prolonged the implementation. This delay re-focused the project on consolidation of learning and revision for exams. The teacher, Heather Sauer, spent a considerable amount of her time creating pencasts to support revision and exam preparation. She wrote out responses to past exam questions using her digital pen describing exactly what she was doing and why. These pencasts were made available to students giving them the opportunity of simulating ‘looking over the shoulder’ of an expert performing this examination task that they were approaching with some degree of uncertainty. This opportunity was available to them as many times as they needed and offered a degree of anonymity that avoided some of the barriers to engagement.

Students with learning difficulties often struggle when given a blank page to work on without any form of scaffolding. They benefit from the visual support provided by a range of graphic organisers. One of the students asked whether the dot paper was available in the graph paper format that they used for both subjects. At the time of the project it was not available but Livescribe have since provided A4 notebooks in graph paper format. The dot paper can be printed from the Livescribe desktop software and we have experimented with passing it through a photocopier to add graphics and text to provide scaffolded tasks. A drawback to date has related to the fact that the pen does not ‘see’ the photocopied graphics when capturing student drawing and writing.

The major advantage of the digital pens was their low cost and high portability. A new ‘generation’ of Livescribe Echo Smartpens has now been developed with improved capabilities. However, linking drawing and writing with recorded description and discussion remains the major function of the digital pens. The audio recordings made with the digital pens can be loaded into sound editing software like Audacity to create files that may provide alternative means for students to present work. This may, for example, support students requiring support in completing the SACE Research Project.

All participating students were surveyed at the commencement and conclusion of the project. Stage 2 SACE is, of course, a challenging time for students, particularly if they experience difficulties in learning. The questions asked after the project focused on their use of the digital pens in and following lessons and the impact on their learning.
Clearly, commencing the project in second semester, closer to exams, had reduced student engagement. However, a significant number of participating students indicated high levels of engagement and a positive attitude to using the digital pens that would lead them to purchase their own after finishing Year 12. A highlight for me occurred on a visit to the school the day before the Physics exam. One of the participating students visited the teacher and asked to interrupt our meeting as he had realised a gap in his revision and was very concerned. The teacher sat with him for 15 minutes explaining the concept and how to apply it to an exam question which he noted and recorded using his digital pen.

He planned to go home and go over his notes and recording until he ‘got it’. This demonstrated the practical support offered by the digital pen and its flexibility in supporting this student’s (belated) approach to learning. He was much less stressed when he left.

**iPads, I Think**

At the start of 2011 Elizabeth Special School ordered two iPads, not sure of how the devices would stand up to the rigors of the students, or if the students would even engage with them. It soon became very obvious that, unlike many new things, the students took to the iPads like ducks to water; in fact many students were leaving the staff behind. With approximately one hundred and forty students in the school and endless possibilities for engagement and communication programs, two iPads were not going to be enough, so with much budget manoeuvring the next six were ordered. These however, were iPad 2’s, and again there was angst amongst staff as the later iPads are very thin. There was a wait of eight weeks to take delivery of the iPads, and as ICT Co-ordinator I had some concerns as to whether the new iPads would be suitable. I need not have worried as the iPads were greeted with open arms and treated with the utmost respect by all students. A successful fundraiser in the middle of the year provided the funds to purchase another ten. This gave the school a total of eighteen to share; while it still is not enough (is there ever enough?) these have contributed to keeping many students and staff happy engaged learners.

**Engagement and Learning**

At Elizabeth Special School we have a diverse range of student abilities, from our SMD unit (Severe and Multiple Disability) to our four annexe classes that co-exist within local primary schools; all of our students have an intellectual disability, and as such the capabilities and interests of our students are diverse. The iPads have linked staff and students with a commonality. We may not all use the same apps but we all enjoy the ease, freedom and “normality” that they afford us.

A major outcome of the project has been sharing strategies that effectively support learning in areas that have been perceived as excluding students with learning difficulties. This sharing has prompted the uptake of digital pens by other teachers and a follow-up project in another secondary setting. Benefits have been observed for students with dyslexia who need to supplement their writing with the memory support provided by information recorded with the digital pen but who also benefit from some continued practice of letter formation rather than just a selection from a computer keyboard.

David Horsell  
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Many of our students have used PECS (Picture Exchange Communication System), and there are many similarities. One class of four boys, all non-verbal and reluctant users of PECS, have become enthusiastic iPad users. This is the perfect place to start a research project – will the lure of iPads encourage the use of a speech device?

This is only in the infant stages but the boys seem to be keen at present. Another of our students, through her speech session, was introduced to Proloquo2go and during her first attempts she was able to communicate with approximately 60 - 70% accuracy.

Not all plain sailing....
As ICT co-ordinator it is very encouraging to see such enthusiastic embracing of a new technology, however it certainly has brought with it some headaches and frustrating times. Managing two iPads was easy, charge them up every couple of days, and update them once or twice a fortnight. It was then increased to eight, and charging had to be done in groups of four, so updating took a little while longer. Now there are eighteen and charging is a constant overnight job to ensure they are all ready for classes the next day.

Updating is a regular weekend activity and trying to keep up with the ever increasing amount of apps is slowly consuming my free time. Other issues we faced involve managing iTunes accounts; we could have separate accounts for each iPad or all on one and hope Apple don’t follow up! We went the middle road, ten iPads to an account and sign up for new accounts with each group of 10. This created another problem, the original account was in my school email on my own laptop (it was easier and more convenient) the second account was given its own email address. I then realised that two iTunes accounts on the same desktop will pick up each other’s purchases so now have to start a new user on the laptop for each different iTunes account.

Learning from mistakes I now have three different users on my laptop, my own personal user, Ipad A’s and Ipad B’s. They have the same password for the accounts but of course different user names and I am now asking teachers to clean the screens of the iPads at the end of their lesson and inform me if any battery life is below 30%. A roster system has been set up so teachers know exactly when they can borrow the iPads and they are in two different coloured baskets. While this hasn’t solved all the problems it is becoming more manageable every day. iPads still take up a lot of my own time but to hear the success stories from teachers every day about different students and different apps makes it worthwhile. As one student said “I love iPads.”

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Resource Centre Survey

Thank you to those who completed the SERU Resource Centre Survey. The comments were very positive, particularly in relation the staff at SERU being friendly and eager to help, and the appropriate selection of resources and advice.

A number of people commented that the new shelving layout is a significant improvement. The survey showed that most clients order by phoning, and fewer order online or by visiting SERU. Most borrowers who completed surveys don’t visit SERU in the holidays. As a result of this opening hours will be reviewed for 2012.

A number of suggestions for improvement were made particularly relating to the online borrowing system and navigating the SERU website; the SERU website will be reviewed in 2012 and feedback from the survey will inform the changes.

There were positive comments about the resource collection, including the resources being up to date, practical and relevant. One borrower commented that there are a number of old outdated resources. Culling is regularly carried out, and staff will endeavour to ensure that all areas are frequently updated. One country client commented that there are many school staff that have never heard of SERU, and suggested a brochure and registration form be sent to all schools. As a result, a flyer in the InfoConnect early 2012 is being planned.

Please contact SERU staff if you wish to provide feedback on our service at any time. We also appreciate receiving recommendations for new resources to include in the resource collection.
The free and open source ePUB format became an official eBook standard of the International Digital Publishing Forum (IDPF) in late 2007. The term ePUB comes from the contraction of terms - in this case, Electronic PUblication. The term publication was a deliberate choice, and it was selected so that publisher expectations of the format were not limited to document type eBooks. The ePUB format is supported by every eReader system (software or hardware) except the Kindle. Amazon does, however, accept ePUB content from publishers and reformats them as Mobi files for access on their Kindle Reader.

During the past 18 months, a working group of the IDPF has been developing a completely new version of the ePUB format. The working group included representation from Google, Adobe, Apple, Sony, Barnes and Noble, Penguin, and Harper Collins. Most importantly, the group also included representation from the DAISY Consortium. The DAISY Consortium (http://www.daisy.org/) is an international consortium that has a vital role in assisting publishers and libraries transition to digital talking books. They actively promote the DAISY standard for Digital Talking Books. This standard supports readers with a print disability with accessibility features such as text to speech and intuitive navigation structures. Print disability includes readers who are blind or have a visual impairment and those who have a learning disability.

The consortium’s vision has long been one where all digital material is published in an accessible format. This has now come a step closer with the release of the ePUB 3 publishing standard. The consortium’s involvement from the beginning of the specification process meant that, unlike ePUB2.0, accessibility features would be fully integrated and embedded in the reading system rather than a tacked on afterthought. The result is a new digital content reading system where the specifications, in many ways, are based upon the principles of Universal Design. It means that publishers can now create one ePUB package which can contain multiple options for readers to access and process the content. The new ePUB 3 package defines the format of the content and how different reading systems will present the information for the reader. This means, for example, that blind and sighted readers can potentially access the same ePUB package – the reading system is flexible enough to render the content and reading order so that it can accommodate the reader’s perceptual needs. Most importantly, the ePUB 3 technical standards will enable publishers to create a multimodal eBook that can scale down to the capabilities of different portable devices without the need to reformat the content.

A link to the press release can be found at http://www.daisy.org/news-detail/942.

The collection of technologies built in to the free and open source ePUB 3 standard also includes XHTML5, CSS, and scripting with java. These are common web standards already in use by content developers so it is anticipated that the uptake of ePUB 3 will be a relatively straightforward one for anyone who wishes to create ePUB content packages. These technologies found in ePUB 3 allow for an exciting new phase in the evolution of digital materials. Because ePUB 3 is based on HTML5, multimedia elements can now be embedded in to the work flow of the content. Text books can have audio in the form of comments, facts or instructions. These can be supported with video demonstrations or events. Importantly, the reader has total control as they interact with these multimedia elements.

One of the most significant features of the new ePUB 3 standard, is the use of media overlays. Media overlays enable the text to be synchronised with audio narration with a range of customisations. The reader can have the text highlighted as it is read out at the sentence or paragraph level or touch a word to hear it spoken. In keeping with the principles of universal design, the reader would also be able to choose to switch off the text highlighting and just listen to the text or switch off the audio to read the text themselves. Text to speech overlays have been part of the digital talking book technologies for many years but it also worth mentioning that pronunciation lexicons will further improve text to speech technologies in ePUB 3.

The ePUB 3 specification is in the final stage of the approval process and companies such as Adobe, Google, Apple and Sony already have implementation plans in place. However, there already is ePUB content being produced in the form of iOS apps and for reading in the iBooks app. The interactive content that has been emerging is just the beginning of what will quickly become a whole new landscape in the world of digital content and mobile technologies.

The open source nature of ePUB 3 also opens up opportunities for educators and students to create their own distributable content. There are a number of tools which can be utilised by schools.

The Techbits section of this edition includes tutorials on how to create a multimedia ePUB book with Pages (MAC computer) and Creative BookBuilder (iPad App).

Jim Spirais
Project Officer, Learning Communication Technology, SERU
Ph 823528401
Decisions regarding the choice and use of assistive technologies with students are becoming increasingly more challenging as the number of choices spirals. To assist educators in these choices more publications about this topic are becoming available. SERU has recently purchased 3 new texts that offer different perspectives on assistive technology, that are practical; and showcase the newest developments in the field.

Green, Joan L
The Ultimate Guide to Assistive Technology in Special Education: resources for Education, Intervention and Rehabilitation
ISBN 978-1-59363-719-4 (pbk.)

With technology changing at an ever increasing rate, this guide is a good starting point to learn about the many ways powerful but affordable technologies can maximise student progress.

In Chapters 1-3 the author discusses the benefits of assistive technology. Chapters 4-10 each address a specific area of need and discuss how technologies can be used to help students with these particular needs using differentiated instruction.

Throughout the book the author highlights a wide range of resources that are appropriate for both children and adults, with a wide range of communication, cognitive and literacy challenges. The book showcases interactive multi-sensory software, apps and cutting edge devices that can be used to help improve speaking, understanding, reading, writing, executive functioning skills and memory.

It is aimed at families as well as professionals to help everyone focus on the tools and resources which can be used to improve communication, cognition and literacy. (This resource is suitable both for individuals who are struggling as well as anyone who seeks to benefit from technology.)

A brief description of resources is provided and information about where to learn more about many of the products is also supplied. Information about specific tools and resources is complemented by practical strategies and relevant websites.

The author shares his
- 45 favourite Apple apps out of over 350,000 which are currently available from iTunes.com
- Over 125 carefully selected software programs
- More than 40 free online interactive websites

Other information includes:
- switch software
- dedicated communication devices
- voice amplifiers and a clarifier
- accessible cell and landline phones
- videoconferencing
- captioning
- assistive listening devices
- text readers
- word based talking word processors with assistive reading, writing and studying tools

and much more
This resource is a collection of seven papers addressing ‘how educational and assistive technologies are driving innovations.’

The first paper examines *Converging Trends in Educational and Assistive Technology* and how they can be utilised and integrated into schools to support teaching and learning. Diverse student needs are considered and the concept of ‘personalisation of learning’ to achieve academic and social potential is explored.

The following papers discuss
- The Power of Social Networking for Professional Development
- What Can Technology Learn From the Brain?
- The Potential of Social Media for Students with Disabilities
- Exergames get Kids Moving
- Personalizing Assessment
- Exploring the Minds of Innovators

This book challenges the practitioner to come to terms with what is happening in research, to consider the implications of current assistive technology for students with special education needs and the importance and impact of social media for these students.

*Bugaj, Christopher R and Norton-Darr, Sally*
*The Practical and Fun Guide to Assistive Technology in Public Schools*  
*ISBN 978-1-56484-263-3*

This guide presents detailed advice and ideas on how to provide assistive technology (AT) services that effectively and efficiently help students. It guides professionals through the steps of setting up a successful AT program/team and advice and ideas for working successfully with all stakeholders, including teachers, parents, service providers, IEP teams, and students.  
Whilst the book focuses on building an AT team it is also useful for classroom teachers creating an environment based on Universal Design for Learning.

The five part book is broken down into the following parts:
- Part I Definitions and explanations
- Part II How assistive technology fits into the IEP
- Part III Information on assistive technology teams
- Part IV Different ways assistive technology services can be delivered

Although this is an American publication, most information can be very readily transferred to the Australian context.
10 TOP TIPS FOR MANAGING iPADS WITH CHILDREN WITH AN AUTISM SPECTRUM DISORDER

1. Even if bought primarily for your child refer to the iPad as yours. This makes it easier to control access to the iPad as it appears not to belong to the child. However, if the iPad is being used as a communication device the child needs access to it at all times.

2. Use the iPad only for educational software. Buy an iPod Touch as well or use your iPhone for games.

3. Choose apps that complement your child's IEP – the iPad is an ideal way of reinforcing school learning as well as providing opportunities for other learning. For example iconversation – google search ‘inconversation app store’.

4. Download the apps from iTunes onto your main computer. Sync across to the iPad. You can then control how many your child has access to at any one time.

5. Don't assume that because the name autism appears in the title or the app is listed in a list of apps for autism that the app is suitable for children on the spectrum. It may just be a marketing tool, for example the “Look Me in the Eye” app.

6. You must know exact title and spelling of app to locate it through iTunes search. If unsure Google the subject matter/name you know.

7. BubCaps can stop the problem of the child constantly flipping out of an app they do not want to do. These are stickers that you can place over the top of the home key on the iPad. (See www.bubcap.com)

8. Take the iPad with you when you go visiting, to an appointment or out to dinner with your child.

9. Use a stylus for writing activities on the iPad. AluPen is a chunky hexagonal pencil-like stylus; thinner styluses are available for older children.

10. Griffin Technology make a case called Survivor, that is approved for use by the US military. It is said to be indestructible. To waterproof it put it in a sealed plastic bag.

For more tip sheets, to sign up for a free newsletter or request a free catalogue visit: www.suelarkey.com
**RESOURCES RELATED TO THE TOPIC**

**Making Connections. 61.0943.01**
This book is designed for educators and parents who are supporting a beginning communicator to use a voice output communication aid.

**All-Turn-It Spinner. 61.0944.01**
The Spinner is designed to provide learners with severe/multiple disabilities increased opportunities for interacting with peers in the classroom. It can be used to make random selections like choosing groups or, for example, playing games of chance like rolling dice or playing Bingo.

**iTalk 2 Communicator, Ablenet Inc. 61.0961.01**
The iTalk2 is a dual message communicator that allows students to choose between two activities. It can also be used for asking and answering questions, telling jokes and making comments in social situations. It allows two minutes of recording time.

**Pictures That Talk & Talking Photo Album. 61.0962.01**
This resource is a spiral bound full colour book that is designed to be used in conjunction with a Talking Photo Album. It contains many ideas and suggestions for using pictures, text and recorded messages to make album pages to improve student social interaction skills, increase independence and enhance communication. Messages of up to 10 seconds per page can be recorded and played back.

**MEville to WEville Early Literacy Communication Program, Ablenet Inc, 2005. 61.0963.01**
This resource is a research-based literacy program that integrates reading, writing, speaking, augmentative communication and listening for early to mid primary students. A comprehensive, systematic instruction or approach for students with cognitive disabilities in the moderate to severe range to experience literacy learning success. There are three units: Me, My Family, My School.

**TechFour. 61.0940.01**
This is a battery operated, four message augmentative and alternative communication device. It facilitates the recording and playback of voice messages of up to eight seconds on the four touch membrane switch pads. Overlays for the switch pads can be easily changed by sliding in a new grid and the accompanying CD provides easy to create and print interchangeable overlays. Two output jacks allow for external connections to control toys, appliances and two input jacks provide switch access.

**Mark My Time Digital Timer. 61.0999.01**
Mark My Time is a digital timer with alarm in bookmark format. It can be used in count up/ cumulative, count down or clock mode. It is suitable for students of any age.

**VoicePod. 61.0942.01**
The battery operated VoicePod links recorded speech to photographs, language and sentence cards. There are 36 reusable two-sided sleeves, each with a unique ID strip enabling 72 messages to be stored on the VoicePod. A picture is inserted into the sleeve’s transparent flap, the sleeve is inserted into the VoicePod and a message of up to nine seconds in length can then be recorded. A record/lock feature prevents accidental erasures. Each time the personalised sleeve is inserted in the device, it will automatically play the recorded message.

**Technology for Inclusion: Meeting the Special Needs of all Students, Male, M. 2007. 48.0091.01**
This book examines some practices used by teachers to meet the technology needs of their students. The text is designed for hands-on practitioners, from beginner to advanced. The book focuses on promoting participation in the mainstream and technology’s role in an inclusive program.

**IntelliTools Extreme!, Herlihy, D. 48.0092.01**
IntelliTools Extreme! is the sequel to the user manual for IntelliTools products. It offers ideas for accessing a wide variety of IntelliTool products; music, games, electronic books, by giving easy instructions, screen shots and tips and tricks. Idea starter activities and templates are on the accompanying CD. The activities will work with IntelliTools Classroom Suite and previous versions.

**BookWorm Quick Start Kit, Ablenet Inc, 2002. 61.0964.01**
The BookWorm is an inclusive literacy tool that can be used to turn most books into “talking books”. It enhances student participation in language comprehension, vocabulary building, fluency, print recognition and turn-taking skills. It has an eight minute memory module that allows up to 32 pages of recording.

**Play & Learn: A Motor Based Preschool Curriculum, Sullivan Coleman, M. 2002. 48.0083.01**
This book contains a twelve-month curriculum for early years learners that integrates motor skill development with communication, socialisation and cognitive skill development. The curriculum, organised in monthly themes, has each activity presented with a simple technology option called Trying Another Way.

**Symbols, Literacy and Social Justice, Abbott, C. et al. 2006. 34.0260.01**
This book looks at the role of symbols in supporting access to literacy, learning and information and argues that such access is essential to social justice.

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**PAGE 29**
What Every Teacher Should Know About Assistive Technology, Edyburn, D. 2003. 48.0098.01
This easy to read booklet provides educators with practical information and strategies related to using assistive technology with students who have disabilities and/or learning difficulties. It discusses some commonly used software applications.

Time Timer Audible Large. 66.1389.01
This battery operated, 20 cm device measures the passage of time visually. The red area of the dial disappears as the set time (up to one hour) elapses and an alarm sounds when the designated time has elapsed. Suitable for students of any age.
See also Time Timer Audible Small 66.1390.01

Go Talk 9+. 61.0941.01
This is a lightweight (650g) portable communication tool with a built-in handle. Each of the five levels have nine message keys with a total recording time of 8.25 minutes. Each level also contains three core or essential messages that remain standard.

Single Switch and Latch Timer, Abelnet Inc. 81.1454.01
This device may be used with any switch adapted toy or appliance and enables the addition of modes of control. Three modes of control are possible: timing of 1 to 60 seconds; 1 to 60 minutes and on/off using the latch mode.

Powerlink 2 Control Unit, Abelnet Inc. 81.1555.01
This device provides students with the ability to control an electrical appliance, tool or toy with a single switch. It has four modes of control: on indefinitely, 1 to 60 seconds; 1 to 60 minutes and on/off switch.

Electric Scissors – Switch Adaptable. 86.0190.01
These battery operated scissors have an interchangeable base which allows them to be switch operated for use with a jelly bean switch. They are suitable for students who have difficulty using standard scissors.

Time Cue. 61.0937.01
This battery operated, single message device is linked to a digital clock. A 10 second long message can be recorded and then the clock set to play the message back at the selected time. A picture cue can be inserted in the lid to provide visual clues to the recorded message.

Big Mack, Abelnet Inc. 1985. 61.0406.01
Big Mack is a single message, voice output communication aid with an inbuilt microphone. The user simply presses and holds the record button at the top of the Big Mack and releases it when finished. Messages up to a maximum of 20 seconds long can be recorded and it can be activated to replay the message in four different ways. This resource requires either a 9-volt battery or can be used with a cable connection.

Time Timer Large. 66.1389.02
This 20 cm device measures the passage of time visually. The red area of the dial disappears as the set time (up to one hour) elapses. As there is no sound associated with the operation and no alarm sounds when the time has elapsed, this makes it suitable for use with learners who are sound sensitive. Suitable for students of any age.

Voice Cue. 61.0938.01
This battery operated device provides verbal reminders. Up to five messages with a total recording time of 60 seconds can be recorded. Each message can be assigned two playback times, for example, 11.00 am and again at 2.30pm. Follow up reminders can also be set to play 5, 10, or 30 minutes later after the original message.

Talking Symbols Notepad, Abelnet Inc. 61.0939.01
The Talking Symbol Notepad is able to record a 10 second message and a symbol can be slipped into the symbol holder to match the message. The Notepad can be mounted on any surface using Velcro or the notepad’s internal magnet. The message is activated by lightly touching the 5cm x 5cm activation area.

Kidcast : Podcasting in the Classroom, Schmidtt, D. 48.0097.01
This book is designed to provide a hands-on exploration of podcasting. The information and project ideas provide a foundation in the technologies behind podcasting and strategies for implementing them in a learning environment.

Handbook of Special Education Technology, Research & Practice, edited by Edyburn, D. et al. 2005. 48.0096.01
This reference documents the latest research and practice in special education technology.

Clicker 5 Introduction Training Booklet, Crick Software. 2005. 48.0095.01
This training booklet, containing structured tasks, is designed to teach the use of many of the features of Clicker 5.
See also Clicker 5 Advanced Training 48.0095.02
Clicker 5 Access Training 48.0095.03

iClick for Clicker 5. 48.0102.01
This book provides a wide range of ideas, activities and Clicker 5 templates suitable for learners of all ages.

Technology Toolkit, Pearce, J & Bass, C. 2008. 48.0105.01
This book introduces a range of classroom tools including blogs, wikis, podcasts, social bookmarking and other free online application and repositories. The accompanying CD provides step by step instructions. Guidance via discussion regarding technology in the classroom is available by joining in the blog with the authors on: www.technologytoolkit.com.au
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<th>Title</th>
<th>Authors</th>
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<tr>
<td>Inclusive Learning Technologies</td>
<td>Farrall, Jane and O'Connor Greg</td>
<td>Professional Educator Vol 9/1 March 2010</td>
<td>![SERU 1851](SERU 1851)</td>
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<td>Making Online Learning Accessible Using Technology to De-Clutter the Web</td>
<td>Brunvard, Stein and Abadeh, Heidi</td>
<td>Intervention In School and Clinic Vol 45/5 May 2010</td>
<td>![SERU 1906](SERU 1906)</td>
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<td>Social Networking Web Sites - Teaching Appropriate Social Competence to Students with Emotional and Behavioural Disorders</td>
<td>Morgan, Joseph J.</td>
<td>Intervention In School and Clinic Vol 45/3 January 2010</td>
<td>![SERU 1842](SERU 1842)</td>
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<td>Using Technology to Create Motivating Social Skills Lessons</td>
<td>Cumming, Therese M.</td>
<td>Intervention In School and Clinic Vol 45/4 March 2010</td>
<td>![SERU 1846](SERU 1846)</td>
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<td>Issues in Assistive Technology Implementation: Resolving AT/IT Conflicts</td>
<td>Newton, Deborah A</td>
<td>Journal of Special Education Technology Vol 24 Issue 1, 2009</td>
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<td>Designing a Website to Share Information with Parents</td>
<td>White Englund, Lillian</td>
<td>Intervention In School and Clinic Vol 45 No 1, September 2009</td>
<td>![SERU 1772](SERU 1772)</td>
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**WEB LINKS**

  This article is an account of three students that are achieving dramatic gains with the assistance of computer technology.

- [http://www.ldonline.org/article/Using_Technology_to_Support_Struggling_Students%3A_%22Doing%22_Science_Like_a_Scientist](http://www.ldonline.org/article/Using_Technology_to_Support_Struggling_Students%3A_%22Doing%22_Science_Like_a_Scientist)
  This article describes ways of using assistive technology to promote the inclusion of students with learning difficulties or physical disabilities in science lessons.

- [http://www.ldonline.org/article/Dyslexia_and_High_School](http://www.ldonline.org/article/Dyslexia_and_High_School)
  This article shares observations of a dyslexic student struggling to learn at a high school. Numerous examples of differentiated instruction and accommodations are listed.

  A range of stories of students successfully using assistive technologies are provided at this website.

- [http://www.youtube.com/watch?v=H2KxdCjRizM](http://www.youtube.com/watch?v=H2KxdCjRizM)
  This You Tube video contains a range of assistive technologies that one person uses on a daily basis.

- [https://www.washington.edu/doit/Stem/ss_index.html](https://www.washington.edu/doit/Stem/ss_index.html)
  This website provides examples of personal success stories in the areas of assistive technology use, career development, education, and self-determination.

- [http://www.ldonline.org/article/5874](http://www.ldonline.org/article/5874)
  This article discusses assistive technology decision making using the SETT framework (Student, Environment, Task, Tool).
TextHELP, the company responsible for Read and Write Gold, has announced the impending release of a whole new suite of apps that will operate in the cloud. These cloud based apps offer even greater accessibility options as they can be used with any mobile device or computer. These four apps are the first of a whole new suite of innovative cloud based apps being developed by TextHELP.

**Speech App**

Both the Speech App and Dictionary App are designed for smaller mobile devices such as iPhones and iTouches. The Speech App offers quality text to speech functionality for text that has been typed or pasted in to the app. The Dictionary App provides word definitions in text and picture format. This YouTube link provides a demonstration of these apps [http://bit.ly/qFYiR5](http://bit.ly/qFYiR5)

These apps will be released in Australia in early 2012. Though not confirmed, it is anticipated that schools with a site license of the Read and Write Gold software will have the value added benefit of access to these new innovative tools.

**Read2Go**

Read2Go is a Daisy reader app from Bookshare® for the iPhone, iPad and iPod Touch. Daisy Readers provide text to speech support and a range of other accessibility features for readers with a print disability. In this instance, a print disability includes readers who are blind, have vision impairment or a learning disability. As outlined in the Learning Difficulties edition of SERUpdate (Term 1, 2011), Bookshare is a subscription service which can provide a reader with a print disability access to a wide range of titles in DAISY text only format and Braille. The service is now available in Australia and can be accessed at [http://www.guidedogswa.org/bookshare/](http://www.guidedogswa.org/bookshare/).

Directly from within the Read2Go app, Bookshare members can find, download, and read books all on a single Apple device. Daisy 3.0 and 2.02 books found on the web can be added to Read2Go via iTunes file sharing. The app includes options that allow you to customise your reading experience. From the settings menu you can chose font size, the book’s colour scheme, text-to-speech voice and text-to-speech rate. Read2Go is completely compatible with VoiceOver. When in reading mode you can add bookmarks, search for text and navigate by section or page. It can also connect via Bluetooth to specific Braille displays to read in Braille.

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I started to walk forward, ready to get it over with. But then the thing that was coming got there before I took my first step. There was a bright flash of light and I fell.

I came too early or too late. at the same way as before. I kept my eyes closed and stayed still. When I opened my eyes I was shocked.

I was on the surface, quite to my great relief, and the sun was still out. I must have been out for a very few minutes. Whatever it was that had come at the last second must have done this. No wonder that thing was so desperate.
iOS 5 Release – 5 Accessibility Features

Over 200 new enhancements are included in the newly updated version of the operating systems for the iPad 2 and the iPhone. The publicity surrounded the new iPhone 4S but many of these improvements can be utilised in the other Apple mobile devices. This article elaborates on five of these new enhancements. They focus on some of the key improvements to accessibility for the iPad.

VoiceOver

All of Apple’s mobile devices have a huge array of built-in accessibility features. One of these is VoiceOver, the built-in screen reader for people with a vision or print disability. The latest enhancements to VoiceOver includes an updated more natural sounding voice. The most significant change, however, happens to be one of the most subtle ones. VoiceOver can now be activated straight out of the box by a triple-click of the Home button. Now that a computer with iTunes is no longer required to set up a new device, a person who is blind is now able to independently configure their new device and purchase and install their apps using iCloud. This is Universal Design in action with a mainstream device! An excellent overview of the many other new changes to VoiceOver can be found at http://www.lioncourt.com/reviews/a-look-at-accessibility-and-voiceover-in-ios-5/.

Text to Speech support

Another new Universal Design feature is the ability for a user to have selected text spoken out aloud with the new VoiceOver voice. In the iOS 5 platforms, when text is selected, “Speak” is an additional menu option with the Cut, Copy and Paste functions. The speaking rate can be controlled independently of the VoiceOver settings. This feature works in any app with text. However, this is not an option in iBooks. Hopefully it can be included in a future update of iBooks. To activate this new feature, go to the Settings App: General: Accessibility: Toggle Speak Selection to On.

Assistive Touch

Assistive touch is one of the most anticipated accessibility features in iOS 5. It was designed to make iOS devices easier to use for people with motor difficulties and is particularly useful for someone who is not able to tap the Home button to exit an app. A user can now access an overlay menu with icons for many of the functions of the device. Assistive touch also includes options allowing for single finger use of many of the multi-touch gestures (including the new four finger gestures available only for the iPad and the pinch gesture used for zooming). To use assistive touch, choose Settings, General, Accessibility and turn on Assistive Touch. This enables a floating circular icon on the screen. Tapping this icon will open the overlay menu with the assistive touch options.

The assistive touch icon can be moved to another area of the screen if it gets in the way. The Assistive touch feature also includes an option to create your own custom gestures. Personalised gestures can be recorded and added in Favorites in the Assistive Touch overlay menu. These custom gestures could be useful for students with a physical disability that find gestures such as three-finger swiping difficult.

AirPlay mirroring

The new iOS 5 update now allows wireless mirroring to a data projector or TV in the classroom. This feature will be particularly useful in a class where a student in a wheelchair would be able to more easily use the iPad without the need for it to be connected with cables. An Apple TV is also required within a shared wireless network to enable the iPad to be projected without the need for cables.

Auto Completion of Text Entry

Auto completion of regularly used phrases is now possible with iOS 5. This keyboard feature enables a user to allocate an acronym to entries such as full name and address, email signature or greetings. This can provide a productivity boost to anyone who has difficulty entering text on a mobile device. This feature applies to all apps where a keyboard is used to enter text.

These built-in features and a host of other new accessibility features in iOS 5 are an essential update for anyone who has a disability or learning difficulty. More information can be found at http://www.apple.com/au/ios/.

Building ePub books with Creative Book Builder - Tutorial

Creative Book Builder is an iPad app which allows users to create, edit and publish ebooks. All published ebooks can be read by any ePub reader including iBooks. The format of the book is in EPUB format that includes HTML, javascript, css, jpg, mp4, and m4a, caf.

The app has an intuitive interface that allows authors to select and manage the different elements of the eBook. Unlimited chapters can be created and these can include a title, description, images, video, audio recording, music, hyperlinks and lists. Text can also be imported from Google Docs in HTML format.
The completed book can be directly imported into iBooks for immediate use. It can also be emailed or uploaded to Dropbox or FTP servers. A copy of the ePub book will sync over to the iTunes library of the computer if the book has first been exported into iBooks.

The first screenshot shows how an author manages the insertion of the various elements of the book.

The book now has a title, a music file containing an mp3 recording of the text, and an image.

The author can preview the book as it is being built. Audio and video files can also be played back and tested within the preview window.

Once complete, the book can be generated into an ePub file and exported into iBooks.

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**iAuthoring with Pages - Tutorial**

This article explains how to create an iBooks compatible ePub file that can contain plain and hyperlinked text, images, audio and video files.

You will need: Pages 09, iTunes, iOS device, iBooks.

Mac users can now utilise recent versions of Pages to create an ePub book for reading in iBooks on any iOS mobile device. Apple have created a support page at [http://support.apple.com/kb/HT4168](http://support.apple.com/kb/HT4168). It has useful information which also outlines the consideration of the pdf format for iBook content.

The support page also has a link to download a Pages document that contains all the guidelines and instructions on how to create an ePub book. Most importantly, the Pages document is already styled for ePub export and can be used as a template for creating your own eBooks.

The remainder of this tutorial utilises the “ePub Best Practices” sample document from this site. The following procedure assumes you have downloaded this sample document and have opened it in Pages (as seen below).

1. Right click on one of the pages and choose ‘Select All’.

2. Right click on one of the pages again and select “Delete Pages”.

3. There should now be one blank page in your document.

4. Click on Insert and select “Title Page”.

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5. Delete the first blank page so that all that remains is the title page.

6. This title page will now become the first page of your new document. The heading, sub heading, text body and image are all styled for ePub export. Replace the text and images with your own content.

7. Once the page is complete, click on Insert > Chapter.

8. Audio or video files can also be inserted in to the document. Once inserted, ensure that the media file is placed inline with the flow of the text. This is necessary for the media to be able to playback in iBooks. Click on Inline on the menu bar or select Inline from the Object Placement palate found in Inspector.

9. Once the chapter is complete, repeat steps seven and eight to add further chapters. You will need to re-number the chapter numbers.

10. If you wish to break up the content of a chapter over a number of set pages, select Insert > Page Break

11. A Table of Contents can also be created. This should be done once all the chapters are inserted and the document is ready for export.

12. To create an ePub version of the book select File > Export. Select ePub and name the book.

13. Once saved, open iTunes and import the ePub book in to the library. Select File > Add to Library

14. The ePub book can then be synced to an iPod or iPad and accessed in the iBooks app.
NEW RESOURCES

Diary of a Social Detective, Jessum JE. 2011. 19.0348.01
This book is written as a narrative with each chapter presenting a different case to solve. Each case, is based around a social problem and the reader must engage with and help the hero, Johnny Multony, to solve the case. This book will support young people on the autism spectrum and facilitate social cognition.

Unseen Pack, Jennings P. 63.3324.03.01
This pack contains the novel Unseen, together with 3 CD's of the complete text read by Stig Wemyss. It is suitable for students in the primary and secondary years.
See also: 63.3342.02 Uncanny Pack 63.3342.01 Unbelievable Pack

Chipper Chat, Super Duper Publications. 1998. 61.1032.01
This kit contains materials and instructions for ten open ended board games targeting speech and language and is recommended for use in consultation with a speech therapist. The games can be used with groups of students of varying ages and abilities in the primary years.

Work Words Vocabulary Builders, Duffy, J. 2008. 63.3318.01
This pack is suitable for use with upper primary and secondary students. The work related vocabulary in the resource focuses on the alphabet, writing, jobs, the telephone, direction and forms. The interactive CD is considerably more comprehensive in scope than the workbook.

Surprise Sounds Zoo Set, Fisher Price. 2011. 81.1156.01
Various sounds are activated in this zoo scene when animals are placed at certain points or when parts of the scenery are moved in a particular way. This resource is suitable for use by preschool and early years students to encourage the development of auditory and fine motor skills.

Nab-It, Hasbro Bradley. 2010. 67.0570.01
This is a word game for two to four players, the object of which is to link tiles together to build words in a cross word style. Players can Nab or steal another player's word by stacking tiles to change it and create the highest tile in a word. The game is suitable for students eight and over.

What’s the Rhyme Sorting, Lakeshore Learning. 61.1034.01
The object of this game is to place ten cards that belong to a rhyme family though a slot and into the matching rhyme house. There are ten houses and five cards that match each rhyme. This resource is suitable for students in the early years.

Ccvc, Smart Kids. 63.3303.01
This resource is designed to provide practice in blends, vowels and consonants (ccvc and cvcc). It contains 33 magnetic strips and foam letters. Each strip has one four lettered word with a missing letter and picture. Children fill in the missing letter with the correct vowel. On the back of each strip is an outline of the shape of the word.

Chicken Count. 64.1521.01
This game, for two to six players aged from four years, requires counting, adding and sorting skills. The aim of the game is to collect as many chickens as possible before the coop is built, while at the same watching out for the fox.

High Frequency Flip Book, Smart Kids. 2008. 63.3293.01
This flip book has five sets of high frequency words that can be used to make a sentence. It allows the student to create simple sentences using familiar words. This activity can assist with knowledge of sentence structure, grammatical structures and reading comprehension. Suitable for students in the early years.

Button Sorting Centre. Lakeshore Learning. 82.0620.01.01.
This resource contains 15 large activity mats and 120 large buttons that allow children to sort according to a variety of set attributes. Teachers may create other activities with the buttons. The resource is suitable for early years and junior primary students.

Every Parents Guide to Preschoolers (DVD) 24.0194.01
This DVD and booklet are part of the Positive Parenting Program (Triple P) series developed from international and University of Queensland research. The program aims to give parents strategies to help them raise healthy well adjusted children. The DVD and booklet provides an introduction to the development of infants. See also 24.0194.02 Every Parent's Guide to Infants and Toddlers
Sorting Box.  Gogo Toys.  2011.  83.1674.01

Sorting and posting boxes support students in developing concepts of shape and colour. This box has eight wooden blocks in four different colours and shapes and suitable for children from Preschool to year 2.

Balancing Bars.  2011.  84.0461.01

This set of five interlocking balancing boards are each 50cm long. Made of wood, they have a non-slip surface so that they are safe for children to walk along. For students of any age needing to practice balance skills.

Pots and Pans Set.  2011.  62.2048.01

This set, containing various kitchen utensils, could be used in a variety of ways eg creative play, social skills or oral language development. It is suitable for use by children from Preschool to year 2.

CVC Letter Flip Pack.  Edtech.  2011.  63.3316.01

Each of the five letter flips in this pack includes a set of red single consonant word beginnings and endings and a set of yellow vowels. The letter flip may be set up according to the focus the teacher wishes to take. The flips are suitable for use in the early childhood and primary years.

Pots and Pans Set.  2011.  62.2048.01

This set, containing various kitchen utensils, could be used in a variety of ways eg creative play, social skills or oral language development. It is suitable for use by children from Preschool to year 2.

Pupil Number Fans.  Edtech.  2011.  64.1524.01

This pack has ten number fans each with the numerals zero to nine and a decimal point. Students are required to hold up the correct answers using their fans in response to a problems posed by the teacher. Suitable for early and primary years or for older students who find number skills challenging.

Sue Larkey's Top Tips for Understanding Autism. Larkey, S.  2011.  66.1464.01

This resource is a compilation of Top Tips, downloaded from www.suelarkey.com. New tips will be added as they are published on the website.

Teaching English Language Learners with Learning Difficulties, Gersten, A. 1999.  61.1029.01

This resource has a very general overview, guidelines and some strategies for adults working with students who are learning English as a second language and who have learning difficulties. It is suitable for use with primary aged students.

Smart Mouth. Thinkfun.  67.0561.01

Smart Mouth is a word game that can be played by individuals, small groups or the whole class. It requires word letter and sound knowledge. Several variations are described making the game cross curricular. It is suitable for primary and middle years students.

Teaching Strategies for literacy in the Early Years. Swan, C.  2009.  36.0286.01

The literacy strategies offered in this book are appropriate for students in the first three years of school. The strategies have an easy to follow format and offer a wide range of ways to develop reading, writing, viewing, listening and speaking.

Alphabet Pal. Leap Frog.  2010.  81.1559.01

This hard plastic millipede has various functions that encourage gross and fine motor skills in young children. Colours, letter names and sounds may also be learned. It is suitable for use with preschool and early years students.
Would you like to contribute an article?

The SERUpdate relies on the willingness of DECS personnel to contribute articles. Feedback from readers confirms that contributions from sites are a valuable way of keeping informed with what is happening at other schools.

The theme for the next edition of SERUpdate is ‘Hearing Impairment: Access and Opportunity.’