

Technology: the bridge to reading success

Tecnologia: a ponte para leitura de sucesso

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Abstract: U-Can Read: Literacy Intervention Years 3-10 (UCR) is a parent education program that supports adolescent, struggling readers. Results achieved at UCR, highlight the critical role that technology plays in engaging students in literacy learning and supporting their reading success. Too often reluctant, adolescent readers have spent years in classrooms being lost and frustrated; their enjoyment of reading diminished. According to Long, MacBlain, & MacBlain, (2007), it is not uncommon for students to respond to this frustration with inappropriate outbursts or passive disengagement. Whether they actively avoid learning or shut down completely, research shows that the achievement gap continues to widen (FISHER & FREY, 2007). This paper documents case studies of two reluctant and disengaged students and how technology served to motivate their pursuit of literacy learning. The technologies included Kindle ebook readers, iPad devices, iPods and interactive websites. These case studies give best practice examples that can be implemented in all classrooms to motivate students to read.

INTRODUCTION

Engaging reluctant, adolescent readers is a challenge faced by educators across all educational settings. Educators face challenges of assisting struggling readers to develop their reading skills while encouraging a love of literature. Too often reluctant, adolescent readers have spent years in classrooms being lost and frustrated; their enjoyment of Reading diminished. According to Long, MacBlain, & MacBlain (2007), it is not uncommon for students to respond to this frustration with inappropriate outbursts or passive disengagement. Whether they actively avoid learning or shut down completely, research shows

that the achievement gap continues to widen (FISHER & FREY, 2007; LONG et al., 2007). Results achieved at U-CAN READ: Literacy Intervention Years 3-10 (UCR) demonstrates the critical role that technology plays in re-engaging students and supporting reading success.

This paper documents case studies of two students and their use of a variety of technologies to achieve reading success. The technologies includes Kindle e-book readers, iPad devices, iPods and interactive websites. These case studies give best practice examples applicable to classrooms to support all readers.

U-CAN READ LITERACY INTERVENTION YEARS 3 - 10

UCR is a parent education program aimed at developing students' literacy skills by providing parents and carers with ideas, knowledge and support. It is a unique program for the following reasons:

1. It is a joint project of the Australian Capital Territory Education and Training Directorate and the University of Canberra.
2. It is specifically tailored to meet the needs of students in Years 3-10. With the emphasis of most intervention programs on the early years, according to Wasik (2004) few parent programs address the needs of children in the primary grades and beyond.
3. It provides a multi-dimensional approach to literacy intervention. Parents are educated in ways to support their children at home as well as given one-on-one assistance by a literacy advisor for up to twelve weeks following the seminars. Through a series of five two-hour seminars over five weeks and one reflective session, parents receive knowledge and strategies to support their children at home.

The UCR program operates five days a week with extended hours depending on the needs of families. A minimum of one hundred and twenty families are catered for annually.

Currently, UCR employs a Director and three literacy advisors. The literacy advisors are experienced classroom teachers with literacy expertise.

UCR works in partnership with teachers, parents and children. In order to be eligible to participate in UCR, students must be recommended by their teacher and principal and be deemed to be reading at least two years below their grade level.

Students who are referred to the centre generally have a very low opinion of themselves as readers and are often reluctant to engage with texts. The literacy advisors within the centre have found that engaging reluctant readers through

technology has been beneficial in increasing their engagement in reading which leads to an overall improvement in their reading outcomes.

LITERACY AND TECHNOLOGY

Research strongly supports the need for reading interventions to embrace technology. While it is clear that no single intervention will ever meet the needs of struggling readers and writers, Sternberg; Kaplan & Borck, (2007) claim that technology must be part of any effective literacy program. Kress (2003) points out that the rapid pace of technology and the transformations in digital technologies continually forces teachers to rethink what literacy means (KRESS, 2003). Technology is now readily available to most adolescents in the form of mobile phones, online computers, ipods and MP3 players, digital cameras, video recorders and players (STERNBERG, KAPLAN & BORCK, 2007).

The world of literature is readily accessible in and out of classrooms through the use of technology. Larson (2009) suggests expanding the types of text students are exposed to and engaged with at school will bridge the gap between home and school. He suggests turning our attention to electronic books or e-books. According to Hancock (2008), the use of e-books provides new opportunities and possibilities for engagement, personal interpretation and new experiences. Research by Barone & Wright's (2008) supports the use of technologies to support engagement. "Teachers will see that giving a laptop to a student results in greater engagement. Greater engagement equals higher achievement. End of story" (p. 302).

METHODOLOGY

This paper reports the findings of two case studies John and Robert (pseudonyms) conducted over a twelve week period. It draws on multiple sources of data including pre and post reading, spelling and writing assessments; interviews with student participants and their parents, and the documentation of each student's progress on a weekly basis while enrolled at UCR.

SUMMARY CASE STUDY – JOHN

John was referred to the U-CAN READ program by his English teacher. He was enrolled in Year 9 at a local high school and his reading level upon entry to the program was 8 years below his chronological age according to PM Benchmark Reading Assessment Resource (Nelson Cengage Learning, 2008) recommendations. John typically displayed a non-caring attitude towards his reading ability and acted out in class as an avoidance tactic. He stated he hated reading and that reading was boring. Following his mother's completion of ten hour parent education component of the program, John commenced the Individual Assistance Program (IAP) for an hour each week accompanied by his mother.

In the first IAP session, John was reluctant to attempt to read any of the traditional reading material in the literacy centre. However, he was observed continually sending text messages from his mobile phone, while also using the device to connect with his peers via social networking sites. For him, putting his phone away and picking up a book lacked appeal. It was clear that in order to engage John with the reading process, different approaches needed to be considered. The traditional reading material appropriate to John's reading level was well below his maturity level and he was disinterested in its content. The need to link John's expertise and interest in technology to his engagement in reading was apparent.

The Kindle became the key to re engage John with reading. The Kindle served two purposes. Firstly, it was the bridge to engagement because John already demonstrated na (an) interest in electronic devices and secondly, it provided readily accessible reading material to meet his interests.

John had recently travelled to a remote area of Far North Queensland for a family vacation. The trip had included fishing, camping and four wheel driving — high interest pursuits for John. John and his mother had spent time each day completing a journal of the day's events. Daily, John would retell the events while his mother scribed them in a diary.

John was extremely proud of the diary but because his mother's writing was at times illegible,

he had difficulty re-reading the events. John felt defeated in his inability to interpret and read the information. The UCR literacy advisor, retyped and uploaded John's holiday diary onto the Kindle. John's name appeared on the Kindle as the author of the text and his holiday diary became a useful and valued reading resource. John's response was extremely positive and he was eager to read and share his story with his immediate Family and those in the literacy centre.

According to John, the Kindle was "cool". It did not trivialize reading nor make what he was reading appear immature to anyone who may observe his engagement. The Kindle allowed John to modify the size and positioning of the font to his specifications without him feeling overwhelmed by a page of text-dense print. The screen reader and the dictionary prompt were available to support John when he confronted unfamiliar words.

The Kindle was the pivotal link between John's diary of important events, his reading of high interest material and his love of technology. The Kindle allowed John the flexibility to make choices about his reading content and gave him the independence that adolescents strive to have. Below is a page from John's Kindle diary.



Figure 1: A screen shot of John's holiday diary as it appeared on the Kindle.

The next step in John's reading progress was to extend his reading interests and choices. The Kindle assisted this process. John's interests in the outdoors led him to discover the fictionalised novel series by Bear Grylls (2008). Despite his interest in the series, the book versions were considered "too long and too hard" according to John.

An electronic copy was loaded onto John's Kindle. By this time, John had become an expert in the use of the Kindle and could adjust the size of the text and use the speech function to assist in identifying unknown words. At the following session, John's mother reported that he had enjoyed reading the book using his earphones and transitioned to the text reader and followed along when he became too tired.

In the final IAP session, John improved his reading by 6 levels according to the PM Benchmark Reading Assessment (NELSON CENGAGE LEARNING, 2008). This represents an increase in 2 years in his reading age. When asked whether he thought he had improved in his reading, John reported that he could tell he had improved because he now found Reading more interesting. Technology provided the opportunity for John to engage with reading in a different way compared to the past. By building on his mastery of the mobile phone and social websites, he moved with enthusiasm onto the Kindle which provided him with a source of reading material associated with his interests and accompanied by in-built levels of support.

SUMMARY CASE STUDY – ROBERT

Robert was referred to the U-CAN READ Program by his teacher and parents. In the application package, Robert's teacher noted that his reluctance to read was hindering his ability to comprehend and complete classroom tasks. In his pre reading assessment, it was noted that while he possessed a good range of skills to decode unfamiliar words, he lacked confidence and had limited comprehension.

At the initial IAP session, a number of popular books were suggested to Robert. These included his interests of supernatural creatures and graphic

novels. While the graphic novels immediately sparked his interest, he soon became disinterested and reluctant to read.

Similarly, other suggested series written at Robert's independent level proved to be boring and the repetitive nature of the content and the immature nature of the text did little to motivate this already resistant reader.

Prior to the second IAP session, Robert was observed thoroughly engaged with his iPod. Robert enthusiastically reported on his favourite game and the progress he made. The iPad was introduced to Robert along with a variety of apps including interactive books. In Robert's case, the iPad was the bridge into a new world of books. Rather than Reading continuing to be a task, the use of the iPad, turned Robert from being reluctant to being enthusiastic. He said he "couldn't wait" to use it. Robert's body language and demeanour underwent a positive change when the iPad was mentioned. The initial use of the iPad in IAP sessions focused upon the use of interactive books and spelling games.

Robert's favourite apps were 'The Wonky Donkey', an interactive story by Craig Smith (2009) and 'Don't Let the Pigeon Run this App!' based on the 'Don't Let the Pigeon Drive the Bus' series by Mo Willems (2003). Robert enjoyed reading the stories and did so effortlessly. The 'Don't Let the Pigeon Run this App!' (Willems, 2011) app could be extended to include writing. From a series of simple questions, readers create short stories.

Robert proceeded to create a number of short stories that also served as additional Reading material.

In an effort to broaden Robert's interest in reading, he was introduced to a number of texts on the Kindle. Robert was surprised to find he enjoyed reading texts on the Kindle that he had previously rejected in traditional book form. In particular, Robert had picked up a number of Roald Dahl classic stories in the past, only putting them back down when he saw how small the text was and how many pages they contained. Robert adjusted the font size to make the texts more manageable and less threatening. When asked

why he enjoyed reading from the Kindle, Robert commented that it was because “I only have to read one page!” As Robert’s reading fluency improved, his adjustments to the font size decreased.

Robert was frustrated that large font restricted the amount of text on the screen and interrupted the flow of his reading.

In his final assessment, Robert increased his reading level by 3 levels on the PM Benchmark Reading Assessment Resource (NELSON CENGAGE LEARNING, 2008) representing an increase of 2 years in reading age. His sight word recognition reached the possible 220 on the Dolch sight word recognition test (Dolch, 1948) and he made an increase of eight months on the South Australian standardised spelling assessment (Westwood, 2005). Robert commented that his reading had improved because he was now more interested in Reading and was reading more than he thought he ever would. Technology assisted him to become an independent and confident reader by allowing him to be in charge of his reading choices and locate texts that engaged him in the world of stories.

CONCLUSION

The case studies highlight how technology can be used to engage and motivate struggling readers. In the first case, John used the Kindle to access his interest in a Family holiday which escalated into a broader engagement with reading material centred on the outdoors. For Robert, technology motivated him to read books previously rejected. It reduced the barriers that he felt towards reading. The lessons from these two case studies can be applied to the classroom and include the following:

Technology and authentic reading

For both John and Robert, their motivation for reading came from the pursuit of texts related to their interests. Literacy is best learned when it serves real purposes and is linked to the interests and future aspirations of students. Authentic literacy

activities are defined as activities in the classroom that replicate and reflect literacy activities that occur in students’ lives outside of school and instructional contexts (DUKE et al 2006). Gee (1992) and Hymes, (1974) contend that language is best acquired within functional contexts. Using a variety of technologies, students can access a variety of texts that reflect a diversity of interests.

Technology gives students responsibility and choice in what they read and write

UCR adopts strategies that are “collaborative, dialogic, and responsive to the lives and needs of the learners” (FREIRE, 1993; HORTON, as cited in GLEN, 1996; PURCELL-GATES & WATERMAN, 2000). Choice abounds in a diversity of ways, for example, by being able to access a personal library of books on the Kindle students make choices about what and where they read – home or school. Students can write about topics of their choice and upload their writing as reading material to be re-read and shared with others. Real audiences can share and celebrate their writing success.

Students are encouraged to be self regulating

If disengaged students are to re engage then self-regulation has to be a critical component of the process. Zimmerman (2000) states, “Perhaps our most important quality as humans is our capability to self regulate” and for struggling readers, this can be challenging. Perry, Hutchinson and Thauberger (2007) described self-regulated learners as intrinsically motivated, strategic, and metacognitive. Students who are intrinsically motivated are interested in their academic work and want to learn for the sake of learning (ROBERT & DECI, 2000). Research by Duffy, (2003) and Paris, Wasik, & Turner (1991) strongly suggests that enhanced motivation and improved reading achievement are advantages associated with self-regulation. Often, disengaged learners have lost the passion for learning. However, when students share their knowledge and expertise about the topics that interest them through the use of technology, they are empowered and respected as learners.

Simply stated, research by Biancarosa & Snow (2004); Blum, Lipsett, & Yocom, (2002); Casey (2007); Long & Gove (2003/2004) claims that the struggling adolescent learners' frustrations with reading and writing is a complex process of

understanding ability, considering engagement, and providing access to appropriate materials.

Technology is the bridge to appropriate materials and guaranteed engagement and as a result reading ability can only improve.

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