

e-Readers: Enhancing boys' Reading Experience

By Elizabeth Avery

Background

In 2010-2011, Dr Linda Gibson-Langford led a global team of teacher librarians and school librarians undertaking action research projects for the International Boys' Schools Coalition [IBSC]. The team produced fourteen action research papers and posters on the topic of re-engaging boys in leisure reading through school library initiatives. The research was first presented at the 2011 annual IBSC Conference in London.

A revised version of Elizabeth Avery's research paper, focused on secondary age boys and e-readers, is reproduced here with permission of the IBSC. **This is a refereed article.**

Introduction

Despite a strong vision for developing deeper levels of literacy skills at Anglican Church Grammar School (Churchie) in Brisbane, increased demands on adolescent lives tend to see many of the boys drift away from reading for leisure. It was in this context that a group of twenty middle and senior school boys of varying interests, ages and abilities was chosen to participate in an action research project investigating how the introduction of innovative technology (e-readers), into an already established and supported curriculum framework of reading widely, could motivate boys to greater scholastic attainment and personal reading growth.

Action research and its strong preference for qualitative data supported the concept of listening to the boys views on reading for leisure and using technology to enhance reading, particularly leisure reading. The research question became *How can using e-readers develop an adolescent boy's feeling of reading competence and enhance his motivation to read for leisure?*

Through questionnaires and discussion, the data was collected over a short period of time and analysed to reveal a rich base of evidence for our school to promote reading through e-

readers, particularly amongst those boys who need greater assistance to reach that deeper literacy skill level. Did the boys in general feel that e-readers increased their enjoyment of reading for leisure? The majority of boys were positive about this but also felt that e-readers had limited effect on increasing their reading competence. However, e-readers now hold their place in enhancing reading enjoyment and competence amongst a number of boys at Churchie.

How can using e-readers develop an adolescent boy's feeling of reading competence and enhance his motivation to read for leisure?

Rationale

The central role of teacher librarians is to develop programs and initiatives to encourage and support core learning. Literacy underpins learning tasks, so teacher-librarians are key to motivating and supporting deep reading within the school setting. How teacher librarians promote activities that develop boys' literacy can be a challenge when school library staff often has a strong female bias. As well, and in particular within the context of the Anglican Church Grammar School (Churchie), the boys in middle and senior school experience a very active lifestyle, which competes against the perceived sedentary habit of reading. With literacy-related technology moving into popular culture, teacher-librarians have a wider range of tools available to motivate boys in literacy-strong activities.

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Since many boys pride themselves in their technological competence and, if they see e-readers as a masculine vehicle for providing a positive reading experience, there is potential for e-

readers to build confidence and increase reading skill and enjoyment. It was within this context that I chose to investigate blending technology with reading to bring the boys back to reading for leisure. Hence, the research question became *'How can using e-readers develop an adolescent boy's feeling of reading competence and enhance his motivation to read for leisure?'*

Literature review

Boys are at the forefront of the reading debate. It is generally held that boys begin reading later, read less, value reading less, lag behind girls on 'almost every literacy measure in every country and culture from which data [are] available' (Smith & Wilhelm, p. 2) and define themselves as non-readers very early, with nearly 50% doing so by high school (Smith & Wilhelm, 2002; Tyre, 2008; Gallagher, 2009). The most recent PIRLS study (IEA, 2006) reflects that boys lag behind girls in the literacy stakes. As well, Smith and Wilhelm (2002 p. 13) cite various commentators on the subject of boys and reading, to conclude that,

... boys will go to great lengths to establish themselves as 'not female' and follow what their peer group establishes as gender-specific behaviour. If reading and other literate activities are perceived as feminized, then boys will go to great lengths to avoid them. This is particularly true if the activities involve effort and the chance of failure, for incompetence and expending effort are also seen as unmasculine. Achievement, for men, is supposed to be attained with ease. Boys will avoid feminized behaviors or responses as a form of 'pollution.'

Elliot-Johns and Booth (2009) caution that boys may be reading more than we give them credit for, and that formats that schools do not generally deem worthy of support are often ones that appeal to boys. In support of Elliot-Johns and Booth is Smith and Wilhelm's (2002) comment that boys are perceived as being more 'enthusiastic about reading electronic texts' (p. 11). Could it be that they feel more in control and more competent due to the inbuilt support afforded by e-readers (e.g. dictionaries, highlighters, font and backlight control)?

Smith and Wilhelm (2002) discuss the notion of flow defined by Csikszentmihalyi (1990) as 'the state in which people are so involved in an activity that nothing else seems to matter' (p. 4). Inherent in the notion of the flow experience is a sense of control and competence. The subjects of their research spoke frequently of how a feeling of competence caused them to persist with an activity such as reading and how they quickly gave up when competence was not perceived. Might boys see offering them the choice of reading electronically as a more masculine, social and worthwhile activity where a sense of control and competence allows them to enter a state of flow?



The level of literacy skills needed to enjoy reading requires a certain level of competence to bring them *into the flow*. ICTs and multi-mediated texts have been shown to have a positive motivational impact on boys (Passey, Rogers, Machell, & McHugh 2004) in that they become more consistent and persistent with a task. E-readers, then, may be the tool that could alter perceptions.

The following recent research suggests that e-readers may promote success in reading. Larson (2010), a Kansas State University professor, used the Amazon Kindle in her work with elementary school students. She determined that features such as audible text, ability to increase font size, and note-taking facilities had a positive impact on the way in which children interact with texts. They typically showed greater understanding of plot and character development when using an e-reader than in their interactions with the printed word.

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DeLamater (2010) also reported on studies of dyslexic students, finding that when they were offered an opportunity to select an optimal font size with less crowding, improvement of

reading ease and speed was commonly the case, thereby generally improving reading experience. She notes,

Digital text presents a new opportunity to readily adjust the text or font size of reading material given to students in school. Investigations over the past twenty years into the sources of slower reading on the part of dyslexic students have identified "crowding" as a central cause. Individuals, who have begun reading on devices such as the Apple iPhone or the Amazon Kindle, report a preference for larger font sizes and an accompanying improvement in the reading experience.

Supported by DeLamater's (2010) study into e-readers and dyslexia, Smith (2010) makes comment in her blogpost that e-readers aid the act of reading. Although not specifically relating this to boys, she does believe that there are some good reasons for considering the use of e-readers with struggling and possibly reluctant readers; a large part of that population we know are boys (IEA 2006). She also notes that having a text-to-speech synthesiser as an e-reader component reinforces words on the page and provides feedback, an important element in *going into the flow*.

Technology that has the potential to provide an enjoyable reading experience and an increased sense of reading competence was considered worthy of investigation.

Methodology

Action research, a methodology concerned with increasing understanding of human behaviour (McNiff, 2002), was chosen for this study. As it allows for small scale research within a school setting, for the teacher, by the teacher (McNiff, 2002), and has as its preference, qualitative data collection, it was the preferred choice of methodology for my investigation into using e-readers to provide boys with an electronic format in which to read for leisure.

Participants

Twenty boys in Years 7-11 (ages 13-17) were chosen. They could be roughly divided into three groups: those who find reading a real challenge, the 'average' reader, and those who already really enjoy reading for leisure and are capable readers. Each of them returned a form signed by both himself and a parent consenting to project participation.

Middle and Senior School Learning Support teachers were asked to nominate boys whose reading skills and attitudes were considered to be having a negative impact on their learning and for who an e-reader may be of benefit. A Year 9 class, as part of their course work, examined the notion of e-readers and their potential contribution to the reading world. Some members of this class agreed to join the project. The interest of boys in the Year 10 gifted program group was canvassed. I knew that there were some in that group who were very good readers. Their views too, were of interest and a number joined the research.

Data collection and intervention

Each participant completed a preliminary questionnaire on *SurveyMonkey* to establish their general level of reading, their interests, attitudes and reading preferences. Their perception of gender differences with regard to reading was sought. As well as gaining valuable baseline data, this enabled me to load the e-readers, with appropriate books, to suit the boys concerned. The boys were asked to nominate titles and authors they would like to read. In some cases, chosen titles were not available digitally. As a result, in some instances boys accepted their third or fourth choice or were provided with books within the same genre. As this was commonly the case, the final questionnaire sought feedback regarding the more limited range of e-books.

After completing the survey, each of the boys was loaned a dedicated e-reader, initially for a period of two weeks. These included Kobo readers, Sony PRS-650 readers, Kindles and one iPad. They were given a checklist of e-reader features to refer to whilst reading, the expectation being that each participant would use this sheet to acknowledge the features he found most useful and submit this at the time of returning the e-reader. The checklist served as a tool to focus attention on the e-readers' different features, which were not always fully obvious. The iPad, being a more expensive item, was not for home loan. It provided a number of the same books as those loaded to the dedicated e-readers and in addition, the digitally enhanced picture book *Animalia* by Graeme Base. The iPad, whilst offering far greater capability than simply e-reading, was seen by many as significant competition to the dedicated e-reader because it provided colour, high resolution complex graphics and increased interactive capabilities, yet could provide the same e-reading function.



Prior to the summer vacation, the boys were asked to reflect on the value of reading from an electronic device. Views were noted; either recorded using a Flip camera or field notes taken. With the summer vacation drawing near, giving ample time to read, it was decided to

extend the project to include this time. Some boys chose not to take the device over the holidays, expressing concerns regarding the responsibility for expensive equipment over an extended period.

On completing the project at the end of the December/January vacation, a final questionnaire using *SurveyMonkey* was undertaken by the boys to compare their 'before and after' views. In addition to this final survey, formal and informal discussions to determine the factors that increased interest in reading for pleasure, using e-readers, were sought and recorded as before.

It was particularly interesting to hear and record in detail, the voices of the boys in the group who found reading a real challenge. In groups of three or as individuals, a guided discussion was recorded; field notes taken. One very capable Year 9 boy (Student K) spoke formally to his class on the motivational aspects of e-readers. This was video-recorded. Whilst the boys used their own names in any data collected, they were given a pseudonym to ensure anonymity.

Data analysis

Data were examined throughout the project; key aspects of the information being summarized in chart form. Written and spoken responses were categorised according to the e-reading feature mentioned.

The initial survey provided me with vital base information concerning the boys' reading enjoyment, speed, feelings of reading competence, 'flow' experiences, their technological capabilities and attitudes. A summary analysis was made using the data analysis tools of *SurveyMonkey*. From this data, roughly three groups emerged: those for whom reading is a real challenge, the 'average' reader, and those who already enjoy it and are very capable. Each individual's response was colour coded within each category of the main summary chart, comparing key aspects from both surveys.

From the checklists and oral comments made on the return of the devices, I summarized the features they found most helpful in reading their books, and made note of differences between brands.

Key findings and discussion

At the commencement of this study, the boys agreed that reading was important, if not crucial, to their success in later life. Participants regarded themselves technologically competent, and, interestingly, a significant number did not see that enjoyment of reading and capability as readers were necessarily linked. When asked if they thought e-readers could motivate them to read, the greater majority believed it possible. However, after the intervention, although the majority of boys felt that the enjoyment of reading may have increased, only a small number felt that e-readers had any effect on increasing their reading competence.

It was noteworthy that of the boys who felt that they read faster, rated themselves more highly, and enjoyed reading more after the intervention of using an e-reader, only one of

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them fell into the category of being a highly capable reader. The less capable the reader, the more of a difference an e-reader seemed to make.

Perceived benefits

In terms of benefits in using e-readers, sixteen of the boys regarded adjustable font size and use of the integrated dictionary as useful to boys who find difficulty with reading, whilst ten participants regarded the touch screen facility (Sony) useful. Eight found the text-to-speech capability, screen size and weight a valuable feature. The boys also felt that added features on some of the e-readers aided their comfort and/or enjoyment of use, for example, colour, range of other applications available, user friendliness and clarity of the screen.

Leisure reading

The focus groups and informal discussions provided a chance for the boys to expand on their opinions after they had used e-readers. They made comment that in terms of leisure activities, they prefer to be outside and doing things. However, an e-reader, readily available in their bags and loaded with a wide variety of books, may assist boys in the pursuit of this balance as indicated by these comments from participants: Using the e-readers was an interesting experience, not necessarily making reading more enjoyable for me, but certainly making it easier and more accessible' whilst another noted, I found that the e-reader was more enjoyable because it is lighter and more aesthetically pleasing than a book. It was also easier to carry around in a case than a novel'.



It was noteworthy that fourteen of the twenty participants believed the e-reader did not increase feelings of competence. This at first seemed somewhat anomalous to some of the comments made, but it needs to be acknowledged that these devices were new to the boys. The boys suggested that greater familiarity with e-readers would be needed before a final judgment could be made. There were a number of comments made regarding how annoying it was that the screen of e-readers turned momentarily black when the page turned, as noted by this participant,

'It was convenient and fast to use. However, I did find the colour invert slightly dizzying whenever I turned the page.'

Not always could a boy read his first choice of book. One boy commented that,

'I often read books from recommendations from others. However, since many authors were not yet available on the e-reader, I simply read the first few chapters of the books available and read to see if I got 'hooked'.'

Another boy commented,

'I think that paper books have a better variety of books than the e-reader, but the e-reader is more enjoyable to read.'

Overall, the boys were very excited and pleased to have the opportunity to trial this technology. It was interesting to observe the boys when they were first handed an e-reader. One boy asked how 'thick' the book was, how many pages it had, and how big the print size was. He kept turning the device over in his hands, looking at it sideways and underneath it. He seemed to be looking for the traditional cues, provided by paper books, for choosing what to read. It became apparent that the decision as to whether a particular e-book is the sort that will meet your reading requirements must be based on a different set of criteria to those used when choosing a traditional book. Another boy also noted,

'It is easier [when using an e-reader] to choose a book that I know of, as it becomes more accessible. However, I believe it would be harder to choose a book that I did not know, as there was no cover, blurb etc. upon which I could base a judgement'.

It became increasingly apparent to me that many facets of a paper book are key indicators to its potential for an enjoyable reading experience. The cover, thickness, size of font, illustrations, layout and perhaps even the quality of the paper may traditionally influence the boys' decision to read a particular book. It was also clear that a reader gains 'feedback' by seeing where he is up to in a book. As one boy noted,

'I prefer holding a book and seeing how much I have read'

and another remarked,

'It's hard to know what page you're on. It only says the location'.

It would seem that a sense of achievement can be gained from seeing how many pages have gone by, and it may also be possible that an experienced reader gains insight into how far

away a critical moment in the narrative might be from how far physically into a book he has read.

As all Year 10 students possessed an electronic tablet, opinions were sought on the use of these as e-reading devices. One boy summarised what a many of them felt,

'Reading a book on a computer is too distracting as there are other things on the computer. Also the computer doesn't engage you as a reader as much when you have an actual book in your hands'.

Most felt that, whilst the tablet was a very useful tool for research and completing assignments, when it came to reading for pleasure, a more dedicated device, either a paper book or an e-reader, was preferred. Yet another student summarised the situation for some of the more capable readers when he said, *'I don't really mind as to what my format of reading is'.*

Conclusion

The action research into using e-readers to enhance boys' enthusiasm and success in reading for leisure demonstrated an overwhelming majority of the participants acknowledge that the use of an e-reader actually increases, or may increase their reading enjoyment. As well, an interesting correlation between reading enjoyment and competence appears to exist amongst a number of the boys that Churchie has regarded as needing greater assistance with their reading. On the whole, e-readers have been demonstrated at Churchie to develop adolescent boys' feelings of enjoyment and competence in reading for leisure, especially in cases where literacy and learning are being compromised by a lack of motivation.

Once completely familiar with the technology, it may be that a state of flow in reading could be more easily achieved. There may also be some inherent features of an e-reader, which simply do not lend themselves to flow experience for some people.

Implications of the study on practice

Whilst it would seem that there are a number of features which make e-readers very useful tools in the teaching of reading to boys who find reading a challenge, namely the adjustable font size, the easy use of a dictionary and text to speech capability, there is an undeniable elegance inherent in the traditional paper book which has not been lost on the twenty young men in my study. As one boy in Year 11, who is now into the second year of using an electronic tablet for all his studies, commented,

I believe paper books still hold relevance in modern society because the thought of relaxing does not involve sitting with a computer or other such device because most of the education or working world involves these devices. Relaxing is thought of as escaping this.

This boy is speaking of reading for leisure rather than for research related purposes. If e-readers and related electronic devices can provide those boys, for whom reading has never been a pleasure, an opportunity to increase their reading speed and ability and thereby gain

some enjoyment from the experience, then they must surely serve a useful purpose in teaching boys to read. The fact that an e-reader can hold hundreds of books and be so lightweight and space-effective is also an undeniable advantage.

Implications for future research

A longitudinal study whereby boys use an e-reader continuously over a longer period, becoming more thoroughly comfortable with the technology, may see a stronger co-relation between reading enjoyment, competence and flow. Despite eighteen of the boys regarding themselves as at least competent in the use of technology, comments suggest that a frustration factor is often just below the surface when using any technology, and that this is absent when using a traditional paper book. A second cycle of action research will document the changes in engagement with reading for leisure amongst the more reading-challenged boys, who have purchased their own e-readers, could provide a more solid foundation for judging the motivational aspects of e-readers.

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