

**Ways to Improve Reading Fluency: the Addition of Podcasting and
Tape-Assisted Reading to Readers Theatre.**

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DECLARATION

I declare that the work described in this dissertation is, except where otherwise stated, entirely my own work and has not been submitted as an exercise for a degree at this or any other university.

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Abstract

There are direct links in the literature between developing skills for reading and having motivation to read and Morgan and Fuchs, (2007) state that readers that are highly motivated read three times as much as struggling readers and acquire strong reading skills as a result. The importance of motivation in the learning process is well accepted and nowhere is it as vital as in the acquisition of reading fluency. Fluency entails being able to read accurately, automatically and expressively and is directly linked to comprehension. As the goal of reading is to comprehend, reading fluency is recognised as extremely important, as without it, one cannot progress from learning how to read to reading for the purpose of learning (Balsiger,2010). Guided repeated reading is one method that has been proven to improve fluency (Dowhower, 1987, 1989; Rasinski, 2004; Therrien & Kubina 2006) as has Assisted reading, (Kuhn & Stahl, 2000; Rasinski & Hoffman, 2003) where a student listens to a fluent reading of a text and reads along. Readers' Theatre (the oral reading of scripts, with an emphasis on expression) has been proved to be an authentic vehicle for repeated reading practice and has repeatedly improved fluency rates as well as been shown to be motivating (Griffith & Rasinski, 2004; Rasinski, 2002).

Since technology has entered the realm of education there have been many debates as to its role and efficacy however, its role as a motivator is certainly promising. It is important, however, that technology is integrated in a way that supports and complements good educational pedagogy and not purely for novelty value (Keller, 1987). .

With this in mind the research questions addressed in this study were;

Is podcasting a positive addition to Readers Theatre? A sub question asked: Is podcasting a motivating factor in Readers Theatre? A second question was posed: Is Tape-Assisted reading, using a CD, a positive addition to Readers theatre?

The learning experience involved the participants taking part in a ten week block of Readers Theatre. Their performances were recorded and posted to a classroom blog. Tape-Assisted reading was incorporated by the provision of audio CDs for homework, which facilitated the participants in listening to modelled fluent reading outside of the classroom.

Data was collected for this case study through mixed methods including pre and post-test Gambrell's (1995) Motivation to Read Profile (MRP) reading surveys, Dynamic Indicators of Basic Early Literacy Skills (DIBELS),6th ed. Oral Reading Fluency tests combined with a National Assessment of Educational Progress (NAEP) fluency rubric. Conversational interviews with participants and a sample of parents, plus researcher observations were also undertaken.

Quantitative findings from the study show a small average increase in motivation, a large average increase in the accuracy element of fluency (as measured in words per minute) some more moderate increases in comprehension but balanced by average 25% increases in prosody levels. Qualitative findings identified a core theme of the benefits of being recorded which connects the themes that are connected to the use of technology: being able to hear yourself back due to recording Readers' Theatre scripts, having a wider audience, and an increased awareness of prosody

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Glossary

Accuracy: the ability to decode words without errors.

Automaticity: decoding words proficiently well to not have to think about it (Samuels, 2002; Stanovich, 1991)

Choral reading : reading out loud all together

Comprehension: taking meaning from text.

Decoding: deconstructing and reconstructing units of sound to make meaning

Echo reading: taking it in turns to read a passage, paragraph or sentence with a partner,

Independent reading level: can be read with 95-99% accuracy

Instructional reading level: can be read with 90–94% accuracy

Phonemes: the individual units of sound in a language

Phonics: the connection between sounds and letters

Phonological awareness: the ability to hear the different sounds of speech.

Prosody: appropriate expression, intonation and phrasing in reading thus demonstrating understanding of text (Young & Rasinski, 2009, Schreiber, 1991).

Reader’s Theatre oral reading of scripts, without costumes, props, or learning of lines, emphasising tone of voice, intonation and phrasing to show understanding (Griffith & Rasinski, 2004; Larkin, 2001)

Reading fluency: reading accurately and automatically, with appropriate expression.

Vocabulary: acquisition of words for communication.

1.0 Introduction

1.1 Background

Educators agree on the importance of literacy as the foundation for academic achievement. Reading could be said to be the foundation of all learning as through the practice of reading, reading skills are acquired which ultimately open the door to knowledge, (Guthrie et al. 2006, Wilson & Casey, 2007). Motivation is a powerful factor on the road to reading success. It has been described as the driving force behind our actions and it plays quite a large role in learning to read (Wigfield, 1994; Hidi & Renninger, 2006). Research has shown the link between reading skills and motivation to read and how motivation can even be predictive of achievement on standardized reading tests (Guthrie, Wigfield & Humenick, 2006). Conversely, reading achievement can be predictive of reading motivation (Morgan and Fuchs, 2007). Stanovich, (2002) strongly supported, the link between motivation and reading achievement and coined the term the Matthew Effect to explain how weak readers miss out on the opportunity to further their reading skills because they do not practice reading and hence this becomes a cycle. Morgan, Fuchs, et al.'s (2008) longitudinal study looked at the effects of problems in reading during the early years, on reading motivation. Weaker readers saw reading as challenging, themselves as lacking in competence and did not view reading as positively as the stronger readers. This attitude remained unchanged throughout the study and their reading motivation remaining weak. Whilst those working in education have long understood the link between motivation and learning, the body of research on the topic is still quite modest (Edmunds and Bauserman, 2006) and there is much to be learned.

The National Reading Panel's report, carried out by the National Institute for Child Health and Human Development (NICHD, 2000), identified five components of reading instruction (phonemic awareness, phonics, fluency, vocabulary and comprehension) and fluency, in particular, has garnered attention as a vital contributor to reading success. Fluency entails reading accurately, automatically and with correct intonation and phrasing (Hudson, Lane & Pullen, 2005). It has been shown to be a necessary link between the analysis of words and the understanding of text (Kuhn & Stahl, 2003; Rasinski, 2002; Therrien & Kubina, 2006). Repeated readings (Samuels, 1979), involving guided oral reading of the same passage, is a research based strategy that has proven successful at

improving fluency (NICHD, 2000). Repeated readings can, however, lead to boredom and so Readers' Theatre (RT) can provide an authentic vehicle for repeated reading. Research has shown that it increases fluency and general reading competency, whilst also, providing a motivation for reading (Rasinski, 2004; Therrien & Kubina, 2006; Worthy & Prater, 2002).

Promoting fluency seems to be a logical way to improve reading skills and so should be a vital strand of every teacher's approach. However, fluency only comes about from opportunities to practice reading and struggling readers do not get this practice to hone their skills. This is why motivation is so important in reading and why it needs to be harnessed to help students on the road to reading and ultimately, academic success.

1.2 The research question

There has been much debate on the role of technology in education and how best it can be integrated into learning. Certainly, it has been shown to be extremely motivating for learners and studies such as Mouza's (2008) who reported increased intrinsic motivation in students' attitude to schoolwork and tasks when using classroom laptops and Harvey-Woodall (2009), who found using technology made learning more meaningful and interesting, add support to this theory. Children are now surrounded by technology of all kinds (Gee, 2004) with new technologies appearing at a rapid pace and extending the possible ways in which we can use technology for learning. Therefore, it is logical to harness the motivational potential of these technologies in order to truly engage children in learning (Dede, 2005).

With this in mind, this research aimed to investigate what effect, if any, the addition of podcasting has on the outcome of a Readers Theatre intervention. The research question was 'Is Podcasting a positive addition to Readers Theatre? A learning experience, based on a review of relevant literature and designed according to principles found in the literature was created. The sub question arising from this research question was 'Is the addition of podcasting a motivating factor in Reader's Theatre?' A second question was posed: Is Tape-Assisted reading, using a CD, a positive addition to Readers theatre?

1.3. Road Map

Chapter 1. Introduction: provides a brief context for this research and outlines the research question.

Chapter 2. Literature review: reviews the relevant areas in the research that serve as a background to this research.

Chapter 3. Design: overview and implementation of this research allied to the design principles from the literature. It also gives details of participants, site selection and ethics.

Chapter 4. Methodology: outlines the methodology and data collection methods used.

Chapter 5. Findings. Outlines results, analysis of data, and discusses findings in relation to research questions .

Chapter 6. Discussion. Provides a review of findings. It also outlines the limitations of the study.

Chapter 7. Conclusion: sums up main findings, and positions the research in terms of its contribution to the literature. Recommendations for possible future research are provided.

2.0 Literature review.

2.1 Introduction

The National Reading Panel's report in 2002, 'Teaching Children to Read', focused on five components of reading instruction, which subsequent research has validated (August & Shanahan, 2006). These five components - phonemic awareness, phonics, reading fluency, reading comprehension strategies and vocabulary development – are all interconnected, but, effective reading comprehension, in particular, is strongly linked to reading fluency (Allington, 1983). Fluent readers are able to identify words accurately while simultaneously focusing on comprehension. Repeated reading (Samuels, 1979) as a way to improve fluency and comprehension is well established (Rasinki, 2006). Readers Theatre (RT), as a vehicle for repeated readings, has been shown to provide a legitimate context for engagement with repeated readings, as well as gains in comprehension (Martinez, Roser & Strecker, 1999). Guthrie and Wigfield (1999) define reading motivation as the beliefs and goals one has regarding reading while Verhoeven and Show (2001) view it as a critical factor on the road to becoming a good reader. Podcasting has been used in education, and studies such as Vess (2006) attest to its power to retain students' engagement with the reading process. In this literature review I look at why reading fluency and reading motivation are important to reading achievement, how RT and Assisted reading contribute to increasing reading fluency, podcasting use in education as well as introducing the current study.

2.2 Literacy

Literacy has been defined as the “ ability to identify, understand, interpret, create, communicate and compute, [which] involves a continuum of learning in enabling individuals to achieve [their] goals, develop [their] knowledge and potential and participate fully in the community and wider society” UNESCO (2008, p.18). Literacy is a combination of reading, writing, speaking and listening and these strands are all interlinked. Holden (2004) sees reading, in particular, as holding the key to personal development, and also to social, economic and civic life. So how does reading contribute to literacy? Reading allows for acquisition of knowledge. As children develop as readers, they progress from learning how to read to learning from what they've read and thus expand their vocabulary and knowledge (Balsiger, 2009). The National Reading panel's

(NRP) report (NICHD, 2000) reviewed the teaching of reading and identified five areas of reading instruction: Phonics, phonological awareness, vocabulary, reading fluency and comprehension. Reading fluency, in particular, is extremely important and an indicator of overall reading ability as when the focus of reading is not on decoding, there is room to focus on comprehension thus developing higher order skills of analysis and critical thinking which are needed for reading success (Balsiger, 2009). Reading fluency, therefore, provides a foundation stone for our academic achievements and it is this aspect of literacy I shall focus on in this review.

2.3 Reading Fluency

According to Raskinki (2006), reading fluency is when you can read with sufficient accuracy, automaticity and prosody to comprehend what you are reading. If you don't have to think about decoding, you can concentrate on comprehending what you are reading. These three aspects of fluency are inextricably linked (Rasinski, 2004) as accurate and automatic reading provides the foundation for expressive reading. Therefore, a major goal in teaching reading must be to ensure that students become fluent readers (Kuhn & Stahl, 2003) as it impacts directly on their motivation to read and by extension, their reading skills (Daly, Chafouleus & Skinner, 2004).

2.3 Repeated Readings

Repeated readings are one way to improve fluency and comprehension (Samuels, 1979; Rasinski, 2006). The NRP carried out a review of two popular approaches to increasing fluency, guided repeated oral reading and silent independent reading. (NICHD, 2000). They concluded that when guided oral reading is carried out with strong teacher support, it is the most effective. This can take many forms such as echo reading (teacher reads sentence/paragraph aloud and student then reads it), partner reading (better reader/teacher take turns reading aloud) and choral reading (teacher and students read aloud together). Accuracy, automaticity and prosody are interconnected, however, as reading rate improves only if decoding skills are good and reading practice is provided with expressive reading as the focus (Rasinski, 2004). However, accuracy and automaticity are regularly focussed on over prosody in repeated readings, the result being faster reading but poor comprehension (Rasinski, 2006). Hence, the goal of guided repeated reading needs to be to improve all three aspects.

2.5 Assisted reading

Assisted reading (reading whilst listening to a modelled reading of text) has also been identified in research as leading to gains in fluency and overall reading skills (Kuhn &

Stahl, 2003). Research such as Reitsmas (1990), Pluck (1995) and Carbo (2005) reported it to be as beneficial as repeated readings. It complements repeated reading in that it allows the listener to hear what fluent reading should sound like and how text should be interpreted (Raskinski, 2003). Tape-Assisted reading is the use of a recorded model to facilitate listening while reading and it has been shown to be especially beneficial for struggling readers (Carbo, 1978b; Hollingsworth, 1970; Shany & Biemiller, 1995). Using it to support repeated readings then, provides extra support without having the teacher present. It has been employed successfully in a variety of ways from using it in-class to commercial reading programs for home use (Raskinski, 2003). Dowhower's (1987) study comparing the effects of repeated readings combined with Tape-Assisted reading against those of repeated readings alone found both approaches did increase accuracy, fluency, comprehension and prosody, but the former resulted in superior prosody.

2.6 RT – a vehicle for repeated reading

RT is the oral performance of a written script and provides a reason for repeated reading. No acting, props, costumes, or scenery, are used, instead, readers must use their voices to interpret meaning. The repeated reading of the script provides the practise necessary to improve fluency, especially for weaker readers (Martinez et al., 1999; Griffith & Rasinski, 2004). RT can improve overall reading skills and also increase comprehension (Griffith & Rasinski, 2004; Martinez, Roser, & Strecker, 1999; Kuhn & Stahl, 2003; Rasinki, 2004). Research has shown those who are most likely to benefit from guided repeated reading are students with instructional reading levels between first and third grade (6-9 year olds) (Rasinski, 2004; Therrien & Kubina, 2006). Allied to this, RT has been found to be an engaging and motivational activity for students (Coody, 1992; Busching, 1981; Worthy & Prater, 2002; Therrien & Kubina 2006) which, in turn, facilitates the whole cycle of reading and skills acquisition.

2.7 Reading Motivation

While there has been much research focussing on the mental processes connected to reading (Chard, Vaughan & Tyler, 2002; Kuhn & Stahl, 2003; Rasinki, 2004), there has less focussing on the potential role of motivation in reading. According to Guthrie, Wigfield, Metsala and Cox (1999), reading requires motivation; as to look at text with the aim of understanding displays intention. To read proficiently one must have the skills and the will to read. These beliefs and goals are described as reading motivation (Guthrie & Wigfield, 1999). Motivated children are regular readers and along with that comes improved reading skills (Wang & Guthrie, 2004). Unmotivated children engage less with

reading than their motivated peers (Guthrie, Wigfield, et al., 2006) and hence, don't get the practice they need to improve their skills. Morgan and Fuch's (2007) review of the literature on the relationship between reading achievement and reading motivation highlights this problem of low reading motivation as a major factor in later reading problems. A strong connection, also, exists between motivation and success in school whereby unmotivated students may fall behind and may eventually fail (Guthrie, 2008). This self-perpetuating cycle can begin as early as first grade (6-7 years old) Morgan & Fuchs (2007). Research, (Gambrell, Palmer, Codling & Mazzoni, 1995; Schunk & Rice, 1993; Wigfield, 1994; Renninger, 1992) has shown how reading motivation is directly linked to all the components of reading – phonemic awareness, phonics, reading fluency, reading comprehension strategies and vocabulary development (NICHD, 2000). For successful reading, literacy components are required to work in conjunction with one another (Miller & Veatch, 2010), therefore, readers with poor reading motivation can experience poor literacy outcomes.

2.8 Motivation

Motivation has been defined as 'the attribute that moves us to do or not to do something' (Gredler, Broussard and Garrison, 2004, p.100) and plays an important role in the reading process. Motivation consists of intrinsic and extrinsic motivation, with intrinsic motivation identified as doing something for the internal pleasure it brings (Deci & Ryan, 2000). Intrinsic motivation makes a student read and is associated with developing the love of reading throughout life (Guthrie, Wigfield & Humenick, 2006). Extrinsic motivation is associated with external rewards, praise, or avoiding being reprimanded (Schunk, 2005). Both types are known to improve time spent on task, thus improving learning and outcomes (Wigfield, 1994), and have been linked to cognition and the processing of information (Hidi & Renninger, 2006). People that are intrinsically motivated and task oriented, however, tend to be avid readers and high achievers (Guthrie et al, 2000) and so those in education have viewed intrinsic motivation as producing better learning outcomes.

Of course, other theories of motivation impact upon learning and none more so than Bandura's (1977) theory of self-efficacy (the perception of one's ability to carry out a task). This theory has relevance for reading motivation and reading because if children view their reading skills as competent they are more motivated to read and engage with the process (Wigfield, 1997). Students' perceptions of how their reading is progressing comparable to others', the type of feedback they receive from others plus how they feel

about reading, all impact their reading motivation (Mallete, Henk & Melnick (2009). Self-efficacy theory, in practice, then causes people to engage with activities that they perceive themselves as being good at (Van der Bijl & Shortridge-Baggett, 2002) and is something to be aware of when considering any reading intervention.

2.9 ARCS Model of Motivational Design (Keller, 1987)

In the 1980's, Keller investigated the role of motivation in the design of learning environments and he condensed his findings into a model of instructional design that would provide a framework for analysis and design of a learning intervention. Keller's ARCS (1987) model of motivation focuses on four categories: Attention, Relevance, Confidence and Satisfaction (ARCS). These can be explained as: **Attention:** the learner's interest must be aroused and sustained. **Relevance:** the material must be relevant to the needs and interests of the learner. **Confidence:** the learner must feel he/she will be successful and that success is within the learner's control. **Satisfaction:** intrinsic or extrinsic rewards should reinforce achievement. These categories are based on constructs from psychology and have strong theoretical foundations (Keller, 1987). Gabrielle's (2003) used ARCS and showed how combining motivational theory and instructional design can have positive results. The adapted ARCS model (Suzuki & Keller, 1996) provides a useful matrix with which to analyse a learning intervention thus ensuring that motivational strategies are applied where relevant and not for their novelty value.

2.10 Technology and Literacy

Since technology has entered the literacy arena there have been debates about its influence on learning and motivation; however, Prensky (2008) maintains these debates go backwards and forwards without any definitive proof. The question of whether it is the intrinsic features of hardware or software or technology itself that is motivating has not been resolved, but, it does appear to lead to greater engagement (Cummins, Brown & Sayers, 2006), which is vital in the reading process. The widespread growth of technology has changed traditional literacy definitions and what is involved in being literate (Coiro, 2003). These definitions are evolving as new technologies emerge (Leu & Donald, 2000) with new skills such as search, navigational, evaluative and synthesising skills being required, Coiro (2005).

The *No Child Left Behind Act* (U.S. Department of Education, 2005) aims for students to be technically literate at the end of eighth grade (14-15 years) yet most schools have not embraced the full range of technology available and Web 2.0 tools such as blogs, virtual

worlds, games, and social networking sites continue to be mainly absent from classrooms (Lemke et al, 2009). Aubrey & Dahl's (2008) review of technology use in United Kingdom early years settings, also revealed low usage similar to findings by Burnett, (2005) and Levy & Marsh, (2011). This is at odds with the out of school lives of most children where they encounter various technologies and develop digital literacy skills which are not being transferred to the classroom (Levy, 2009). In the Irish context, the Students on Line (2009) report - part of OECD's Programme for International Student Assessment's (PISA) study - tested digital literacy as part of a reading survey of sixty five countries, nineteen of which participated in the optional digital reading assessment. Ireland's above average results in digital literacy contrasted with a decrease in reading scores in the regular literacy tests relative to previous years. The positive result on the digital literacy test may well testify to the widespread use of digital media that young people are exposed to in their home lives and their familiarity with the medium. This suggests that educators should be harnessing technology to make literacy learning more relevant to learners.

The success of any reading intervention is dependent on students being motivated to read in order to enhance their vocabulary and practise using reading strategies (Roberts et al, 2008). Podcasting is a technology that has been known to encourage prolonged engagement and be motivating (Lee, McLoughlin & Chan, 2007) and studies such as Putman & Kingsley (2009) highlight the effectiveness of using podcasts to reinforce learning, especially for struggling learners. Blogs, too, have been used to enhance reading skills with studies such as Glewa & Bogan (2007), Rowen (2005) and Sherry (2007), confirming their motivational possibilities. Sherry's (2007) research on using a blog as part of a literacy program found it a safe and motivating way to reach out to an audience beyond the classroom. Technology can further be beneficial in reading fluency instruction by enabling Tape-Assisted reading to extend outside of the classroom via CD or downloadable podcast. According to Young & Bush (2004) technology use should be about empowering students to succeed and should complement existing literacy approaches, and these technologies do appear promising..

2.11 Podcasting in Education

The term Podcast refers to a digital audio file, distributed over the Worldwide Web, that is downloadable to a computer or personal MP3 player (Skouge, Rao & Boisvert, 2007). The term 'podcast' is generally accepted to have evolved from combining the words iPod and

broadcast. The definition of podcasting remains an evolving one, however, given the ever-changing nature of modern technology (Brittain, Glowacki, Van Ittersum & Johnson, 2006). Podcasts can consist of audio alone or can come as enhanced podcasts (audio and video) . Podcasting has been in use in education as far back as 2004, with much of the research being done in universities (Harris & Park, 2008). Certainly, with ipods having become so popular with students (Corbeil and Valdes, 2007), and the widespread use of Smart phones, which incorporate MP3 players, it seems like an ideal technology to integrate into the classroom. The attractiveness of podcasting for educators is that content can be created easily, it provides an authentic audience and it can facilitate collaborative learning (Smythe & Neufeld, 2010). In the collaborative learning process two or more people are required to learn something together and a successful outcome can only be achieved by working together (Gros, 2001) and when students work together to create a podcast, the end result is dependent on everyone contributing. Slowly, the benefits of podcasting are being explored as educators see the value of integrating technologies from the real world, in order to engage students in their learning (Lee, McLoughlin & Chan, 2007).

Hew's (2008) review of audio podcasting records most use to be in higher education settings, with lecturers using it to facilitate students listening back to lectures or for delivering extra course materials. The other use of podcasting has been where students create their own podcasts. According to Borja (2005), K–12 (4-18 year olds) teachers are now beginning to realize the potential of this because even young students can participate in scriptwriting, editing, and producing podcasts. Larsons (2008) study with pre-service teachers had a group of teaching students create a podcast simulating a live broadcast from 1870's Brooklyn as part of an exploration of the potential for integrating technology and literacy. Smythe & Neufeld, (2010) carried out a digital literacy intervention, involving podcasting, in a grade 6 and 7 ((12-13 year olds) classroom and noted how a variety of literacy practices such as revision and redrafting were engaged in willingly as they became a community of learners working towards a common goal.

There is less research on podcasting in the pursuit of literacy skills in primary school settings. In their 2006 study, Ketterer and Greig used iPods to help kindergarten and 1st grade (4-7 year old) children with reading problems. Students could download podcasts of classroom lessons recorded by their teacher to listen to after school, with dramatic

improvements in reading recorded. Young's (2007) study with eight 5th and 6th grade (11-12 year olds) special education students, investigated ways the use of technology might influence their reading and writing. She used ipods to provide extra support during class test situations, uploaded two Readers Theatre podcasts and other class made podcasts to a class website plus the class published their written work to the website. Whilst reading fluency did improve a little, it was participants' enthusiasm that was noted as significant and to which she attributed the incorporation of technology. Wang (2008) looked at the use of ipods by three reading tutors in a reading program for struggling readers. The three tutees were from second and third grades (7-9 year olds). The ipod was used in a variety of ways including tutors narrating a story so that tutees could listen to modeled reading outside of tuition time and, also, tutees making their own recording of the story and receiving feedback from the tutors. An increase in motivation allied to a slight increase in fluency and prosody was recorded, while (previously high) comprehension levels remained unchanged.

Limited research has been found on the use of podcasting with RT. Vasinda and McCleod's, (2011) study of 2nd and 3rd grade (7-9 year olds) students is one example. On average, reading fluency improved by one grade (class) level. Themes relating to RT emerged: authenticity, the collaborative and social nature of RT and the benefits of repeated readings. Most interesting, were themes that could be connected to the use of technology. Posting scripts online to a school district website created a wider audience for their performances and this was deemed an important and motivating factor. The permanent nature of the recordings gave students an opportunity to listen back, reflect on and evaluate their performances. Lastly, students used visual vocabulary when describing their podcasts which mirrors the skill of visualization, an important comprehension strategy. This research showed how podcasting can add to the benefits of RT, however, further studies should be done to increase the evidence base for such claims.

2.12 Current study

In the literature, reading fluency is seen as vital in that it leads to good reading comprehension and ultimately, success in school. The NRP report (NICHD, 2000) recommended repeated oral reading as one of several approaches to building reading fluency. As poor readers tend to get frustrated (Raskinki, 2000) this has an effect on their motivation to read and the connection has been shown between lack of reading practice and ultimate reading achievement (Daly, Chafouleas, & Skinner, 2004). Any reading

intervention should, therefore, incorporate some kind of motivational component. The attraction of podcasting to students seems to be that it reflects the world they live in outside of school, which can be motivating (Adams Palmer, 2006). This possibility to motivate must be harnessed and used in conjunction with proven teaching methods (Vasinda & McCleod, 2011; Putman & Kingsley, 2009) in order to achieve successful results. Any technology employed must be suited to the learning objective (Kozma, 1991) and not chosen purely because of its motivational possibilities. As the end product of RT is auditory it does not distract from the objectives of RT (Vasinda & McLeod, 2011) and so, is a suitable technology to incorporate.

As motivation is important to learning and especially to developing fluency, the intervention sought to take account of motivational theory and thus provide the optimum environment for increasing reading motivation and reading fluency. Thus, as well as incorporating suitable motivational strategies based on ARCS model of motivational design (Keller, 1987), this study consisted of Podcasting RT performances, a class blog to which recordings could be uploaded, class time for groups to listen back on class computers and evaluate their previous performances, Tape-Assisted reading (modeled recording of weekly scripts given to students on CDs for support at home) and all combined with the proven literacy strategy of RT.

2.13 Conclusion

This literature review has discussed the importance of developing good oral reading Fluency in pursuit of reading goals and highlighted the importance of motivation to read in the process of developing reading skills. The role of technology in changing the definition of literacy was looked at added to a specific focus on the use of podcasting in literacy instruction. The current study with its focus on implementing a technology mediated learning experience using a motivational design was outlined. The next chapter will outline how the learning experience was designed and implemented.

3.0 Design

3.1 Introduction

In this chapter an overview of the learning experience is provided followed by how it was implemented. A detailed breakdown follows of how Keller's ARCS (1987) model of motivational design was used as a guide to incorporate motivational strategies. Details of site and participant selection and ethics approval are, also, outlined.

3.2 Overview of learning experience

The intervention consisted of implementing a block of RT, with the addition of technology, into a first class (6-7 year olds) classroom. It was designed to combine proven literacy strategies for improving reading fluency (RT and Tape-Assisted reading) with podcasting in order to provide a motivating learning experience and positively affect reading motivation and fluency. Podcasting, was chosen because of its aural nature and hence it was unlikely to interfere with the aims of RT (Vasinda & McLeod 2011). Also, because modelling is so important for improving fluency especially prosody (Rasinki, 2003), Tape-Assisted reading via CD was chosen to provide extra support for RT. This was an important addition to the learning intervention as previous research has shown it to be very beneficial for prosody when used with repeated readings (Dowhower, 1987) It has also been noted in studies to have improved attitudes to reading and increased self confidence due to gains achieved in fluency and comprehension (Gilbert, Williams & McLoughlin, 1996; Koskinen et al, 2000). Lastly, a blog was created on www.wordpress.com for the weekly recordings to be uploaded to as it offered an easy way to provide a classroom website. Audacity was chosen for recording purposes as it is free software, easily downloadable and simple to use. Two classroom computers with headphones, were used during afternoon literacy stations for groups to listen back and evaluate the recordings from the previous week. The participants each received a recording of the weekly script on a CD each Monday to facilitate being able to listen while reading through the script at home. A recording of the weekly scripts was also uploaded to the blog so that participants could listen to it online should they choose. Reading the script along with the CD for ten minutes was assigned for homework, Monday through Thursday.

3.3 Implementation

Research was carried out during a normal school day. The daily RT script readings and recordings took part during Literacy hour during which there is a Learning Support teacher

in the room, who acted as research assistant. The MRP reading motivation survey (Appendix 1) and DIBELS ORF test (Appendix 2) was administered to participants in the classroom before the learning intervention by both researcher and assistant. Questions were read out individually to each participant to avoid any potential reading difficulties. Other participants were given an activity at which they could work independently. To maintain consistency we agreed how we would read out the MRP survey, rate prosody when using the NAEP rubric (Appendix 3), do the scoring for DIBELS ORF tests, and what instances were important to record for observation purposes.

The daily reading intervention was fifteen minutes per group, so each received one hour per week intensive instruction plus about fifteen minutes on Fridays for read through and recording of performances. This amounted to nine and a half hours per group over the total of the seven weeks and thirty six hours in total. (one week was three days due to midterm). We took turns at reading with the groups whilst the others either read their scripts independently. The sequence of events were:

- Parents and participants were informed of research two weeks prior to Christmas 2012. A short meeting was held after school to provide further details to parents and answer any questions about the intervention, using the CDs or using the class blog.
- In the week prior to start of intervention, RT was introduced as a challenge to participants. (How can we perform scripts without costumes and props?). A discussion was generated, looking for participants' ideas and what they knew about using their voices to tell the story.
- The participants were in four pre-existing reading groups who had been streamed according to standardised reading assessments in September 2012, with a big difference in abilities between the strongest and weakest groups. Scripts were sourced mainly from www.thebestclass.org and some other sites offering free scripts and chosen based on each groups ability. Interests were accommodated by participants contributing suggestions for stories they liked. Scripts were deemed to vary between instructional and independent reading levels. Although recommended to use materials at independent level for fluency practice, materials at instructional level can be used if guided and supported by the teacher (Allington 2006)..
- Mondays, Tuesdays, researchers modelled reading the scripts, checked vocabulary and provided feedback. Any difficulties with words or understanding was focussed on. After the researcher modelled reading of the script, choral reading was carried out followed by round robin reading. Although round robin reading is not considered to be

beneficial for developing fluency within a whole class grouping (Allington & Cunningham, 2009), it was seen as useful, in a small group setting, for providing the repeated reading practice needed. Pairs also practised echo reading the script together.

- On Wednesdays, participants were allowed to select their part. If there were two people wanting the same part, they had to audition for the part and the best reader was chosen by the researcher or the group. We then focused on reading through the script with each reading their own part with immediate corrective and or confirmative feedback given.
- On Fridays, each group was recorded while the other children acted as the audience. Recording was done using researcher's laptop, and a freely downloaded sound recording package (Audacity) and a microphone. Prior to recording, each group read through their script with feedback given from the researchers. We also did occasional performances of scripts for other classes.
- At the weekends, recordings were uploaded. Posts to the blog were made about the week's activities. The following weeks scripts were then chosen, recorded and uploaded to the blog.
- On Mondays, the previous week's recordings were put on classroom computers for groups to listen back to at literacy stations time. The researcher sat with each group to get feedback from and give feedback to them. The Wordpress site was blocked by school internet settings so sometimes, the researcher brought a laptop in and played it back from the site. Scripts and CD's were distributed on Mondays apart from the week of the midterm break when school closed Thursday and Friday and so were distributed on the previous Friday to allow time for reading on weekend. On that week parts were allocated on Monday and recorded Wednesday.
- Finally, participants completed post intervention MRP reading surveys, DIBELS (DORF) and NAEP fluency tests. Interviews (Appendix 5) were conducted by the researcher throughout the following two weeks, in a quiet area in the room, while the others worked independently. Due to absences, it took two weeks to gather up all data.

3.4 Design Criteria Arising from the Literature

Learner motivation has a huge impact on learning and must be taken into consideration when designing a learning experience if the outcome is to be successful (Keller & Burkman, 1993) As motivation is influenced by many factors, it would be impossible to take account of all of them but nevertheless it should be a guiding principle throughout (Keller, 1983). Keller's ARCS Model of motivational design (1987) was chosen for this

study because it provides a useful motivational lens with which to design a learning intervention. The four elements are:

Attention: - getting the learner's curiosity aroused and maintaining curiosity

Relevance: - ensuring the activity is relevant to their interests or needs.

Confidence: - facilitating the learner to expect success

Satisfaction:- reinforcing what has been accomplished.

3.5. ARCS (Keller, 1987) Strategies applied to learning experience

ARCS (Keller, 1987) was adapted by Suzuki and Keller (1996) and a matrix provided from which motivational tactics can be adopted that match the characteristics of learners and material to the desired outcome. The literature tends to agree that children's intrinsic motivation starts off at a high level (Stipek, 2006) while decreasing as children get older (Guthrie, 2000), therefore, given that the participants were all in the 6 – 7 age group, it was assumed that their general level of intrinsic motivation was reasonably high and this was taken into account when using the matrix. No formal assessment of the participants' motivational characteristics was undertaken but, the researcher, as class teacher, had some insight into the characteristics of participants. Once basic analysis of the characteristics of learners and proposed learning intervention is done, motivational strategies can be applied as per Keller's guidelines, to target the relevant categories of ARCS. (See Table 1 on following page).

Factors	Attention	Relevance	Confidence	Satisfaction
Learning Task (learners perception of)	New, exciting, +	Familiarity with choice of Stories & idea of drama + May view repeated reading as boring -	May be challenging to some - Nervousness at being recorded -	Very exciting + Can apply existing reading skills + May need new skills - Interesting end product+
Learners (characteristics of)	New experience- novelty + Used to technology so need to sustain interest -	Mainly intrinsically motivated +	Mixed ability so some may find performing hard -.	Familiar with teachers & existing groupings+
Media (learners perception of) Podcasting CD Blog	Unusual + No prior experience of these media in the classroom -	Familiar with computers, ipods/cds online sites + Not used to idea of podcasting -	Recording process may be worrying.- Not have skills to navigate blog - Familiar with using CDs at home +	Feedback from peers/parents +/- Pride at being on the internet + support from CD + Fear of not sounding good on the web -
Courseware characteristics Podcasting Audio CD Blog	Audio recording - not distract from performing +	CD Easy to use + Familiar technology in phones +	Blog requires Knowledge of blog layouts -	Compulsory = lessens attraction - wider audience (parents etc) + CD – portable. useable without parent help +
Motivational Tactics for intervention	give challenge re how to act without costumes, props. Use colours, fonts, pics on blog to stimuli	use scripts based on familiar stories. Matched to ability Allow to choose parts, suggest stories, choose who can listen to the recording	Provide guidance & feedback each day. Provide modelled readings of scripts. Choice of roles & opp to perform for others if desired Demonstrate blog navigation basics.	blog as end product. Praise & feedback given immediately. Opp during day To hear/practice good prosody. Advise voice projection Opp to listen back & get feedback on past performances Focus on team effort

Table 1. ARCS Matrix

3.5.1 Attention:

Classroom: Motivation can be stimulated by arousing curiosity and according to Gagné and Driscoll (1988) surprising the learner by the use of novelty can gain attention (perceptual arousal). While agreeing with perceptual arousal, Keller thinks it more important to stimulate learners cognitively (epistemic arousal) in order to maintain attention (Keller, 1983). He suggests challenging questions or making statements that

involve the learner cognitively. With this in mind, during the initial introduction, RT was presented as a challenge with learners asked how to perform a script without props, costumes, stage etc., the intention being to activate the problem solving abilities of the learner and get cognitive processes active. To facilitate perceptual arousal, Keller (1983) advocates introducing a surprise/novelty, thus recording and putting their performances up on a website was the novel strategy. Children's out of school lives are surrounded by many technologies, unlike in school, and so integrating familiar technologies into the classroom can engage learners (Lee, McLoughlin & Chan, 2007). Technology must not be used for the sake of using technology (King-Sear & Evmenova, 2007) so it was important to use a technology that complemented the RT while still seeking to incorporate Keller's idea of novelty. Keller recommends using material that is familiar, as a stepping stone to approaching unfamiliar material and so scripts chosen were based on familiar stories even if the script format was new.

Blog: Gagné & Driscoll (1988) advocate arousing curiosity by using a stimulus that is novel and unpredictable plus using unfamiliar or unusual patterns to motivate which aligns to Keller's strategy of gaining attention and so the home page of the blog is designed with this in mind. The title stands out on each page with a colourful picture of some 'real' 'Angry birds' lookalikes beside it. This is an attempt to inject some humour as per Keller's attention strategy. Lazaris (2009) recommends using a colour scheme which will get children's attention and stimulate their interest. Children tend to be attracted more to colourful rather than white backgrounds (Large, Beheshti, & Rahman, 2002), thus pages are all bright blue with an orange pattern on the left hand side. Pictures that stimulate because they are attractive or unusual (Gagné & Driscoll, 1988), are to be found throughout the blog. Fonts were designed slightly bigger as according to Beheshti, Rahman & Large (2002), children prefer large fonts. The collaboration of parents is important in facilitating younger children in accessing the computer (Haugland, 2000), so posts to the site were aimed at keeping parents up to date on how the classroom part of the experience was progressing.

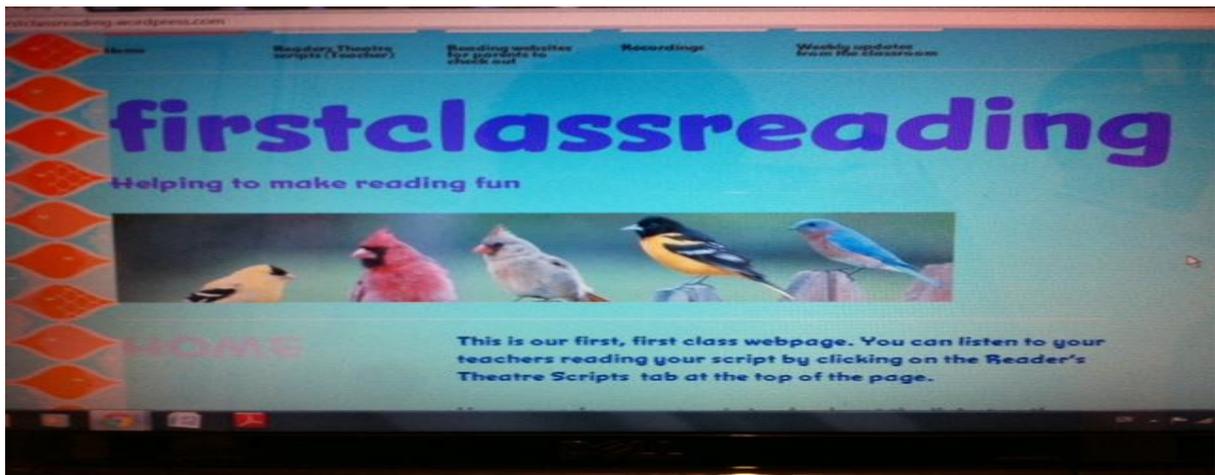


Figure 1. Homepage of blog

3.5.2 Relevance:

Classroom: According to Keller, it is important to match the learning activity to the learner's prior learning experience. The scripts used were age appropriate, reflected the interests of participants and were from well known children's stories and fairy tales. Children can be motivated and engaged by hands on activities that relate to familiar themes (Shanahan et al, 2010). Marsh et al.'s (2005) study showed children to be using technology from an early age. Podcasting has been shown to engage learners for extended periods (Lee, McLoughlin & Chan, 2007) as well as provide a context for learners to work collaboratively (O' Reilly, 2005). It is a technology that most children, even young children, have been exposed to with the use of i-pods being so prevalent in modern society (Corbeil & Valdes, 2007) and the widespread growth of smart phones with similar technology aboard. Prensky (2001) maintained that students spend more time using technology than reading and, hence, the incorporation of podcasting with RT scripts based on familiar literature, was considered potentially motivating and relevant to participants. Making tasks seem relevant to children can foster engagement and so increase motivation (Guthrie et al, 2006).

Needs matching: Scripts were selected to match the reading abilities of participants and the suitability of the vocabulary was assessed.

Choice: Learners were allowed to choose their own parts and rehearse in other areas of the classroom, as this kind of autonomy in learning is usually motivating (Guthrie and Cox, 2001). Learners enjoy having a measure of control over their learning (Keller, 1983) and this can also help increase the relevance of what is being learned so they were encouraged to suggest scripts based on favourite stories. Keller (1983) suggests that relevance can be

enhanced if learners feel affiliated to the learning and to other students, through having opportunities for no-risk, cooperative interaction. The daily group practise provided such an opportunity for fine tuning reading skills in a supportive atmosphere.

Blog: The blog was kept updated at weekly intervals in order to be relevant to the week's activities with participants' recordings, researcher's modelled recordings of new scripts and updates for parents about the previous week's activities. A list of reading websites was provided on the blog, which would be educational but fun and relevant to the interests of the children.

3.5.3 Confidence

Classroom: Keller (1983) suggests beginning a learning situation with activities that will build confidence in the learning process, therefore, each day, we sat with our groups reading modelling how the script should be read and discussing any vocabulary that was new or causing problems. The script was then read chorally as well as pairs echo reading. Participants took turns at reading different parts so as to give each participant an opportunity to become familiar with every part. This approach was based on Keller's ideas about helping learners assess what is required of them and estimating their chances of success as the greater the expectation of success, the more motivation increases (Keller, 1981).

Tape-Assisted reading: The provision of advance information that helps learners to focus on the skills needed to progress and thus, helps them to learn better, is a well supported principle in instructional design (Keller & Burkman, 1993). Each participant was given a CD with a modelled recording of the script and instructed to read their scripts while listening to the CD for homework. This facilitated further repeated reading practice while providing a model of what they should be aiming for.

Feedback was given during daily rehearsals as according to Keller and Burkman (1993), it can be de-motivating if one does not get feedback on how well one is performing. Each group also received feedback whilst listening back to their previous recording at the RT station.

Learner control was built in through giving the participants a choice over the roles and scripts. Opportunities for performing in front of a wider audience were also provided for any groups who wished to perform their script for another class.

Blog: Learner control was also exercised on the blog in that the recordings could be aired to the people chosen by participants as they were password protected. An explanatory lesson about the blog was given to the participants to increase their confidence at navigating around it.



Figure 2. Password protected recordings on blog

3.5.4 Satisfaction:

Classroom: Reward: Keller and Burkman (1993) suggest extrinsic rewards help maintain motivation to learn repetitive material. Weekly performances and the uploading of our performance to the blog were promoted as a reward for good teamwork. Satisfaction is linked to extrinsic and intrinsic motivation, and so, in designing a learning experience, it is important to ensure that extrinsic rewards do not reduce intrinsic motivation (Keller, 1983) therefore, a balance was found between focussing on the end product and giving feedback on immediate improvements in prosody

Natural Consequences: Opportunities were given throughout the school day to read out loud and practise the skills of good prosody and fluency.

Feedback: Verbal praise and informative feedback need to be given immediately in order to maintain intrinsic motivation and satisfaction (Keller, 1983). He maintains that constructive feedback is a confidence-building tool and divides it into motivational, to be given immediately, and formative, to be given before the next activity so the feedback will be useful. By providing feedback at the end of each daily session, we sought to enhance confidence and increase the likelihood of students taking the advice on board. Any grammar, vocabulary or pronunciation issue was reinforced at the start of each practice session. Daily sessions were designed to support and scaffold the participants in reaching

their weekly goals, as a sense of confidence and self empowerment comes when one feels capable of achieving ones goals. Julie McLeod (2012).

Scheduling: Keller's approach involves providing reinforcement at irregular intervals, so this had to be carried out throughout the day. Opportunities to praise participants for good prosody were sought out and audio stories were played regularly with attention being drawn to good prosody.

Blog:

Feedback: The weekly posts on the blog were intended to form a kind of informal positive feedback whilst not focussing on any one individual or group. It was also envisaged that the participants would get feedback from their own families and any wider audience who listened to their recordings which would contribute to their sense of achievement. Groups rotated using the RT station which was set up for use during literacy activities on Monday through Thursday afternoons. The researcher spent time with each group discussing their performances and offering feedback.



Figure 3. Sample of weekly post to blog

Reward: The focus was on the team effort and everyone doing their best so that their performance would be good and sound good on the blog. The opportunity to have their performances recorded and uploaded, was promoted as a reward for their hard work.

3.6 Site Selection

The school in this study was a South Dublin primary school with approximately 145 students and 10 staff members. It is a designated disadvantage school. The school is the researcher's place of work and the participants were the researcher's class.

3.7 Participants

Both male and female students were involved in this study. The participants were eighteen first class primary school students. They ranged from 6 to 7 years old and were of mixed gender (11:7 female to male). Average age of the group was 6.6 years. Participants were chosen on a convenience basis, this being the only sample of students available to the researcher. Data was collected on a normal school day.

3.8 Ethics

Ethics permission was required due to the research involving humans and children under eighteen. This was applied for and granted by the ethics committee at Trinity College, Dublin (appendices 6, 7). As participants were under eighteen, this required parental consent and participant verbal assent. Parents and participants were given an information sheet informing them of the research. (Appendices 8, 9). Permission was requested and obtained from the Board of Management to carry out the research. (Appendices 10,11)

3.9 Conclusion:

This chapter outlined how ARCS (Keller, 1987) was used to provide motivational strategies during the learning experience. ARCS (Keller, 1987) was chosen because it can greatly increase the chances of keeping a learner focussed and motivated (Dick, Carey & Carey, 2001). It was anticipated that when added to the combination of podcasting, Tape-Assisted learning and the creation of a classroom blog, it would be a positive addition to the proven literacy strategy of RT. The following chapter outlines the methodology and data collection instruments used.

4. Methodology

4.1 Introduction

This chapter outlines the research method and data collection instruments that were used. This research aimed to investigate what effect, if any, the addition of podcasting has on the outcome of a RT intervention. The research question was ‘Is Podcasting a positive addition to RT?’ The sub question arising from this was ‘Is the addition of podcasting a motivating factor in RT?’ A second question was posed: Is Tape-Assisted reading, using a CD, a positive addition to RT?

4.2 Case Studies

Case studies are regularly chosen for studies in educational settings (Creswell, 2005) and were deemed suitable for this research. A case study can be used to explore, describe, or explain phenomena within its natural setting (Yin, 1984) and in this case, the classroom became the natural setting. When choosing a suitable method for this research it was important to find one that offered the possibility of explaining why or how the intervention worked and case studies allow for such investigation (Shavelson & Townes, 2002).

Research was carried out over a period of seven weeks plus an extra three weeks for pre and post tests and interviews. This tallies with previous research such as Martinez, Roses & Stecker (1999) and Griffith & Rasinski, 2004 whereby RT implemented over a ten week time frame recorded consistent gains. As the researcher only had access to a small group of similar age students the population sample is quite small but according to Creswell (2004), in such instances, where there is a small sample and necessary time constraints, a case study is an effective methodology to use.

Data collection was carried out using a mixed method approach as the case study method, allows for the gathering of qualitative and quantitative evidence. The pre and post Motivation to Read Profile (MRP) (Gambrell, 1995) survey and the pre and post DIBELS oral reading fluency test are quantitative instruments and their scores are displayed in tables. The (adapted) MRP conversational interviews, informal interviews and observation protocols provide the qualitative data. Creswell (2008), recommends using a selection of methods in case studies as it allows connections to be made between data sets via triangulation, which, in turn, ensures the validity of the case study is raised (Yin, 2003). As the study involved younger participants, it was important to gather data from a mix of

sources to increase the reliability of the data plus complementary data can provide a more comprehensive understanding of the research question (Morse, 1991).

4.3 Data Collection Instruments

Data was collected using the MRP (Gambrell, Palmer, Codling & Mazzoni, 1995), reading motivation survey, an adapted MRP conversational interview, the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) oral reading fluency tests, a National Assessment of Educational Progress (NAEP) rubric plus observation. These were chosen for their suitability to the age of the participants and for their potential to provide data on any changes to reading fluency and reading motivation. Interviews were chosen as a suitable method for obtaining more qualitative data.

4.3.1 Pre/Post- test DIBELS reading fluency measures

DIBELS Fluency tests are standardized, criterion referenced and specifically designed for assessing fluency in children from mid first grade (6-7 year olds) to end of third grade (8-9 year olds). DIBELS Oral Reading Fluency (DORF) test is a sub test within DIBELS , used to assess accuracy and comprehension. A passage is read aloud for one minute whilst all errors, omissions, substitutions, and hesitations of more than three seconds are recorded. Misread words self-corrected within three seconds, are scored as accurate. Any repeated or inserted words are also scored as accurate. Words read accurately minus errors provide the end score.

The Retell Fluency (RTF) aspect of the test assesses recall of the text and can identify a reader whose comprehension is inconsistent with their fluency. Test retest reliabilities range from .92 - .97 whilst alternate form reliability range from .89 to .94 (Tindal,Marston & Deno, 1983). Criterion-related validity carried out during eight studies in the 1980s show coefficients of .52 to .91 (Good & Jefferson, 1998).

4.3.2 NAEP Rubric

DIBELS only measures accuracy and comprehension but reading fluency also entails prosody which is reading with proper and meaningful phrasing and expression (Rasinki et al. 2005; Paris, 2003). Therefore, in order to provide a more comprehensive assessment of participants' reading, an NAEP fluency rubric was used. Prosody has been defined as the emphasis, intonation and expression used when reading (Dowhower, 1987) and the NAEP rubric is a simple four- point scale that gives a broad indication of this aspect of fluency. Ratings are provided based on grouping or phrasing of words, adherence to grammatical

structure, and the expression used in reading. Participants rated at levels 1 and 2 are non-fluent readers whilst those at levels 3 and 4 are fluent.

4.3.3 Pre/Post-test Reading Surveys

The MRP (Gambrell, Palmer, Codling & Mazzoni, 1995) reading survey was employed to try to gain information on the reading motivation of participants and was designed for use with young children. It is a self report instrument and measures two aspects of reading motivation: readers' self-concept and the value readers place on reading. This survey has twenty questions based on a four point Likert scale. Fifty per cent of questions focus on how participants perceive their own reading abilities allied to how good they perceive these to be relative to others' abilities. The remaining questions seek to elicit participant's views on reading and the frequency with which they engage in reading. During scoring, some items are reverse scored to avoid repeated responses. Gambrell's (1996) study provided field test data that showed acceptable reliability for the original MRP (Gambrell, Codling, Palmer & Mazzoni 1995) survey, with an alpha of .75 for the self-concept subscale and .82 for the value subscale.

4.3.4. Conversational Interviews.

The conversational interview, is part of the MRP survey and is adaptable (Gambrell, Palmer, codling & Mazzoni, 1995). It was conducted after the learning experience. It was designed to explore participants' views on reading, RT, podcasting and use of CD plus get some information on their use of technology at home. Although scripted, the conversational nature of the interview leaves room to deviate from the script in order to glean more in-depth information which a more formal interview would not allow for (Gambrell, Palmer, Codling & Mazzoni, 1995). This is particularly suitable for children as it gives them an opportunity to raise issues and describe their experiences in their own way (Denzin, 1970). Interviews were conducted post intervention, with a sample of parents. The interviews were conversational in nature and designed to obtain supporting information for participants' views of the learning experience.

4.3.5 Observation

The researcher observed participants during pre and post-intervention reading fluency tests, daily reading sessions, weekly recordings and while listening back at the RT station. Creswell (2005) advocates observation during research as a means of providing additional information. The focus during daily reading sessions was on comments made, body language and interactions among participants. Child (2004) states that for proper learning to take place, students need to be engaged. With this in mind, any active engagement noted

was noted. An observational protocol was used as according to Creswell (2005), this is good practice (Appendix 12). The Learning Support teacher functioned as research assistant and reported any interesting observations to the researcher.

4.4 Researcher Bias

The researcher, being a teacher in the school and class teacher of participants since September 2012 could not claim to be without bias. The researcher tried to use any prior knowledge of the interests and abilities of participants in a positive way in, for example, choosing scripts for the RT.

4.5. Data collection procedures

The researcher works in the school where the research was carried out. Data was collected during the period January 7th – March 15th 2013. MRP reading surveys, DIBELS fluency measures (DORF and RTF) and NAEP were collected pre and post intervention. These were done during the class reading period. All measures were administered individually in a quiet area in the room whilst the others worked independently.

The researcher collected observation notes, where feasible, while participants:

- Took part in daily script readings.
- Recorded their scripts.
- completed pre and post DIBELS reading fluency tests
- listened back to their recordings at the RT station.

Post intervention, conversational interviews were conducted with participants on a one to one basis in a conversational manner following some scripted questions. Participants were interviewed individually in the classroom while the other students worked independently. Responses were written down but no audio was used. A random sample of parents (nine in total) took part in informal interviews. This sample was based purely on parents' availability as interviews were held early in the morning before start of school or immediately after school.

4.6 Methods of data analysis

Both qualitative and quantitative data collection techniques were used during this research making it a mixed method study. Validity was increased as various research methods were used rather than relying on any one method which may be flawed or incomplete (Shaughnessy, Zechmeister & Zechmeister, 2009). Reliability was, also, increased through using well established measures of reading fluency (DIBELS/NAEP) and reading

motivation (MRP) which provide consistency in results. Any quantitative data gained from the surveys and reading fluency tests are displayed in tables. These record any increases/decrease in overall reading fluency and reading motivation and allow for easy comparison. They also allow for examination of the different elements of reading motivation and reading fluency to ascertain if there were any connections or patterns in the data.

Qualitative data methods employed (interviews and observation), produced a large body of data. Interviews and observations were typed up for ease of reading and coding purposes. Data was then subjected to thematic analysis. Initially, data was given descriptive codes, then, the data was broken down into further codes and categories from which themes could be elicited. According to Yin (2009) the interpretations in a case study need to be supported by more than one source of evidence and so any patterns found in the quantitative data were kept in mind when analyzing the qualitative data. In general though, codes reflected what emerged from the data.

4.7 Conclusion

In this chapter a case study was identified as the most suitable methodology for this research. Data was collected using: pre and post DIBELS reading fluency tests, NAEP fluency rubric, and MRP reading motivation surveys, observations, MRP (adapted) conversational interviews and informal interviews. The research had a time constraint making it impossible to obtain a large population sample. The following chapter presents findings and discussion.

5.0 Findings

5.1 Introduction

This study aimed to investigate the following questions:

Is podcasting a positive addition to a Readers Theatre intervention?

A sub-question: Is podcasting a motivating factor in Readers Theatre?

A second question asks: Is Tape-Assisted reading, using a CD, a positive addition to Readers theatre?

Findings from the multiple data sets will be outlined followed by a discussion of whether these findings answer the research questions:

Data set 1: Pre and post MRP reading motivation surveys. Pre and post DIBELS fluency/NAEP fluency results.

Data set 2: Post MRP conversational interviews – participants

Data set 3: Informal interviews with parents

Data set 4: Observations.

5.2 Data Set 1: MRP Reading Motivation Surveys and DIBELS/NAEP Fluency Tests

Pre and post scores were compiled (table 1). A 4.1% increase in motivation was recorded, up from an average 63.16 to 66.16. 14 out of 18 participants registered an increase in motivation ranging from 1.25% increase to 13.75%. 2 of the participants registered no change and 2 of the participants' motivation actually decreased.

Breakdown of scores into self-concept and task value (tables 2, 3) reveals an average 1.33% increase in self-concept from 30.5 to 31.83. Increases ranged from 2.5% to 20% for 11 out of 18 participants. 1 recorded no change, while 6 actually recorded a decrease in self concept ranging from 2.5% to 17.5%.

Task value scores revealed an increase of 1.67% from 32.66 to 34.3 with 10 participants' increases in the range from 2.5% to 15%, 4 participants showing no change and 4 showing a decrease ranging from 2.5% to 10%. The decreases, however, were balanced out by increases in self concept resulting in 2 of the 4 still recording an increase in overall motivation, 1 recording no change and 1 participant alone showing a decrease in overall motivation as a result.

DIBELS - Oral fluency pre and post tests and NAEP fluency rubric.

Fluency was measured pre and post intervention using a combination of DIBELS oral fluency tests (DORF) for first grade (6-7 year old) level, to assess accuracy and comprehension, and an NAEP fluency rubric to provide a guide to assessing prosody. Each participant was tested using reading passages from DORF and this gave a words per minute (WPM) score based on the accuracy of the reading. However, combining this with the score from the retell provides a better indicator of their reading and according to DIBELS scoring guidelines, retell should be roughly 50% of their WPM score and not less than 25%. The pre-test WPM scores ranged from 20 to 113 WPM, average score being 61.19 WPM. The post test scores ranged from 18 to 163 WPM, average score being 83.16 WPM thus, representing an increase of 22 WPM. However, 6 of the 18 participants recorded a decrease in WPM. Post retell scores (when viewed relative to WPM) revealed an increase in 9 participants comprehension, a decrease in 5 of the 18 participants comprehension with the remaining 4 showing no change.

The NAEP rubric rated the prosody of participants in a scale from 1 (least) to 4 (highest). 6 participants increased by 1 level (25%), 1 by 2 levels (50%), whilst 11 recorded no change. In the case of 8 out of 11 participants whose prosody score remained unchanged, they already ranked high on the scale (3 or 4) and 5 of them did show improved comprehension scores.

Taken altogether, scores reveal that 4 out of 18 improved their scores in all categories. 6 improved WPM and either comprehension or prosody, whilst 2 increased WPM, had decreased comprehension and no change to prosody. The remaining 6 showed a decrease in WPM but of these, 4 registered increased comprehension or prosody while 2 registered decreased comprehension and no change to prosody.(see table).

5.3 Data Set 2: Conversational interviews

Interviews took place over the fortnight following the intervention due to participants being out sick. The conversational format allowed for flexibility and aimed to provide information on their reading habits, technology use, and their views on the intervention. The data was read and reread, some descriptive codes given, before breaking down into further codes and categories from which themes could be elicited (Appendix 13).

Three themes connecting to RT emerged; a new awareness of importance of ‘using your voice’, how RT made reading enjoyable, and the collaborative nature of RT. These

coincide with themes found in research on RT (Martinez et al, 1999; Griffith & Rasinski, 2004). Comments like ‘I really liked being able to read them again and again’ (P. 7) or ‘it was such fun getting to choose our part’(P.17) and ‘I knew what character I wanted to be from the start’ (P.12), illustrated the participants’ enjoyment of daily reading practice. Only two participants expressed negative comments ‘reading the script all the time was a bit boring’ (P.15) or ‘It was only alright’ (P.11). They expressed interest in helping each other so that their group would sound good ‘ I helped L. to use her voice properly’ (P. 9) or ‘when two wanted a part, we didn’t fight, we just decided who read it the best’ (P.13). They revealed an awareness of prosody in comments like ‘H. Really used her voice well’ (P.14) or ‘A. Sounded great because he made his voice better’ (P.16) and this was also observed during daily reading practices.

Themes connecting specifically to the use of technology were, the benefits of being able to hear yourself back, and, having an audience outside school, which correspond to the themes of permanence and wider audience found in Vasinda & McCleod (2011). The participants rated being able to listen back to their reading very highly: ‘I learned I read well and I can use my voice good’ (P.4) and ‘we learned what we were doing with our voice, right and wrong’ (P.1). Their responses showed they viewed being able to hear themselves reading as a good thing and they appeared to have generally assessed themselves as being good readers. They, mostly rated being able to hear themselves back at the RT station as a good thing, one or two found it ‘a bit embarrassing’ (P.5, P.16)

Podcasting was viewed as an opportunity to showcase their performances to a home audience: ‘my aunt and cousin came round and listened with us, it’s cool that I could play it for them’(P. 18). ‘we sat around the ipad in the sitting room every weekend’(P.14) and ‘it was so cool that I could play it for my cousins’ (P.8). They, mostly, all expressed excitement at being on the internet although further probing revealed that a few of them hadn’t really engaged with the blog very much which was attributed to a wariness about technology on behalf of their parents: ‘my mam didn’t really do it with me, she was too busy’ (P.12) and ‘mam was meant to get her sister to help her but she never did’ (P.16). Also two participants said they were not ‘that bothered’ about being on the internet and didn’t engage with the blog much (P.3, P.4). They did, however, enjoy listening back at the RT station.

The themes of Tape-Assisted reading as helpful for learning and increasing awareness of prosody were also reported in Carbo (2005), Ketterer & Greig (2006) and Young (2007). Most participants felt that it helped them also to approach the reading and performance of the scripts more confidently: 'it helped me to say big words better' (P.10), 'it helped me to practice when I wasn't with my group' (P.7) and 'it showed me how to read it well' (P.13). This increased confidence was noted in post fluency tests and also reoccurred in the parents' interviews. Three commented that the reading was too fast to follow along with and in fact, these were the three weakest readers (P.1,6,8). Two (P. 14, P15) said they didn't always 'do the CD' because they didn't have a way to play it or their parent didn't have the computer on.

5.4 Data set 3: Parents' Interviews

The purpose of these was to gain a greater insight into how the learning experience was viewed and experienced at home. Parents of nine participants (P.2,5,7,9,10,12,13,16,18) were interviewed. Questions focused on their child's use of the CD and engagement with the blog allied to their perception of the effectiveness of the intervention. Themes of increased confidence, enjoyment at having an audience and increased awareness of prosodic reading were identified. All their children had enjoyed and used the CD regularly: 'at dinnertime, everyone had to listen to the CD in the kitchen (P.2)', 'it helped her to know when to come in' (P.12), 'she did it every day and put the CD on lots of times (P.5). 'It learned her to put expression in her voice' (P. 16) and 'he would go to bed every night reading his script under the covers with earphones on so he could hear the CD and not waken his brother'(P.10).

Seven of the nine parents reported their children being very excited at getting recorded and being on the blog and especially at being able to show off their work at home: 'she made us listen to it six times' (P.5), 'she even told the swimming instructor about it' (P.2), 'she loved listening to herself'(P.13) and 'he had a screening and all his cousins came round'(P.10) and 'she played it for anyone who would listen. I've my voice, she would say' (P. 5). The two parents whose children (P.12,16) hadn't really engaged with the blog reported their own poor technology skills had not facilitated the children in accessing it. Greater awareness of prosody was frequently raised both in relation to CD and blog: 'she added in her own voices to other parts to make them interesting' (P.12), 'it made her pick out the words better'(P.16), 'he put it on in his brothers stereo so he could listen to the voice better' (9) and 'she says the words are popping out at me now mammy'(P.5).

The parents all remarked on the children's increased confidence in tackling reading. Comments such as 'before she wasn't reading books, but now she is really into it' (P.7), 'I hear a huge difference in his reading' (P.9), 'it mainly helped him with his confidence, before he would have been shy reading' (P. 10) illustrate this. Seven parents felt it was the combination of CD, Podcasting and RT had contributed to this. The other two felt the CD and RT were important, (P.12,P16).

5.5 Data set 4: Observation

Through observation one can gain information (Creswell, 2008) and it is an important source of data when dealing with children whose recollection of events may be flawed. (Tashakkori & Teddlie, 2002). With this in mind, the researcher kept notes where feasible during the daily practices and Friday recordings, at the listening back RT station, and during fluency tests. Instances of engagement were recorded along with any relevant comments made.

The students exhibited co-operative behaviours progressively more as time went on with individuals coming to agreements on which part to take or helping others in the group by providing correct pronunciation or expression. They were observed having conversations about how best to say words in their script and were heard saying 'Use your voice' (P.14) and 'L used her voice so well' (P.17) or 'this is how it should sound' (P.10). They were very encouraging to each other and were frequently observed responding to a line well read during rehearsal or helping each other if they forgot to read a line.

The majority were very enthusiastic about doing the scripts and regularly asked if finished work early during the day, if they could read their script. They were always eager to get their parts and tended to ask for more lines if their parts were small. Comments like 'its fun getting to be different characters all the time'(P. 18) or 'its really fun to be your character' (P.1) show their enjoyment of the scripts. Two participants (P.11,15) were occasionally observed to look bored during reading practice which manifested in chatting. Fridays were recording days and comments like 'its fun and people cheer' (P.15), 'this is the best day, we get to do our recordings' (P.13) and 'its fun Friday' (P.10) were typical of comments overheard and participants displayed signs of active engagement. The other participants were the audience during performances. There was big interest in holding the microphone for the recording, and the Audacity software was simple enough that different participants could take charge of recording. Watching the sound waves on the screen was

of great interest and the ‘recorders’ would identify if someone’s level was too low and the recording would be redone. The two participants disengaged during daily readings were observed to engage well during recording.

Groups took turns the following week to listen back on headphones to the recording at the RT station. Feedback and praise was given by the researcher. Comments such as ‘I like the way you can see what you have put up on the site’ (P. 10), ‘you can really hear your voice’ (P. 4) and ‘I want to do it really better next time’(P. 16) illustrate their generally positive attitude towards the recordings and hearing it back. The meetings were usually productive with students commenting on their own and other members of the group’s performance and even suggesting how improvements could be made.

Main themes emerging from observations were the collaborative nature of RT, how the recording enabled listening back and how the CD helped their confidence.

5.6 Is podcasting a motivating addition to RT?

There was a modest overall increase in average motivation of 4.1% however, some individual participants increased as much as by 13.75% and it tended to be those that had lower pre intervention scores that showed the greater increases. Qualitative data gathered from observations, noted how engaged the participants were during the recording process, their excitement at hearing themselves back at the Readers Theatre and their interest in talking about their recordings on the blog. Also noted was how they took ownership of the recording and got involved in the process. These point to a great deal of enthusiasm for the addition of podcasting to RT. Add to this, data gathered during interviews which confirmed, in most cases, that recording their performances and being able to listen back online with a chosen audience was very exciting for them and the case for technology being a motivating factor grows. The parents’ interviews provided further evidence that the addition of technology made it special and exciting for their children.

The quantitative data showed the intervention had an overall positive effect on reading motivation on fourteen of the eighteen participants. One of two participants (P. 10) whose score didn’t change, had high pre motivation levels (69 out of 80) and registered the highest increase in post WPM and NAEP scores. The other, (P.16) also, had good pre scores (70 out of 80) but lacked access to the blog due to parents not being technologically literate. Those on the lower end of the pre survey scores (49-52/80) were the ones who recorded the highest increase, however. This suggests it was quite motivational for them.

One participant (P.5) whose score decreased a little, engaged fully with the recordings and blog. Another, (P. 12), with decreased score, had enjoyed and engaged with all activities but not blog, due to lack of access. Parents' interviews supported this. It is possible that the self-report nature of the surveys may have led to inaccurate results in these cases.

A powerful indicator of the experience having been motivating is found in the increased fluency scores. The literature has shown that reading motivation and reading fluency are interrelated and according to Guthrie and Wigfield, (2000), increases in fluency, due to repeated readings, can stimulate increased confidence and motivation. As they experience success in reading, their attitude to reading improves and so does their reading motivation (Rinehart, 1999), therefore, improved fluency scores suggest that successful RT performances may have increased motivation. Parents' interviews reported the addition of podcasting to doing the scripts as very motivating for their children 'because it was being recorded, it was very exciting for her' (P.2) and 'she loved having an audience' (P. 13) allied to participants' interviews 'I wanted to sound good on the internet, so I read my script, lots of times' (P.9). These support the notion that both sources of motivation complemented each other and contributed to the increased scores. The data suggests, therefore, that podcasting was a motivating addition to RT.

5.7 Is the addition of Tape-Assisted reading, using a CD, a positive addition to RT?

Participant's interviews revealed that the CD was viewed as helpful. A theme that was raised by parents and participants alike was that it helped increase awareness of good prosody. An increase in confidence was observed during post fluency tests and also noted by parents. The increase was partially attributed to the CD helping the participants with their pronunciation, expression and timing. This increased confidence in reading was supported by researcher observations, and thus can be attributed, at least in part, to the use of the CD.

Prosody scores increased for seven participants by 25% with eight showing no change but being at a high level already (at level 3 or 4 on a scale of 1-4). Of the four participants with the lowest prosody, two seemed to improve (indeed, one of them by 50%) plus their WPM scores improved. The researcher had to simplify some scripts for the weaker reading group (all whose post scores reflected the least improvement), so it is possible that their emergent reading skills were not sufficiently developed to benefit from the repeated reading practice. This does not tally with previous research that has found repeated reading benefited the

struggling readers. The remaining participant (P.11) who had decreased WPM and retell scores whilst remaining unchanged in prosody, had a high starting score (63 WPM) so was not a struggling reader. His MRP score increased 11.25% increase yet his in his interview he was negative towards the daily repeated readings and the scripts ‘I think they were boring, PM books (class readers) are more exciting’ and observations noted him being bored during daily rehearsals yet engaging with the recording part and making comments like ‘I like the way you can see what the teacher put up on the site’ allied to being positive in his interview about the blog. So he was motivated by the addition of technology but not sufficiently to engage well with the repeated reading practice.

Tape-Assisted reading involves listening to a model of fluent reading and Chard, Vaughan and Tyler (2002) state that for children in first to fifth grade (6-11 year olds), combining a model with repeated reading and feedback, delivers better results than just repeated reading alone. It was interesting to note that the participant (P.10) who showed the highest increase in all fluency scores, (a huge jump of 99 WPM and an increase of 50% in prosody) was the one who listened to his CD repeatedly every night in bed. There is no proof that the benefits to fluency derived from using the CD however, gains in fluency were very good overall and compare very favourably, even outshining, results in some other RT studies (Griffith & Rasinski, 2004; Martinez, Roser & Strecker, 1999). Taking this with the qualitative evidence, it does suggest that Tape-assisted reading is a positive addition to RT.

5.8 So.....Is Podcasting a Positive Addition to RT?

Fluency results show a sizeable average increase in WPM whilst showing a more moderate increase in understanding and an impressive 25% increase in prosody. These findings correspond with, and in some instances, improve on, previous research on RT (Griffith & Rasinski, 2004; Martinez, Roser & Strecker, 1999; Young & Rasinski, 2009). Themes emerging that relate to RT – the collaborative nature of it, increased awareness of prosody, RT making reading enjoyable, increased confidence in reading - have appeared before. However, it is themes connecting to the use of technology – podcasting providing access to a wider audience and being able to hear yourself back because of recording - that point to podcasting as being a positive addition.

Wider audience: When students anticipate having an audience they are more inclined to practice repeated readings (Young & Rasinski, 2009) and the addition of podcasting to RT

facilitated a far wider audience than for normal RT performances. This theme occurred in both participants' and parents' interviews. Observations recorded many instances of excited conversations about listening to the recordings on the blog and this supports the evidence of the parents who felt that it was the addition of technology that made it extra exciting for the participants. Thus it could be argued that this was a motivating factor and one that led to increased engagement with the daily repeated readings, which in turn, led to increased fluency. Participants also noted that it facilitated home school communication: 'it was cool coz my mam and dad got to see what I was doing in class' (P.6), likewise parents seemed to enjoy this: 'It was the most information we've ever got about what happens in school' (P.2).

Being able to hear yourself back: An increase in confidence was a theme that occurred in both the parents' interviews and researcher observations. Parents of seven participants (P.2,5,7,9,10,13,16) felt this was partially due to participants being able to hear their recordings on the blog as this facilitated feedback (from the audience) which boosted their confidence in their reading. Participants also received feedback as they listened back at the RT station, both from their group and the researcher. They were observed to be self-evaluating more as time progressed 'I think I was a little bit clearer last week' (P.1) or 'I didn't know I was going to sound so funny, funny good I mean' (P. 2). Self-evaluation is a good thing especially if it leads to self-improvement and certainly fluency scores provide possible evidence of this. Interestingly, there was a decrease in self-concept (ones perception of oneself as a reader) in post MRP reading motivation scores for six participants (P. 1,5,13,15,16,17). They all attributed their reassessment of their reading capabilities to hearing themselves back. Overall motivation in four cases (P. 1,13,15,17) increased, as did their fluency, so it did lead to a positive result.

Podcasting could be said to have been a motivational factor in encouraging repeated readings and facilitating self-evaluation thus improving confidence and encouraging further effort from whence interest in reading improved and thus reading fluency increased. If podcasting is motivating and this improves reading skills then surely, the addition of podcasting to RT could be said to be a positive one.

6.0 Discussion

6.1 Introduction

In this chapter, findings are discussed. Limitations of the study are also addressed.

6.2. What do the findings indicate?

After this intervention, consisting of repeated readings, Tape-Assisted reading, listening back to recordings and podcasting, the participants, a first class (6-7 year olds) improved their oral reading rate by an average of 22 WPM from 61 WPM to 83 WPM. The target reading fluency norms for the Spring of first grade (6-7 year olds) are 30-60 wpm. (Hasbrouck & Tindal, 1992). This means the participants on average jumped a full grade (class) level to reach the second grade (7-8 year olds) Spring target norms of 70-100. Half the participants showed increases in their comprehension scores and one-third showed a 25% increase in prosody and all this occurred over a relatively short time-span (seven weeks of intensive intervention during a ten week time frame). This stands up well when compared to other RT research, some of whom, like Young and Rasinski's (2009) continued over a school year and indicates that this type of intervention could be highly beneficial.

Results from the reading motivation survey revealed the intervention to have increased motivation in 14 of the 18 participants and the enthusiasm for the learning experience was obvious in the attitudes of the participants. The qualitative data supported the addition of technology as having had a positive impact on the learning experience, with the core theme being the benefits of being recorded which connects to the recurring themes of enjoyment at being able to hear yourself back on the blog, having a broader audience plus an increased awareness of prosody. Most importantly, the intervention had a very positive impact on reading confidence with even the struggling readers becoming more confident towards the end. Having an audience is a huge incentive when practising reading (Martinez, Roser & Strecker, 1999) and how much bigger an audience can you get than the internet. Reading aloud became fun, the repeated readings improved their reading of the text and as previous research (Rasinski & Hoffman, 2003; Kuhn, 2002) has shown, this should lead to better results across the whole spectrum of reading.

While the increases in motivation and fluency cannot be definitively linked to the addition of technology, themes attributable to technology arising from the qualitative data, do provide some support for its use. This addition of technology to a research based literacy strategy was designed to boost the motivational power of RT with the intention of boosting fluency. Whilst overall, the intervention did produce some good results, it was, perhaps, not motivating enough for two participants who did not register any fluency gains. In one case, this may have been due to the effort required, as a struggling reader, to read repeatedly in order to build up reading skills – and so, sadly, the cycle can begin.

6.3 Limitations of the Study

This study was conducted over a timeframe of ten weeks as per previous RT research and like Vasinda & McCleods (2011), it involved only seven out of the ten in direct instruction. A longer timeframe may have been more beneficial. The population sample was necessarily small (18), this being the only sample available to the researcher, and so results may be not generalizable to a larger population. The researcher was not present when participants were actually engaging with the blog or the CD and so was relying on interview responses and parent interview responses for information. Also, as the researcher was the class teacher, it may have influenced responses in the interviews and on MRP surveys and interviews in terms of saying what they thought the teacher would like to hear. Lastly, the expected results did not materialise for the three weakest readers, unlike in previous studies. This may be due, in part, to incorrect choice of scripts by the researcher as there was a lack of suitable scripts available at these participants' levels. Neither were they graded scripts and so were chosen on basis of being at participants' instructional levels and so may have contributed to lack of progress in fluency.

7.0 Conclusion

7.1 Main findings and Their Contribution to the Literature

This study reaffirms some aspects of previous research on RT, with similar themes emerging such as heightened awareness of prosody and increased confidence (Griffith & Rasinski, 2004; Young & Raskinski, 2009). It supports findings such as the motivational aspects of integrating technology (Wang, 2008; Young, 2007), wider audience and permanence (Vasinda & McCleod, 2011) and provides some evidence for the addition of Tape-Assisted reading to RT, as a means of increasing awareness of prosody.

Results of this study have shown that participants increased their fluency scores by an average of 22 WPM, thus reaching second grade (7-8 year old) target norms of 70-100 WPM. Half the participants showed increases in comprehension scores and one-third showed a 25% increase in prosody. While comprehension levels did not increase as much as previous RT research (Griffith & Rasinski, 2004; Martinez, Roser & Strecker, 1999), the average increase of 25% in prosody counters this, as good understanding is required for good prosody (Rasinski, 2004). Observations made during post reading fluency tests confirmed an increased use of self correcting (showing their improved decoding skills and accounting for increased WPM). More consistent pacing, resulting in improved prosody scores and an overall increased confidence in tackling the reading were also noted. These observed changes, allied to the scores, are tangible evidence of improved reading skills.

Motivation scores were less dramatic but fourteen out of eighteen participants still registered an average increase of 4.1%. However, viewed in conjunction with increases in fluency they add some support to the literature for the link between reading motivation and fluency. Triangulation of data provided evidence for connecting fluency and motivation increases with the addition of technology to the intervention thus enabling the research questions to be answered positively. Since students' motivation to read may affect future reading and academic achievement, (Morgan & Fuchs 2007), it is surely incumbent on all educators to consider the potential benefits of incorporating suitable technologies into proven literacy strategies such as RT.

7.2 Future research

The over-arching theme arising from the data was the benefits of being recorded, yet the drop in reading self concept in six participants was linked to the use of technology, as recording allowed for listening back and self-evaluation. Self-assessment is an important skill to develop for learning, and the reassessment of one's reading may have led to extra effort and in turn led to the increase in WPM scores in all but one of those with lowered self concept scores. Future research could look more closely at the possible relationship between emerging reading self concept in the early grades and the use of technology in reading instruction.

As motivational theory was applied to the instructional design, it is hoped that the positive effects of the intervention were not purely due to novelty value. In order to verify these findings, further research could focus on repeating the intervention but with a control group who take part in standard Readers Theatre experience only without either technology nor motivation design theory applied to the experience.

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Appendix A : Motivation to Read Profile (MRP) Reading Survey

Date.....

Age.....

I am in.....

1st class

2nd class

3rd class

4th class

5th class

6th class

I am a

boy

girl

1. My friends think I am.....

a very good reader

a good reader

an ok reader

a poor reader

2. Reading a book is something I like to do

never

not very often

sometimes

often

3. I read.....

not as well as my friends

about the same as my friends

a little better than my friends

a lot better than my friends

4. My best friends think reading is.....

really fun

fun

OK to do

no fun at all

5. When I come to a word I don't know, I can.....

almost always figure it out

sometimes figure it out

almost never figure it out

never figure it out

6. I tell my friends about good books I read.....
- I never do this
 - I almost never do this
 - I do this some of the time
 - I do this a lot
7. When I am reading by myself, I understand
- almost everything I read
 - some of what I read
 - almost none of what I read
 - none of what I read
8. People who read a lot are.....
- very interesting
 - interesting
 - not very interesting
 - boring
9. I am.....
- a poor reader
 - an OK reader
 - a good reader
 - a very good reader
10. I think libraries are.....
- a great place to spend time
 - an interesting place to spend time
 - an ok place to spend time
 - a boring place to spend time
11. I worry about what other kids think about my reading.....
- every day
 - almost every day
 - once in a while
 - never

12. Knowing how to read well is.....
- not very important
 - sort of important
 - important
 - very important
13. When my teacher asks me a question about what I have read, I.....
- can never think of an answer
 - have trouble thinking of answer
 - sometimes think of an answer
 - always think of an answer
14. I think reading is.....
- a boring way to spend time
 - an ok way to spend time
 - an interesting way to spend time
 - a great way to spend time
15. Reading is
- very easy for me
 - kind of easy for me
 - kind of hard for me
 - very hard for me
16. When I grow up I will spend.....
- none of my time reading
 - very little of my time reading
 - some of my time reading
 - a lot of my time reading
17. When I am in a group talking about stories, I
- almost never talk about my ideas
 - sometimes talk about my ideas
 - almost always talk about my ideas
 - always talk about my ideas

18. I would like for my teacher to read books out loud to the class

- every day
- almost every day
- once in a while
- never

19. When I read out loud I am a.....

- poor reader
- ok reader
- good reader
- very good reader

20. When someone gives me a book for a present, I feel.....

- very happy
- sort of happy
- sort of unhappy
- unhappy

Appendix B: DIBELS Oral Reading Fluency passage

ORF Progress Monitoring 1

The Ant Hill

Dad and I took a hike in the woods. We walked for a long 14
time and stopped to take a rest. We sat down on a log and had a 30
drink of water. A big hill was nearby. 38
Dad said, "Look, there's an ant hill." 45
I walked up to the hill and took a closer peek. At first it 59
looked just like a dirt hill. Then I noticed a few ants running 72
around. I looked closer. I saw little ants carrying pieces of 83
mushroom. The pieces were almost as big as the ants. 93
"What are they doing, Dad?" I asked. 100
"They're taking food inside the hill. They probably have 109
thousands of ants to feed inside." Dad said, "Watch this." He 120
gently poked a twig into a small hole on the hill. All of a sudden, 135
many ants came out. 139
"The ants are on alert, trying to protect their hill," he said. 151
I bent down to look closer. Some ants climbed on my shoes. 163
"We should leave now," Dad said. Dad and I walked and 174
walked until we were home. Now whenever I see one ant, I stop 187
and think about the city of ants they might be feeding and 199
protecting. 200

Total words: _____ – errors: _____ = words correct: _____

Retell: _____

ORF Total: _____

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48		
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71		
72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94		

Retell Total: _____

Appendix C: NAEP Oral Reading Fluency Rubric

National Assessment of Educational Progress (NAEP) (for assessment of reading prosody)

4. Reads primarily in larger, meaningful phrase groups. Although some regressions, repetitions, and deviations from the text may be present, these do not appear to detract from the overall structure of the story. Preservation of the author's syntax is consistent. Some or most of the story is read with expressive interpretation. Reads at an appropriate rate
3. Reads primarily in three- and four-word phrase groups. Some smaller groupings may be present. However, the majority of phrasing seems appropriate and preserves the syntax of the author. Little or no expressive interpretation is present. Reader attempts to read expressively and some of the story is read with expression. Generally reads at an appropriate rate.
2. Reads primarily in two-word phrase groups with some three- and four-word groupings. Some word-by-word reading may be present. Word groupings may seem awkward and unrelated to the larger context of the sentence or passage. A small portion of the text is read with expressive interpretation. Reads significant sections of the text excessively slowly or fast.
1. Reads primarily word-by-word. Occasional two- or three-word phrases may occur – but these are infrequent and/or they do not preserve meaningful syntax. Lacks expressive interpretation. Reads text excessively slowly.

A score of 1 should also be given to a student who reads with excessive speed, ignoring punctuation and other phrase boundaries, and reads with little or no expression.

Source: Adapted from *Listening to Children Read Aloud: Oral Fluency*, by G. S. Pinnell, J. J. Pikulski, K. K. Wixson, J. R. Campbell, P. B. Gough, & A. S. Beatty, 1995, Washington, DC: U.S. Department of Education, National Center for Education Statistics. Available at <http://nces.ed.gov/pubs95/web/95762.asp>

Appendix D - Sample RT script

No Bath Tonight

by Jane Volen

PARTS: (4) NARRATOR 1, NARRATOR 2, JEREMY and GRANDMA

NARRATOR 1: ON MONDAY, JEREMY MADE A FORTRESS IN THE SAND. IT HAD 3 TOWERS AND A MOAT. IT HAD A POINTED STICK AND A SEAWEED FLAG. IT HAD A DRAGON TRYING TO GET IN AND 2 KNIGHTS TRYING TO GET OUT. IT HAD A KING.

NARRATOR 2: JEREMY STEPPED ON THE KING. IT MADE HIS FOOT HURT.

JEREMY: MY FOOT HURTS!

NARRATOR 2: SAID JEREMY TO HIS MOTHER WHEN IT WAS TIME TO GO TO BED.

JEREMY: NO BATH TONIGHT!

NARRATOR 1: ON TUESDAY, JEREMY PICKED BERRIES. HE FOUND 153 BLUEBERRIES. HE ATE 97. HE FOUND 13 OLD RASPBERRIES. THEY MADE GREAT INK... SQUISHED!

NARRATOR 2: HE WROTE HIS NAME ON HIS PALM. THEN HE SAT DOWN ON A PRICKER BUSH.

JEREMY: IT HURTS THERE...

NARRATOR 1: SAID JEREMY TO HIS FATHER AT BED-TIME.

JEREMY: NO BATH TONIGHT!

NARRATOR 2: ON WEDNESDAY JEREMY PLAYED BASEBALL AND TRIPPED OVER HOME PLATE, AND HURT HIS NOSE.

JEREMY: (WITH PLUGGED NOSE) MY DOSE HURDS!

NARRATOR 1: SAID JEREMY TO THE SITTER AT BED TIME.

JEREMY: (WITH PLUGGED NOSE) DO BADT TODIGHT!

NARRATOR 2: ON THURSDAY JEREMY PAINTED DINOSAURS. HE ALSO PAINTED HIS TOES, ONE KNEE AND HALF AN ELBOW. HE WAS GETTING READY TO PUT AWAY THE EASEL AND IT SNAPPED SHUT ON HIS FINGER.

JEREMY: MY HAND HURTS!

NARRATOR 1: HE SAID TO HIS FATHER AT BED TIME.

JEREMY: NO BATH TONIGHT!

NARRATOR 2: ON FRIDAY JEREMY HELPED MOW THE LAWN. HE STEPPED ON A BEE; IT STUNG HIM.

JEREMY: MY BEE STING HURTS! NO BATH TONIGHT!

NARRATOR 1: ON SATURDAY JEREMY MADE A SANDWICH WITH A KNIFE. HE CUT HIS FINGER.

JEREMY: MY FINGER HURTS. NO BATH TONIGHT!

NARRATOR 2: ON SUNDAY JEREMY'S GRANDMOTHER CAME FOR A VISIT AND THEY HAD TEA.

GRANDMA: LET'S LOOK IN THE TEACUP AND READ THE LEAVES.

JEREMY: I CAN READ PRINTING BUT I CAN'T READ LEAVES.

GRANDMA: I'LL TEACH YOU BUT FIRST I'LL TEACH YOU HOW TO READ KID LEAVES.

JEREMY: KIDS DON'T HAVE LEAVES.

GRANDMA: COME UPSTAIRS AND LET'S MAKE SOME KID TEA.

NARRATOR 1: GRANDMA PUT JEREMY IN THE TUB.

NARRATOR 2: THE WATER BEGAN TO CHANGE COLOR.

GRANDMA: (STUDYING THE WATER) I SEE YOU MADE A FORTRESS IN THE SAND, PICKED BERRI-ES, SLID INTO HOME PLATE, Hmm, PAINTED PICTURES, (PAUSE) AND, OH, YES, YOU CUT YOURSELF.

JEREMY: YOU FORGOT ONE THING, THE BEE STING.

GRANDMA: (PAUSE WHILE AGAIN STUDYING THE WATER) OH, YES, (POINT AT WATER) THERE IT IS, UNDER THAT SOAP BUBBLE.

NARRATOR 1: SHE LET OUT THE WATER IN THE TUB AND IT LEFT A RING.

GRANDMA: I ALSO SEE CLEAN CLOTHES, A WALK IN THE PARK, AN ICE-CREAM SODA, AND A LONG, LONG STORY AT BEDTIME, AND ...

JEREMY: AND WHAT, GRANDMA?

GRANDMA: (SMILING) NO BATH TONIGHT.

Appendix E: MRP Conversational Interview - Sample questions

General Reading and technology use

Tell me about the most interesting story or book you have read recently, in school or at home

Why was this story interesting to you?

What do you like about reading? Do you read much at home?

Do you ever listen to a story? Do you like listening to stories? What makes a story interesting to listen to?

Have you ever read a story online and if so, did you enjoy it?

Which do you enjoy more, online stories or real books? Why?

How much do you use the computer/go online at home? Do you go on it alone?

Do you have other technology at home? Ipods, smartphones, ipads etc?

Tell me about that.....

Doing RT, using CD and Blog

Did you enjoy doing the RT scripts? Why?

What was your favourite part of doing the scripts? Why?

Did listening to the CD help you read the script better? Why?

Where did you listen to the CD? At home? In the car? In bed?

How often did you listen to the CD? Did you need your parents help?

Did you enjoy reading your script for homework? Did you like it more or less than reading your normal reader?

Did you listen to the recording of the teacher reading the script on the website? Was that any different than listening to it on the CD? How?

Did you enjoy listening to it online?

How often did you listen to the teacher reading the script online? Did you have to get an adult to help you?

What did you think of doing the recording on a Friday? Did it make you practice your reading more because you were going to be recorded? What parts of the recording did you find interesting?

Did you find it helpful to listen back to the recordings at the RT station with your group?

Did you think you sounded good? What did you think of the other peoples reading in your group? Have you heard yourself recorded before? Did you think your voice sounded any different?

What made you/others sound really good?

Did you listen back online to the recordings of your group doing the scripts, every week? Tell me about that.

Was being able to hear yourself performing your script online, interesting? Why?

Did you listen back to the recordings with other family? Tell me about it? How did it make you feel? What kind of things did they say? Did you play it for other people too? Did you enjoy being able to show your parents what you were doing in school?

What did you feel about your reading when you heard yourself in the recording?

Did you think your reading was good? Better? Worse? Than others?

Was it exciting for you to know that the recordings would be online? Why? Did being able to listen back to your scripts online make you want to practice reading your script more or less? Why?

How did you feel about using the blog? Did you find it easy to use? Tell me more about that....

Did your parents go online with you or could you do it alone?

What did you learn about reading out loud from doing the scripts and being able to listen back to yourself reading? Do you think your reading has got better? Why? Did being able to hear yourself reading make you feel differently about yourself? Your reading? Did it make you worry about what other people thought of your reading?

Would you now look up websites where you can read stories online? Why?

Will you visit the website and listen back to the recordings again? What do you think about it being there now forever? Do you think you will go back and listen to yourself again?

Appendix F: Ethics application

School of Computer Science and Statistics
Research Ethical Application Form

Part A

Project Title: Does podcasting enhance the benefits of Readers Theatre ?

Name of Lead Researcher (student in case of project work): Alice Manning

Name of Supervisor: Nina Bresnihan

TCD E-mail:amanning@tcd.ie.....

Contact Tel No: 087 4169951.....

Course Name and Code (if applicable): M. Sc. Technology and Learning

Estimated start date of survey/research: 19th Dec 2012.....

Estimated end date: 22nd Feb 2013.....

I confirm that I will (where relevant):

- **Familiarize myself with the Data Protection Act and the College Good Research Practice guidelines
http://www.tcd.ie/info_compliance/dp/legislation.php;**
- **Tell participants that any recordings, e.g. audio/video/photographs, will not be identifiable unless prior written permission has been given. I will obtain permission for specific reuse (in papers, talks, etc.)**
- **Provide participants with an information sheet (or web-page for web-based experiments) that describes the main procedures (a copy of the information sheet must be included with this application)**
- **Obtain informed consent for participation (a copy of the informed consent form must be included with this application)**
- **Should the research be observational, ask participants for their consent to be observed**
- **Tell participants that their participation is voluntary**
- **Tell participants that they may withdraw at any time and for any reason without penalty**
- **Give participants the option of omitting questions they do not wish to answer if a questionnaire is used**
- **Tell participants that their data will be treated with full confidentiality and that, if published, it will not be identified as theirs**
- **On request, debrief participants at the end of their participation (i.e. give them a brief explanation of the study)**
- **Verify that participants are 18 years or older and competent to supply consent.**
- **If the study involves participants viewing video displays then I will verify that they understand that if they or anyone in their family has a history of epilepsy then the participant is proceeding at their own risk**

- **Declare any potential conflict of interest to participants.**
- **Inform participants that in the extremely unlikely event that illicit activity is reported to me during the study I will be obliged to report it to appropriate authorities.**
- **Act in accordance with the information provided (i.e. if I tell participants I will not do something, then I will not do it).**

Signed: Date:

.....

Lead Researcher/student in case of project work

Part B

Please answer the following questions. Yes/No

Has this research application or any application of a similar nature connected to this research project been refused ethical approval by another review committee of the College (or at the institutions of any collaborators)? No

Will your project involve photographing participants or electronic audio or video recordings? Yes

Will your project deliberately involve misleading participants in any way? No

Is there a risk of participants experiencing either physical or psychological distress or discomfort? If yes, give details on a separate sheet and state what you will tell them to do if they should experience any such problems (e.g. who they can contact for help). No

Does your study involve any of the following? **Children (under 18 years of age)** Yes

People with intellectual or communication difficulties No

Patients No

If you have answered ‘Yes’ to any of the questions above, **details of the Research Project Proposal must be submitted as a separate document to include the following information:**

- 1. Title of project**
- 2. Purpose of project including academic rationale**
- 3. Brief description of methods and measurements to be used**

4. Participants - recruitment methods, number, age, gender, exclusion/inclusion criteria, including statistical justification for numbers of participants
5. Debriefing arrangements
6. A clear concise statement of the ethical considerations raised by the project and how you intend to deal with them
7. Cite any relevant legislation relevant to the project with the method of compliance e.g. Data Protection Act etc.

Proposed Research

Title of project: **Can Podcasting improve the benefits of Readers Theatre.**

Purpose: **This project has one main aim:**

- **To investigate the role podcasting can play in enhancing the benefits of Readers Theatre as a means of increasing reading fluency.**

To achieve this, a learning experience has been designed that complies with the aims of the primary curriculum with regard to literacy and builds on previous research that has investigated the use of podcasting in improving literacy. Oral reading fluency is the ability to read with accuracy, and with an appropriate rate, expression, and phrasing. Fluency is important because it provides the stepping stone between word recognition and comprehension. (More fluent readers focus their attention on making connections among the ideas in a text and between these ideas and their background knowledge. Therefore, they are able to focus on comprehension. Less fluent readers must focus their attention primarily on decoding and accessing the meaning of individual words. Therefore, they have little attention left for comprehending the text.)

- ▶ **Repeated and monitored oral reading improves reading fluency and overall reading achievement. The use of Readers Theatre as a vehicle for repeated reading has been proven to be a successful one. In Reader's Theatre, the students are given scripts. . The students are not required to dress up, provide props, memorize their roles or even be an actor or actress. Therefore the emphasis is on the use of the voice and expression to 'perform' the script. The technology chosen (podcasting) will tie in with the auditory nature of the learning and hopefully enhance it. The use of technology will also facilitate modelling of reading fluency by the researcher (and create a record of it for reference by the participants) which would not be possible without the technology. The research will also be focusing on the role of podcasting as a motivating factor in encouraging the participants to take part in the repeated reading of scripts.**

Methods and Measurements:

The research proposed will be carried out over a seven week block which is the recommended timeframe as per previous studies looking at the use of Readers Theatre. Participants will work in small groups to practice reading Readers Theatre scripts for fifteen minutes per day. Participants will be given a CD of researcher reading the scripts on a Monday to listen to at home for homework. Participants will also have access to MP3 players during school to listen back to the script. On Fridays the groups perform their script to their peers. The performances will be recorded

using audio recording software (Audacity). The recorded scripts will be put up on a Wordpress blog page and the recordings will be private. The url will be given to the parents of the participants so they can listen back to the podcasts. No identifying information will be put on the podcasts other than the name of the script and the date of the recording. Each group will be working on a different script.

- During rehearsals and performances the participants will be observed by the researcher (Observation)
- Prior to and after the learning experience, participants will have their reading fluency measured using DIBELS fluency measures and an NAEP reading fluency rubric (see appendices) which measure accuracy and rate plus prosody.
- Prior to and after the learning experience, participants will be asked to complete a reading motivation survey based on a 4-point likert scale.
- At the end of the learning experience students will be requested to participate in individual conversational interviews and responses will be noted for later qualitative analysis.
- At the end of the learning experience parents will be requested to participate in a conversational interview and responses will also be noted for later qualitative analysis.

Participants:

- Participants will be recruited from St John's Primary School, Ballybrack. The participants will be taken from a convenience sample (students in the researchers class), from whom consent will be obtained as well as consent from their parents/guardians, the Board of Management and/or school principal. All students will take part in the learning experience as part of their classroom lessons, but only those participants who have opted in to participating in the research and who have given full consent (both parental and student) data will be included in the data collection activities.
- The participants range in age from 6-7 years, they are currently in first class. The class size consists of 18 students. They are a mixed class of 7 boys and 11 girls. The participants are current users of the schools ICT network and as such are all covered under the schools internet policy.
- *Information Meeting:* To ensure the full and informed consent of both the participants and their parents a brief information meeting will be held. The purpose of this meeting is to outline the nature of the project and the research methods which will be used and to explain the nature of the data which will be collected. This meeting will also serve to provide as an opportunity for all involved to clarify their understanding of the research project. This meeting will be held before the commencement of the research.
- *E-mail Communication:* The parents/guardians will have the email address and mobile phone number of the researcher for communicating any concerns or questions with regard to the project.

Debriefing arrangements:

A debriefing session will take place at the conclusion of the research project which will provide the students the opportunity to ask any questions and raise concerns. Following the analysis of the data the students and their parents may be informed of the outcomes of the project. Any direct quotations from students utilized in the final

write up of the research will be first verified for accuracy and context by the participants involved.

Ethical considerations raised by the project:

Compromising the education of the participants:

The participants will engage in this research project as part of their classroom work which serves to fulfil the aims and objectives of the National Primary Curriculum 1999 for literacy education and therefore it is imperative that the project must aim to fulfill these aims and thereby not compromise the education of the participants. The project has been designed in relation to the relevant syllabus and the participants will be made explicitly aware of this. Those who do not consent to take part in the research aspect of the project, will still participate in the learning experience.

Underage participants:

As the participants are under the age of 18 it is necessary to obtain parental consent in order to take part in the project. However, to participate in the project it is necessary to have both parental and participant consent, those with only one or the other will not be included in the research (without penalty or prejudice). In order to obtain informed consent from all parties, an information sheet (please see attached documents) about the project will be supplied to the participants and their parents this will be supported by an information meeting for both parents and participants. Both the participants and their parents will be supplied with the necessary contact information to facilitate questions or to withdraw from the project at any stage. It will also be necessary to obtain permission from the board of management via the Principal.

Cyber-safety

The student will not require access to the internet for this project during school hours but will be requested to access the internet at home while under the guidance of their parents. Any access to internet during school time will be via the NCTE schools broadband which is filtered and in a teacher supervised classroom.

Statement of Conflict of Interest:

The researcher will obtain a M.Sc. in Technology and Learning partly as a result of the completion of this research project.

The researcher currently teaches the class of students who will form the participant cohort of this research project, due to the nature of this relationship there is a conflict of interest.

Relevant legislation and Guidelines:

- **Data Protection Act**
- **Freedom of Information Act**
- **Child protection Guidelines**

Supporting Documentation:

- Parental information Sheet and consent form
- Participant information Sheet and consent form
- Board of Management/Principal information Sheet and consent form
- Reading motivation survey
- Conversational interview proposed questions
- Fluency measures
- Sample Readers Theatre script

Completed application forms together with supporting documentation should be submitted electronically to research-ethics@scss.tcd.ie Please use TCD e-mail addresses only. When your application has been reviewed and approved by the Ethics committee hardcopies with original signatures should be submitted to the School of Computer Science & Statistics, Room F37, O'Reilly Institute, Trinity College, Dublin 2.

Part C

I confirm that the materials I have submitted provided a complete and accurate account of the research I propose to conduct in this context, including my assessment of the ethical ramifications.

Signed: Alice Maling Date: 15/11/12
Lead Researcher/student in case of project work

There is an obligation on the lead researcher to bring to the attention of the SCSS Research Ethics Committee any issues with ethical implications not clearly covered above.

Part D

If external ethical approval has been received, please complete below. External ethical approval has been received and no further ethical approval is required from the School's Research Ethical Committee. I have attached a copy of the external ethical approval for the School's Research Unit.

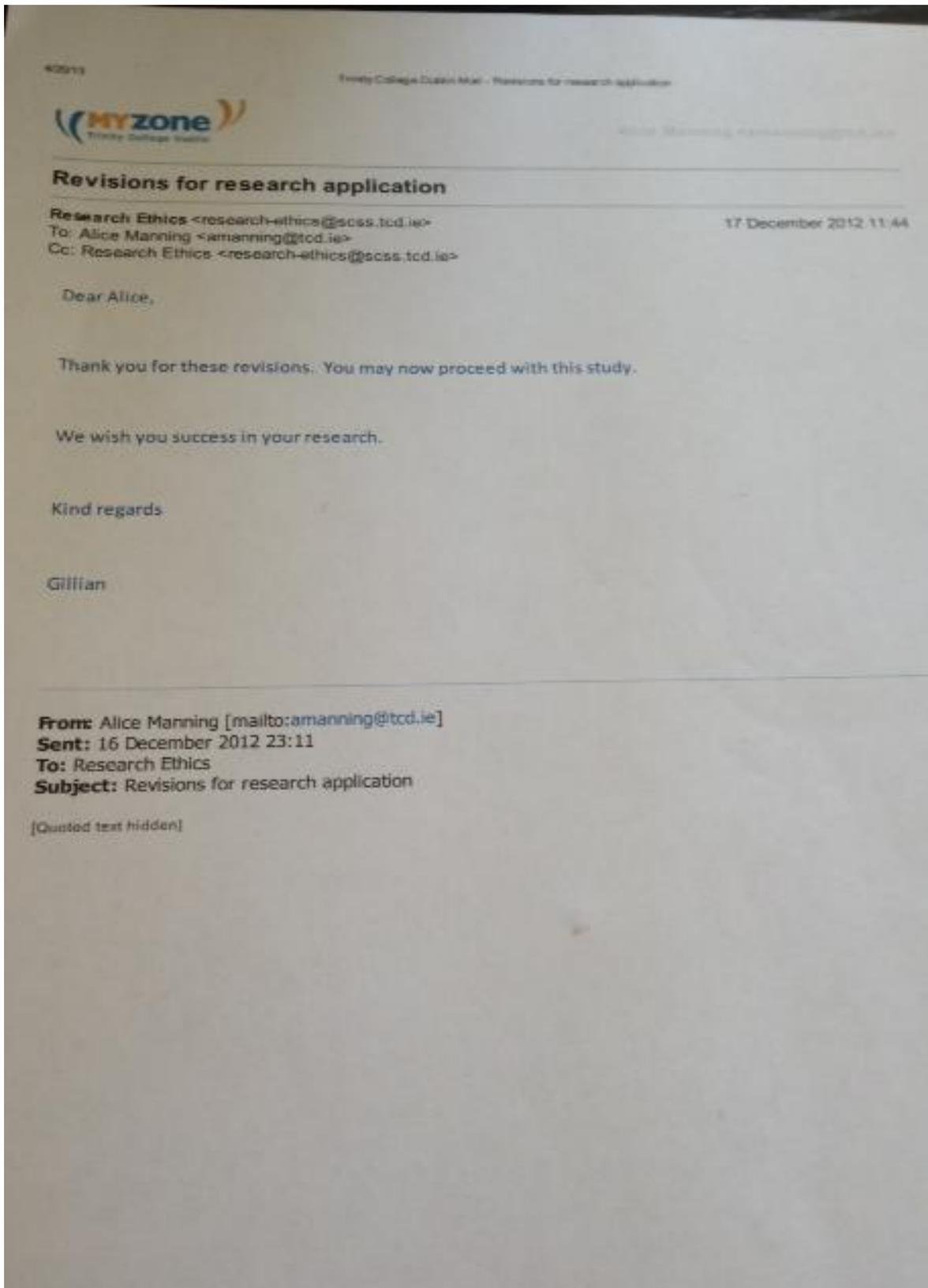
Signed: Date:
Lead Researcher/student in case of project work

Part E

If the research is proposed by an undergraduate or postgraduate student, please have the below section completed. I confirm, as an academic supervisor of this proposed research that the documents at hand are complete (i.e. each item on the submission checklist is accounted for) and are in a form that is adequate for review by the SCSS Research Ethics Committee

Signed: NITE P... .. Date: 12/11/12
Supervisor

Appendix G : Ethics Permission



Appendix H : INFORMATION SHEET FOR PARENTS/GUARDIANS

Research Topic: Podcasting, Readers Theatre and Reading fluency in a Primary School Classroom.

Researcher: Alice Manning, Postgraduate Student researcher, School of Computer Science, TCD. Email: amanning@tcd.ie

Nina Bresnihan, Supervisor, School of Computer Science, TCD. Email: bresnine@scss.tcd.ie

Background and Purpose: I am currently conducting a postgraduate research project in the School of Computer Science (as part of a MSc in Technology and Learning) under the supervision of Nina Bresnihan. In my research I am interested in finding out about whether podcasting can enhance and extend the benefits of Readers Theatre (a proven strategy for increasing reading fluency) and whether it would do so by increasing children's motivation to read. This research will contribute to my MSC in Teaching and Learning in Trinity College, Dublin.

What happens if my child takes part? **The children will take part in a seven week block of Readers Theatre, which is a proven method of increasing reading fluency. In Reader's Theater, the students are given scripts. The students are not required to dress up, provide props, memorize their roles or even be actors or actresses. They will spend fifteen minutes per day reading their scripts in their groups over the course of one week. They will also have access to MP3 players in the classroom during the week should they wish to listen back to a script. At the end of the week, the students are encouraged to put on a performance in front of their peers. The use of Readers Theatre is to give the children a reason for repeated reading which is what helps improve reading fluency.**

This will form part of the daily reading lesson and is a part of the normal school curriculum. The children will be given a CD to listen to each evening for homework. The children will be recorded (audio only) in their small groups performing their scripts on a Friday. The audio recording (podcast) will be put up on a special class blog which will only be accessible to parents with the correct url address and it will be password protected. No one will be identified on the podcast only the name of the script and the date recorded. The voices may sound a little different than normal on the recordings.

Prior to the start of the research, I will ask all participating children in the class to fill in a survey. It is a standard reading motivation survey designed for children, to explore how they think and feel about reading. Children will also be tested at the beginning and at the end for reading fluency using a reading fluency test. At the end of the seven weeks, participating children will be asked to take part in a short interview about their views on the activity. Only children whose parents have given their written consent will be asked to fill in the survey and do the interview and each child will also be allowed to refuse to take part on the date the study is conducted. Parents will also be interviewed at the end of the seven week block. Observations about how the children are engaging in the learning experience will also be noted during the research and will form part of the data gathering by the researcher.

What will happen to the results of the study? The information I gather from the children's responses will be submitted as part of my studies. Also, the study's results may be published in academic journals and presented at academic conferences. However at

no point will any children be identifiable nor will the audio recordings be presented at any academic conference.

Confidentiality: The children's answers will remain confidential. When answering the surveys, each child will be instructed not to write their names anywhere on the answer sheets, and no names will be taken in the interview. During the course of this research in the extremely unlikely event that illicit activities are made known, these will be reported to appropriate authorities. All the paper data will be destroyed 1 year after I have finished my studies at TCD, while the electronic data will be destroyed after 5 years.

Voluntary Participation: It is up to you and your child to decide whether your child is going to take part or not. Participation in completing the survey and interview is voluntary. Your child is free to withdraw at any time while the information is being completed and I will remind the children of this. However, once the survey and interview have been returned it is not possible to withdraw your child's data as it will be anonymous. If your child does not wish to continue to take part it will be possible to take down the recording from the blog of the particular script/scripts he/she has been involved.

If I decide my child will not take part? Your child will be present in the classroom but will not fill in the survey and do the interview. They will be asked to read quietly while the others take part. They will, however, take part in the literacy lesson as this is part of the normal school curriculum. If the child does not wish to be recorded during the performance or does not wish to have his/her audio recording put up on the classroom blog, this will be facilitated.

Important: The consent form! *There is a consent form attached to this information sheet. Every child participating on the day must have a consent form which you have signed. Please note that research practice guidelines do not allow me to make any exceptions, and verbal permission cannot replace the signed consent form.* It is important to remember to return the signed form to school as without it your child will not be allowed to take part.

Further Information: If you require any assistance or have any questions about the research study, please feel free to contact me or my supervisor at the above email addresses.

Thank you very much for supporting this research study.

Appendix J: Information sheet for children

Project Title: Podcasting and Readers Theatre in a Primary School Classroom.

Student Investigator: Alice Manning, SCSS, Trinity College, Dublin.

I want to tell you about a research study I am doing. A research study is a special way to find out about something. I am trying to find out more about whether the use of podcasting technology in a reading lesson makes it more interesting for students. You will fill out a survey (which asks you to answer some questions about reading). Your reading will be listened to using a special reading fluency test at the beginning and at the end of the research. You will take part in an activity called Readers Theatre which will happen every day in class during reading time for seven weeks. You will be asked to listen to a recording, on CD, of your teacher reading the script, each evening for homework. You will be recorded reading your script in your small group on a Friday. An audio recording/podcast of your group performing their script will be put up on a special webpage for our class each weekend. The recordings on the webpage will be password protected so only you and your parents will be able to access it. You will sound a little different than what you normally sound like on the recording. When the seven weeks are over, you will be asked to take part in a short interview about your experience. When I am done with the study, I will write a report about what I found out and I will not use your name in the report. Before you say yes to be in this study, please be sure to ask me to tell you more about anything that you do not understand.

If you choose to take part in this study you will be asked to fill out a short survey before and after and take a reading test before and after. Also you will take part in a short interview afterwards.

You do not have to do this. If you decide not to take part in the research, you will still take part in the lesson but you will be given a book or some worksheets to do instead while the others are filling out the survey and taking part in the interviews. If you do not wish to have your voice recorded or put up on the webpage, that is ok.

If you decide to be in this study your answers will remain confidential, as your name will not be on the forms.

It is your choice. If you want to participate in this study please give your parents the information sheets and make sure they sign the permission slip as you will not be allowed to take part in the research on the day unless you have this with you. Thank you for taking the time to read this 😊

Appendix J: INFORMATION SHEET FOR PRINCIPAL/BOARD OF MANAGEMENT

Research Topic: Using Podcasting to enhance Readers Theatre in a Primary School Classroom.

Researcher: Alice Manning, Postgraduate Student researcher, School of Computer Science, TCD.

Nina Bresnihan, Supervisor, School of Computer Science, TCD.

Background and Purpose: I am currently conducting a postgraduate research project in the School of Computer Science (as part of a MSc in Technology and learning) under the supervision of Nina Bresnihan. In my research I am interested in finding out about the role of podcasting technology in increasing children's reading fluency.

What happens in my proposed research?

The children will take part in a seven week block of Readers Theatre, which is a proven method of increasing reading fluency. In Reader's Theater, the students are given scripts. The students are not required to dress up, provide props, memorize their roles or even be actors or actresses. They will practice reading their scripts in their groups for fifteen minutes per day over the course of one week. They will also have access to MP3 players in the classroom to listen back to scripts. At the end of the week, the students are encouraged to put on a performance in front of their peers. The Readers Theatre gives them a reason for repeated reading which is very important in developing reading fluency.

This will form part of the daily reading lesson period and is a part of the normal English curriculum. The children will be given a CD to listen to each evening for homework. The children will be recorded (audio only) in their small groups performing their scripts on a Friday. The audio recording (podcast) will be put up on a special class blog which will only be accessible to parents with the correct url address and it will be password protected. No-one will be identified on the podcast only the name of the script and the date recorded.

Prior to the start of the research, I will ask all participating children in the class to fill in a survey. It is a standard reading motivation survey designed for children, to explore how they think and feel about reading. Children will also be tested at the beginning and at the end for reading fluency using a reading fluency test. At the end of the seven weeks, participating children will be asked to take part in a short interview about their views on the activity. Only children whose parents have given their written consent will be asked to fill in the survey and do the interview and each child will also be allowed to refuse to take part on the date the study is conducted. Parents will also be interviewed at the end of the seven week block. Observations about how the children are engaging in the learning experience will also be noted during the research and will form part of the data gathering by the researcher.

What will happen to the results of the study? The information I gather from the children's responses will be submitted as part of my studies. Also, the study's results may be published in academic journals and presented at academic conferences. However at no point will any children be identifiable.

Confidentiality: The children's answers will remain confidential. When answering the surveys, each child will be instructed not to write their names anywhere on the answer sheets, and no names will be taken in the interview. All the paper data will be destroyed 1 year after I have finished my studies at TCD, while the electronic data will be destroyed

after 5 years. During the research, in the extremely unlikely event that illicit activities are made known, these will be reported to appropriate authorities.

Voluntary Participation: Participation in completing the survey and questionnaire is completely voluntary. The children are free to withdraw at any time while the information is being completed and I will remind the children of this. However, once the survey and interview has been completed, it is not possible to withdraw the children's data as it will be anonymous.

If children do not want to take part? The children will be present in the classroom but will not fill in the survey and do the interview. They will be asked to read quietly while the others take part. They will, however, take part in the literacy lesson as this is part of the normal school curriculum. The results of the research should prove interesting and may inform my teaching in the future.

Further Information: If you require any assistance or have any questions about the research study, please feel free to contact me or my supervisor. My email is amanning@tcd.ie

Thank you very much for supporting me in carrying out this research study.

Appendix L: Board of Management Permission

**BOARD OF MANAGEMENT/PRINCIPAL
CONSENT FORM**

Title of Study: Using Podcasting to enhance Readers Theatre in a Primary School Classroom.

Researcher: Alice Manning

I confirm that I have read and understood the Information sheet for the above research study and have received an explanation of the nature, purpose and duration of the study. I understand what the children's involvement will be and I am happy that they understand what is involved.

I understand that the children's participation is voluntary that any child is free to withdraw at any time if she/he chooses to do so.

I understand that the study will be submitted as part of the researcher's studies and that the information collected may be presented and/or published in academic journals and at conferences, but that no child will be identifiable from the information.

I understand that in the extremely unlikely event that illicit activities are made known, these will be reported to appropriate authorities.

On behalf of the Board of Management, I agree to allow the researcher undertake this study in this school and I am happy that all questions have been satisfactorily answered

.....**JOHN FITZPATRICK**.....
Principals name(in block letters)

.....*John M. Fitzpatrick*.....
Signature

.....18/12/2012.....
Date

.....*Alice M.*.....
Researchers signature

.....
Email: amanning@tcd.ie

.....18/12/12.....
Date

St. John's
National School
Ballybrack
Co. Dublin
Roll No. 19960M

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Appendix M: Observation Protocol

OBSERVATION PROTOCOL

DATE:

TIME:

GROUP:

SETTING:

ENGAGEMENT :

COLLABORATION:

COMMENTS:

OTHER:

2

She should be an actor I think. I've been listening to loads of stories too and now I know what it's like to be an actor. (NB: puts emphasis on words when saying a line)

Did listening to the CD help you in any way?

Well there were a few times when it didn't work properly in my mums player so I listened to it on the internet. It was good because it sort of showed me how to say the words so I could put the script down on the table and I followed along with my finger and saw the parts. It helped me to practice and say the words. And it was good for when I wasn't with the group so I could get used to my part. And I would put it on to practise just saying my part too, so it sorta helped me to do it on my own, you know, like we were reading it in our groups in school. I knew better when to come in you see.

How CD was useful.

Where did you listen to the CD? At home? In the car? In bed?

I listened to it at home to help me read my script and sometimes in the car if mam wasn't listening to something else. I listened to it in my room too because I had a player I could take in with me. That was fun as I could get into bed and listen and I would say all my lines along with the CD. And I would just put it on and listen to it like a story and listen to teachers good reading.

listened when times it place

How often did you listen to the CD? Did you need your parents help?

Every day. I did it with my homework like you told us and it was very good for helping me to know the words. I read it and listened to the CD. I think I did it at the weekends sometimes. But just coz I liked doing it because it helped me to understand the story better. I could use the player at home or the computer is usually on so I could just go and do it by myself. Mam would remind if I didn't do it. And she would sit sometimes and help me do it and it really helped me too with big words. How to say them I mean. And sometime my big

could be CD alone

3

because let me put it in his stress things as awareness of being recorded

Did you enjoy reading your script for homework?

Yes way more. I read it to my sister every day. I wasn't expecting to be doing a script and I didn't know if I would like it but I really did. Now that we've done the scripts and its more enjoyable. I don't really like doing our readers again. They're kind of boring. It was better when we were reading the scripts and getting to be different people and it didn't seem like hard work at all.

enjoyment
engagement
with
scripts

What did you think of doing the recording on a Friday? Did it make you practice your reading any more?

Yes. Well because I was recorded, meant I could listen to myself back and see myself. I liked the bit where we didn't speak into our mics and we just recorded. That made it a little bit more. My friend I mean because I wanted to sound good on the mic. I read my script lots of times. I wanted to say my words really well and wanted our group to be good too so sometimes we whispered the line if someone forgot. My friends think I talk like my teacher doesn't do that like recording things.

Self-evaluation

Wide Audience

What parts of the recording did you find interesting?

enjoyment + engagement with recording
I liked saying our parts into the mike and doing the recording bit. You could see when someone talked really loud or really quiet on the screen. The waves showed you that. It was a bit like being on a stage and I like doing the recording bit too. And it was fun listening to the other groups when they were standing up doing their show. Sometimes they had it really really well. And I wanted to do some of the other scripts as well like the Walla ones that was funny. And when we were getting recorded I used to look at the waves of the screen to make sure we were being loud enough. Sometimes I didn't always speak up and it just sounds good when everyone is saying it together and nice and loud.

awareness of effects being recorded

well awareness of voice

awareness of voice

awareness of effect of recording

Table 1. Percentage Increase/Decrease in MRP Total Scores

Participant ID	Age	Gender	Pre-Survey Total Score (out of 80)	Post-Survey Total Score (out of 80)	Percentage Increase/ Decrease
1	6	F	55	57	+2.50
2	7	F	74	75	+1.25
3	6	M	52	61	+11.25
4	7	F	62	64	+2.50
5	6	F	73	66	-8.75
6	7	M	59	65	+7.50
7	6	F	60	66	+7.50
8	7	M	63	66	+3.75
9	7:	M	59	63	+5.00
10	7	M	69	69	0.00
11	6	M	49	58	+11.25
12	7	F	72	71	-1.25
13	7	F	65	67	+2.50
14	6	F	52	63	+13.75
15	7	F	68	69	+1.25
16	7	F	70	70	0.00
17	6	F	74	75	+1.25
18	7	M	61	66	+6.25
Total:		7M;11F			
MEAN:	6.6		63.16	66.16	+4.1

Table 2: Breakdown of MRP Pre-Test Scores

Participant ID	Age	Gender	Pre-Survey Self-concept (out of 40)	Pre-Survey Task Value (out of 40)	Pre-Survey Total Score (out of 80)
1	6	F	27	28	55
2	7	F	34	40	74
3	6	M	25	27	52
4	7	F	27	35	62
5	6	F	36	37	73
6	7	M	28	31	59
7	6	F	29	31	60
8	7	M	29	34	63
9	7	M	27	32	59
10	7	M	34	35	69
11	6	M	22	27	49
12	7	F	34	38	72
13	7	F	31	34	65
14	6	F	25	27	52
15	7	F	34	34	68
16	7	F	33	37	70
17	6	F	39	35	74
18	7	M	35	26	61
Total:		7M;11F			
MEAN:	6.6		30.5	32.66	63.16

Table 3: Breakdown of MRP Post-Test Scores

Participant ID	Age	Gender	Post-Survey Self Concept (out of 40)	Post-Survey Task Value (out of 40)	Post-Survey Total Score (out of 80)
1	6	F	26	31	57
2	7	F	35	40	75
3	6	M	30	31	61
4	7	F	29	35	64
5	6	F	29	37	66
6	7	M	29	36	65
7	6	F	34	32	66
8	7	M	30	36	66
9	7	M	27	36	63
10	7	M	35	34	69
11	6	M	30	28	58
12	7	F	35	36	71
13	7	F	32	35	67
14	6	F	30	33	63
15	7	F	31	38	69
16	7	F	36	34	70
17	6	F	40	35	75
18	7	M	35	31	66
Total:		7M;11F			
MEAN:	6.6		31.83	34.33	66.16

Table 4: Percentage Increase/Decrease to Self-Concept Scores

Participant ID	Age	Gender	Pre-Survey Self-concept (out of 40)	Post-Survey Self Concept (out of 40)	Percentage (%) Increase/ Decrease
1	6	F	27	26	-2.5
2	7	F	34	35	+2.5
3	6	M	25	30	+12.5
4	7	F	27	29	+5.0
5	6	F	36	29	-17.5
6	7	M	28	29	+2.5
7	6	F	29	34	+7.5
8	7	M	29	30	+2.5
9	7	M	27	27	0.00
10	7	M	34	35	+2.5
11	6	M	22	30	+20.0
12	7	F	34	35	+2.5
13	7	F	31	32	-2.5
14	6	F	25	30	+12.0
15	7	F	34	31	-7.5
16	7	F	33	36	-7.5
17	6	F	39	40	-2.5
18	7	M	35	35	+5.0
Total:		7M;11F			
MEAN:	6.6		30.5	31.83	+3.32

Table 5: Percentage Increase/Decrease to Task Value Scores

Participant ID	Age	Gender	Pre-Survey Task Value (out of 40)	Post-Survey Task Value (out of 40)	Percentage (%) Increase/ Decrease
1	6	F	28	31	+7.5
2	7	F	40	40	+0.0
3	6	M	27	31	-10.0
4	7	F	35	35	+0.0
5	6	F	37	37	+0.0
6	7	M	31	36	+12.5
7	6	F	31	32	+2.5
8	7	M	34	36	+5.0
9	7	M	32	36	+10.0
10	7	M	35	34	-2.5
11	6	M	27	28	-2.5
12	7	F	38	36	-5.0
13	7	F	34	35	+2.5
14	6	F	27	33	+15.0
15	7	F	34	38	+10.0
16	7	F	37	34	+0.0
17	6	F	35	35	+12.5
18	7	M	26	31	+5.0
Total:		7M;11F		35	
MEAN:	6.6		32.66	34.33	+4.17%

Table 6: DIBEL and NAEP Oral Reading Fluency Raw Scores Interpreted.

Participant	Age	Gender	WPM- Pre	WPM- Post	Retell- Pre	Retell- Post	NAEP- Pre	NAEP- Post
1	6	F	34	26	17	4	1	2
2	7	F	93	81	38	43	4	4
3	6	M	81	74	28	37	3	3
4	7	F	84	118	35	48	3	4
5	6	F	59	99	30	38	3	3
6	7	M	20	18	12	10	1	1
7	6	F	92	112	35	71	3	4
8	7	M	27	40	12	11	1	1
9	7	M	84	75	25	40	3	3
10	7	M	64	163	25	68	2	4
11	6	M	63	57	25	13	3	3
12	7	F	113	124	40	43	4	4
13	7	F	41	89	41	40	3	4
14	6	F	62	69	27	37	3	3
15	7	F	50	59	22	25	2	2
16	7	F	82	90	33	51	3	4
17	6	F	49	80	24	38	3	3
18	7	M	63	123	18	42	2	3
Total:		7M;11F						
Mean:	6.61		61.19	83.16				

Key:

Retell scores are interpreted as a percentage of WPM

Red = + in all categories

Blue = + words per min and + either retell/NAEP

Yellow = + words per min and - retell and NAEP no change

Green = - words per min and either + retell/NAEP

Table 7: Increases/Decreases on Post DIBELS and NAEP Raw Scores

Participant	Age	Gender	ORF-Accuracy	ORF-Retell	NAEP-Prosody
1	6	F	- 8	-13	+1
2	7	F	-12	+5	+0
3	6	M	- 7	+9	+0
4	7	F	+34	+13	+1
5	6	F	+40	+8	+0
6	7	M	-2	-2	+0
7	6	F	+20	+36	+1
8	7	M	+13	-1	+0
9	7	M	-9	+15	+0
10	7	M	+99	+43	+2
11	6	M	-6	-12	+0
12	7	F	+11	+3	+0
13	7	F	+48	-1	+1
14	6	F	+7	+10	+0
15	7	F	+9	+3	+0
16	7	F	+8	+18	+1
17	6	F	+31	+14	+0
18	7	M	+60	+24	+1
Total:		7M;11 F			
Mean:	6.61				